

THE SOUTH AFRICAN SEED CERTIFICATION SCHEME

ANNEXURES

SPECIFIC REQUIREMENTS

OF THE SPECIES

SPECIFIED IN TABLE 1

**N.B. FOR ALL ANNEXURES: REDISTRIBUTION OR ADDITION WITH THE SAME
PLANT MATERIAL IS NOT CONSIDERED TO BE GAP-FILLING**

ANNEXURES
TABLE OF CONTENTS

Annexure	Botanical Name	Common Name	Page No
1	<i>Allium cepa</i> L.	Onion	1
2	<i>Allium fistulosum</i> L. x <i>A. cepa</i> L.	New Bunching onion	2
3	<i>Allium fistulosum</i> L.	Bunching onion	3
4	<i>Allium porrum</i> L.	Leek	5
5	<i>Antheophora pubescens</i> Nees	Bottle Brush Grass	6
6	<i>Arachis hypogaea</i> L.	Groundnut	7
7	<i>Avena sativa</i> L.	Oats	8
7	<i>Avena nuda</i> L.	Naked Oats	8
7	<i>Avena strigosa</i> Schreb.	Black Oats	8
8	<i>Beta vulgaris</i> L. subsp. <i>vulgaris</i> var. <i>conditiva</i> Alef.	Garden beet	9
9	<i>Beta vulgaris</i> L. subsp. <i>vulgaris</i> var. <i>flavescens</i> A.DC	Swiss chard	10
10	<i>Brassica napus</i> L. var. <i>oleifera</i> Delile	Oil Seed Rape	11
10	<i>Brassica napus</i> L. x <i>B. rapa</i> L.	Hybrid Oil Seed Rape	11
11	<i>Brassica napus</i> L. var. <i>napobrassica</i> (L.) Rchb.	Forage rape and Swede	13
11	<i>Brassica oleracea</i> L.	Fodder Cale, Borecole	13
12	<i>Brassica oleracea</i> L. convar. <i>botrytis</i> (L.) Alef. var. <i>cymosa</i> Duch.	Broccoli	14
12	<i>Brassica oleracea</i> L. convar. <i>botrytis</i> (L.) Alef. var. <i>botrytis</i> L.	Cauliflower	14
12	<i>Brassica oleracea</i> L. var. <i>capitata</i> L.	Cabbage	14
10	<i>Brassica rapa</i> L.	Oil Seed Rape	11
11	<i>Brassica rapa</i> L.	Fodder Rape	13
13	<i>Bromus catharticus</i> Vahl.	Rescue grass	15
14	<i>Cajanus cajan</i> (L.) Millsp.	Pigeon Pea	16
15	<i>Capsicum</i> spp.	Chillies, Pepper, Paprika	17
16	<i>Cenchrus ciliaris</i> L.	Buffalo grass	18
17	<i>Chloris gayana</i> Kunth	Rhodes grass	19
18	<i>Citrullus lanatus</i> (Thunb.) Matsumura et Nakai	Watermelon	20
19	<i>Coriandrum sativum</i> L.	Coriander	21
20	<i>Cucumis melo</i> L.	Sweet melon	23
21	<i>Cucumis sativus</i> L.	Cucumber	24
22	<i>Cucurbita maxima</i> Duch.	Pumpkin & Squash	25
22	<i>Cucurbita moschata</i> (Duch.) Duch ex Poir	Pumpkin & Squash	25
22	<i>Cucurbita pepo</i> L.	Squash	25
23	<i>Dactylis glomerata</i> L.	Cocksfoot	26
24	<i>Daucus carota</i> L.	Carrot	27
25	<i>Digitaria eriantha</i> Steud.	Smuts Finger grass	28
68	<i>Dolichos biflorus</i> L.	Dolichos	79
26	<i>Echinochloa crus-galli</i> (L.) P. Beauv.	Japanese Millet	30
27	<i>Eleusine corocana</i> L.	Finger Millet	31
28	<i>Eragrostis curvula</i> (Schrad.) C.G. Nees	Weeping Love Grass	32
29	<i>Eragrostis tef</i> (Zucc.) Trotter	Teff	33
30	<i>Fagopyrum esculentum</i> Moench	Buckwheat	34

31	<i>Festuca arundinacea</i> Schreb	Tall Fescue	35
31	<i>xFestulolium</i> Asch. & Graebn.	Festulolium	35
32	<i>Foeniculum vulgare</i> Mill.	Fennel	36
33	<i>Glycine max</i> L. Merrill	Soybean	37
34	<i>Gossypium hirsutum</i> L.	Cotton	38
34	<i>Gossypium hirsutum</i> L. x <i>G. barbadense</i>	Hybrid Cotton	38
35	<i>Helianthus annuus</i> L.	Sunflower	40
36	<i>Hordeum vulgare</i> L. subsp. <i>vulgare</i>	Barley	42
37	<i>Kummerowia striata</i> (Thunb.) Schindl.	Common Lespedeza	42
68	<i>Lablab purpureus</i> (L.) Sweet	Lab-lab beans	79
38	<i>Lactuca sativa</i> L.	Lettuce	44
37	<i>Lespedeza cuneata</i> (Dum. Cours.) G. Don	Chinese Lespedeza	42
37	<i>Lespedeza striata</i> (Thunb.) Hook. & Arn	Common Lespedeza	42
39	<i>Lolium multiflorum</i> Lam.	Italian & Westerwold Ryegrass	44
39	<i>Lolium rigidum</i> Gaudin	Annual Ryegrass, Rigid Ryegrass	44
40	<i>Lolium perenne</i> L.	Perennial Ryegrass	46
40	<i>Lolium xhybridum</i> Hausskn.	Hybrid Ryegrass	46
41	<i>Lupinus albus</i> L.	White Lupin	47
41	<i>Lupinus angustifolius</i> L.	Narrow Leaf Lupin	47
41	<i>Lupinus luteus</i> L.	Yellow Lupin	47
42	<i>Medicago littoralis</i> Rohde ex Loisel	Strand medic	48
42	<i>Medicago polymorpha</i> L.	Burr medic	48
42	<i>Medicago rugosa</i> Desr.	Gama medic	48
43	<i>Medicago sativa</i> L.	Lucerne	49
42	<i>Medicago scutellata</i> (L) Miller	Snail medic	48
42	<i>Medicago truncatula</i> (Gaertn.)	Barrel medic	48
44	<i>Megathyrsus maximus</i> (Jacq.) B.K.Simon & S.W.L.Jacobs (Syn. <i>Panicum maximum</i> Jacq.)	White Buffalo grass	51
45	<i>Melilotus albus</i> Medik.	White sweet clover	52
46	<i>Nicotiana tabacum</i> L.	Tobacco	53
47	<i>Ornithopus compressus</i> L.	Yellow Serradella	55
47	<i>Ornithopus sativus</i> Brot.	French Serradella	55
48	<i>Oryza sativa</i> L.	Rice	56
44	<i>Panicum coloratum</i> L.	Small Buffalo grass	51
49	<i>Paspalum dilatatum</i> Poir.	Paspalum	57
49	<i>Paspalum notatum</i> Früggé	Paspalum	57
50	<i>Pennisetum glaucum</i> L. R.Br	Pearl Millet	58
51	<i>Phaseolus coccineus</i> L.	Kidney Bean	59
51	<i>Phaseolus vulgaris</i> L.	Dry Bean	59
52	<i>Phaseolus vulgaris</i> L.	Garden Bean	61
53	<i>Pisum sativum</i> L. <i>sensu lato</i>	Dry Pea & Garden Pea	62
54	<i>Raphanus sativus</i> L.	Garden & Fodder Radish	63
10	<i>Raphanus sativus</i> var. <i>oleiferus</i>	Oil Seed Rape	11
55	<i>Secale cereale</i> L.	Rye	64
56	<i>Solanum lycopersicum</i> L.	Tomato	65

57	<i>Solanum melongena</i> L.	Eggplant, Brinjal	66
58	<i>Sorghum almum</i> L. Parodi	Columbus grass	67
59	<i>Sorghum bicolor</i> (L.) Moench subsp. <i>bicolor</i>	Grain Sorghum	68
58	<i>Sorghum bicolor</i> (L.) Moench subsp. <i>drummondii</i> (Steud.) de Wet ex Davidse (syn. <i>Sorghum sudanense</i> (Piper) Stapf)	Sudan grass	67
59	<i>Sorghum vulgare</i> Pers.	Broomcorn	68
60	<i>Sorghum</i> spp.	Annual Forage Sorghum Hybrids	70
61	<i>Sorghum</i> spp.	Perennial Forage Sorghum	71
62	<i>Sporobolus fimbriatus</i> (Trin.) Nees	Bushveld Dropseed Grass	72
63	<i>Trifolium repens</i> L.	White Clover	73
64	<i>Trifolium vesiculosum</i> Savi	Arrow Leaf Clover	75
65	<i>xTriticosecale</i> L. Witt.	Triticale	76
66	<i>Triticum aestivum</i> L. subsp. <i>aestivum</i>	Wheat	77
66	<i>Triticum turgidum</i> L. subsp. <i>durum</i> (Desf.) van Slangeren	Durum wheat	77
67	<i>Vicia faba</i> L.	Broad Bean	78
68	<i>Vigna unguiculata</i> L. Walp.	Cowpea	79
69	<i>Zea mays</i> L.	Grain Maize	80
70	<i>Zea mays</i> L. var. <i>saccharata</i> Baily	Sweetcorn	82
Table	Summary of Requirements		84

ANNEXURE 1

REQUIREMENTS RELATING TO ONION (*Allium cepa* L.)

1 Field requirements

A field may be registered as a unit only if no plants of any *Allium* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows is not permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.
- 2.4 If it is intended to produce seed by the seed-to-seed method, at least 500 plants of the variety concerned shall be established specially with a view to evaluating the bulbs thereof before the seed concerned is presented for certification.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3 and 3.4, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed of -
 - 3.1.1.1 an open-pollinated variety, is at least 2 000 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed of -
 - 3.1.2.1 an open-pollinated variety, is at least 1 000 metres wide; and
 - 3.1.2.2 a hybrid variety, at least 1500 metres wide.
 - 3.1.3 in the case of the intended production of white and straw-coloured onion varieties, the isolation distance to red onions, be at least 5000 meters wide: Provided that the isolation areas between the different red onion varieties shall apply as indicated in paragraphs 3.1.1 and 3.1.2.
 - 3.1.4 in the case of white onions which have been established in the proximity of straw-coloured onions and vice versa, at least 3 000 meters wide.
- 3.2 Such isolation area shall be free from plants of any other *Allium* spp. or onion variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of 2nd generation certified seed, they have been established from 1st generation certified pre-basic seed or basic seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants and bulbs on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers;
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed not exceed 1,0 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -

- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Plants and bulbs which were established on a unit with a view to obtaining bulbs to be used for the production of seed shall be inspected during the mature stage thereof.
- 5.2 Such bulbs shall be inspected not more than 30 days before they are established on a unit and the number of deviated bulbs shall -
 - 5.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not to exceed 0,2 percent; and
 - 5.2.2 in the case of the intended production of certified seed, not to exceed 0,5 percent.
- 5.3 Plants which are established on a unit from such bulbs shall be inspected -
 - 5.3.1 before the flowering stage thereof;
 - 5.3.2 during the flowering stage thereof; and
 - 5.3.3 during the full seed stage thereof; and
 - 5.3.4 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.4 If plants of a hybrid variety have been established on a unit -
 - 5.4.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.4.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.4.1.2 the seed heads of the pollen parent are to be removed; and
 - 5.4.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.3.4 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 80;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 2

REQUIREMENTS RELATING TO NEW BUNCHING ONION (*Allium cepa* L. x *A. fistulosum* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any *Allium* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 Plants established on a unit registered for the production of certified basic seed or of certified seed, may, after the establishment thereof, be used for such purpose for a period of not more than three years, provided the unit concerned is registered annually for the production of certified basic seed or certified seed, as the case may be.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- A unit shall be surrounded by an isolation area which -
 - 3.1 in the case of all generations of an open pollinated variety of new bunching onion and any other *Allium* spp., is at least 1 000 metre wide.

4 Requirements for plants

- The number of deviating plants on a unit shall -
 - 4.1 in the case of the intended production of certified pre-basic seed or basic seed; not exceed 0,2 percent; and

- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 The number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 In the case of the intended production of certified seed, not exceed 0,5 percent of the plant of the pollen parent at the stage at which 5 percent or more of the plants of the seed parent have pollen-susceptible flowers.
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected during -
- 5.2.1 before the flowering stage thereof;
- 5.2.2 during the flowering stage thereof; and
- 5.2.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 3

REQUIREMENTS RELATING TO BUNCHING ONION (*Allium fistulosum* L.)

1 Field requirements

A field may be registered as a unit only if no plants of any *Allium* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3 a unit shall be surrounded by an isolation area that in the case of all generations of -
- 3.1.1 different varieties of open pollinated early/ normal bolter bunching onion, be at least 1 000 metres wide; and
- 3.1.2 different varieties of open pollinated late bolter bunching onion is at least 1 500 metres wide; and
- 3.1.3 between varieties of open pollinated open pollinated early/ normal bolter and late bolter bunching onion is at least 1 500 metres wide; and
- 3.1.3 a hybrid variety of both types, is at least 1 500 metres wide.
- 3.1.4 The isolation area between onion and bunching onion shall -
- 3.1.4.1 in the case of the intended production of certified pre-basic seed or basic seed of -
- 3.1.4.1.1 an open-pollinated variety, is at least 1 000 metres wide; and

- 3.1.4.1.2 a hybrid variety, is at least 3 000 metres wide; and
- 3.1.4.2 in the case of the intended production of certified seed of -
 - 3.1.4.2.1 an open-pollinated variety, is at least 1 000 metres wide; and
 - 3.1.4.2.2 a hybrid variety, at least 3 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any other *Allium spp.* or bunching onion variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of 2nd generation certified seed, they have been established from 1st generation certified pre-basic seed or basic seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed; not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 The number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 In the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 In the case of the intended production of certified seed, not exceed 0,5 percent of the plant of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings should be inspected -
 - 5.2.1 before the flowering stage thereof;
 - 5.2.2 during the flowering stage thereof;
 - 5.2.3 during the full seed stage thereof; and
 - 5.2.4 in the case of a hybrid variety, after the heads of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
 - 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.3.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.3.1.2 the seed heads of the pollen parent are to be removed; and
 - 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.4 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 Have a germination percentage of at least 80;
 - 6.2 Have at least 98.0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 4

REQUIREMENTS RELATING TO LEEK (*Allium porrum* L.)

1 Field requirements

A field may be registered as a unit only if no plants of any *Allium* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3 a unit shall be surrounded by an isolation area that in the case of all generations of an open pollinated variety of a leek be at least 500 metres wide; and
- 3.2 such isolation area shall be free from plants of any leek variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of 2nd generation certified seed, they have been established from 1st generation certified pre-basic seed or basic seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed; not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 The number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 In the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 In the case of the intended production of certified seed, not exceed 0,5 percent of the plant of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers;
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings should be inspected -
 - 5.2.1 before the flowering stage thereof;
 - 5.2.2 during the flowering stage thereof;
 - 5.2.3 during the full seed stage thereof; and
 - 5.2.4 in the case of a hybrid variety, after the heads of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
 - 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.3.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.3.1.2 the seed heads of the pollen parent are to be removed; and

- 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.4 has been carried out.

6 Physical requirements

Seed shall -

- 6.1 Have a germination percentage of at least 80;
 6.2 Have at least 98.0 percent pure seed; and
 6.3 Not contain more than -
 6.3.1 0,1 percent other seed; and
 6.3.2 2,0 percent other material.
 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 5

REQUIREMENTS RELATING TO BOTTLE BRUSH GRASS (*Antheophora pubescens* Nees)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 1.1.1 no plants of any species of *Antheophora* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
 1.2 A field which is intended for the production of certified basic seed or certified seed of a particular bottle brush grass variety may also be registered as a unit, if -
 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season;
 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 3.1.2 in the case of the intended production of certified seed -
 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
 3.2 Such isolation area shall be free from plants of any bottle brush grass variety which flower at the same time as the plants on the unit concerned, unless -
 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 20;
 - 6.2 in the case of coated seed, have a germination percentage of at least 30;
 - 6.3 have at least 98,0 percent pure seed; and
 - 6.4 not contain more than -
 - 6.4.1 0,1 percent other seed; and
 - 6.4.2 2,0 percent other material.
 - 6.4.3 Notwithstanding the provisions of paragraph 6.4.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 6

**REQUIREMENTS RELATING TO GROUNDNUTS
(*Arachis hypogaea* L.)**

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of *Arachis* spp., have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of certified basic seed or certified seed of a particular groundnut variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any groundnut variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre- basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of disease-infected plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 10,0 percent.
- 4.3 For the purposes of paragraph 4.2 "disease-infected plants" shall mean plants which are not visually free from the pathogen *Chalara elegans* (previous name *Thielaviopsis basicola*).

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof; and
 - 5.1.3 during the lifting thereof.
- 5.2 A seed grower shall notify the authorised person at least 10 days prior to the date on which plants are to be lifted.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,05 percent other seed;
 - 6.3.2 0,2 percent seed of deviating plants; and
 - 6.3.3 2,0 percent seed of other material.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 7

REQUIREMENTS RELATING TO OATS, NAKED OATS & BLACK OATS (*Avena sativa* L., *A. nuda* L. & *A. strigosa* Schreb.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Avena* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular oat variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season;
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Seed may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 The isolation area surrounding a unit shall be at least 5 meters wide.
- 3.2 Such isolation area shall be free from plants of any oat species.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 Methods for determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the booting stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the ripening thereof.

6 Physical requirements

Seed shall in the case of *Avena sativa* and *A. strigosa* -

- 6.1.1 have a germination percentage of at least 80.
- 6.1.2 have at least 99,0 percent pure seed; and
- 6.1.3 not contain more than -
 - 6.1.3.1 0,3 percent other seed, but not more 0,02 percent weed seed; and
 - 6.1.3.2 1,0 percent other material.
 - 6.1.3.3 Notwithstanding the provisions of paragraph 6.1.3.1, not more than one seed of wild oats may occur in a 400 g seed sample, and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

- 6.2 Seed shall in the case of *Avena nuda* -
 - 6.2.1 have a germination percentage of at least 80.
 - 6.2.2 have at least 99,5 percent pure seed; and
 - 6.2.3 not contain more than -
 - 6.2.3.1 0,3 percent other seed, but not more than traces of weed seed; and
 - 6.2.3.2 0,5 percent other material.
 - 6.2.3.3 Notwithstanding the provisions of paragraph 6.2.3.1, not more than one seed of wild oats may occur in a 400 g seed sample, and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 8

REQUIREMENTS RELATING TO GARDEN BEET (*Beta vulgaris* L. subsp. *vulgaris* var. *conditiva* Alef.)

1 Field requirements

A field may be registered as a unit only if no plants of any species of a *Beta* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3 a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed of -
 - 3.1.1.1 an open pollinated variety, is at least 3 000 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed of -
 - 3.1.2.1 an open-pollinated variety, is at least 2 000 metres wide; and
 - 3.1.2.2 a hybrid variety, is at least 2 000 metres wide; and
 - 3.1.3 in the case of garden beet, which has been established in the proximity of swiss chard, is at least 5 000 meters wide.
 - 3.1.3 in the case of beet of different colours, is at least 5000 meters wide.
- 3.2 Such isolation area shall be free from plants of any *Beta* spp. which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of a variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 In the case of red beet, the isolation between different red beet varieties -
 - 3.3.1 in the case of the intended production of certified pre-basic seed or basic seed, shall be at least 2 000 metres wide; and
 - 3.3.2 in the case of the intended production of certified seed, shall be at least 1 000 metres wide.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage on which 2,0 percent or more of the plants of the seed parent has pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage on which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers.

- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.
- 4.3 The number of disease-infected plants on a unit shall -
- 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent; and
- 4.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent.
- 4.4 For the purposes of paragraph 4.3 "disease-infected plants" shall mean plants which are not visually free from the pathogen *Perenospora schachtii* Fckl.

5 Inspection requirements

- 5.1 Beets shall be inspected before it is established on a unit.
- 5.2 Plants of such beets which are established on a unit shall be inspected -
- 5.2.1 before the flowering stage thereof;
- 5.2.2 during the flowering stage thereof; and
- 5.2.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 9

REQUIREMENTS RELATING TO SWISS CHARD (*Beta vulgaris* L. subsp. *vulgaris* var. *flavescens* A.DC.)

1 Field requirements

A field may be registered as a unit only if no plants of any species of a *Beta* spp., have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 3 000 metres wide;
- 3.1.2 in the case of the intended production of certified seed, is at least 2 000 metres wide; and
- 3.1.3 in the case of garden beet, which has been established in the proximity of swiss chard, is at least 5 000 meters wide.
- 3.1.4 in the case of swiss chard of different colours, is at least 5 000 meters wide.
- 3.2 Such an isolation area shall be free from plants of any swiss chard variety or species of *Beta* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of certified basic seed, it have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and

- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of disease-infected plants on a unit shall -
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent; and
- 4.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent.
- 4.3 For the purposes of paragraph 4.2 "disease-infected plants" shall mean plants which are not visually free from the pathogen *Perenospora schachtii* Fckl.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
- 5.2.1 before the flowering stage thereof;
- 5.2.2 during the flowering stage thereof; and
- 5.2.3 during the full seed stage thereof.

6 Physical requirements

Seed shall

- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98.0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 10

REQUIREMENTS RELATING TO OIL SEED RAPE

(*Brassica napus* L. var. *oleifera*; *Brassica rapa* L.; *B. napus* x *B. rapa*; *Raphanus sativus* var. *oleiferus*)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Brassica* or *Raphanus* or *Brassica* as the case may be, have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof.
- 1.2 Only in the case of an open-pollinated variety, a field which is intended for the production of basic seed or certified seed of a particular oil seed rape variety, may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season;
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
- 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
- 2.3.2 the rows containing the plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 300 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and

- 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 of an open-pollinated variety, is at least 200 metres wide; and
 - 3.1.2.2 of a hybrid variety, is at least 2 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any *Brassica* or *Raphanus* related variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,3 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers;
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent at the stage at which 2,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of pollen-shedding flowers found during inspections shall not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers; Provided that the aggregate number of plants with pollen-shedding flowers found during inspections shall not for the three inspections showing the highest incidence of such plants, exceed 1,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof;
 - 5.1.3 during the full seed stage thereof; and
 - 5.1.4 in the case of a hybrid variety, after the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
 - 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.2.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.2.1.2 the pollen parent to be removed; and
 - 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -

- 6.3.1 0,2 percent other seed;
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 Not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 11

REQUIREMENTS RELATING TO ALL BRASSICA SPECIES UTILISED FOR FODDER, INCLUDING FORAGE RAPE, SWEDE, FODDER KALE, BORECOLE, & FODDER TURNIP [*Brassica napus* L. var. *napobrassica* (L.) Rchb., *Brassica oleracea* L. & *Brassica rapa* L.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of the Brassicaceae family have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular *Brassica* variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 2 500 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed, is at least 1 000 metres wide.
- 3.2 Subject to the provisions of paragraph 3.3, such isolation area shall be free from plants of a species of *Brassica* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

The number of deviating plants on a unit shall –

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material;

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 Not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 12

REQUIREMENTS RELATING TO CAULIFLOWER, CABBAGE & BROCCOLI [*Brassica oleracea* L. var. *capitata* L., *B. oleracea* L. convar *botrytis* (L.) Alef. var. *botrytis*] & [*Brassica oleracea* L. convar *botrytis* (L.) Alef. var. *cymosa* Duchenense]

1 Field requirements

A field may be registered as a unit only if no plants of any *Brassica* spp., have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 3 000 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 of an open-pollinated variety, is at least 1 500 metres wide; and
- 3.1.2.2 of a hybrid variety, is at least 1 500 metres wide
- 3.2 Such an isolation area shall be free from plants of any *Brassica* variety or species of *Brassica* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of a variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage on which 2,0 percent or more of the plants of the seed parent has pollen susceptible flowers;
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage on which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers.
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent at the stage at which 2,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of pollen-shedding flowers found during inspections shall not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: -

Provided that the aggregate number of plants with pollen-shedding flowers found during inspections shall not for the three inspections showing the highest incidence of such plants, exceed 1,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected –
 - 5.2.1 before the flowering stage thereof;
 - 5.2.2 during the flowering stage thereof;
 - 5.2.3 during the full seed stage thereof; and
 - 5.2.4 in the case of a hybrid variety, after the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
 - 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.3.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.3.1.2 the pollen parent to be removed; and
 - 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.4 has been carried out.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 13

REQUIREMENTS RELATING TO RESCUE GRASS (*Bromus catharticus* Vahl.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Bromus* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed of the same variety, as the case may be.
- 1.2 A field which is intended for the production of –
 - 1.2.1 pre-basic seed, be registered as a unit for two consecutive growing seasons if breeder seed of the same variety is annually established thereon;
 - 1.2.2 basic seed, be registered as a unit for two consecutive growing seasons if pre-basic seed of the same variety is annually established thereon: Provided that such field may also be registered as a unit if pre-basic seed of the same variety has been produced thereon during the preceding growing season;
 - 1.2.3 certified seed, be registered as a unit for no more than two consecutive growing seasons if basic seed of the same variety is annually established thereon: Provided that such field may also be registered as a unit if basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.4 2nd generation certified seed, be registered as a unit for no more than one growing season if 1st generation certified seed of the same variety is established thereon: Provided that such field may also be registered as a unit if 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
- 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any *Bromus* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants established on a unit may be grazed, provided that the livestock must be timely withdrawn at a stage that will optimize seed production as determined by the breeder of the particular variety
- 4.2 The number of deviating plants on a unit shall –
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 55% or a viability percentage of at least 75%;
- 6.2 have at least 95,0 percent pure seed;
- 6.3 not contain more than -
- 6.3.1 0,5 percent other seed; and
- 6.3.2 5,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the species being tested.

ANNEXURE 14

REQUIREMENTS RELATING TO PIGEON PEA [*Cajanus cajan* (L.) Millsp.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any pigeon pea variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of certified basic seed or certified seed of a particular pigeon pea variety may also be registered as a unit, if-
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 400 metres wide;
- 3.1.2 in the case of the intended production of certified seed, is at least 200 metres wide; and
- 3.2 Such isolation area shall be free from plants of any pigeon pea variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering to pod stage thereof; and
- 5.3 during the full pod stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,05 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.
- 6.4 Not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 15**REQUIREMENTS RELATING TO PAPRIKA, PEPPER & CHILLI
(*Capsicum* spp.)****1 Field requirements**

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any *Capsicum* spp. have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular pepper variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 100 metres wide; and
- 3.1.2 in the case of the intended production of certified seed, is at least 10 metres wide.
- 3.2 Such isolation area shall be free from plants of any *Capsicum* spp.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 A unit on which plants of a sweet pepper variety are established shall be free from plants of hot pepper varieties, and *vice versa*.
- 4.3 The number of plants on a unit contaminated with the pathogen *Corynebacterium michiganense* Smith, Jensen, shall -
- 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 2,0 percent; and
- 4.3.2 in the case of the intended production of certified seed, not exceed 5,0 percent.
- 4.4 The number of plants on a unit infected with tobacco mosaic virus shall -
- 4.4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
- 4.4.2 in the case of the intended production of certified seed, not exceed 10,0 percent.
- 4.5 The number of plants on a unit infected with the pathogen *Xanthomonas vesicatoria* (Doidge) Dow, shall -
- 4.5.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
- 4.5.2 in the case of the intended production of certified seed, not exceed 10,0 percent.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected
- 5.1.1 during the seedling stage thereof;
- 5.1.2 during the flowering stage of the plants thereof; and
- 5.1.3 during the full ripe stage of the fruit thereof.
- 5.2 No fruit may be harvested before the inspection referred to in paragraph 5.1 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 16

REQUIREMENTS RELATING TO BLUE BUFFALO GRASS (*Cenchrus ciliaris* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Cenchrus* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed, basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular blue buffalo grass variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seeds may be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any buffalo grass variety.

4 Requirements for plants

- The number of deviating plants on a unit shall -
 - 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof; and
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination or viability percentage of at least 20;
 - 6.2 in the case of coated seed, have a germination percentage of at least 20;
 - 6.3 have at least 98,0 percent pure seed; and
 - 6.4 not contain more than -
 - 6.4.1 0,1 percent other seed; and
 - 6.4.2 2,0 percent other material.
 - 6.4.3 Notwithstanding the provisions of paragraph 6.4.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 17**REQUIREMENTS RELATING TO RHODES GRASS
(*Chloris gayana* Kunth.)****1 Field requirements**

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Chloris* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular Rhodes grass variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any Rhodes grass variety which flower at the same time as the plants on the unit concerned, unless -

- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.2.3 in the case of the intended production of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.2 Plants established on a unit registered for the production of basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.3 After the use of plants on a unit for the production of basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.4 Plants established on a unit for the intended production of certified seed -
 - 4.4.1 may be used for this purpose for a period of not more than four years; and
 - 4.4.2 may, with the written approval from the Authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination or a viability percentage of at least 20, or in the case where the weighted replicate method of analysis is being used, have a germination of at least 800,000 normal seedlings per weight (kg); and
 - 6.2 in the case of coated seed, a germination or a viability percentage of at least 20 percent;
 - 6.3 have at least 90,0 percent pure seed; and
 - 6.4 not contain more than -
 - 6.4.1 0,5 percent other seed;
 - 6.4.2 10,0 percent other material; and in the case of coated seeds, 2,0 percent other material; and
 - 6.4.3 0,2 percent seed of deviating plants.
 - 6.4.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 18

REQUIREMENTS RELATING TO WATERMELON [*Citrullus lanatus* (Thunb.) Matsumura. et Nakai]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Citrullus* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular watermelon variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 2 000 metres wide; and
- 3.1.2 in the case of the intended production of certified seed, is at least 1 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any watermelon variety or species of *Citrullus* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of disease-infected plants on a unit shall-
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent; and
- 4.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent.
- 4.3 For the purposes of paragraph 4.2 "disease-infected plants" shall mean plants showing virus symptoms visually.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
- 5.2.1 during the green fruit stage thereof; and
- 5.2.2 during the full ripe stage of the fruit thereof.
- 5.3 No fruit may be harvested before the inspection referred to in paragraph 5.2.2 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed;
- 6.3.2 0,1 percent seed of deviating plants or fruit; and
- 6.3.3 2,0 percent other material.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 19

REQUIREMENTS RELATING TO CORIANDER (*Coriandrum sativum* L.)

1 Field requirements

A field may be registered as a unit with a view to the production of certified pre-basic seed, basic seed or certified seed only if no plants of any coriander variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
- 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
- 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 2 000 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 of an open-pollinated variety, is at least 1 000 metres wide; and
- 3.1.2.2 of a hybrid variety, is at least 1 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any carrot variety which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.3.1 a common pollen parent is used; and
- 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent;
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
- 5.2.1 during the flowering stage thereof;
- 5.2.2 during the full seed stage thereof; and
- 5.2.3 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
- 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.3.1.1 the plants of the seed parent are expected to start flowering; and
- 5.3.1.2 the seed heads of the pollen parent are to be removed; and
- 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.3 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed;
- 6.3.2 2,0 percent other material.

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 20

REQUIREMENTS RELATING TO SWEET MELON (*Cucumis melo* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Cucumis* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular sweet melon variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 2 000 metres wide; and
- 3.1.2 in the case of the intended production of certified seed, is at least 1 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any sweet melon variety or species of *Cucumis* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- The number of deviating plants on a unit shall -
- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
- 5.2.1 during the green fruit stage thereof; and
- 5.2.2 during the full ripe stage of the fruit thereof;
- 5.3 No fruit may be harvested before the inspection referred to in paragraph 5.2.2 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 21

REQUIREMENTS RELATING TO CUCUMBER (*Cucumis sativus* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Cucumis* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular cucumber variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 2 000 metres wide; and
 - 3.1.2 the case of the intended production of certified seed, is at least 1 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any cucumber variety or species of *Cucumis* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- The number of deviating plants on a unit shall -
- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
 - 5.2.1 during the green fruit stage thereof; and
 - 5.2.2 during the full ripe stage of the fruit thereof;
- 5.3 No fruit may be harvested before the inspection referred to in paragraph 5.2.2 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 22

REQUIREMENTS RELATING TO PUMPKIN & SQUASH [*Cucurbita maxima* Duchesne, *C. moshata* (Duchesne) Duchesne ex Poir & *C. pepo* L.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Cucurbita* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular pumpkin or squash variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 - 3.1.1.1 an open-pollinated variety, is at least 2 000 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 of an open-pollinated variety, is at least 1 000 metres wide; and
 - 3.1.2.2 of a hybrid variety, is at least 2 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any pumpkin or squash variety or species of *Cucurbita* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.
- 3.4 In the case of the production of certified seed of all generations of *Cucurbita maxima* and *C. pepo* an isolation distance of 5 metre must be maintained between varieties and species.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent;

- 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
- 5.2.1 during the green fruit stage thereof; and
- 5.2.2 during the full ripe stage of the fruit thereof;
- 5.2.3 in the case of a hybrid variety, after the fruit of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
- 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.3.1.1 the plants of the seed parent are expected to start flowering; and
- 5.3.1.2 the fruit of the pollen parent are to be removed; and
- 5.3.2 the fruit of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.3 has been carried out.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 23

REQUIREMENTS RELATING TO COCKSFOOT (*Dactylis glomerata* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Dactylis* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular cocksfoot variety may also be registered as a unit if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area, which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
- 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.1.2 is at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.2.2 is at least 50 metres wide where the area of the unit concerned exceeds two hectares.
- 3.2 Such isolation area shall be free from plants of any cocksfoot variety which flower at the same time as the plants on the unit concerned, unless -

- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may annually be grazed after the removal of the seed crop until October 15 of the following growing season.
- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof; and
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 95,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed;
 - 6.3.2 5,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 24

REQUIREMENTS RELATING TO CARROT (*Daucus carota* L.)

1 Field requirements

A field may be registered as a unit with a view to the production of certified pre-basic seed, basic seed or certified seed only if no plants of any carrot variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed of -
 - 3.1.1.1 an open-pollinated variety, is at least 2 000 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed of -
 - 3.1.2.1 an open-pollinated variety, is at least 1 000 metres wide; and
 - 3.1.2.2 a hybrid variety, is at least 1 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any carrot variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and

- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.3.1 a common pollen parent is used; and
- 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Sticklings (immature carrots) shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such carrots shall be inspected -
- 5.2.1 during the flowering stage thereof;
- 5.2.2 during the full seed stage thereof; and
- 5.2.3 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
- 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.3.1.1 the plants of the seed parent are expected to start flowering; and
- 5.3.1.2 the seed heads of the pollen parent are to be removed; and
- 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.2.3 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed;
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 25

REQUIREMENTS RELATING TO SMUTS FINGER GRASS (*Digitaria eriantha* Steud.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -

- 1.1.1 no plants of any species of *Digitaria* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular Smuts Finger grass variety may also be registered as a unit if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned exceeds two hectares.
- 3.2 Such isolation area shall be free from plants of any Smuts Finger grass variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.2 Plants established on a unit registered for the production of certified pre-basic seed or basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.3 After the use of plants on a unit for the production of certified pre-basic seed or basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.4 Plants established on a unit for the production of certified seed -
 - 4.4.1 may be used for this purpose for a period of not more than four years; and
 - 4.4.2 may, with the written approval from the Authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof; and
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 15;
 - 6.2 in the case of coated seed, have a germination percentage of at least 20;
 - 6.3 have at least 94,0 percent pure seed; and
 - 6.4 not contain more than -
 - 6.4.1 0,1 percent other seed;
 - 6.4.2 6,0 percent other material.

- 6.4.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 26

REQUIREMENTS RELATING TO JAPANESE MILLET [*Echinochloa crus-galli* (L.) P. Beauv.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Echinochloa* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular Japanese Millet variety may also be registered as a unit, if
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
- 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
- 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 400 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 500 metres wide; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 of an open-pollinated variety, is at least 350 metres wide; and
- 3.1.2.2 of a hybrid variety, is at least 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any Japanese Millet variety or species of *Echinochloa* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.3.1 a common pollen parent is used; and
- 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.

- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,3 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall –
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 20,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent at the stage at which 30,0 percent or more of the plants of the seed parent has pollen-susceptible flowers.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof;
- 5.1.3 during the full seed stage thereof; and
- 5.1.4 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
- 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.2.1.1 the plants of the seed parent are expected to start flowering; and
- 5.2.1.2 the seed heads of the pollen parent are to be removed; and
- 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 96,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 4,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 27

REQUIREMENTS RELATING TO FINGER MILLET [*Eleusine corocana* L. Gaertn.]]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Eleusine* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular finger millet variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.

- 3.2 Such isolation area shall be free from plants of any finger millet variety or species of *Eleusine* which flower at the same time as the plants on the unit concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof; and
- 5.1.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 97,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 3,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 28

REQUIREMENTS RELATING TO WEEPING LOVE GRASS [*Eragrostis curvula* (Schrad.) Nees]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Eragrostis* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular weeping love grass variety may also be registered as a unit if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any weeping love grass variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.2 Plants established on a unit registered for the production of certified pre-basic seed or basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.

- 4.3 After the use of plants on a unit for the production of certified pre-basic seed or basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.4 Plants established on a unit for the production of certified seed -
- 4.4.1 may be used for this purpose for a period of not more than four years; and
- 4.4.2 may, with the written approval from the Authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof; and
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 97,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,5 percent other seed, of which maximum of 0,3 percent may be weed seed;
- 6.3.2 0,2 percent nematode galls; and
- 6.3.3 3,0 percent other material.
- 6.4 Notwithstanding the provisions of paragraph 6.3.1 -
- 6.4.1 the percentage seed of *Eragrostis tef* (Zucc.) Trotter in seed shall -
- 6.4.1.1 in the case of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
- 6.4.1.2 in the case of certified seed, not exceed 0,2 percent; and
- 6.4.2 the percentage seed of *E. plana* Nees in seed of all generations not exceed 0,1 percent; and
- 6.4.3 not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 29

REQUIREMENTS RELATING TO TEFF [*Eragrostis tef* (Zuccagni) Trotter]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Eragrostis* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of seed of a *Eragrostis tef* variety may –
- 1.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not be registered as a unit for more than two consecutive growing seasons if certified breeder seed or certified pre-basic seed, whichever the case may be, of the same variety is annually established thereon; and
- 1.2.2 in the case of the intended production of certified seed, not be registered as a unit for more than four consecutive growing seasons if basic seed of the same variety is annually established thereon: Provided that such field may also be registered as a unit if certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any *Eragrostis tef* variety.

4 Requirements for plants

The number of deviating plants on a unit shall -

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.2 in the case of the intended production of certified seed, not exceed one plant per 15 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70.
 - 6.2 have at least 97,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed, of which not more than 0,3 percent may be weed seed;
 - 6.3.2 3,0 percent other material; and
 - 6.3.3 0,2 percent nematode galls.
 - 6.4 Notwithstanding the provisions of paragraph 6.3.1 -
 - 6.4.1 the percentage seed of *Eragrostis curvula* (Schrad.) Nees in seed shall -
 - 6.4.1.1 in the case of certified pre-basic or basic seed, not exceed 0,1 percent; and
 - 6.4.1.2 in the case of certified seed, not exceed 0,2 percent; and
 - 6.4.2 the percentage seed of *E. plana* Nees in seed of all generations not exceed 0,1 percent; and
 - 6.4.3 not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 30

REQUIREMENTS RELATING TO BUCKWHEAT (*Fagopyrum esculentum* Moench)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any specie of *Fagopyrum* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular buckwheat variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed is at least 500 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed is at least 300 metres wide.
- 3.2 Such isolation area shall be free from plants of any buckwheat variety which flower at the same time as the plants on the unit concerned.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,3 percent.
- 4.2 Methods for the determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 during the stooling stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed, but not more than 0,2 percent weed seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 31

**REQUIREMENTS RELATING TO TALL FESCUE & FESTULOLIUM
(*Festuca arundinacea* Schreb. & *xFestulolium* Asch. & Graebn.)**

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Lolium*, *Festuca* and *xFestulolium* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular tall fescue or of *Festulolium* variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any *Festuca*, *Lolium* and *xFestulolium* variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may annually be grazed after the removal of the seed crop until October 15 of the following growing season.

- 4.2 The number of deviating plants on a unit shall –
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 96,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,5 percent other seed, but not more than 0,2 percent weed seed; and
- 6.3.2 4,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 32

REQUIREMENTS RELATING TO FENNEL (*Foeniculum vulgare* Mill.)

1 Field requirements

A field may be registered as a unit with a view to the production of certified pre-basic seed, basic seed or certified seed only if no plants of any fennel variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
- 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
- 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed and basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 2 000 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 of an open-pollinated variety, is at least 1 000 metres wide; and
- 3.1.2.2 of a hybrid variety, is at least 1 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any fennel variety which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of certified basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.3.1 a common pollen parent is used; and
- 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -

- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent;
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 2,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
 - 5.2.1 during the flowering stage thereof;
 - 5.2.2 during the full seed stage thereof; and
 - 5.2.3 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.3 If plants of a hybrid variety have been established on a unit -
 - 5.3.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.3.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.3.1.2 the seed heads of the pollen parent are to be removed; and
 - 5.3.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.3.1 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 75;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed;
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 33

REQUIREMENTS RELATING TO SOYA BEAN [*Glycine max* (L.) Merrill]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any soya bean variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular soya bean variety may also be registered as a unit if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any soya bean variety.

4 Requirements for plants

- The number of deviating plants on a unit shall -
- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof; and
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed;
 - 6.3.2 0,2 percent seed of deviating plants;
 - 6.3.3 2,0 percent other material;
 - 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
 - 6.4 not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 34

**REQUIREMENTS RELATING TO COTTON
(*Gossypium hirsutum* L.) & (*G. hirsutum* x *G. barbadense*)**

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any cotton variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of an open-pollinated cotton variety may also be registered as a unit if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of a pre-basic and basic seed of -
 - 3.1.1.1 *G. hirsutum* is at least 100 metres wide;
 - 3.1.1.2 *G. barbadense* is at least 200 metres wide;

- 3.1.1.3 *G. hirsutum* x *G. barbadense* is at least 200 metres wide;
- 3.1.1.4 a hybrid when a CMS is used which is intended for the use as a parent for the production of a hybrid, is at least 800 metres wide;
- 3.1.2 in the case of the intended production of certified seed of -
 - 3.1.2.1 an open-pollinated variety, is at least 100 metres wide; and
 - 3.1.2.2 a hybrid variety where a cytoplasmic male sterile (CMS) line is not used; -
 - 3.1.2.2.1 *G. hirsutum* is at least 100 metres wide;
 - 3.1.2.2.2 *G. barbadense* and *G. hirsutum* x *G. barbadense* is at least 150 metres wide;
 - 3.1.2.2.3 a hybrid when a CMS is used, is at least 800 metres wide;
- 3.2 Such isolation area shall be free from plants of any cotton variety or species of *Gossypium* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed of an open-pollinated variety, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed of an open-pollinated variety, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,01 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent at the stage at which 20,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,2 percent of the plants of the seed parent; and
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 30,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,75 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof;
 - 5.1.3 after the first bolls thereof are open; and
 - 5.1.4 in the case of a hybrid variety, after the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
 - 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
 - 5.2.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.2.1.2 the plants of the pollen parent are to be removed; and
 - 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall be delinted and -
- 6.1 have a germination percentage of at least 75;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material;
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.
 - 6.4 Seed shall be treated against seed-borne diseases with a chemical remedy, which is registered for this purpose.

ANNEXURE 35**REQUIREMENTS RELATING TO SUNFLOWER
(*Helianthus annuus* L.)****1 Field requirements**

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Helianthus* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 In the case of an open-pollinated sunflower variety only: A field which is intended for the production of basic seed or certified seed of a particular sunflower variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 - 3.1.1.1 an open-pollinated variety, is at least 1 500 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 3 000 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 of an open-pollinated variety, is at least 500 metres wide; and
 - 3.1.2.2 of a hybrid variety, is at least 1 000 metres wide.
- 3.2 Such isolation area shall be free from plants of any sunflower variety or species of *Helianthus* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of certified basic seed of an open-pollinated variety, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed of an open-pollinated variety, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parent concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and

- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which 2,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall –
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent at the stage at which 2,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,2 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of pollen-shedding flowers found during inspections shall not for the three inspections showing the highest incidence of such plants, exceed 0,5 percent of the plants of the seed parent.
- 4.3 The number of disease-infected plants on a unit shall -
- 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 1,0 percent; and
- 4.3.2 in the case of the intended production of certified seed, not exceed 3,0 percent.
- 4.4 For the purposes of paragraph 4.3 "disease-infected plants" shall mean plants which are not visually free from *Verticillium* wilt disease.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof;
- 5.1.3 during the full seed stage thereof; and
- 5.1.4 in the case of a hybrid variety, after the seed heads of plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit-
- 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.2.1.1 the plants of the seed parent are expected to start flowering; and
- 5.2.1.2 the seed heads of the pollen parent are to be removed; and
- 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material; and
- 6.3.3 0,2 percent seed of deviating plants; and
- 6.3.4 1,0 percent seed without a seed coat.
- 6.3.5 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 36

REQUIREMENTS RELATING TO BARLEY (*Hordeum vulgare* L. subsp. *vulgare*)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Hordeum* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular barley variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Seed may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 The isolation area surrounding a unit shall be at least 5 meters wide.
- 3.2 Such isolation area shall be free from plants of any barley species.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 Methods for determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the booting stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the ripening thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 80.
- 6.2 have at least 99,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,3 percent other seed, of which not more than 0,02 percent weed seed; and
 - 6.3.2 1,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of wild oats may occur in a 400 g seed sample, and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 37

REQUIREMENTS RELATING TO COMMON & CHINESE LESPEDEZA [(*Kummerowia striata* (Thunb.) Schindl. [syn. *Lespedeza striata* (Thunb.) Hook. & Arn.] & [*Lespedeza cuneata* (Dum. Cours.) G. Don]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Kummerowia* or *Lespedeza* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.

- 1.2 A field which is intended for the production of seed of a particular *Kummerowia* or *Lespedeza* variety may -
 - 1.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not be registered as a unit for more than three consecutive growing seasons; and
 - 1.2.2 in the case of the intended production of certified seed, may also be registered for a further three seasons as a unit.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.
- 1.3 Any further registrations will only be considered with written approval from the Authority.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned exceeds two hectares.
- 3.2 Such isolation area shall be free from plants of any *Lespedeza* variety or species of *Lespedeza* or *Kummerowia* or which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may -
 - 4.1.1 if such unit is registered for the production of basic seed, be used for such purpose for a period of not more than two years after the year of establishment thereof, and may thereafter for a further period of not more than three years be used for the production of certified seed if the unit concerned is registered for this purpose;
 - 4.1.2 if such a unit is registered for the production of certified seed, be used for such purpose for a period of not more than three years after the year of establishment thereof;
- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.3 No plants of dodder (*Cuscuta* spp.) may occur on a unit.
- 4.4 Methods for determination of deviating plants on a unit shall be as determined by the Authority.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof; and
 - 5.1.3 during the full seed stage thereof.
- 5.2 A seed grower shall notify the authorised person at least 14 days prior to the date on which plants are expected to start flowering.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70; of which a maximum of 50 percent hard seeds may be counted as germinated seeds;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,2 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the species being tested

ANNEXURE 38

REQUIREMENTS RELATING TO LETTUCE (*Lactuca sativa* L.)

1 Field requirements

Any field may be registered as a unit if no lettuce-related plants were cultivated there during the preceding two growing seasons.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 100 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed, is at least 50 metres wide.
- 3.2 Such isolation area shall be free from plants of any lettuce variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 A unit shall be free from infected plants which are not visually free from the pathogen Lettuce Mosaic Virus.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are planted;
- 5.2 Plants which are established on a unit from such seedlings shall be inspected –
 - 5.2.1 during the 50 percent marketable stage thereof;
 - 5.2.2 during the full marketable stage thereof; and
 - 5.2.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material; and
 - 6.3.3 0,2 percent seed of deviating plants,
 - 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 39

REQUIREMENTS RELATING TO ITALIAN AND WESTERWOLDS RYEGRASS & RIGID ANNUAL RYEGRASS (*Lolium multiflorum* Lam. & *Lolium rigidum* Gaudin)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any rye grass variety -

- 1.1.1 in the case of the intended production of certified pre-basic seed or basic seed, the three growing seasons; and
- 1.1.2 in the case of the intended production of certified seed, the two growing seasons, preceding the registration thereof and have been established thereon for seed production or otherwise.
- 1.2 A field which is intended for the production of seed of a rye grass variety may -
 - 1.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not be registered as a unit for more than two consecutive growing seasons if breeder seed of the same variety is annually established thereon; and
 - 1.2.2 in the case of the intended production of certified seed, not be registered as a unit for more than four consecutive growing seasons if basic seed of the same variety is annually established thereon: Provided that such field may also be registered as a unit if basic seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seeds shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.
- 2.3 The breeder shall, with regard to quality and production, determine the planting date, the production areas where the seed shall be planted and the date on which grazing shall be withdrawn.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 between units of a diploid ryegrass variety and a tetraploid ryegrass variety is at least five metres wide; and
 - 3.1.1.2 between varieties of another *Lolium* specie, different varieties of diploid ryegrass and different varieties of tetraploid ryegrass respectively -
 - 3.1.1.2.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2.2 is at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 between units of a diploid ryegrass variety and a tetraploid ryegrass variety is at least five metres wide; and
 - 3.1.2.2 between varieties of another *Lolium* specie, different varieties of diploid ryegrass-varieties and different varieties of tetraploid ryegrass-varieties respectively, -
 - 3.1.2.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares;
- 3.2 Such isolation area shall be free from plants of any rye grass variety or species of *Lolium* which flower at the same time as the plants on the unit concerned, unless-
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit shall not be grazed after October 15, of the growing season during which seed is to be produced or as determined by the breeder of the particular variety.
- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 50 square metres; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination or a viability percentage of at least 70;
 - 6.2 have at least 96,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed, of which no more than 0,2 percent may be weed seed;

- 6.3.2 4,0 percent other material; and
- 6.3.3 0,2 percent seed of deviating plants.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 40

REQUIREMENTS RELATING TO PERENNIAL RYEGRASS & HYBRID RYEGRASS (*Lolium perenne* L. & *Lolium xhybridum* Hausskn.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Lolium* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular rye grass variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 between units of a diploid ryegrass variety and a tetraploid ryegrass variety is at least five metres wide; and
 - 3.1.1.2 between different varieties of diploid ryegrass varieties and different varieties of tetraploid ryegrass varieties respectively -
 - 3.1.1.2.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 between units of a diploid ryegrass variety and a tetraploid ryegrass variety is at least five metres wide; and
 - 3.1.2.2 between different varieties of diploid ryegrass-varieties and different varieties of tetraploid ryegrass-varieties respectively, -
 - 3.1.2.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any rye grass variety or species of *Lolium* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- The number of deviating plants on a unit shall –
 - 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination or a viability percentage of at least 75.
- 6.2 have at least 96,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed, of which no more than 0,2 percent may be weed seed; and
 - 6.3.2 4,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 41

**REQUIREMENTS RELATING TO LUPIN
(WHITE LUPIN; NARROW LEAF LUPIN & YELLOW LUPIN)
Lupinus albus L.; *Lupinus angustifolius* L. & *Lupinus luteus* L.)**

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any lupin variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 in the case of the intended production of certified pre-basic seed or basic seed, the three growing seasons; and
 - 1.2.1 in the case of the intended production of certified seed, the two growing seasons, preceding the registration thereof and have been established thereon for seed production or otherwise.
- 1.3 A field which is intended for the production of basic seed or certified seed of a particular lupin variety may also be registered as a unit, if -
 - 1.3.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.3.2 certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.3.3 in the case of certified seed, in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.
- 1.4 Subject to the provisions of paragraph 1.2, a field may be registered as a unit for the production of disease-free seed only if no plants of any lupin variety or species of *Lupinus* –
 - 1.4.1 in the case of the intended production of pre-basic seed and basic seed, during the two years; and
 - 1.4.2 in the case of the intended production of certified seed, has been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.5 A field which is intended for the production of disease-free certified seed of a particular lupin variety may also be registered as a unit if disease-free basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.6 Should the pathogen *Colletotrichum* spp., occur on a unit, no *Lupinus* may be cultivated for the following three years on the field concerned.

2 Planting requirements

Seed shall be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of disease-free seed, is at least 500 metres wide;
 - 3.1.2 otherwise, in the case of the intended production of certified pre-basic seed or basic seed of -
 - 3.1.2.1 white lupin, is at least 200 metres wide where the area of the unit concerned is two hectares or less, and at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2.2 narrow leaf lupin and yellow lupin, is at least five metres wide; and
 - 3.1.3 in the case of the intended production of certified seed of –
 - 3.1.3.1 white lupins, is at least 100 metres wide where the area of the unit concerned is two hectares or less, and at least 50 metres wide where the area of the unit concerned is more than two hectares; and

- 3.1.3.2 narrow leaf lupins and yellow lupins, at least five metres wide.
- 3.2 Such isolation area shall-
- 3.2.1 in the case of the intended production of disease-free seed, be free from plants of any lupin variety or species of *Lupinus*, irrespective of the stage of development thereof, unless they are also intended for the production of such disease-free seed; and
- 3.2.2 otherwise be free from plants of any lupin variety or species of *Lupinus* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 Methods for determination of deviating plants shall be as determined by the Authority.
- 4.3 A unit, which is intended for the production of disease-free seed, shall be free from disease-infected plants.
- 4.4 For the purpose of paragraph 4.3 "disease-infected plants" shall mean plants which are not visually free from the pathogens *Colletotrichum spp.*, or Cucumber Mosaic Virus (CMV).

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 75;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed;
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 In the case of sweet *Lupinus albus*, *Lupinus angustifolius* and *Lupinus luteus*, not contain more than 2,0 percent bitter seeds.
- 6.5 In the case of disease-free seed, according to a laboratory examination, be free from seed that is infected with a pathogen as specified in paragraph 4.4.

ANNEXURE 42

REQUIREMENTS RELATING TO MEDICS (STRAND, BURR, GAMA, SNAIL & BARREL MEDIC)

**[*Medicago littoralis* Rohde ex Loisel; *M. polymorpha* L. var. *brevispina* (Benth.) Heyn.;
M. rugosa Desr.; *M. scutellata* (L.) Miller; & *M. truncatula* Gaertn.]**

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Medicago* -
- 1.1.1 in the case of the intended production of certified pre-basic seed or basic seed, during the four growing seasons; and
- 1.1.2 in the case of the intended production of certified seed, the three growing seasons, preceding the registration thereof and have been established thereon for seed production or otherwise.

- 1.2 A field which is intended for the production of seed of a particular *Medicago* variety may -
- 1.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not be registered as a unit for more than three consecutive growing seasons if breeder seed of the same variety is annually established thereon; and
- 1.2.2 in the case of the intended production of certified seed, may also be registered for a further three seasons as a unit if certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.
- 1.3 Any further registrations will only be considered with written approval from the Authority.

2 Planting requirements

- 2.1 Seeds shall be sown or be established in rows on a unit.
- 2.2 If established in rows on a unit, the area between such rows shall for a period of one year after the plants were established on a unit, be kept free from any plants.
- 2.3 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any *Medicago* spp., unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may only be grazed after consideration of a written request by the seed grower concerned.
- 4.2 The number of deviating plants on a unit shall –
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent; and
- 4.2.2 in the case of the intended production of certified seed, not exceed 2,0 percent.
- 4.3 Methods for the determination of deviating plants are as determined by the Authority.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70, including hard seeds;
- 6.2 have at least 97,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,5 percent other seed, of which no more than 0,2 percent may be weed seed;
- 6.3.2 3,0 percent other material; and
- 6.3.3 0,5 percent seed of deviating plants.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 43

REQUIREMENTS RELATING TO LUCERNE (*Medicago sativa* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Medicago* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or

- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular lucerne variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 If established in rows on a unit, the area between such rows shall for a period of one year after the plants were established on a unit, be kept free from any plants.
- 2.3 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned exceeds two hectares.
- 3.2 Such isolation area shall be free from plants of any lucerne variety or species of *Medicago* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may -
 - 4.1.1 if such unit is registered for the production of basic seed, be used for such purpose for a period of not more than two years after the year of establishment thereof, and may thereafter for a further period of not more than three years be used for the production of certified seed if the unit concerned is registered for this purpose;
 - 4.1.2 if such a unit is registered for the production of certified seed, be used for such purpose for a period of not more than three years after the year of establishment thereof; and
 - 4.1.3 annually be grazed from the time after the removal of the seed crop until October 15 of the following growing season.
- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.3 No plants of dodder (*Cuscuta* spp.) may occur on a unit.
- 4.4 Methods for determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof; and
 - 5.1.3 during the full seed stage thereof.
- 5.2 A seed grower shall notify the authorised person at least 14 days prior to the date on which plants are expected to start flowering.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 80; of which a maximum of 40 percent hard seeds may be counted as germinated seeds;
 - 6.2 have at least 98,0 percent pure seed; and

- 6.3 not contain more than -
 - 6.3.1 0,2 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 44

REQUIREMENTS RELATING TO WHITE BUFFALO GRASS & SMALL BUFFALO GRASS [*Megathyrsus maximus* (Jacq.) B.K.Simon & S.W.L.Jacobs (Synonymn *Panicum maximum* Jacq.) & *Panicum coloratum* L.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Panicum* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular white buffalo grass variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any white buffalo grass or small buffalo grass variety, as the case may be.

4 Requirements for plants

- The number of deviating plants on a unit shall -
 - 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.3 Plants established on a unit registered for the production of basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.4 After the use of plants on a unit for the production of basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.5 Plants established on a unit for the production of certified seed -
 - 4.5.1 may be used for this purpose for a period of not more than four years; and
 - 4.5.2 may, with the written approval from the Authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 10 or a viability percentage of at least 20;
 - 6.2 in the case of coated seed, have a germination percentage of at least 20 percent or a viability percentage of at least 40;

- 6.3 have at least 98,0 percent pure seed; and
- 6.4 not contain more than -
 - 6.4.1 0,5 percent other seed; and
 - 6.4.2 2,0 percent other material.
- 6.4.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 45

REQUIREMENTS RELATING TO WHITE SWEET-CLOVER (*Melilotus albus* Medik.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Melilotus* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular white sweet-clover variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 If established in rows on a unit, the area between such rows shall for a period of one year after the plants were established on a unit, be kept free from any plants.
- 2.3 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 at least 100 metres wide where the area of the unit concerned exceeds two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned exceeds two hectares.
- 3.2 Such isolation area shall be free from plants of any white sweet clover variety or species of *Melilotus* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may -
 - 4.1.1 if such unit is registered for the production of basic seed, be used for such purpose for a period of not more than two years after the year of establishment thereof, and may thereafter for a further period of not more than three years be used for the production of certified seed if the unit concerned is registered for this purpose;
 - 4.1.2 if such a unit is registered for the production of certified seed, be used for such purpose for a period of not more than three years after the year of establishment thereof; and
 - 4.1.3 annually be grazed from the time after the removal of the seed crop until October 15 of the following growing season.

- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.3 No plants of dodder (*Cuscuta* spp.) may occur on a unit.
- 4.4 Methods for determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof; and
 - 5.1.3 during the full seed stage thereof.
- 5.2 A seed grower shall notify the authorised person at least 14 days prior to the date on which plants are expected to start flowering.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 80; of which a maximum of 40 percent hard seeds may be counted as germinated seeds;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,2 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 46

REQUIREMENTS RELATING TO TOBACCO (*Nicotiana tabacum* L.)

1 Field requirements

Any field may be registered as a unit.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap filling shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed of an open-pollinated variety, is at least 400 metres wide;
 - 3.1.2 notwithstanding the provisions of paragraph 3.1.1, a unit may be established within any commercial crop of the same variety; with the condition that the florescence or flowers of the seed parents are covered in such a way that contamination by unwanted pollen is prevented; and
 - 3.1.3 in the case of the intended production of certified seed of an open-pollinated variety, is at least 400 meters wide;
- 3.2 notwithstanding the provisions of paragraph 3.1, a unit may be established within a commercial crop of the same variety established from certified seed, or within any commercial crop in which male sterility occurs in the variety.
- 3.3 In the case of the intended production of a hybrid variety, the plants may be established within any commercial crop in which male sterility occurs in the variety.
 - 3.3.1 The production of the seed and pollen parents of a hybrid crop in which male sterility occurs can be multiplied on the same unit if a two-metre strip is kept clean between the multiplications.
- 3.4 During the production of certified pre- basic, basic or certified seed of both open-pollinated or hybrid varieties within commercial crops, a five metre strip should be maintained at all times between the seed and commercial crop.

- 3.5 Such isolation area shall be free from plants of any tobacco variety which flower at the same time as the plants on the unit concerned, unless -
- 3.5.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety;
- 3.5.2 notwithstanding the provisions of paragraph 3.1.1, a unit may be established within any commercial crop of the same variety; with the condition that the florescence or flowers of the seed parents are covered in such a way that contamination by unwanted pollen is prevented; and
- 3.5.3 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.6 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.6.1 a common pollen parent is used; and
- 3.6.2 a distance of at least five metres wide, which is free from plants of the seed parent concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall –
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety –
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall –
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the pollen parent at the stage at which the pollen is being collected; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the pollen parent at the stage at which the pollen is being collected;
- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before they are established on a unit.
- 5.2 Plants which are established on a unit from such tobacco shall be inspected -
- 5.2.1 two weeks before the flowering stage thereof; and
- 5.2.2 two weeks before harvesting of the seed.
- 5.3 If plants of a hybrid variety have been established on a unit -
- 5.3.1 the seed grower concerned shall notify the authorised person at least 21 days prior to the date on which -
- 5.3.1.1 the plants of the seed parent is expected to start flowering; and
- 5.3.1.2 the plants or florescence of the pollen parent are to be removed; and
- 5.3.2 The seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.3.1.2 has been carried out.
- 5.4 In the case where the unit has been established within a commercial planting, no more than 0,1% plants or suckers with flowers will be allowed within the commercial planting during the seed production process.
- 5.5 All senesced and diseased leaves should be removed before harvesting.
- 5.6 Florescence of plants infected with the following pathogens must be removed before harvesting of the seed commences:
- Viruses
 - *Colletotrichum destructivum*

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 99,9 percent pure seed; and
- 6.3 be free from any other seed; and
- 6.4 not contain more than 0,1 percent other material.

ANNEXURE 47

REQUIREMENTS RELATING TO YELLOW SERRADELLA & FRENCH SERRADELLA [(*Ornithopus compressus* L.) & (*Ornithopus sativus* Brot.)]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Ornithopus* have been established thereon for seed production or otherwise during the three growing seasons preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon, have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular serradella variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
- 2.2 Gap filling shall not be permissible.
- 2.3 In the case of hard-seeded varieties an uncultivated strip of three meters wide must be maintained during the first year of production.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed is at least 200 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed is at least 100 metres wide.
- 3.2 Such isolation area shall be free from plants related to serradella.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall –
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.2 Methods for the determination of deviating plants shall be as determined by the Authority.
- 4.3 Plants established on a unit registered for the production of certified pre-basic seed or basic seed, may after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.4 After the use of plants on a unit for the production of certified pre-basic seed or basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.5 Plants established on a unit for the production of certified seed -
 - 4.5.1 may be used for this purpose for a period of not more than four years; and
 - 4.5.2 may, with the written approval from the Authority, be used for the purpose for a further period of two years.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof; and
 - 5.1.3 during the full seed stage thereof.
- 5.2 The seed grower concerned shall notify the authorised person at least 10 days prior to the date on which the plants are expected to start flowering.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70, hard seeds included;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3. not contain more than –
 - 6.3.1 0,5 percent other seed, of which no more than 0,2 percent may be weed seed; and
 - 6.3.2 2,0 percent other material.

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 48

REQUIREMENTS RELATING TO RICE (*Oryza sativa* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of a rice variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular rice variety, may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Seed may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 The isolation area around a unit shall be at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any rice variety.

4 Requirements for plants

The number of deviating plants on a unit shall -

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material; and
- 6.3.3 one red rice seed per 2,5 kg sample.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 49

REQUIREMENTS RELATING TO PASPALUM (*Paspalum dilatatum* Poir. & *Paspalum notatum* Flüggé)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Paspalum* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular *Paspalum* variety, may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed may be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.
- 2.3 The breeder shall, with regards to quality and production, determine the planting date, the production areas where the seed shall be planted and the date on which grazing shall cease.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
- 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
- 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any *Paspalum* variety or species of *Paspalum* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- The number of deviating plants on a unit shall -
- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
- 4.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 40;
- 6.2 have at least 65,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,2 percent other seed; and
- 6.3.2 35,0 percent other material.

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 50

REQUIREMENTS RELATING TO PEARL MILLET [*Pennisetum glaucum* (L.) R. Br. (syn *Cenchrus americanus* (L.) Morrone)]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Pennisetum* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular pearl millet variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
- 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
- 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
- 3.1.1.1 an open-pollinated variety, is at least 400 metres wide; and
- 3.1.1.2 a hybrid variety, is at least 800 metres wide; and
- 3.1.2 in the case of the intended production of certified seed -
- 3.1.2.1 of an open-pollinated variety, is at least 350 metres wide; and
- 3.1.2.2 of a hybrid variety, is at least 800 metres wide.
- 3.2 Such isolation area shall be free from plants of any pearl millet variety or species of *Pennisetum* which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
- 3.3.1 a common pollen parent is used; and
- 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
- 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
- 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
- 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.

- 4.2.2 the number of deviating plants of the seed parent on a unit shall -
- 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
- 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,3 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 20,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent at the stage at which 30,0 percent or more of the plants of the seed parent has pollen-susceptible flowers.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof;
- 5.1.3 during the full seed stage thereof; and
- 5.1.4 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
- 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.2.1.1 the plants of the seed parent are expected to start flowering; and
- 5.2.1.2 the seed heads of the pollen parent are to be removed; and
- 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 96,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 4,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 51

REQUIREMENTS RELATING TO KIDNEY BEAN & DRY BEAN (*Phaseolus coccineus* L. & *Phaseolus vulgaris* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any dry bean variety or species of *Phaseolus* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof.
- 1.1.1 in the case of the intended production of certified pre-basic seed or basic seed, during the two years; and
- 1.1.2 in the case of the intended production of certified seed, during the year preceding the registration thereof.
- 1.2 A field which is intended for the production of disease-free seed, may also be registered as a unit if disease-free seed has been produced thereon during the preceding growing season.
- 1.3 Any field may be registered as a unit for the production of seed other than disease-free seed.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -

- 3.1.1 subject to the provisions of paragraphs 3.1.2.1 and 3.1.3.1, in the case of the intended production of disease-free seed, is at least 100 metres wide; and
- 3.1.2 in the case of the intended production of certified pre-basic seed or basic seed of -
 - 3.1.2.1 kidney beans, at least 400 metres wide; and
 - 3.1.2.2 other dry beans, at least 10 metres wide; and
- 3.1.3 in the case of the intended production of certified seed of -
 - 3.1.3.1 kidney beans, at least 200 metres wide; and
 - 3.1.3.2 other dry beans, at least five metres wide.
- 3.2 Such isolation area shall -
 - 3.2.1 in the case of the intended production of disease-free seed, be free from -
 - 3.2.1.1 plants of any dry bean variety or species of *Phaseolus*, irrespective of the stage of development thereof, unless they are also intended for the production of such disease-free seed; and
 - 3.2.1.2 plants of any *Glycine* spp., *Pisum* spp. or *Vigna* spp., irrespective of the stage of development thereof; and
 - 3.2.2 otherwise be free from plants of any dry bean variety or species of *Phaseolus* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall –
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 A unit which is intended for the production of disease-free seed shall be visually free from disease-infected plants.
- 4.3 On a unit other than a unit referred to in paragraph 4.2 -
 - 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, no disease-infected plants shall occur; and
 - 4.3.2 in the case of the intended production of certified seed, a maximum of 8,0 percent disease-infected plants may occur.
- 4.4 For the purposes of paragraphs 4.2 and 4.3 "disease-infected plants" shall mean plants which are not visually free from the pathogens Bean Common Mosaic virus (BCMV), *Colletotrichum lindemuthianum* Sacc. et Magn., *Elsinoe phaseoli*, *Pseudomonas phaseolicola*, *P. syringae*, *Xanthomonas phaseoli* or *X. phaseoli* var. *fuscans*.
- 4.5 Plants that are not visually free from the pathogens mentioned in paragraph 4.4, may also be analysed by an acknowledged plant pathologist for confirmation of the pathogen.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering to the pod stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,05 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
 - 6.4 not contain more than 0,2 percent seed of deviating plants; and
 - 6.5 not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample; and
 - 6.6 in the case of disease-free seed, according to a laboratory examination be free from seed that is infected with a pathogen, excluding Bean Common Mosaic Virus (BCMV) and *Elsinoe phaseoli*, specified in paragraph 4.4.

ANNEXURE 52

REQUIREMENTS RELATING TO GARDEN BEAN (DWARF & RUNNER) (*Phaseolus vulgaris* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any garden bean variety or species of *Phaseolus* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof.
 - 1.1.1 in the case of the intended production of certified pre-basic seed or basic seed, during the two years; and
 - 1.1.2 in the case of the intended production of certified seed, during the year preceding the registration thereof.
- 1.2 A field which is intended for the production of disease-free seed, may also be registered as a unit if disease-free seed has been produced thereon during the preceding growing season.
- 1.3 Any field may be registered as a unit for the production of seed other than disease-free seed.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 All plants on a unit which is intended for the production of certified pre-basic seed or basic seed of a runner bean variety shall be trellised.
- 2.3 At least 10,0 percent of the plants on a unit which is intended for the production of certified seed of a runner bean variety shall be trellised by means of a recognised method.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of disease-free seed, is at least 100 metres wide;
 - 3.1.2 in the case of the intended production of certified pre-basic seed or basic seed, is at least 10 metres wide; and
 - 3.1.3 in the case of the intended production of certified seed, is at least 5 metres wide.
- 3.2 Such isolation area shall -
 - 3.2.1 in the case of the intended production of disease-free seed, be free from -
 - 3.2.1.1 plants of any garden bean variety or species of *Phaseolus*, irrespective of the stage of development thereof, unless they are also intended for the production of such disease-free seed; and
 - 3.2.1.2 plant of any *Glycine* spp., *Pisum* spp. or *Vigna* spp., irrespective of the stage of development thereof; and
 - 3.2.2 otherwise be free from plants of any garden bean variety or species of *Phaseolus*.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraphs 4.2 and 4.3, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of plants with stringed pods on a unit on which plants of a stringless variety have been established shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 1,0 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 2,0 percent.
- 4.3 The number of plants with flat to oval stringless pods on a unit on which plants of a round stringless variety have been established shall -
 - 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 2,0 percent; and
 - 4.3.2 in the case of the intended production of certified seed, not exceed 5,0 percent.
- 4.4 A unit which is intended for the production of disease-free seed shall be free from disease-infected plants.
 - 4.5 On a unit other than a unit referred to in paragraph 4.4 -
 - 4.5.1 in the case of the intended production of certified pre-basic seed or basic seed, no disease-infected plants shall occur; and
 - 4.5.2 in the case of the intended production of certified seed, a maximum of 5,0 percent disease-infected plants shall occur.
- 4.6 For the purposes of paragraphs 4.4 and 4.5 "disease-infected plants" shall mean plants which are not visually free from the pathogens Bean Common Mosaic virus (BCMV), *Colletotrichum lindemuthianum* Sacc. et Magn., *Elsinoe phaseoli*, *Pseudomonas phaseolicola*, *P. syringae*, *Xanthomonas phaseoli* or *X. phaseoli* var. *fuscans*.

- 4.7 Plants that are not visually free from the pathogens mentioned in paragraph 4.6, may also be analysed by an acknowledged plant pathologist for confirmation of the pathogen.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering to the pod stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,05 percent other seed;
 - 6.3.2 2,0 percent other material;
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
 - 6.4 not contain more than 0,2 percent seed of deviating plants; and
 - 6.5 not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample; and
 - 6.6 in the case of disease-free seed, according to a laboratory examination be free from seed that is infected with a pathogen, excluding Bean Common Mosaic Virus (BCMV) and *Elsinoe phaseoli*, specified in paragraph 4.4.

ANNEXURE 53

REQUIREMENTS RELATING TO PEAS (DRY PEA & GARDEN PEA) (*Pisum sativum* L. *sensu lato*)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any pea variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular pea variety may also be registered as a unit if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.
- 1.3 Subject to the provisions of paragraph 1.4, a field may be registered as a unit for the production of disease-free seed only if no plants of a pea variety or species of *Pisum* -
 - 1.3.1 In the case of an intended production of pre-basic and basic seed during the two years; and
 - 1.3.2 in the case of the intended production of certified seed, during the growing season that preceded the registration, have been established thereon for seed production or otherwise.

2 Planting requirements

Plants may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least 5 metres wide.
- 3.2 Such isolation area shall be free from plants of any pea variety.

4 Requirements for plants

- Subject to the provisions of paragraphs 4.2 and 4.3, the number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
 - 4.2 A unit on which plants of a pea variety with white flowers have been established, shall not contain any plants with red flowers.
 - 4.3 The number of plants on a unit which shows "rabbit ear" characteristics, shall not exceed 1,0 percent.

- 4.4 A unit shall be visually free from plants of which the pods are infected with the pathogen *Pseudomonas pisi* Sackett.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering to pod stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,05 percent other seed; and
- 6.3.2 2,0 percent other material;
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 not contain more than 0,2 percent seed of deviating plants; and
- 6.5 be visually free from sclerotia of *Sclerotinia sclerotiorum*; or be treated with a chemical remedy registered for this purpose.

ANNEXURE 54

REQUIREMENTS RELATING TO FODDER & GARDEN RADISH (*Raphanus sativus* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of the Brassicaceae family have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular radish variety, may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, is at least 800 metres wide; and
- 3.1.2 in the case of the intended production of certified seed, is at least 400 metres wide.
- 3.2 Subject to the provisions of paragraph 3.3, such isolation area shall be free from plants of a species of *Raphanus* or any radish variety which flower at the same time as the plants on the unit concerned, unless -
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants not complying with the requirements set out in paragraph 3.2.1 and 3.2.2, may occur within the isolation area around a unit if -
- 3.3.1 those plants occur on a single field which contain no more than 150 of the plants concerned.
- 3.3.2 in the case of the intended production of certified pre-basic seed or basic seed, not more than 40 of the plants concerned occur within a distance of 100 metres around the unit concerned; and

- 3.3.3 in the case of the intended production of certified seed, not more than 40 of the plants concerned occur within a distance of 50 metres around the unit concerned.

4 Requirements for plants

The number of deviating plants on a unit shall –

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
 5.2 during the flowering stage thereof; and
 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 75;
 6.2 have at least 98,0 percent pure seed; and
 6.3 not contain more than -
 6.3.1 0,1 percent other seed; and
 6.3.2 2,0 percent other material;
 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
 6.4 Not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 55

REQUIREMENTS RELATING TO RYE (*Secale cereale* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any specie of *Secale* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
 1.2 A field which is intended for the production of basic seed or certified seed of a particular rye variety may also be registered as a unit, if -
 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
 2.2 The breeder shall, with regard to quality and production, determine the planting date, the production areas where the seed shall be planted and the date on which grazing shall cease.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed is at least 500 metres wide; and
 3.1.2 in the case of the intended production of certified seed is at least 300 metres wide.
 3.2 Such isolation area shall be free from plants of any rye variety which flower at the same time as the plants on the unit concerned.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

4.2 Methods for the determination of deviating plants shall be as determined by the Authority.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 during the stooling stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed, but not more than 0,2 percent weed seed; and
 - 6.3.2 2,0 percent other material.
- 6.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of wild oats may occur in 400 g of seed, and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 56

REQUIREMENTS RELATING TO TOMATO (*Solanum lycopersicum* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any tomato variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular tomato variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of certified seed, in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed, shall be at least 10 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed, shall be at least 5 metres wide.
- 3.2 such isolation area shall be free from plants of any tomato variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; or
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall –
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of plants on a unit which are infected with the pathogen *Corynebacterium michiganense* Smith, Jensen shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 2,0 percent; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed 5,0 percent.

- 4.3 The number of plants on a unit which are infected with tobacco mosaic virus shall -
 - 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
 - 4.3.2 in the case of the intended production of certified seed, not exceed 10,0 percent.
- 4.4 The number of plants on a unit which are infected with the pathogen *Xanthomonas vesicatoria* (Doidge) Dow, shall -
 - 4.4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
 - 4.4.2 in the case of the intended production of certified seed, not exceed 10,0 percent

5 Inspection requirements

- 5.1 Seedlings shall be inspected before planting.
- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
 - 5.2.1 during the green fruit stage thereof;
 - 5.2.2 during the full ripe stage of the fruit thereof; and
 - 5.2.3 at the end of the growing season before all the ripe fruit has been harvested.
- 5.3 No fruit may be harvested before the inspection referred to in paragraph 5.2 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 57

REQUIREMENTS RELATING TO EGGPLANT (*Solanum melongena* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Solanum* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular eggplant variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least 20 metres wide.
- 3.2 Such isolation area shall be free from plants of any eggplant variety or species of *Solanum*.

4 Requirements for plants

- The number of deviating plants on a unit shall -
 - 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- 5.1 Seedlings shall be inspected before planting.

- 5.2 Plants which are established on a unit from such seedlings shall be inspected -
 - 5.2.1 before flowering stage thereof;
 - 5.2.2 during the early ripening stage of the fruit thereof; and
 - 5.2.3 at the end of the growing season before all the ripe fruit thereof has been harvested.
- 5.3 No fruit may be harvested before the inspection referred to in paragraph 5.2.3 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 58

REQUIREMENTS RELATING TO COLUMBUS GRASS & SUDAN GRASS

[*Sorghum alnum* Parodi & *Sorghum bicolor* (L.) Moench subsp. *drummondii* (Steud.) de Wet ex Davidse (synonym *Sorghum sudanense* (Piper) Stapf)]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Sorghum* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular Columbus or Sudan grass variety, may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 400 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 200 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any Columbus or Sudan grass variety or species of *Sorghum* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

- 4.2 Plants established on a unit registered for the production of basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.3 After the use of plants on a unit for the production of basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.4 Plants established on a unit for the production of certified seed -
 - 4.4.1 may be used for this purpose for a period of not more than four years; and
 - 4.4.2 may, with the written approval from the authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination or a viability percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 59

REQUIREMENTS RELATING TO GRAIN SORGHUM [*Sorghum bicolor* (L.) Moench subsp. *bicolor* & *Sorghum vulgare* Pers.]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Sorghum* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof.
- 1.2 Only in the case of an open-pollinated variety, may a field which is intended for the production of basic seed or certified seed of a particular grain sorghum variety be registered as a unit, if –
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which –
 - 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 - 3.1.1.1 an open-pollinated variety, at least 500 metres wide; and
 - 3.1.1.2 a hybrid variety, at least 800 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 of an open-pollinated variety, is at least 400 metres wide; and
 - 3.1.2.2 of a hybrid variety, is at least 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any sorghum variety or species of *Sorghum* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and

- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parent concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,3 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
 - 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 20,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,5 percent of the plants of the seed parent; and
 - 4.2.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent at the stage at which 30,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of pollen-shedding flowers found during inspections shall not for the three inspections showing the highest incidence of such plants, exceed 1,0 percent of the plants of the seed parent.
- 4.3 If the percentages referred to in paragraphs 4.2.3.1 and 4.2.3.2, are exceeded in respect of a unit, seed of a hybrid variety shall not be considered for certification if it has been harvested from plants which were established within a distance calculated at the rate of 10 meters for each 1,0 percent or portion thereof, but with a maximum of 500 metres, by which the applicable percentage referred to in paragraphs 4.2.3.1 or 4.2.3.2 is exceeded from the unit concerned.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
 - 5.1.1 before the flowering stage thereof;
 - 5.1.2 during the flowering stage thereof;
 - 5.1.3 during the full seed stage thereof; and
 - 5.1.4 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
 - 5.2.1 the seed grower concerned shall notify the authorised person authority at least 10 days prior to the date on which -
 - 5.2.1.1 the plants of the seed parent are expected to start flowering; and
 - 5.2.1.2 the seed heads of the pollen parent are to be removed; and
 - 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 80;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,1 percent other seed; and
 - 6.3.2 2,0 percent other material.

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 60

REQUIREMENTS RELATING TO ANNUAL FORAGE SORGHUM HYBRIDS

[Sorghum bicolor (L.) Moench subsp. bicolor x Sorghum bicolor (L.) Moench subsp. bicolor; Sorghum bicolor (L.) Moench subsp. bicolor x & Sorghum bicolor (L.) Moench subsp. drummondii (Steud.) de Wet ex Davidse]

1 Field requirements

Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of Sorghum have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
 2.2 Gap-filling in rows shall not be permissible.
 2.3 In the case of the intended production of seed of a hybrid variety -
 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 2.3.2 rows containing plants of the pollen parent shall be clearly marked.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 3.1.1.1 an open-pollinated variety, at least 500 metres wide; and
 3.1.1.2 a hybrid variety, at least 800 metres wide; and
 3.1.2 in the case of the intended production of certified seed -
 3.1.2.1 of an open-pollinated variety, is at least 400 metres wide; and
 3.1.2.2 of a hybrid variety, is at least 500 metres wide.
 3.2 Such isolation area shall be free from plants of any sorghum variety or species of Sorghum which flower at the same time as the plants on the unit concerned, unless -
 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 3.3.1 a common pollen parent is used; and
 3.3.2 a distance of a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
 4.2 If male sterility is used in the seed parent of a hybrid variety -
 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,3 percent of the plants of the seed parent; and

- 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall -
- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 20,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,5 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 1,0 percent of the plants of the seed parent at the stage at which 30,0 percent or more of the plants of the seed parent has pollen-susceptible flowers.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof;
- 5.1.3 during the full seed stage thereof; and
- 5.1.4 in the case of a hybrid variety, after the seed heads of the plants of the pollen parent have been removed.
- 5.2 If plants of a hybrid variety have been established on a unit -
- 5.2.1 the seed grower concerned shall notify the authorised person at least 10 days prior to the date on which -
- 5.2.1.1 the plants of the seed parent are expected to start flowering; and
- 5.2.1.2 the seed heads of the pollen parent are to be removed; and
- 5.2.2 the seed of the plants of the seed parent may not be harvested before the inspection referred to in paragraph 5.1.4 has been carried out.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 70; or a viability percentage of at least 80.
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 61

REQUIREMENTS RELATING TO PERENNIAL INTERSPECIFIC FORAGE SORGHUM (*Sorghum* spp.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Sorghum* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof, or if the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular perennial forage sorghum variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed is at least 500 metres wide; and
- 3.1.2 in the case of the intended production of certified seed is at least 400 metres wide.

- 3.2 Such isolation area shall be free from plants of any *Sorghum* variety which flower at the same time as the plants on the unit concerned.
- 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants established on a unit may -
- 4.1.1 if such unit is registered for the production of certified pre-basic seed or basic seed, be used for such purpose for not more than two seed crops after the year of establishment thereof, and may thereafter for not more than a further two seed crops be used for the production of certified seed, if the unit concerned is registered for this purpose; or
- 4.1.2 if such unit is registered for the production of certified seed, be used for such purpose for not more than three seed crops after the year of establishment thereof.
- 4.2 Plants which are established on a unit, may annually be grazed after the seed crop has been removed. If grazing is allowed, the plants on the unit shall be mowed after grazing has ceased to ensure even re-growth.
- 4.3 The number of deviating plants on a unit shall -
- 4.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70; or a viability percentage of at least 80.
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,1 percent other seed;
- 6.3.2 2,0 percent other material; and
- 6.3.3 0,2 percent seed of deviating plants.
- 6.3.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 62

REQUIREMENTS RELATING TO DROP SEED GRASS [*Sporobolus fimbriatus* (Trin.) Nees]

1 Field requirements

- 1.1 Subject to the provisions in paragraph 1.2, a field may be registered as a unit only if -
- 1.1.1 no plants of any species of *Sporobolus* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, or as the case may be.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular drop seed grass variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short from the full seed stage thereof until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least five metres wide.
- 3.2 Such isolation area shall be free from plants of any drop seed grass variety.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.
- 4.2 Plants established on a unit registered for the production of certified pre-basic seed or basic seed, may, after the establishment thereof, be used for such purpose for a period of not more than two years.
- 4.3 After the use of plants on a unit for the production of certified pre-basic seed or basic seed, these plants can be used for the production of certified seed provided the unit has been registered for the production of certified seed.
- 4.4 Plants established on a unit for the production of certified seed -
 - 4.4.1 may be used for this purpose for a period of not more than four years; and
 - 4.4.2 may, with the written approval from the Authority, be used for that purpose for a further period of two years.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof; and
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 97,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,5 percent other seed of which no more than 0,3 percent may be weed seed; and
 - 6.3.2 0,2 percent nematode galls.
 - 6.4 Notwithstanding the provisions of paragraph 6.3.1, -
 - 6.4.1 the percentage seed of *Eragrostis tef* (Zucc.) Trotter and *Eragrostis curvula* (Schrad.) Nees in seed shall -
 - 6.4.1.1 in the case of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
 - 6.4.1.2 in the case of certified seed, not exceed 0,2 percent; and
 - 6.4.2 *E. plana* Nees in seed of all generation, not exceed 0,1 percent; and
 - 6.4.3 not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 63**REQUIREMENTS RELATING TO WHITE CLOVER
(*Trifolium repens* L.)****1 Field requirements**

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if -
 - 1.1.1 no plants of any species of *Trifolium* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
 - 1.1.2 the plants which are already established thereon have also during the preceding growing season been used for the production of certified pre-basic seed or basic seed or certified seed, as the case may be.
- 1.2 A field which is intended for the production of seed of a particular white clover variety may -
 - 1.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not be registered as a unit for more than two consecutive growing seasons if breeder seed or certified pre-basic seed of the same variety is annually established thereon; and

- 1.2.2 in the case of the intended production of certified seed, not be registered as a unit for more than three consecutive growing seasons if certified pre-basic seed or basic seed of the same variety is annually established thereon; Provided that such field may also be registered as a unit if certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any white clover variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may annually be grazed from after the removal of the seed crop until 15 October of the following growing season.
- 4.2 The number of deviating plants on a unit shall –
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
 - 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
 - 6.1 have a germination or a viability percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,2 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 64

REQUIREMENTS RELATING TO ARROW LEAF CLOVER (*Trifolium vesiculosum* Savi)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Trifolium* have been established thereon for seed production or otherwise during the growing season preceding the registration thereof; or
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular tall arrow leaf clover variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed -
 - 3.1.1.1 is at least 200 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.1.2 is at least 100 metres wide where the area of the unit concerned is more than two hectares; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 is at least 100 metres wide where the area of the unit concerned is two hectares or less; and
 - 3.1.2.2 is at least 50 metres wide where the area of the unit concerned is more than two hectares.
- 3.2 Such isolation area shall be free from plants of any arrow leaf clover variety which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety.
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

- 4.1 Plants which are established on a unit may annually be grazed after the removal of the seed crop therefrom until October 15 of the following growing season.
- 4.2 The number of deviating plants on a unit shall -
 - 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed one plant per 30 square metres; and
 - 4.2.2 in the case of the intended production of certified seed, not exceed one plant per 10 square metres.

5 Inspection requirements

- Plants which are established on a unit shall be inspected -
- 5.1 before the flowering stage thereof;
 - 5.2 during the flowering stage thereof; and
 - 5.3 during the full seed stage thereof.

6 Physical requirements

- Seed shall -
- 6.1 have a germination percentage of at least 70;
 - 6.2 have at least 98,0 percent pure seed; and
 - 6.3 not contain more than -
 - 6.3.1 0,2 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 65

REQUIREMENTS RELATING TO TRITICALE (*xTriticosecale* Wittm. ex A. Camus)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Triticosecale* or *Secale cereale* have been established thereon for seed production or otherwise during the two growing seasons preceding the registration thereof; or
- 1.2 Only in the case of an open-pollinated variety, may a field which is intended for the production of basic seed or certified seed of a particular triticale variety also be registered as a unit, if-
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Seed shall be sown or be established in rows on a unit.
- 2.2 All vegetation within a distance of three metres around a unit shall be kept short until seed has been harvested from the plants on the unit concerned.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, a unit shall be surrounded by an isolation area which -
 - 3.1.1 in the case of the intended production of certified pre-basic and basic seed of -
 - 3.1.1.1 an open-pollinated variety, is at least 500 metres wide; and
 - 3.1.1.2 a hybrid variety, is at least 750 metres wide; and
 - 3.1.2 in the case of the intended production of certified seed -
 - 3.1.2.1 an open-pollinated variety, is at least 5 metres wide; and
 - 3.1.2.2 of a hybrid variety, is at least 500 metres wide.
- 3.2 Such isolation area shall be free from plants of any triticale variety or species of *Triticosecale* or *Secale* which flower at the same time as the plants on the unit concerned, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraph 4.2, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If male sterility is used in the seed parent of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent on a unit shall -
 - 4.2.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers; and
 - 4.2.1.2 in the case of the intended production of certified seed, not exceed 0,1 percent of the plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent have pollen-susceptible flowers.
 - 4.2.2 the number of deviating plants of the seed parent on a unit shall -
 - 4.2.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent of the plants of the seed parent; and
 - 4.2.2.2 in the case of the intended production of certified seed, not exceed 0,3 percent of the plants of the seed parent; and
 - 4.2.3 the number of pollen-shedding plants of the seed parent on a unit shall –

- 4.2.3.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent of the plants of the seed parent at the stage at which 5,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate number of plants with pollen-shedding flowers found during consecutive inspections shall not exceed 0,3 percent of the plants of the seed parent; and
- 4.2.3.2 in the case of the intended production of certified seed, not exceed 0,5 percent of the plants of the seed parent at the stage at which 10,0 percent or more of the plants of the seed parent has pollen-susceptible flowers: Provided that the aggregate of the number of plants with pollen-shedding flowers found during inspections shall not for the three inspections showing the highest incidence of such plants, exceed 1,0 percent of the plants of the seed parent.
- 4.3 If the percentages referred to in paragraphs 4.2.3.1 and 4.2.3.2, are exceeded in respect of a unit, seed of a hybrid variety shall not be considered for certification if it has been harvested from plants which were established within a distance calculated at the rate of 20 meters for each 1,0 percent or portion thereof, but with a maximum of 500 meters, by which the applicable percentage referred to in paragraphs 4.2.3.1 or 4.2.3.2 is exceeded from the unit concerned.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,5 percent other seed, but not more than 0,2 percent weed seed; and
- 6.3.2 2,0 percent other material.
- 6.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of wild oats may occur in 400 g of seed and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 66

REQUIREMENTS RELATING TO WHEAT & DURUM WHEAT

(Triticum aestivum L. subsp. *aestivum*) & *Triticum turgidum* L. subsp. *durum* (Desf.) van Slangeren

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any *Triticum* species have been established thereon for seed production or otherwise during the year preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a wheat variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Seed may be sown or be established in rows on a unit.

3 Isolation requirements

- 3.1 The isolation area surrounding a unit shall be at least 5 meters wide.
- 3.2 Such isolation area shall be free from plants of any wheat specie or species of *Triticum*.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,3 percent.

4.2 Methods for determination of deviating plants shall be as determined by the authority.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 85.
- 6.2 have at least 99,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,3 percent other seed, but not more than 0,05 percent weed seed; and
 - 6.3.2 1,0 percent other material; and
- 6.4 Notwithstanding the provisions of paragraph 6.4.1, not more than one seed of wild oats may occur in a 400 g seed sample and not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 67

REQUIREMENTS RELATING TO BROAD BEAN (*Vicia faba* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any broad bean variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular broad bean variety may also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season;
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least 15 metres wide.
- 3.2 Such isolation area shall be free from plants of any broad bean variety.

4 Requirements for plants

The number of deviating plants on a unit shall -

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.2 in the case of the intended production of certified seed, not exceed 0,5 percent.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering to pod stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 99,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,05 percent other seed; and
 - 6.3.2 1,0 percent other material.

- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 68

REQUIREMENTS RELATING TO COWPEA, DOLICHOS & LAB-LAB BEAN [*Vigna unguiculata* (L.) Walpers]; *Dolichos biflorus* L. & *Lablab purpureus* (L.) Sweet]

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any cowpea, dolichos or lab-lab bean variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 A field which is intended for the production of basic seed or certified seed of a particular cowpea, dolichos or lab-lab bean variety may also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

Plants shall be established in rows on a unit.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which is at least 20 metres wide.
- 3.2 Such isolation area shall be free from plants of any cowpea, dolichos or lab-lab bean variety as the case may be.

4 Requirements for plants

- 4.1 The number of deviating plants on a unit shall -
- 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,2 percent; and
- 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 The number of disease-infected plants on a unit shall -
- 4.2.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 5,0 percent; and
- 4.2.2 in the case of the intended production of certified seed, not exceed 8,0 percent.
- 4.3 For the purposes of paragraph 4.2 "disease-infected plants" shall mean plants which are not visually free from the pathogens *Pseudomonas syringae* or *Xanthomonas vignicola* Barkholder.

5 Inspection requirements

Plants which are established on a unit shall be inspected -

- 5.1 before the flowering stage thereof;
- 5.2 during the flowering to pod stage thereof; and
- 5.3 during the full seed stage thereof.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 70;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
- 6.3.1 0,05 percent other seed; and
- 6.3.2 2,0 percent other material.
- 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested; and
- 6.4 not contain more than 0,2 percent sclerotia of *Sclerotinia sclerotiorum* in a 1000 gram sample.

ANNEXURE 69

REQUIREMENTS RELATING TO MAIZE (*Zea mays* L.)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any *Zea* variety have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 Only in the case of an open-pollinated variety, may a field which is intended for the production of basic seed or certified seed of a particular maize variety also be registered as a unit, if -
 - 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
 - 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season.
 - 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.
- 2.3 In the case of the intended production of seed of a hybrid variety -
 - 2.3.1 the plants of the seed parent and those of the pollen parent shall be established in separate rows; and
 - 2.3.2 rows containing plants of the pollen parent shall be clearly marked., unless the authorised person determines otherwise in writing in a particular case after consideration of a written request by the seed grower concerned.

3 Isolation requirements

- 3.1 Subject to the provisions of paragraph 3.3, 3.4 and 3.5, a unit shall be surrounded by an isolation area which shall be at least 350 metres wide; and
 - 3.1.1 in the case of the intended production of certified seed of an open pollinated variety, a unit shall be surrounded by an isolation area which shall be at least 200 metres wide.
- 3.2 Such isolation area shall be free from plants of any maize variety or species of *Zea* which shed pollen at the stage at which the plants on the unit concerned show pollen-susceptible silk, unless -
 - 3.2.1 in the case of the intended production of basic seed, they have been established from certified pre-basic seed of the same variety; and
 - 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
 - 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.
- 3.3 Plants of different seed parents of a hybrid variety may be established on adjoining units if -
 - 3.3.1 a common pollen parent is used; and
 - 3.3.2 a distance of at least five metres wide, which is free from plants of the seed parents concerned, is maintained between the units concerned.
- 3.4 An area at least 400 metres wide around a unit which is intended for the production of certified pre-basic seed or basic seed shall be free from plants of any maize variety or species of *Zea* which shed pollen at the stage at which the plants on the unit concerned show pollen-susceptible silk.
- 3.5 Plants of a yellow kernel variety may be established on a field adjoining a unit which is intended for the production of certified seed of a white kernel variety if -
 - 3.5.1 such adjoining field is not intended for the production of certified pre-basic seed or basic seed or certified seed;
 - 3.5.2 no plants with seed cobs containing white kernels occur on such adjoining field; and
 - 3.5.3 a distance of at least five metres wide, which is free from any plants of a variety of a species of *Zea*, is maintained between the unit and field concerned.

4 Requirements for plants

- 4.1 Subject to the provisions of paragraphs 4.2, 4.3 and 4.4, the number of deviating plants on a unit shall -
 - 4.1.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,1 percent; and
 - 4.1.2 in the case of the intended production of certified seed, not exceed 0,5 percent.
- 4.2 If plants are established on a unit with a view to the production of certified pre-basic seed or basic seed of a hybrid variety -
 - 4.2.1 the number of deviating pollen-shedding plants of the pollen parent at any stage after the plants of the seed parent show pollen-susceptible silk shall not exceed 0,1 percent of the plants of the pollen parent;

- 4.2.2 the number of deviating plants of the seed parent at the stage at which the plants of the seed parent no longer show pollen-susceptible silk shall not exceed 0,1 percent of the plants of the seed parent; and
- 4.2.3 the number of pollen-shedding plants of the seed parent at the stage at which 2 percent or more of those plants show pollen-susceptible silk -
- 4.2.3.1 during a particular inspection of that unit, not exceed 0,5 percent of the plants of the seed parent: Provided that the aggregate of the number of pollen-shedding plants of the seed parent found during consecutive inspections shall not exceed 1,0 percent of the plants of the seed parent; and
- 4.2.3.2 shall during a particular inspection of a single row or a portion thereof, or of two adjacent rows or portions thereof, not exceed 5,0 percent of the plants of the seed parent in that row or rows or portion or portions;
- 4.2.4 the number of ripe deviating seed cobs on or harvested from the plants of the seed parent shall not exceed 0,1 percent of the seed cobs on or harvested from the plants of the seed parent.
- 4.3 If plants are established on a unit with a view to the production of certified seed of a hybrid variety -
- 4.3.1 the number of deviating pollen-shedding plants of the pollen parent at the stage at which 5,0 percent or more of the plants of the seed parent show pollen-susceptible silk shall not exceed 0,2 percent of the plants of the pollen parent;
- 4.3.2 the number of deviating plants of the seed parent at the stage at which the plants of the seed parent no longer show pollen-susceptible silk shall not exceed 0,2 percent of the plants of the seed parent;
- 4.3.3 the number of pollen-shedding plants of the seed parent at the stage at which 5,0 percent or more of those plants show pollen-susceptible silk -
- 4.3.3.1 shall during a particular inspection of that unit, not exceed 1,0 percent of the plants of the seed parent : Provided that the aggregate of the number of pollen-shedding plants of the seed parent found during inspections shall not for the three inspections showing the highest incidence of such plants exceed 1,0 percent of the plants of the seed parent; and
- 4.3.3.2 shall during a particular inspection of a single row or a portion thereof, or of two adjacent rows or portions thereof, not exceed 5,0 percent of the plants of the seed parent in that row or rows or portion or portions; and
- 4.3.4 the number of ripe deviating seed cobs on or harvested from the plants of the seed parent shall not exceed 0,2 percent of the seed cobs on or harvested from the plants of the seed parent.
- 4.4 If the percentages referred to in paragraphs 4.2.3 and 4.3.3 are exceeded in respect of a unit, seed of a hybrid variety shall not be considered for certification if it has been harvested from plants which were established -
- 4.4.1 within a distance calculated at the rate of 10 metres for each 1,0 percent or portion thereof, but with a maximum of 350 metres, by which the applicable percentage referred to in paragraphs 4.2.3.1 and 4.3.3.1 is exceeded from the unit concerned; and
- 4.4.2 within a distance calculated at the rate of five metres plus one metre for each 1,0 percent or portion thereof, but with a maximum of 50 metres, by which the applicable percentage referred to in paragraphs 4.2.3.2 or 4.3.3.2 is exceeded from the row or rows or portion or portions thereof concerned.

5 Inspection requirements

- 5.1 Plants which are established on a unit shall be inspected -
- 5.1.1 before the flowering stage thereof;
- 5.1.2 during the flowering stage thereof; and
- 5.1.3 during the full seed stage thereof.
- 5.2 A seed grower shall notify the authorized person at least five days prior to the date on which the plants on a unit are expected to start flowering.
- 5.3 If plants have been established on a unit with a view to the production of certified pre-basic seed or basic seed of a hybrid variety -
- 5.3.1 the seed grower concerned shall pick and dehusk the seed cobs of the plants of the seed parent and thereafter remove it from the unit concerned with a view to thresh it;
- 5.3.2 those seed cobs shall be inspected after having been picked and dehusked; be inspected before being threshed; and
- 5.3.3 the seed grower concerned shall notify the authorised person at least five days prior to the date on which such seed cobs are expected to be threshed.
- 5.4 If plants have been established on a unit with a view to the production of certified seed of a hybrid variety-
- 5.4.1 the seed grower concerned shall either harvest or otherwise remove the seed cobs of -
- 5.4.1.1 the plants of the seed parent and remove it from the unit concerned before threshing those seed cobs; or
- 5.4.1.2 of the plants of the pollen parent before the seed of the plants of the seed parent is harvested by means of a combine harvester;
- 5.4.2 the seed cobs referred to in paragraph 5.4.1.1 or the plants of the seed parent referred to in paragraph 5.4.1.2, or as the case may be, shall respectively be inspected before being threshed or being harvested by means of a combine harvester; and

- 5.4.3 the seed grower concerned shall notify the authorised person at least five days prior to the date on which the seed of the plants concerned of the seed parent is expected to be harvested.

6 Physical requirements

- 6.1 Certified pre-basic seed or basic seed shall -
- 6.1.1 have a germination percentage of at least 70;
- 6.1.2 have at least 99,0 percent pure seed; and
- 6.1.3 not contain more than -
- 6.1.3.1 0,2 percent other seed;
- 6.1.3.2 1,0 percent other material;
- 6.1.3.3 0,1 percent seed of which the colour of the endosperm deviates from the colour of the endosperm of the variety concerned.
- 6.2 Certified seed shall -
- 6.2.1 have a germination percentage of at least 90;
- 6.2.2 have at least 99,0 percent pure seed; and
- 6.2.3 not contain more than -
- 6.2.3.1 0,05 percent other seed;
- 6.2.3.2 1,0 percent other material; and
- 6.2.3.3 0,2 percent seed of which the colour of the endosperm differs from the colour of the endosperm of the variety concerned.
- 6.2.4 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.

ANNEXURE 70

REQUIREMENTS RELATING TO SWEET CORN (*Zea mays* L. var. *saccharata* Baily)

1 Field requirements

- 1.1 Subject to the provisions of paragraph 1.2, a field may be registered as a unit only if no plants of any species of *Zea* of have been established thereon for seed production or otherwise during the growing season preceding the registration thereof.
- 1.2 Only in the case of an open-pollinated variety, may a field which is intended for the production of basic seed or certified seed of a particular maize variety also be registered as a unit, if -
- 1.2.1 in the case of basic seed, certified pre-basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.2 in the case of certified seed, certified pre-basic seed or basic seed of the same variety has been produced thereon during the preceding growing season; and
- 1.2.3 in the case of 2nd generation certified seed, 1st generation certified seed of the same variety has been produced thereon during the preceding growing season.

2 Planting requirements

- 2.1 Plants shall be established in rows on a unit.
- 2.2 Gap-filling in rows shall not be permissible.

3 Isolation requirements

- 3.1 A unit shall be surrounded by an isolation area which -
- 3.1.1 in the case of the intended production of certified pre-basic seed or basic seed is at least 800 metres wide; and
- 3.1.2 in the case of the intended production of certified seed is at least 400 metres wide.
- 3.2 Such isolation area shall be free from plants of any sweet corn variety or species of *Zea* which shed pollen at the stage on which the plants on the unit concerned show pollen-susceptible silk, unless -
- 3.2.1 in the case of the intended production certified of basic seed, they have been established from certified pre-basic seed of the same variety; and
- 3.2.2 in the case of the intended production of certified seed, they have been established from certified pre-basic seed or basic seed of the same variety; and
- 3.2.3 in the case of the intended production of an open-pollinated variety of 2nd generation certified seed, they have been established from 1st generation certified seed of the same variety.

4 Requirements for plants

The number of deviating plants on a unit shall -

- 4.1 in the case of the intended production of certified pre-basic seed or basic seed, not exceed 0,5 percent; and
- 4.2 in the case of the intended production of certified seed, not exceed 1,0 percent.

5 Inspection requirements

5.1 Plants which have been established on a unit shall be inspected -

- 5.1.1 before the flowering stage thereof;
- 5.1.2 at the stage on which 5,0 percent or more thereof show pollen-susceptible silk; and
- 5.1.3 during the full seed stage thereof.
- 5.2 The ripe seed cobs of the plants, which have been established on a unit, shall be inspected prior to the harvesting thereof.
- 5.3 An inspection referred to in paragraph 5.2, shall only be done after the seed cobs concerned have been defoliated.
- 5.4 A seed grower shall notify the authorised person at least 10 days prior to the date on which seed cobs will be ready for inspection referred to in paragraph 5.2.

6 Physical requirements

Seed shall -

- 6.1 have a germination percentage of at least 80;
- 6.2 have at least 98,0 percent pure seed; and
- 6.3 not contain more than -
 - 6.3.1 0,05 percent other seed; and
 - 6.3.2 2,0 percent other material.
 - 6.3.3 Notwithstanding the provisions of paragraph 6.3.1, not more than one seed of any of the restricted weed seed species may occur in an ISTA working sample for the determination of other seed by number of the specie being tested.