



agriculture, forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: PLANT PRODUCTION

DIVISION: SEED EVALUATION

Private Bag X250
PRETORIA
0001

DEPARTMENT OF AGRICULTURE
FORESTRY AND FISHERIES
DIRECTORATE: PLANT PRODUCTION

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PRIVATE BAG X250 PRETORIA, 0001

OFFICIAL SEED TESTING LABORATORY

PROCEDURE FOR THE APPLICATION OF INTERNATIONAL SEED TESTING ASSOCIATION CERTIFICATES

The Official Seed Testing Laboratory (OSTL) is housed in the Division Seed Evaluation of the Directorate Plant Production. As an accredited member laboratory (**accreditation number – ZA01**) of the International Seed Testing Association (ISTA), the OSTL is authorised to issue ISTA Certificates. However, these certificates can only be issued in accordance with the ISTA Rules for Seed Testing currently in force.

ISTA allows for the issuance of two types of certificates, namely the Orange International Seed Lot Certificate and the Blue International Seed Sample Certificate. The two types are as follows:

1) Orange International Seed Lot Certificate (OIC) -

This certificate is issued when **both the sampling from the lot and testing of the sample are carried out under the responsibility of an accredited laboratory or when sampling from the lot and testing of the sample are carried out under authority of different accredited laboratories.** The procedure links the certificate issued with the seed lot sampled. The certificate is coloured orange.

An OIC may also be issued, without further sampling or testing, for a portion (sub-lot) of a seed lot which has been sampled and tested, and for which an OIC has already been issued. The certificate for the sub-lot must carry the same test results as reported for the original seed lot.

In the case of an OIC the results reported refer strictly to the seed lot as a whole at the time of sampling.

2) Blue International Seed Sample Certificate (BIC) -

The certificate is issued when **sampling from the lot is not under the responsibility of an accredited laboratory. The accredited laboratory is only responsible for testing the sample as submitted.** It is not responsible for the relationship between the sample and any seed lot from which it may have been derived. The certificate is coloured blue.

In the case of a BIC the results reported refer strictly to the sample at the time of receipt.

Duplicate and Provisional Certificates may also be issued at request of the applicant. A duplicate is an exact printed copy (not a photocopy) of a completed ISTA Certificate and is marked **DUPLICATE**. A provisional certificate is issued before the completion of a test or tests and must include a statement that a final certificate will be issued upon completion. It is marked **PROVISIONAL**.

The following are conditions that are applicable for the issuance of ISTA certificates:

- The issuing laboratory must be currently authorised to do so.
- The seed tested must be of species listed in the current ISTA Rules (Table 2A). However, in addition to this the issuing laboratory must also be competent in the testing of the crop type requested, as well as for the test type requested. This is a requirement of the ISTA Seed Testing Laboratory Accreditation Standard which states under point 3.10 of the Management Requirements - "the laboratory must provide a list of species or groups of species and analyses for which the laboratory claims competence, i.e. scope of accreditation."
- **Test types that the OSTL are accredited for are as follows: sampling, purity, other seed determination, germination, viability (TZ) moisture content and weight determination.**
- **Consequently, no certificates may be issued for species not listed in the ISTA Rules. An exception is in the case of mixtures, where for the species tested it is shown as 'Seed mixture'. Currently only a BIC may be issued on seed mixtures as the sampling technique must still be refined and validated.**
- A certificate may be issued only if sampling and testing (OIC) and testing (BIC) are in accordance with the ISTA Rules in the current edition. On request additional tests not covered by the ISTA Rules may be conducted and reported but only if at least one test type that is covered by the ISTA Rules are also being reported. The test will be reported as 'This method is not covered by the International Rules for Seed Testing'.
- In order that the result of the determination of moisture content to be reported, the sample submitted must be submitted in an intact moisture-proof container from which as much as possible air has been excluded.
- From one sampling action, only one sample may be submitted for testing. The sample may be subjected to one or more tests described in the ISTA Rules as requested by the applicant. However in certain situations, the submission of a separate moisture proof packed sub-sample from the same sampling operation attached to the submitted sample.
- The assessment of any attribute reported on a certificate must be calculated from tests carried out on one submitted sample.
- **ISTA has now made provision for OIC's to be issued for a sub-lot, the sub-lot must represent a minimum size of 20% of the weight of the original seed lot, therefore a maximum of five OIC's may be issued for sub-lots of any one original seed lot. The accredited laboratory must keep track of the issuance of sub-lot certificates. In the case of certificates for sub-lots, a remark will be reported on the OIC 'The results reported represent the sample drawn from the original seed lot of kg.'**
- The seed lot identification may take the form of a sequential series of characters/numbers. Each container within the seed lot or sub-lot must be identified in such a way that the containers of the seed lot or sub-lot can be readily recognised by the information of the original seed lot.
- Take note that Provisional and /or Duplicate certificates may, however, also be issued.
- **ISTA has also made provision that the germination test may be terminated when the sample reaches a pre-determined germination percentage, before the final count but then only the percentage of normal seedlings will be reported. The other categories such as abnormal seedlings, hard, fresh and dead seed, will not be reported as they have not been determined. The following statement will appear on the certificate, 'Upon request of the applicant, the germination test was terminated after days. The prescribed test period is ... days.'**
- The name and address of the applicant may be omitted from the certificate at the request of the applicant. Also other information stated by the applicant, such as country of origin, species, cultivar, weight of lot or sub-lot, certification category and applicant lot reference must be entered as stated by the applicant.
- The manner of reporting all results is stipulated in Chapter 1 (1.5).

The following is applicable with regard to validity of certificates:

- An OIC shall be valid until it is superseded by another valid OIC.
- Not more than one OIC shall be valid for a seed lot or sub-lot at one time for any particular test.
- A new OIC may be issued for the same seed lot or sub-lot, provided that a new sample is taken from the seed lot or sub-lot and tested.
- The new certificate is only valid for the particular seed lot or sub-lot that was re-sampled.
- **If a sub-lot is re-sampled it becomes a new seed lot and must be given a new seed lot identification number.**
- Any previous certificate is cancelled by the latest certificate issued on the same seed lot or sub-lot under the same reference, i.e. seed lot seal and identification, for the same particular test(s).

With regard to sampling the following are conditions for issuance of the Orange International Seed Lot Certificate:

- The sampling methods laid down in the ISTA Rules (Chapter 2) currently in force, must be followed.
- The seed lot size shall not exceed the quantity indicated in Table 2A Column 2, subject to a tolerance of 5%.
- An exception is for coated seed, where the maximum number of seeds that a seed lot may contain is 1 000 000 000, i.e. 10 000 units of 100 000 except that the weight of the seed lot (including the coating material) may not exceed 40 000 kg, subject to a tolerance of 5% (42 000kg).
- The seed lot shall be in marked/labelled containers which are self-sealing, sealed or under control of the authorised seed sampler.
- Any seed lot in excess of the above mentioned shall be divided into seed lots not larger than the prescribed quantity, each of which shall be labelled or marked with separate seed lot identification.
- At the time of sampling, all containers must be labelled or marked to show the unique lot identification corresponding to the lot identification on the certificate. **In the case of an OIC issued by the OSTL, the lot identification is approved by the OSTL.**
- The seed lot shall be in marked/labelled containers which are self-sealing, sealed or under control of the authorised seed sampler.
- At the time of sampling the lot shall be as uniform as practicable. There shall be no documentary (e.g. different code numbers, different growers, etc.) or other evidence of heterogeneity (e.g. different bags, differences in appearance, etc.). When it is obvious that a seed lot is heterogeneous, the authorised officer responsible for sampling shall refuse to sample or stop to sample the seed lot. If heterogeneity is in doubt, heterogeneity sampling and testing will be conducted and if a seed lot is then found to be heterogeneous, a certificate cannot be issued
- Although the ISTA Rules do not specify that all containers in a seed lot must be of the same size and type, if there is evidence that not following this requirement might impair the representativeness of the submitted sample, sampling may be refused. **In order to avoid any possibility of heterogeneity and also to allow for easy sampling, only seed lots that are in one type of container will be accepted for issuance of an OIC.**
- The seed lot must be arranged so that each part of the seed lot is conveniently accessible. If this is not the case, the authorised officer will refuse sampling until compliance with this condition is met.

The procedure for the application of the Orange International Seed Lot Certificate has been in place for many years in South Africa. **Take note that this procedure and the accompanying documents, namely the application are part of the “contract” that is undertaken between the applicant and the OSTL. This “contract” is part of the ISTA Seed Testing Laboratory Accreditation Standard point 10.7 – Review of Requests, Tenders and Contracts. Please ensure that the required importance is given when completing the documents as you would to any other “contract” that your company undertakes.** You are hereby reminded of this procedure as follows:

1. Application forms have been drawn up in order to facilitate this procedure, namely **APPLICATION FOR THE ISSUANCE OF AN ORANGE INTERNATIONAL SEED LOT CERTIFICATE – OIC**. Page 1, also starting with number 1) has **INFORMATION SUPPLIED BY APPLICANT** and Page 2, starting with number 4) **SAMPLE PARTICULARS** must be completed in full by the applicant. **A new addition to the application form is the APPLICATION FOR SUB-LOT CERTIFICATES.**

In this age of technology, no handwritten forms will be accepted because handwriting is not sufficiently clear to avoid misinterpretations. As this information is required for the completion of the certificate, please supply the correct information. If a re-issuance of a certificate is required due to an error in this information, an additional certificate tariff will unfortunately have to be charged.

2. After completion, the application forms are sent preferably per e-mail (only use the fax as an alternative) to the OSTL at Roodeplaat.

NB: Applications will only be processed between 10:30 and 12:30 each day. If an application is received outside of these hours it will then be processed the next day. This is to assist with streamlining our activities and to become more efficient. Please also use the correct application form, provision has been made for seed lots in conventional packaging and also for small packaging. Use of the incorrect form will render it obsolete and a new application will have to be made.

3. On receipt of the application forms the OSTL will allocate the **necessary unique lot numbers and send** the application forms back to **the applicant, as well as to an authorized sampling officer**, who will be responsible for the sampling procedure. These officers are stationed at the regional offices of the Directorate Inspection Services.
4. The applicant is now responsible for the preparation of the seed lot/s for the sampling procedure, which includes the **marking of the lot with the allocated lot numbers**. Each container must be marked (clearly legible) or furnished with a label stating the allocated lot number.
5. **Only when the seed lot/s is ready for sampling shall the applicable officer be notified.** The application forms with the allocated lot numbers (as sent by the OSTL) must also accompany the seed lot/s for the officer's attention.
6. The authorised sampling officer shall be responsible for the official sampling and sealing of the seed lot/s.
 - 6.1 The sampling officer shall only proceed with sampling if he/she has been notified by the OSTL. If the seed lot has been relocated to other premises after application has been made, please notify the OSTL immediately, in order that the correct regional office can be made aware that sampling is to be conducted.
 - 6.2 **Before sampling can take place, the sampling officer will compare their application forms with those of the company and also check the prepared seed lot/s in order to verify if the correct lot number/s have been allocated. Accessibility is also a factor and sampling may be refused at this stage.**
 - 6.3 **Please draw the attention of the officer to any changes that might have taken place after application was made as this is now regarded as an amendment of the contract. If any information such as the number of containers and/or weights of seed lots differs after preparation of the seed lots, the sampler must be notified as there is a maximum restriction to the weight of seed lots for the various species. If you are not sure if the changes are acceptable, contact the OSTL for verification before sampling takes place. Only if all information is correct, may the officer proceed with sampling.**

- 6.4 In lieu of the above mentioned, amendments to the application shall be approved and then made by the sampling officer in the space provided on the application form (shaded areas). Use clear and legible writing. These amendments must be countersigned by both the sampling officer and the person appointed by the applicant to accompany the sampling procedure. If no amendments have been made to the application, only the sampler will sign.

NB: We request that every effort be made not to make amendments to the application form after the lot numbers have been allocated. This results in errors occurring and that the feasibility of the contract comes into question. If many amendments must be made, the officer may refuse sampling and re-application will have to be made.

- 6.5 All containers in the seed lot shall be sealed or seen to be sealed by the sampling officer. **No lot or part of a sampled lot shall be left unsealed when the officer leaves the premises.**
- 6.6 As from one sampling operation, only one sample may be submitted for testing, the drawn sample may be subjected to more than one test (e.g. purity and germination). The submitted samples must be sealed by the officer while still at the premises.
- 6.7 The size of the sample submitted for testing purposes shall be as specified in the current valid edition of the ISTA Rules and is as follows:
- 6.7.1 For most seed lots it will be at least the weight prescribed for the submitted sample in column 3 of Table 2A of the sampling chapter, namely the submitted sample, i.e. normal sized seed lots.
- 6.7.2 If no determination of other seeds by number is requested, the submitted sample may weigh at least the weight for the working sample for the purity analysis in column 4 of Table 2A of the sampling chapter, namely the working sample, i.e. small sized seed lots.
- 6.7.3 An exception is for **very expensive seed** where the analysis may be completed to the extent possible. In this case a statement will be inserted on the certificate as follows: "The sample submitted weighed only g and is not in accordance with the International Rules for Seed Testing." **However, evidence or proof that the seed is expensive will have to be made.** Also only in this case can the request be made that the remainder of the submitted sample (with the exception of 25 seeds) be returned to the applicant.
- 6.8 Certain tests, such as for **moisture or weight determination, require the submission of a separate sample from the same sampling operation in special packaging to accompany the submitted sample.** Please notify the sampling officer if such a test is required. If you forget to request a moisture test, the return of the sampler at a later stage for sampling for this purpose will not be allowed. The officer must also seal and label these additional samples and attach them to the original sample.
- 6.9 The sampling officer will complete the necessary information required by him/her (**2 – INFORMATION SUPPLIED BY THE OFFICIAL SAMPLER**) on the application forms and the completed forms must accompany the samples to the OSTL together with the samples.

7. **These samples shall be dispatched by the sampling official to the OSTL without delay and shall never be left in the hands of persons not authorized by the OSTL unless they are sealed in such a way that they cannot be tampered with.** Due to urgency and in order to save time you may request that the samples be sent per courier. If so, the necessary arrangement must be made with the official.
8. Where the seed lot has been chemically treated, the name of the treatment shall be given to the sampling official in order that the OSTL be informed. This information must be indicated by the officer, on the label of the submitted sample in the appropriate space provided for this purpose.
9. **No application forms of any format other than the one supplied by the OSTL will be accepted at any stage. Retain the original electronic copy received with this letter for further purposes. You are requested to discard old versions of the application forms.**
10. Instances may arise where a company applies for certificates for twenty seed lots and after the first ten are ready will require sampling. The sampling official can sample the prepared seed lots but he/she must clearly indicate which seed lots have been sampled during the 1st sampling action. Thereafter, the officer must photocopy the completed forms and the hand-written form must accompany the samples to the OSTL. The officer must retain the photocopy for the 2nd sampling action. When the remaining seed lots are ready, then the photocopy can be utilised. Once again the copy that has been completed by the officer must accompany the samples. This procedure can be repeated until all seed lots have been sampled.

NB: However, this results in unnecessary additional work and also to keep track, especially if this accompanied by amendments, once again promotes errors. Also time becomes a factor as the sampler has to return on several occasions resulting in additional cost. Therefore please strive to have all seed lots ready at one time for sampling.

11. If an applicant wishes **to cancel an application** for a seed lot after the lot numbers have been allocated, both the OSTL and the sampling official must be notified. The official shall then indicate such cancellations on the application forms when sampling the remaining seed lots. This will prevent applications lying for extended periods of time in our active system.
12. If you wish to make application for a seed kind that is not listed in the official variety list, please specify the botanical genus and species names e.g. pumpkin – variety Trout (*Cucurbita maxima*). Remember there are three *Cucurbita* species, namely *maxima*, *moschata* and *pepo* that all have the common name pumpkin or squash. ISTA Rules may differ in such cases, making the application of the correct ISTA rule methodology difficult.
13. **Applications will only be valid for a period of four months from the date of issuance of the lot numbers.** After the four-month period has expired, the applications will be cancelled without notifying the applicant. We cannot keep applications open for an unlimited period of time.
14. The demand for certificates for seed lots that are in **small containers** has increased. Seed can be packed in small containers such as **tins, cartons or packets** and in these cases the following is recommended:
 - For seed lots in containers smaller than 15 kg capacity, the containers are regarded as small containers.

- Containers shall be combined into sampling units not exceeding 100 kg, e.g. 20 containers of 5 kg, 33 containers of 3 kg, 100 containers of 1 kg, etc.
- The sampling units are regarded as containers and the normal sampling intensity is applied.
- The small containers shall be opened or pierced for abstraction of seed for sampling. The sampled containers must then be closed or the contents transferred to new containers.

A special application form has been designed for the purpose of sampling small containers. Please make sure that you utilise the correct form for this purpose. **Indicate the type of small containers e.g. tins, cartons, packets; the number of and quantity of seed in the small packaging e.g. 500 x 2 kg; the manner packaged e.g. 50 x 20 kg = 1000 kg. This finally should correspond to the weight of the seed lot.**

The procedure for requesting sub-lot certificates is as follows:

1. As ISTA has now made provision for OIC's to be issued for a sub-lot, take note that the sub-lot must represent a minimum size of 20% of the weight of the original seed lot, therefore a maximum of five OIC's may be issued for sub-lots of any one original seed lot, e.g. 2 X 50%, 4 X 25%, 5 X 20%, etc.
2. As the accredited laboratory will have to keep track of the issuance of sub-lot certificates, application for such certificates must be made. This can be made on a separate form, 'Application for sub-lot certificates'. You are required to complete the information as required.
3. The sub-lot certificate will be issued and the tariff for an international certificate charged as per the invoicing system. Only upon receipt of proof of payment, will the sub-lot certificate be issued, i.e. sub-lot 1, sub-lot 2, etc.
4. Each container within the sub-lot must be identified in such a way that the containers of the sub-lot can be readily recognised by the information of the original seed lot e.g. ZA01000114 (1).
5. In the case of certificates for sub-lots, a remark will be reported on the OIC 'The results reported represent the sample drawn from the original seed lot of kg.'
6. If a sub-lot is re-sampled it becomes a new seed lot and must be given a new seed lot identification number.

Application for Blue International Certificates:

The Blue International Seed Sample Certificate does not require the service of an authorised official sampler, i.e. **sampling from the lot is not under the responsibility of a member laboratory, and the OIC procedure is therefore not required.** The sample/s is drawn from the applicable seed lots by the applicant itself and may be sealed with the company seal or by using another suitable method e.g. company sticker or sealant. Remember that if a moisture test is required, a separate sample in moisture proof packaging is required to accompany the sample for purity and germination tests. The sample/s is then submitted directly to the OSTL together with the application form for BIC's that is attached. This information is important as it will appear on the BIC. The applicable information that can be supplied is as follows:

- Name and address of applicant
- Species, variety (cultivar), etc.
- An identification number e.g. code number.
- Weight of lot and number of bags (if required and available)
- Date of sampling (if required and available).

If you decide to request these certificates, confirm with your client that this is acceptable as the certificate refers only to the sample and not the seed lot from which it was taken. In order to promote standardization only the attached 'APPLICATION FOR A BLUE INTERNATIONAL SEED SAMPLE CERTIFICATE (BIC)' will be accepted, also in the electronic format.

It is of utmost importance that you remember that exporting of the relevant seed lots before issuance and subsequent receipt of the International Certificates will be done at your own risk. Sometimes circumstances may arise that are outside the control of the OSTL e.g. samples are lost or damaged in the postal system and re-sampling will be required. Also the human factor must be taken into account and errors may occur. If the seed lots are no longer available we cannot be held responsible and no certificate will be issued.

Please remember that the issuance of international certificates is a service delivery by the OSTL and the seed testing and seed sampling tariffs are applicable. Also an additional tariff for the issuance of the certificate/s is charged as these certificates are imported from Switzerland. The tariffs are amended annually and the new tariff will be implemented as from 01 April each year. There had been an increase and demand for this service delivery resulting in the "first-come-first-serve basis", i.e. the queue system resulting in samples as received moving into the queue for waiting for testing. In lieu of this the urgent tariff will no longer be permitted at random and only under very special circumstances and with consultation with the Head of the OSTL. Therefore, as your certificate/s may take longer than you anticipated, please make provision when exporting seed lots.

ISTA amended their constitution some time ago to make provision for all seed testing laboratories to become accredited and any seed testing facility can now apply for ISTA accreditation, i.e. independent and company laboratories. As the work load of the OSTL has increased, and appears to continue to increase on an annual basis for issuance of international certificates, seed companies are encouraged to seriously contemplate ISTA accreditation to ensure speedy testing for international certificates for export purposes.

Enquiries to the Technical Administrative Office may be made daily but only from 10:30 to 12:30. This should allow more than sufficient time for you to update yourselves on the progress of your tests. When enquiring please have all particulars available with regard to the samples you submitted for testing such as seed kind / variety / application, lot or code number as searching for information is also time consuming and counter-productive. Extensive enquiries must be made per e-mail and not per telephone as all officers at the OSTL have telephone grants which easily become exhausted. Also take note that invoices will only be issued twice a week, namely Tuesdays and Thursdays.

Contact details:

Head of the OSTL – Pamela Strauss
Tel. no. 012 8085395, E-mail PamelaS@daff.gov.za

Scientific Technician responsible for the Technical Administrative Office – Ansie de Vries*
Tel. no. 012 8085385/94, E-mail AnsieDV@daff.gov.za

General Technical Assistants in the Technical Administrative Office –
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*** NB.: Ansie de Vries will be retiring at the end of April 2013. Notification will be made to all clients with details of the interim arrangements.**

Also remember to send all e-mails related to the seed testing service delivery to SeedTesting@daff.gov.za and copy to AnsieDV@daff.gov.za or PamelaS@daff.gov.za, as the case may be.

Please feel free to make contact with the Scientific Technician or the Head of Seed Testing, if required.

Your co-operation in this matter will be appreciated, as with the new additions by ISTA, the administrative and technical work will be increased for the OSTL.

Kind regards



Pamela Strauss
CONTROL SCIENTIFIC TECHNICIAN (HEAD OF SEED TESTING)
pp DIRECTOR: PLANT PRODUCTION