



NURSERIES

(As amended on 01 August 2024)

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1. REGISTRATION OF NURSERIES

- 1.1 PlantSA notifies all registered nurseries annually, before **15 June**, of the re-registration for the following year and provide each nursery with the required application form.
- 1.2 Nurseries must apply one year before the establishment of nursery trees, namely before **15 July** of the previous year, in writing to register each separate premises intended for propagation.
- 1.3 Each application must include:
 - a) an application form as prescribed (**DPA D-3-1**) - the name and address of the nursery as well as the name of the farm/s on which each site is situated must be provided in full;
 - b) GPS co-ordinates and/or Google Earth maps clearly indicating the location of each site; and
 - c) a signed copy of the DPA Code of conduct (**DPA D-3-2**).
- 1.4 The DPA issues a registration certificate (**DPA D-3-3**) to all nurseries who qualify to register for the following year.

2. MAINTENANCE OF NURSERY UNITS

All nursery units must comply with the requirements of the Deciduous Fruit Plant Certification Scheme, as set out in the Scheme and Schedule 1 of the Scheme.

2.1 History of nursery land

The same crop may not be grown on the same ground in consecutive years.

2.2 Weed Control

No weeds may be present in a unit and a specific weed control programme must be followed.

2.3 Removal of trees

- a) *Visually infected trees*

Each nursery is responsible for continuously treating and removing visually infected trees if effective treatment can not be applied. The nursery must record all removals.

b) Deviating trees

Individual deviating trees must be removed by the nurseryman and in cases where larger quantities of deviating trees occur next to each other, they must be clearly marked out in the nursery.

2.4 Re-budding

Re-budding of a graft combination with another clone / variety is only allowed if the entire graft combination is reworked with the same clone / variety.

2.5 Inspections of nursery units

All plants in a registered nursery unit must be presented for inspection, three times annually:

- a) Summer inspection;
- b) Autumn inspection;
- c) Winter inspection.

3. MANAGEMENT OF SEEDLINGS

- 3.1 Although seedlings can never be true to type, only seedlings from varieties on the official variety list can be certified under the Scheme.
- 3.2 Seedlings must meet all the requirements for certification, except for the true to type criteria.
- 3.3 Seedlings of a specific variety or crossing must be evaluated thoroughly as rootstock against other rootstocks and scientific results must be submitted before a specific seedling can be registered in terms of the Scheme.
- 3.4 Only seedlings that are listed on the Official Varietal list can be certified under the Scheme.
- 3.5 Since seeds are obtained by cross-pollination, seed cannot be true to type and therefore certified seedlings must be indicated on the certification label with the variety name and in stead of a clone number, the word “seedling”.

4. UTILISATION OF NURSERY TOPS

- 4.1 Nursery tops can only be utilised as a source of plant material for a variety where the availability of propagation material from mother blocks are insufficient.
- 4.2 Scion nursery tops can qualify as candidate plant material if it is derived from candidate / certified nursery trees grafted or budded on candidate / certified rootstocks.
- 4.3 Rootstock nursery tops as well as layer bed tops can qualify as certified material given that the source plant from which it is derived is certified and have not been grafted or budded, unless it was grafted with certified scion material.
- 4.4 PIO's must enforce strict control to ensure that nursery tops are only utilised in cases where the quantity plant material of a variety available from mother blocks, including the mother blocks of other PIO's are insufficient.
- 4.5 Nurseries planning to utilise nursery tops must apply in writing to the PIO that supplied the original plant material.
- 4.6 An inspection of the nursery trees must be done by the PIO, concerned, before the trees are removed or any plant material can be cut.
- 4.7 The PIO, concerned, must make sure that there are no deviating trees and that there are no visual signs of any diseases.
- 4.8 Nursery tops must be collected before the trees are planted out, that is, the trees must still be in the nursery.
- 4.9 The PIO must harvest the tops themselves and issue a written authorization together with the prescribed documentation to the nurseryman that will do the budding or grafting.
- 4.10 The delivery note must indicate the issuing of nursery tops and the nurseryman must also indicate the origin as nursery tops on the nursery return.
- 4.11 Nursery trees can be used up to the second generation to cut nursery tops, but there after the concession expires.

5. QUANTITY CONTROL

- 5.1 The nurseries must declare all discrepancies, regarding the quantities of both scion and rootstock material received, to the PIO's by **15 February** and the PIO's must rectify the quantities at Plant SA and the nurseries.
- 5.2 In cases where the quantity of plant material of a specific clone, utilised by the nursery exceeds the quantity issued, the certification of all graft combinations in which the clone is involved will be disqualified.

- a) In cases where more planting material of a clone has been utilized than was issued by the PIO, it must be declared by the nursery before **15 February**, and the PIO must amend the issuance accordingly.
 - b) In cases where plant material has been exchanged between nurseries, the PIO concerned must be notified before **15 February**, and the documentation must be amended accordingly.
- 5.3 A clear distinction must be made by nurserymen when completing the nursery return, in respect of:
- a) replanted trees (OORP) (grafted trees from the previous year that were replanted);
 - b) leftover trees (OORS) (grafted trees from the previous year's cultivation that were not removed);
 - c) rooted rootstocks;
 - d) grafted trees;
 - e) budded trees; and
 - f) seedlings.
- 5.4 PIOs must issue each clone separately and nurseryman must graft each clone separately.
- 5.5 Clones received from different PIO's must be budded and grafted separately and each graft combination must be indicated separately on the nursery return. Labels must indicate only one PIO as the supplier of a specific clone.
- 5.6 Replanted and left-over trees from the previous season must be indicated separately from other graft combinations of the same clone, when completing the nursery return.
- 5.7 Nursery trees propagated from seedlings or rooted rootstocks of the previous season, must be indicated separately from other graft combinations of the same clone, when completing the nursery return.

6. NURSERY RETURNS

Report of budded, grafted and rooted trees planted out in nursery

- 6.1 The DPA provides each nursery with a nursery return form (**DPA D-3-4**) together with guidelines for the completion thereof, before **31 October**.

- 6.2 Nurseries that propagate replanted, leftover and two year old trees submit a nursery return form (**DPA D-3-4**) by **15 November**.
- 6.3 Each nursery completes a nursery return form (**DPA D-3-4**) according to the guidelines and submits it to the DPA by **15 February**.
- 6.4 Each nursery drafts a **planting plan**, indicating the locality of all clones and the numbers of graft combinations. The planting plan must be available on request of an inspector.
- 6.5 PlantSA transfers all the return forms on its database.
- 6.6 PlantSA verifies the number of trees budded, grafted and planted per clone, against the numbers issued to each nursery and compiles deviation reports.
- 6.7 The amended returns are handed over to the inspectors for verification.

7 APPLICATION OF COLOUR CODES

- 7.1 Colour codes must be applied as prescribed in (**Addendum 1 : Part 6**) of the Deciduous Fruit Plant Certification Scheme.
- 7.2 The prescribed colour codes (**DPA D-2-1**) must be affixed to all scions and rootstocks by **15 May**.
- 7.3 All pome fruit trees as well as all plum trees must be colour coded.
- 7.4 For all other stone fruit trees, colour codes must be affixed, as follows:
 - 7.4.1 The first and last ten trees at the beginning and end of each row must be marked.
 - 7.4.2 Where the one graft combination ends and the next graft combination begins, the last ten trees of the first graft combination and the first ten trees of the next graft combination must be marked.
- 7.5 Colour codes for varieties that are currently under evaluation, must be allocated by the PIO on the condition that the code always start with the colour GREY.
- 7.6 All mixed trees must be marked out clearly with the appropriate colour code by **15 May**.

8. TREES IN CONTAINERS

- 8.1 Plant material in greenhouses include the following categories:

- Rooted rootstocks in containers;
- Rooted scions in containers;
- Rooted tissue culture plants in containers;
- Budded/grafted plants in containers.

8.2 Record keeping

- a) Full records must be kept continuously by nurseries and PIOs of each batch of plant material issued from each unit and received by a subsequent unit. In the case of tissue culture material, records must be kept of each batch of plant material that have been hardened off and planted in containers.
- b) A complete nursery return as prescribed (**DPA D-3-4**) on which the full particulars have been recorded in respect of the relevant clones, origins and numbers must be submitted to the DPA.
- c) Plant material from the same source plants initially issued in different batches can be added together and shown as one entry on the nursery return.
- d) Since the nursery return contains the full details, it is not necessary to issue a delivery note in case of an internal issue, but a return of the issues must be submitted to the DPA.
- e) In the event of issuance to another nursery or PIO, the necessary delivery notes must be issued and a return of issues with full details must be submitted to the DPA.

8.3 Labelling

- a) Plants issued or transferred internally must be identified at all times by means of a label or internal identification system linked to the record system.
- b) Plants in containers issued to another nursery, PIO or producer must be marked with the official candidate or certification label containing the full particulars.
- c) Details on the labels must be inspected with each inspection.
- d) In the case of consignments where the plants are not individually labeled, one label must be affixed to each bulk container that is issued.
- e) Separate records must be kept of labels used for plants in containers and must be indicated separately on the label return forms.

9. NURSERY INSPECTIONS

9.1 General

- a) Three inspections are performed annually at registered nurseries during summer, autumn and winter. All inspections include monitoring:
 - i. of the general care and cultivation of nursery trees;
 - ii. for the occurrence of insects, pathogens as well as climate related or any other form of physical damage in the nurseries.
- b) The inspector issues an inspection report, containing written instructions to rectify any problems found. This inspection report must be signed off by the owner or representative of the nursery.
- c) The inspector performs follow-up inspections to determine whether affirmative action has been performed satisfactorily.

9.2 Summer Inspection

The inspector inspects all the trees in each nursery once in summer and completes a summer inspection report (**DPA D-3-5**) for:

- Pome fruit: early December to end of April;
- Stone fruit: January to end of May.

He verifies details regarding:

- a) the unit- and isolation requirements as per Addendum 1, Part 2 of the Scheme;
- b) the numbers per variety and clone grafted and planted, on a random sample basis;
- c) the trueness to type of the plants as indicated on the planting plan and nameplates in the nursery.

Nameplates must clearly indicate row numbers as well as the status (B,K or O) of the graft combinations.

9.3 Autumn Inspection

- a) The inspector inspects each nursery once in autumn (between 15 April and 31 May) and monitors:
 - i. the follow-up actions in order to determine whether the affirmative actions that were prescribed in the summer inspection report, have been successfully applied;

- ii. that colour codes have been affixed correctly for the different scion and rootstock varieties.
- b) The DPA verifies the inspection reports (**DPA D 3-6**) consultation with the inspector.
- c) In accordance with the prescriptions, the inspector completes a declaration (**DPA D-3-7**) confirming which graft combinations from each nursery inspected, meet the requirements of the Scheme.
- d) The Secretary issues each nursery by **31 May** with a printout of all graft combinations planted in the nursery and confirms if any graft combinations does not qualify to be certified.

9.4 Winter Inspection

- a) The nurseries notify the inspector two days in advance of the date on which the nursery trees will be ready for certification.
- b) A complete list of all graft combinations that will be presented for inspection on the day, must be supplied to the inspector;
- c) Inspector inspects nursery trees and monitors:
 - i. the number of trees per variety and clone presented versus grafted, on a random sample basis;
 - ii. the physical requirements;
 - iii. the bundle requirements; and
 - iv. the labelling requirements.
- d) Nursery trees from the following categories can be presented for certification with the same status for the following year:
 - i. held over and replanted trees, provided that it is presented for inspection in Autumn and Winter of the following season. Trees can only qualify twice for certification. Held over and replanted trees older than two years can not qualify for certification. (Rootstocks not older than 3 years)
 - ii. Buy-in trees, provided that the invoice as well as the certification labels of the previous year can be presented and that the trees are presented for summer, autumn and winter inspections. In this event the date on the new labels must be the current year.
- e) Replanted nursery trees that did not qualify for certification, can not qualify for certification in the following year, unless the exclusion was due to physical standards which were corrected in the following year..

- f) The inspector must select at least one bundle from each graft combination for inspection:
- i. where a nursery presents more than 500 bundles for certification, at least 15 bundles must be inspected;
 - ii. where less than 500 bundles are presented for certification, the bundles must be selected according to the following table:

Number of Bundles	6	10	12	15	20	30	40	50	100	400	500	>500
Selected	4	6	6	8	9	10	11	12	13	14	15	15

- iii. if the number of bundles per graft combination differs, the bundles selected must be pro-rata according to the number of bundles of each graft combination.
- g) Should more than 3% of the nursery trees in the selected sample not comply with the physical requirements of the Scheme the certification of the graft combination concerned will be provisionally withdrawn. The inspector will issue the nursery with an inspection report (**DPA D-3-8**) containing written instructions of the corrective steps that must be taken within 14 days. This report must be signed by the nursery owner or representative. Where certification labels must be removed, it must be handed over to the inspector at the final inspection.
- h) The inspector carries out a follow-up inspection after 14 days in order to determine whether the corrective measures have been applied satisfactorily and whether the number of labels removed and handed over to him correspond to the number of trees withdrawn.
- i) Where the corrective steps cannot be met, the certification of the entire graft combination will be finally withdrawn.
- j) The inspector confirms on his next visit to the nursery that the number of labels handed over corresponds with the number of trees that were finally withdrawn.
- k) The inspector records the number of trees per clone certified on the nursery-return and issues an inspection report to the nursery after completion of each inspection.
- l) Rooted rootstocks and seedlings to be supplied or sold, must be inspected at the premises of the nursery before removal.
- m) Rooted rootstocks and seedlings must be inspected at the premises of the nursery before budding.
- n) Rooted rootstocks and seedlings that will be moved internally by a PIO / nursery, must be inspected by the PIO inspector;

- o) In all instances where certification of nursery trees have been finally withdrawn, the DPA must notify the Inspection Services of DOA, after which the sale of the relevant nursery trees must be prohibited by DOA if the nursery trees do not meet the minimum requirements of the Plant Improvement Act.

9.5 Guidelines for the completion of the nursery evaluation form (DPA D-3-10)

9.5.1 Summer inspections

9.5.1.1 *Summer maintenance*

Summer maintenance is evaluated according to the following criteria:

a) Disease control

Minimal infestation:

Diseases and pests in less than 1% of trees 10 points

Light infestation:

Diseases and pests in 1% to 2% of trees 8 points

Moderate infestation:

Diseases and pests in 2% to 5% of trees 5 points

Severe infestation:

Diseases and pests in more than 5% of trees 0 points

b) Weed control

Minimal competition:

Weeds in less than 2% of nursery 3 points

Moderate competition:

Weeds in 2% to 5% of nursery 1 point

Severe competition:

Weeds in more than 5% of nursery 0 points

c) Signage

Nameplates always complete and correct 2 points

Nameplates incomplete or incorrect 0 points

9.5.1.2 *Mixing*

Mixing is evaluated during the first inspection, the percentage of the total number of trees, as well as the percentage of the total number of graft combinations are calculated. The the lowest percentage is used to determine the number of points.

No mixing 10 points

Mixing between 1% to 2% 8 points

Mixing between 2% to 5%	5 points
Mixing more than 5%	0 points

9.5.2 Autumn inspections

Autumn maintenance is evaluated according to the following criteria:

a) Balanced vigour

All graft combinations' vigour in balance	5 points
Less than 1% graft combinations' vigour unbalanced	3 points
More than 1% graft combinations' vigour unbalanced	0 points

b) Colour codes

Colour codes complete and correct	10 points
Colour codes incomplete or incorrect	0 points

c) Disease control

Minimal infestation: Diseases and pests in less than 1% of trees	10 points
Light infestation: Diseases and pests in 1% to 2% of trees	8 points
Moderate infestation: Diseases and pests in 2% to 5% of trees	5 point
Severe infestation: Diseases and pests in more than 5% of trees	0 points

d) Absence of regrowth

No regrowth on the rootstock	5 points
Less than 2% regrowth on rootstocks	3 points
Between 2% and 5% regrowth on rootstocks	1 point
More than 5% regrowth on rootstocks	0 points

9.5.3 Winter inspections

9.5.3.1 *Presentation*

Winter maintenance is evaluated according to the following criteria:

a) Layer sites

Trees sufficiently and neatly layered	4 points
Trees not sufficiently and neatly layered	0 points

b) Identification

Nameplates, colour codes and labels complete and correct	4 points
Nameplates, colour codes and labels incomplete and incorrect	0 points

c) Disease control

Minimal infestation:	
Diseases and pests in less than 1% of trees	5 points
Light infestation:	
Diseases and pests in 1% to 2% of trees	3 points
Moderate infestation:	
Diseases and pests in 2% to 5% of trees	1 point
Severe infestation:	
Diseases and pests in more than 5% of trees	0 points

d) Fastening of bundles

Bundles neatly and strongly fastened	2 points
Bundles poorly and untidely fastened	0 points

9.5.3.2 *Physical standards*

Physical standards are evaluated according to deviations from the standards set by the Scheme. The percentage of the total number of trees, as well as the percentage of the total number of graft combinations with deviations are calculated. The the lowest percentage is used to determine the number of points.

If the certification of a graft combination are withdrawn during the re-inspection, all points are lost.

No deviations from physical standards	15 points
Deviations of between 0 and 3%	10 points
Deviations of more than 3%	0 points
Deviations during re-inspections	0 points

9.5.4 Record keeping

Nursery administration is assessed under this point. Nurseries will be penalised if nursery registration is late or incomplete, nursery returns are not completed on time and correctly, or if any reports are not signed and returned on time. Correctness and punctuality will each carry 50 percent of the weight in the assessment.

Record keeping is assessed for correctness and punctuality of returns according to the following criteria:

Good: Records and returns on time and correct	5 points
Average: Records and returns show some deviations	3 points
Poor: Records and returns not on time or incomplete	0 points

10. CERTIFICATION OF NURSERY TREES IN CONTAINERS

10.1 Category of plant material

Both candidate and certified plant material from the following units is subject to inspection:

- Nucleus
- Foundation
- Mother
- Foundation Nursery

10.2 Control of Quantities

Quantity controls must be kept and maintained by the inspectors and the quantity of plants certified, checked against delivery notes for scion and rootstock clones in the nursery.

10.3 Inspections

- Nurseries and PIOs wishing to present plants for certification must notify the inspectors at least seven days in advance of the date the plants will be ready for inspection.
- Nurseries and PIOs must complete nursery returns in respect of each presentation for certification.
- Inspectors check the internal records of the PIO or the delivery notes in respect of the clone numbers and origin of the plant material.
- Inspectors conduct a physical inspection of the plants in order to determine whether the plants are true to type.
- Inspectors draw a sample of 50 trees, or 3% in the dormant phase (depending on which is the lesser number) in order to determine whether the physical requirements, as prescribed in the Scheme, have been met for each category of plant material. If a deviation occurs, a next sample of 50 trees is drawn.
- Plants that do not comply with the prescribed requirements or where the records are not acceptable are rejected.
- The inspector issues an inspection report as prescribed in (**DPA D-3-9**) for each consignment inspected. If the certification of a consignment is provisionally withdrawn, the written instructions of corrective steps to be

taken must be mentioned in the report. The inspection report must be signed by the nursery owner or authorised representative.

- h) Plants, where certification have been provisionally withdrawn, can be re-presented for inspection under the same protocol.
- i) Consignments where certification have been provisionally withdrawn, must be kept separate at all times and may not be added to a subsequent consignment of the same clone and origin.
- j) Provisionally withdrawn certification of a consignment, becomes final if the plants are not re-presented for inspection and this must be confirmed by the inspector in an inspection report.
- k) Inspection reports are completed by the inspectors for each inspection presented to the PIO or nursery. This inspection report must be signed by the nursery owner or his authorised representative.
- l) Nursery returns and a copy of the inspection reports are submitted by the inspector to the DPA. The nurseries and PIOs receives invoices according to the prescribed inspection tariffs. Payment of inspectors will be made by the DPA in accordance with these tariffs.

10.4 Time of inspections

- a) In the case of plants under shade netting, that will be issued during the summer, the varietal authenticity and physical requirements inspection must take place at least two weeks after the start of the hardening off period.
- b) In the case of plants to be issued during winter, the varietal authenticity must be determined during the first inspection before leaf drop, whereas the physical requirements must be inspected during the second inspection after leaf drop.

10.5 Exceptions

- a) Plants from greenhouses that are established by a PIO in foundation units in the field do not have to meet the physical requirements. However, inspection must be carried out and the other requirements must be met.
- b) Green material and winter material exchanged between PIOs will not comply with the physical requirements and, thus, do not need to be inspected by the inspectors of the Board. Issuances must, however, be issued and the issuance must be declared on the return to the DPA.

11. CERTIFICATION OF NURSERY PLANTS

- 11.1 Plant SA inspector records the number of trees certified for every graft combination in each nursery in accordance with the guidelines provided in (**DPA D-3-4**) the before **30 September**.
- 11.2 Plant SA inspector declares by **30 September** as required in (**DPA D-3-11**) which graft combinations have been inspected and meet the requirements of the Scheme.
- 11.3 Secretary issues a nursery certificate (**DPA D-3-12**) and a printout by **30 September** to each nursery of all nursery plants certified under the scheme, or notifies the nursery in writing of the rejection of any nursery plants.

11. LABEL RETURNS

- 11.1 Nurseries and PIOs annually complete a label return (**DPA D-3-13**) indicating the number of labels received, utilized, damaged and left over.
- 11.2 Nurseries and PIOs must submit the label return to the DPA by **01 October**.
- 11.3 The DPA records the label returns on a databasis.