Public Notice No. 2016-2 of Korea Seed & Variety Service

In accordance with Seed Industry ACT and its Enforcement Rule, Plant Variety Protection(PVP) ACT and its Enforcement Rule and Seed Management Guidance(Public Notice of Ministry of Agriculture, Food and Rural Affairs), notify the revised “The Quantity of Plant Material” as follows.

27 September 2016

Director General of Korea Seed & Variety Service

**The Standards of Plant material submission**

**Article 1(Objective)** This Public Notice is on the standards of requirement in submitting the plant materials according to the article 16, 38 and 46 of Seed Industry ACT, article 38 of Enforcement Rule of Seed Industry ACT, article 30, 54 of PVP ACT and article 53 of Enforcement Rule of PVP ACT.

**Article 2(The standards of plant material submission)** ① The Standards of plant material submission for PVP, Notification of Variety Production & Commercialization and VCU test according to the article 16, 38 and 46 of Seed Industry ACT, article 38 of Enforcement Rule of Seed Industry ACT, article 30, 54 of PVP ACT and article 53 of Enforcement Rule of PVP ACT are as in Attached Table 1.

② The quantity of plant material for the variety of Notification of Variety Production & Commercialization should follow the standards for storage of variety of PVPR granted.

③ In case of vegetatively propagated crops, Authority can order the person who should submit plant material to keep and manage the plant material by himself.

④ Director General of Korea Seed & Variety Service(KSVS) can adjust the quantity of plant material when it is necessary considering the nature of crops, and can order to submit more plant materials when the quality of plant materials is not met the requirements.

⑤ Other crops which are not prescribed here, the quantity of plant materials should be that of similar crops. If there is no similar crops, the standards of et cetra crops should be applied.

**Article 3(Time to submit of plant material)** ① The plant material for growing test should be submitted every growing cycle for next each cases.

1. PVV : 3 replicate plots (including for laboratory or other test)

2. VCU : 3 replicate plots × 3 locations (including for laboratory or other test)

② For storage, plant material should be submitted when the variety is registered for PVPR or enlisted on National List.

**Article 4(Treatment of plant material for submission)** ① The plant material to submit should not have undergone any treatments such as disinfectants which would affect the expression of the characteristics of the variety.

② Director General of KSVS can request the details of seed treatement when it is assumed that the submitted plant material maybe undergone seed treatment.

**Article 5(The quality of plant material for submission)** ① The plant material submitted should be visibly healthy and not affected by any important pest or diseases.

② In case of potato, Director General of KSVS can ask the copy of certification issued by university or research institutes that the plant material is not affected by potato spindle tuber viroid when it is necessary to prevent this disease. The certification form is Attached sheet No.1.

**Supplementary Provisions**

Article 1(Enforcement) This Public Notice will be put into force from the day of official notice.

Article 2(Term of the validity, the deadline for existence) This Public Notice is valid by 26 September 2019 for review the change in ACT or present conditions after notifying this Public Notice in accordance with 「Guidance on Announcement and management of Directives & Guidelines」(Directives of Presidential Decree No. 334).

[Attached table 1]

**The standards of plant material submission**

**<Agricultural Crops>**

|  |  |  |  |
| --- | --- | --- | --- |
| **Crop** | **The quantity of plant material** | | **The quality of plant material** |
| **Plant Variety Protection /Notification of Variety Production & Commercialization** | **VCU test** |
| Rice | - For Test : 400g  - For Storage : 540g | - For Test : 3,000g  - For Storage : 1,800g | over 85% in germination rate |
| Barley | - For Test : 400g  - For Storage : 500g | - For Test : 3,000g  - For Storage : 2,400g | over 85% in germination rate |
| Maize | 󰋯 For Test  - silage or waxy corn : 330g  - sweet or super sweet corn : 200g  󰋯 For Storage  - silage or waxy corn : 630g  - sweet or super sweet corn : 380g | 󰋯 For Test  - silage or waxy corn : 1,000g  - sweet or super sweet corn : 650g  󰋯 For Storage  - silage or waxy corn : 1,000g  - sweet or super sweet corn : 650g | over 70% in germination rate |
| Soybean | 󰋯 For Test  - small size seeds (less than15g /100 seeds) : 450g  - medium and large size seeds(more than 15g/100 seeds) : 1,000g  󰋯 For Storage  - small size seeds (less than15g /100 seeds): 630g  - medium and large size seeds(more than 15g/100 seeds): 1,400g | 󰋯 For Test  - small size seeds (less than15g /100 seeds): 1,200g  - medium and large size seeds(more than 15g/100 seeds): 2,400g  󰋯 For Storage  - small size seeds (less than 15g /100 seeds): 1,000g  - medium and large size seeds(more than 15g/100 seeds): 2,000g | over 85% in germination rate |
| Potato | - For Test : 150 tubers  \*tuber size :30 ~ 50g  (or 35~50 mm in diameter)  - For Storage : 150 tubers | - For Test : 30kg  \*tuber size : 50 ±5g  - For Storage : 20kg | over 80% in germination rate |

|  |  |  |
| --- | --- | --- |
| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| Kidney bean | - For Test : 1.5kg  - For Storage : 2kg | over 85% in germination rate |
| Sweet Potato | - For Test : more than 50 tuberous roots or more than 150 cuttings  - For Storage : 50 tubers | 150~250g for tuberous roots |
| Oats | - For Test : 400g  - For Storage : 500g | over 85% in germination rate |
| Millet | - For Test : 50g  - For Storage : 60g | over 85% in germination rate |
| Mungbean | - For Test : 320g  - For Storage : 400g | over 85% in germination rate |
| Cowpea | - For Test : 450g  - For Storage : 600g | over 85% in germination rate |
| Buck wheat | - For Test : 400g  - For Storage : 400g | over 75% in germination rate |
| Wheat | - For Test : 400g  - For Storage : 500g | over 85% in germination rate |
| Sorghum | - For Test : 50g  - For Storage : 60g | over 85% in germination rate |
| Pea | - For Test : 800g  - For Storage : 1,000g | over 85% in germination rate |
| Job's-tear | - For Test : 200g  - For Storage : 500g | over 85% in germination rate |
| Broad bean | - For Test : 2kg  - For Storage : 2.5kg | over 85% in germination rate |
| Foxtail millet | - For Test : 50g  - For Storage : 60g | over 85% in germination rate |
| Adzuki bean | - For Test : 600g  - For Storage : 800g | over 85% in germination rate |
| Rye | - For Test : 400g  - For Storage : 500g | over 80% in germination rate |

**<Vegetables>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| Egg plant | - For Test : 1,000 seeds  - For Storage : 1,000 seeds | over 65% in germination rate |
| Mustard greens | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Pepper | - For Test : 1,000 seeds  - For Storage : 1,000 seeds | over 65% in germination rate |
| Swiss chard | - For Test : 100g  - For Storage : 100g | over 75% in germination rate |
| Cauliflower | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Broccoli | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Carrot | - For Test : 50g  - For Storage : 50g | over 65% in germination rate |
| Gourd | - For Test : 1,500 seeds  - For Storage : 1,500 seeds | over 75% in germination rate |
| Strawberry | - For Test : 60 seedlings  - For Storage : 30 seedlings | Healthy seedlings with good roots |
| Leek | - For Test : 75g or 70 seedlings(13,000 seeds)  - For Storage : 75g or 70 seedlings | over 65% in germination rate or, healthy plants without pest /disease infection |
| Garlic | - For Test : 50 bulbs  - For Storage : 50 bulbs | Healthy bulbs without pest/disease infection |
| Melon | - For Test : 1,500 seeds  - For Storage : 1,500 seeds | over 75% in germination rate |
| Radish | - For Test : 60g  - For Storage : 60g | over 70% in germination rate |
| Chinese Cabbage | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Chinese chive | - For Test : 20g  - For Storage : 20g | over 65% in germination rate |
| Beet | - For Test : 50g or 9,000 seeds  - For Storage : 50g |  |
| Lettuce | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Ginger | - For Test : more than 30 rhizomes(100~300g)  - For Storage : more than 30 rhizomes | Healthy rhizome(rootstock) without pest/disease infection and unbroken |
| Celery | - For Test : 10g  - For Storage : 10g | over 75% in germination rate |
| Watermelon | - For Test : 1,000 seeds  - For Storage : 2,000 seeds | over 75% in germination rate |
| Tumip | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Spinach | - For Test : 200g  - For Storage : 200g | over 65% in germination rate |
| Crown daisy | - For Test : 50g  - For Storage : 50g | over 75% in germination rate |
| Cabbage | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Onion | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Endive | - For Test : 10g  - For Storage : 10g | over 75% in germination rate |
| Bitter gourd | - For Test : more than 1,000 seeds  - For Storage : 1,000 seeds | over 75% in germination rate |
| Cucumber | - For Test : 1,000 seeds  - For Storage : 1,500 seeds | over 80% in germination rate |
| Indian lettuce | - For Test : 100 seedlings which are possible for growing test, or 2,000 seeds  - For Storage : 50 seedlings, or 2,000 seeds | over 50% in germination rate |
| Oriental Melon | - For Test : 1,000 seeds  - For Storage : 2,000 seeds | over 75% in germination rate |
| *Brassica rapa* L. | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Chicory | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Kale | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Kohlrabi | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Tomato | - For Test : 1,000 seeds  - For Storage : 2,000 seeds | over 70% in germination rate |
| Welsh Onion | - For Test : 20g  - For Storage : 20g | over 65% in germination rate |
| Parsely | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Pak-choi | - For Test : 15g  - For Storage : 15g | over 75% in germination rate |
| Squash | - For Test : 500 seeds  - For Storage : 1,500 seeds | over 75% in germination rate |
| Squash  (Maxima×Moschata) | - For Test : 1,000 seeds  - For Storage : 1,500 seeds | over 75% in germination rate |

**<Ornamentals>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| Gaura | - For Test : 45 seedlings  - For Storage : 20 seedlings or 600 seeds | Seedlings which can flower in current year, or over 75% in germination rate |
| Korean forsythia | - For Test : 12 seedlings  - For Storage : 5 seedlings | Seedlings more than 12 months old after cutting |
| Gerbera | - For Test : 50 seedlings  - For Storage : 20 seedlings | Seedlings which can flower in current year  (more than 3~4 leaves) |
| Leaf cactus | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Godetia | - For Test : 500 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Foliage Begonia | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Tuberous Begonia | - For Test : 60 bulbs or 125 mg as seed  - For Storage : 30 bulbs or 250mg as seed | Bulbs which can flower in current year and over 3cm in diameter |
| Guzmania | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Chrysanthemum | - For Test : 60 seedlings  - For Storage : 600 seeds or 20 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Kaffir lily | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Craneflower | - For Test : 30 seedlings  - For Storage : 30 seedlings | Seedlings which can flower in current year |
| Gladiodus | - For Test : 60 seedlings  - For Storage : 10 seedlings | Bulbs which can flower in current year and over 3cm in diameter |
| Gloriosa | - For Test : 30 seedlings  - For Storage : 20 seedlings | Seedlings which can flower in current year |
| Gloxinia | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Tickseed | - For Test : 30 seedlings or 500 seeds  - For Storage : 10 seedlings or 600 seeds | Seedlings which can flower in current year or, over 75% in germination rate |
| Snapdragon | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Calendula | - For Test  ① seed propagated variety : 300 seeds  ② vegetatively propagated variety : 30 seedlings  - For Storage  ① seed propagated variety : 300 seeds  ② vegetatively propagated variety : 30 seedlings | - seed propagated variety : over 75% in germination rate  - vegetatively propagated variety : Seedlings which can flower in current year |
| ZZ Plant | - For Test : 15 seedlings  - For Storage : 5 seedlings | Seedlings possible to use commercially |
| Christ’s thorn | - For Test : 35 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Japanese Iris | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Aerides | - For Test : 10 seedlings  - For Storage : 5 seedlings | Seedlings which express its own characteristics |
| Coral bead plant | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Neoregelia | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Dahlia | - For Test : 18 bulbs or 100 seeds  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Parthenocissus | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings firstly branched after cutting and possible to use commercially |
| Daisy | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Dendrobium | - For Test : 15 pots  - For Storage : 5 pots | Seedlings which can flower in current year and have more than 2 pseudobulbs, in pot |
| Delosperma | - For Test : 35 seedlings  - For Storage : 5 seedlings | Rooted cuttings |
| Delphinium | - For Test : 5g or 50 seedlings  - For Storage : 5g or 10 seedlings | over 75% in germination rate or, seedlings possible to carry out growing test |
| Common camellia | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year and have shoot over 5 mm in diameter |
| Dracaena | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| False aralia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Rooted cuttings which size is 15 cm |
| Ranunculus | - For Test : 30 bulbs  - For Storage : 20 bulbs | bulbs which can flower in current year |
| Lantana | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Lisianthus | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Liatris | - For Test : 30 bulbs  - For Storage : 15 bulbs | Seedlings which can flower in current year |
| Mandevilla | - For Test : 25 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Columbine | - For Test : 300 seeds  - For Storage : 600 seeds | over 65% in germination rate |
| Cockcomb | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Moutan peony | - For Test : 30 seedlings  - For Storage : 5 seedlings |  |
| Rose-of-Sharon | - For Test : ① variety for field : 10 seedlings  ② variety for pot : 15 seedlings  - For Storage : ① variety for field : 5 seedlings  ② variety for pot : 5 seedlings | ① variety for field : Seedlings which can flower in current year, more than 12 months old and have more than 3 shoots  ② variety for pot : Seedlings which can flower in current year, more than 12 months old |
| Grape hyacinth | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Alpine forget-me-not | - For Test : 500 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Muehlenbeckia | - For Test : 25 seedlings  - For Storage : 5 seedlings | Rooted cuttings |
| Miltonia | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Youth and age | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Lily | - For Test : 300 seeds or 20 bulbs  - For Storage : 600 seeds or 10 bulbs | over 75% in germination rate or, bulbs at least 12~14 cm in diamter for Asiatic, longiflorum and interspecific type or, bulbs at least 16~18 cm in diamter for oriental type(variety of small size bulb 14~16cm) |
| Begonia | - For Test : 1,000 seeds or 60 bulbs  - For Storage : 1,000 seeds or 10 bulbs | over 75% in germination rate or, seedlings which can flower in current year or, bulbs over 4cm in diameter |
| Veronica | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Boronia | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Goering's cymbidium | - For Test : 15 pots  - For Storage : 10 pots | Seedlings which can flower in current year with more than 2 pseudobulbs, in pot |
| Impatiens | - For Test : 300 seeds or 50 seedlings  - For Storage : 600 seeds or 20 seedlings | over 75% in germination rate or, seedlings rooted good |
| Bougainvillea | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Bouvardia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Ruby ball | - For Test : 35 seedlings  - For Storage : 20 seedlings | Seedlings more than 2cm in diameter of bulb after grafting on stock |
| Kobus magnolia | - For Test : 12 seedlings  - For Storage : 3 seedlings | Seedlings which can flower in current year |
| Sarcococca | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Foxtail fountaingrass | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Evergreen spindletree | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Peanut cactus | - For Test : 35 seedlings  - For Storage : 20 seedlings | Seedlings more than 1.5cm in height of bulb after grafting |
| Magic lily | - For Test : 30 bulbs  - For Storage : 5 bulbs |  |
| Calanthe | - For Test : 10 pots  - For Storage : 3 pots | Seedlings which can flower in current year, in pot |
| Tongue fern | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Korean bellflower | - For Test : 300 seeds or 35 seedlings  - For Storage : 600 seeds or 30 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Bachelor's button | - For Test : 45 seedlings  - For Storage : 600 seeds or 30 seedlings | over 85% in germination rate or, seedlings which can flower in current year |
| Hydrangea | - For Test : ① variety for field : 12 seedlings  ② variety for pot : 12 seedlings  - For Storage : ① variety for field : 5 seedlings  ② variety for pot : 5 seedlings | ① variety for field : seedlings with good roots and at least 3 shoots  ② variety for pot : seedlings 8 months after cutting with good roots and at least 3 shoots |
| Water lily | - For Test : 10 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Narcissus | - For Test : 15 bulbs  - For Storage : 10 bulbs | bulbs which can flower in current year |
| Sweet pea | - For Test : 100 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Statice | - For Test : 50 seedlings  - For Storage : 20 seedlings | Seedlings which can flower in current year (with at least 5~6 leaves) |
| Common stock | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Cape primrose | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Spathiphyllum | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| *Passiflora* spp. | - For Test : 15 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Silene | - For Test : 300 seeds  - For Storage : 600 seeds | over 65% in germination rate |
| Bolivian sunset | - For Test : 30 seedlings  - For Storage : 20 seedlings | Seedlings which can flower in current year |
| Cyclamen | - For Test : 300 seeds or 40 bulbs  - For Storage : 300 seeds or 20 bulbs | over 75% in germination rate or, bulbs which can flower in current year |
| Syngonanthus | - For Test : 25 seedlings or 2,000 seeds  - For Storage : 10 seedlings or 500 seeds | over 75% in germination rate or, seedlings which can flower in current year |
| Cymbidium | - For Test : 15 pots  - For Storage : 10 pots | Pots planted at least 2 pseudobulbs which can flower in current year |
| Agapanthus | - For Test : 25 seedlings  - For Storage : 15 seedlings | Seedlings which can flower in current year |
| Ageratum | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Chinese Evergreen | - For Test : 25 seedlings  - For Storage : 5 seedlings | Seedlings possible to use commercially |
| Poppy anemone | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Desert rose | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Maidenhair fern | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to carry out growing test |
| Amaryllis | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Asplenium | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Iris(bulb) | - For Test : 60 bulbs  - For Storage : 10 bulbs | bulbs which can flower in current year |
| African-violet | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Gypsophila | - For Test : 30 seedlings  - For Storage : 1,000 seeds or 10 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Anthurium | - For Test : 30 seedlings  - For Storage : 5 seedlings | Seedlings possible to use commercially |
| Angelonia | - For Test : 200 seeds or 30 seedlings  - For Storage : 600 seeds | over 75% in germination rate or, seedlings which can flower in current year |
| Aloe | - For Test : 35 seedlings  - For Storage : 5 seedlings | Seedlings with even growth |
| Alocasia | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to carry out growing test |
| Giant allium | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Sweet alyssum | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Alstroemeria | - For Test : 30 seedlings or 100 seeds  - For Storage : 10 seedlings or 200 seeds | Seedlings which can flower in current year or, over 75% in germination rate |
| Ussuri thistle | - For Test : 10g  - For Storage : 10g | over 75% in germination rate |
| Echeveria | - For Test : 35 seedlings  - For Storage : 5 seedlings | Rooted cuttings |
| Eryngo | - For Test : 20 seedlings or 200 seeds  - For Storage : 10 seedlings or 400 seeds | Seedlings which can flower in current year or, over 65% in germination rate |
| Epipremnum | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Exacum L. | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Elatior begonia | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Lotus | - For Test : 15 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Ornithogalum | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Odontoglossum | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| osmund | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to carry out growing test |
| Osteopspermum | - For Test : 25 seedlings or 200 seeds  - For Storage : 10 seedlings or 400 seeds | Seedlings which can flower in current year or, over 65% in germination rate |
| Opuntia spp. | - For Test : 30 seedlings  - For Storage : 20 seedlings | Seedlings possible to use commercially |
| Oxalis | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Hosta | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Oncidium | - For Test : 15 pots  - For Storage : 5 pots | Pots planted with at least 2 pseudobulbs which can flower in current year |
| Scabrous gentian | - For Test : 30 seedlings  - For Storage  ① (seed propatated) 1,000 seeds or 30 seedlings  ② (vegetatively propagated) 10 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Day lily | - For Test : 35 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year and with same growth age |
| Yucca | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Euphorbia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| *Euphorbia hypericifolia* | - For Test : 25 seedlings or 200 seeds  - For Storage : 10 seedlings or 400 seeds | Seedlings possible to use commercially |
| Rubber plant | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to carry out growing test |
| Rose | - For Test : 15 seedlings  - For Storage : 5 seedlings | ① for garden : seedlings with good root and over 20cm in plant length  ② for cutting or pot : seedlings which are 2~4 months old and over 1 young shoot with fully developed leaf  ③ for stock : seedlings with good root and over 0.8cm in diameter of root |
| *Ajuga multiflora* | - For Test : 300 seeds or 60 seedlings  - For Storage : 600 seeds or 20 seedlings | over 75% in germination rate or, seedlings with good roots |
| *Campanula medium* | - For Test : 300 seeds or 35 seedlings  - For Storage : 600 seeds or 60 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Zygopetalum | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Angel's trumpet | - For Test : 15 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year and healthy |
| Azalea | - For Test : ① variety for field : 12 seedlings  ② variety for pot : 30 seedlings  - For Storage : ① variety for field 5 seedlings  ② variety for pot : 10 seedlings | ① variety for field : Seedlings which can flower in current year and with over 3 shoots  ② variety for pot : Seedlings which can flower in current year and topped over two times in previous year |
| Spotted bellflower | - For Test : 300 seeds or 35 seedlings  - For Storage : 600 seeds or 30 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Carnation | - For Test : 30 seedlings  - For Storage : 10 seedlings | over 65% in germination rate or, seedlings with good roots |
| Cattleya | - For Test : 15 pots  - For Storage : 5 pots | Pots planted seedlings which can flower in current year |
| Canna | - For Test : 25 bulbs  - For Storage : 15 bulbs | bulbs which can flower in current year |
| calla | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Caladium | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Calathea ornata | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Kalanchoe | - For Test : 35 seedlings  - For Storage : 5 seedlings | Seedlings with good roots |
| Coleus | - For Test : 25 seedlings or 500 seeds  - For Storage : 10 seedlings or 1,000 seeds | Seedlings possible to use commercially or, over 65% in germination rate |
| Curcuma | - For Test : 25 bulbs  - For Storage : 15 bulbs | bulbs which can flower in current year |
| Cuphea | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Cupressus | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Crassula | - For Test : 30 seedlings  - For Storage : 5 seedlings | Rooted cuttings |
| Crossandra | - For Test : 15 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Crocus | - For Test : 30 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Croton | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| *Gentiana axillariflora* var. *coreana* | - For Test : 30 seedlings  - For Storage  ① (seed propagated) 1,000 seeds or 30 seedlings  ② (vegetatively propagated) 10 seedlings | over 75% in germination rate or, seedlings which can flower in current year |
| Clematis | - For Test : 12 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Chlorophytum | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Achillea | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Tulip | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Tillandsia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Paphiopedilum | - For Test : 12 seedlings  - For Storage : 5 seedlings | 2~3 years old seedlings which can flower in current year |
| Phalaenopsis | - For Test : 12 plants  - For Storage : 5 plants | Mature plants with inflorescence |
| Japanese fatsia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Chinese pink | - For Test : 50 seedlings or 200 seeds  - For Storage : 40 seedlings or 400 seeds | over 65% in germination rate or, seedlings which can flower in current year |
| Pansy | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Petunia | - For Test : 500 seeds or 40 seedlings  - For Storage : 1,000 seeds or 20 seedlings | over 75% in germination rate or, rooted cuttings using 5~6cm cuttings from apex of mother plants |
| Peperomia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Pelargonium | - For Test : 300 seeds or 20 seedlings  - For Storage : 600 seeds or 20 seedlings | over 75% in germination rate or, non-topped rooted seedlings without flower bud |
| Poinsettia | - For Test : 30 seedlings  - For Storage : 7 seedlings | Seedlings with good roots |
| *Neofinetia falcata* | - For Test : over 10 seedlings  - For Storage : over 5 seedlings | Seedlings expressed its own characteristics |
| Freesia | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Fritillaria | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |
| Phlox | - For Test : 300 seeds or 50주  - For Storage : 600 seeds or 20주 | Seedlings which can flower in current year or, over 75% in germination rate |
| Fittonia | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Capeweed | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Philodendron | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially |
| Winter orchid | - For Test : 15 pots  - For Storage : 10 pots | Pots planted with over 2 pseudobulbs which can flower in current year |
| Indian cress | - For Test : 300 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Pasque flower | - For Test : vegetatively propagated 25 seedlings, seed propagated 60 seedlings  - For Storage : 10 seedlings | ① Seedlings which can flower in current year in case of vegetatively propagated varieties  ② 3 months old seedlings after sowing in case of seed propagated varieties |
| *Dracaena fragrans* | - For Test : 25 seedlings  - For Storage : 10 seedlings | Seedlings possible to carry out growing test |
| Hedera | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings possible to use commercially and over 6 months old |
| Helleborus | - For Test : 200 seeds or 30 seedlings  - For Storage : 600 seeds | over 75% in germination rate or, seedlings which can flower in current year |
| Everlasting | - For Test : 50 seedlings  - For Storage : 30 seedlings | Seedlings which can flower in current year |
| Honeyplant | - For Test : 25 seedlings  - For Storage : 5 seedlings | Seedlings possible to use commercially |
| Fuchsia | - For Test : 20 seedlings  - For Storage : 10 seedlings | Seedlings which can flower in current year |
| Hyacinthus | - For Test : 30 bulbs  - For Storage : 5 bulbs | bulbs which can flower in current year |

**<Fruit tree>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| Persimmon | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | trees on their own roots or, trees grafted on the rootstock(*Diospyros lotus* L.) |
| Citrus | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 3 years old trees grafted on rootstock(raised from seed) |
| Guava | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed) |
| Kiwifruit | - For Test : 5 trees (variety bred by crossing), 2 trees (pollinator)  10 trees (variety bred by mutation), 2 trees (pollinator)  - For Storage : 3 trees | rooted cuttings or trees grafted on rootstock(raised from seed), healthy and over 2 years old |
| Raspberry | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | rooted cuttings or trees grafted on rootstock(raised from seed), healthy and over 2 years old |
| Mume | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed) |
| Fig | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | rooted cuttings or trees grafted on rootstock(raised from seed) which can bear fruits, healthy and over 2 years old |
| Pear | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(*Pyrus pyrifolia)* |
| Pear rootstocks | - For Test : 25 trees  - For Storage : 3 trees | Healthy and 1 year old self-rooted trees |
| Peach | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed) |
| Blueberry | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Healthy and over 2 years old trees |
| Loquat | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed), which can bear fruits |
| Apple | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Healthy and over 2 years old trees grafted on rootstock ‘M9’ or ‘M26’ |
| Apple Rootstocks | - For Test : 25 trees  - For Storage : 3 trees | Healthy and 1 year old self-rooted trees |
| Common seabuckthorn | - For Test : 12 trees  - For Storage : 4 trees | Over 1 year old trees with good roots |
| Apricot | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed) |
| Pomegranate | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | rooted cuttings or trees grafted on rootstock(raised from seed), healthy and over 2 years old |
| Cherry | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(colt) |
| Yuza | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock(raised from seed), which can bear fruits |
| plum | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | Heathy and over 2 years old trees grafted on rootstock (raised from seed) |
| Calcium tree | - For Test : 12 trees  - For Storage : 4 trees | Over 1 year old trees with good roots |
| Grape | - For Test : 5 trees (variety bred by crossing)  10 trees (variety bred by mutation)  - For Storage : 3 trees | rooted cuttings or trees grafted on rootstock(raised from seed), healthy and over 2 years old |

**<Industrial crops>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| *Angelica koreana* | - For Test : 300 seedlings  - For Storage : 100 seedlings |  |
| Foetid Cassia | - For Test : 170g  - For Storage : 250g | over 65% in germination rate |
| Chinese Boxthorn | - For Test : 60 cuttings  - For Storage : 20 cuttings | cuttings |
| Angelica dahurica | - For Test : 35g  - For Storage : 45g | over 65% in germination rate |
| Poisonberry | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Redroot sage | - For Test : 200 healthy roots  - For Storage : 200 healthy roots |  |
| Tabacco | - For Test : 200 seedlings or 2g  - For Storage : 2g | over 85% in germination rate |
| *Angelica gigas* | - For Test : 50g  - For Storage : 20g | over 65% in germination rate |
| Balloon flower | - For Test : 5g  - For Storage : 10g | over 65% in germination rate |
| Perilla | - For Test : 60g  - For Storage : 70g | over 85% in germination rate |
| Peanut | - For Test : 660 seeds  - For Storage : 1,000 seeds | over 85% in germination rate |
| *Dioscorea japonica* | - For Test : 250 tuberous root  - For Storage : 60 tuberous root | Tuberous roots over 100g |
| Bellflower | - For Test : 20g  - For Storage : 20g | over 40% in germination rate |
| *Liriope platyphylla* | - For Test : 200 seedlings  - For Storage : 70 seedlings |  |
| Chinese silkplant | - For Test : 60 seedlings  - For Storage : 60 seedlings | Seedlings which can flower in current year |
| Black mulberry | - For Test : 15 seedlings  - For Storage : 5 seedlings | Over 2 years old rooted cuttings or trees grafted on rootstock |
| *Peucedanum japonicum* | - For Test : 40g  - For Storage : 50g | over 65% in germination rate |
| Flax | - For Test : 300g  - For Storage : 200g | over 85% in germination rate |
| Large-seeded False Flax | - For Test : 20g  - For Storage : 20g | over 75% in germination rate |
| Kenaf | - For Test : 100g  - For Storage : 100g | over 80% in germination rate |
| Rape | - For Test : 100g  - For Storage : 50g | over 85% in germination rate |
| Ginseng | - For Test : 200g  - For Storage : 270g | over 65% in germination rate |
| Angelica | - For Test : 30g  - For Storage : 10g | over 75% in germination rate |
| *Angelica koreana* | - For Test : 300 seedlings  - For Storage : 100 seedlings |  |
| Chinese peony | - For Test : 30 seedlings  - For Storage : 10 seedlings | Seedlings over 100g in weight of roots |
| *Anemarrhena asphodeloides* | - For Test : 30g  - For Storage : 40g | over 85% in germination rate |
| Rehmannia | - For Test : 600 seedlings  - For Storage : 300 seedlings |  |
| Tea | - For Test : 20 seedlings  - For Storage : 7 seedlings | Over 2 years old seedlings which can flower in current year |
| Sesame | - For Test : 30g  - For Storage : 45g | over 85% in germination rate |
| Cape-jessamine | - For Test : 15 seedlings  - For Storage : 10 seedlings | seedlings which can flower and bear fruits in current year |
| *Alisma* spp. | - For Test : 300 seedlings  - For Storage : 100 seedlings |  |
| Sichuan lovage | - For Test : 200 seedlings  - For Storage : 70 seedlings |  |
| Nut sedge | - For Test : 30g  - For Storage : 40g | over 65% in germination rate |
| Safflower | - For Test : 150g  - For Storage : 150g | over 65% in germination rate |
| Baikal skullcap | - For Test : 15g  - For Storage : 20g | over 65% in germination rate |
| Membranous milkvetch | - For Test : 50g  - For Storage : 50g | over 65% in germination rate |

**<Mushroom>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| Oyster mushroom | - For Test : 1 test tube and 3 box type media (5kg size) inoculated with fungi.  For bottle cultivation : 90 bottles inoculated with fungi (per3.3㎡)  - For Storage : 3 test tubes inoculated with fungi |  |
| Insect born fungus | - For Test : 1 test tube and over 64 bottles (over 850cc) inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |
| Common mushroom | - For Test : 1 test tube and 3 box type media (7kg size) inoculated with fungi.  - For Storage : 3 test tubes inoculated with fungi |  |
| Reishi Mushroom | - For Test : 1 test tube and over 64 bottles (bags) inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |
| Phellinus heartrot | - For Test : 1 test tube and over 64 bottles (bags) inoculated with fungi.  For tree cultivation : 10 trees  - For Storage : 3 test tubes inoculated with fungi |  |
| Velvetfooted Collybia | - For Test : 1 test tube and over 64 bottles inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |

**<Forage crops>**

| **Crop** | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- |
| Rye grass | - For Test : 200g  - For Storage : 200g | over 80% in germination rate |
| Triticale | - For Test : 400g  - For Storage : 500g | over 80% in germination rate |
| Red clover | - For Test : 200g  - For Storage : 300g | over 70% in germination rate |
| Bahia Grass | - For Test : 200g  - For Storage : 200g | over 70% in germination rate |
| hairy vetch | - For Test : 200g  - For Storage : 200g | over 80% in germination rate |
| Alfalfa | - For Test : 200g  - For Storage : 200g | over 75% in germination rate |
| Centipede grass | - For Test : 200g  - For Storage : 200g | over 70% in germination rate |
| Orchardgrass | - For Test : 200g  - For Storage : 200g | over 80% in germination rate |
| Kentucky bluegrass | - For Test : 200g  - For Storage : 200g | over 70% in germination rate |
| Tall fescue | - For Test : 300g  - For Storage : 400g | over 80% in germination rate |
| Perennial ryegrass | - For Test : 200g  - For Storage : 200g | over 70% in germination rate |
| Echinochloa | - For Test : 60g  - For Storage : 60g | over 85% in germination rate |

**<Others>**

| **Other crop** | | **The quantity of plant material** | **The quality of plant material** |
| --- | --- | --- | --- |
| General | The weight of 1,000 seeds |  |  |
| under 5g | - For Test : 1,000 seeds  - For Storage : 1,000 seeds | over 65% in germination rate |
| 5 ~ 9g | - For Test : 1,500 seeds  - For Storage : 1,500 seeds | over 65% in germination rate |
| 10 ~ 19g | - For Test : 20g  - For Storage : 30g | over 65% in germination rate |
| 20~49g | - For Test : 150g  - For Storage : 150g | over 75% in germination rate |
| Over 50g | - For Test : 600 seeds  - For Storage : 600 seeds | over 75% in germination rate |
| Fruit trees | Tree | - For Test : 5 trees (variety bred by crossing) or  10 trees(variety bred by mutation)  - For Storage : 3 trees | Healthy and over 1 year old rooted cuttings or trees grafted on rootstock |
| seed | - For Test : 600 seeds  - For Storage : 1,000 seeds | over 75% in germination rate |
| Mushroom | For box cultivation | - For Test : 1 test tube and 5kg size box type medium inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |
| For bottle cultivation | - For Test : 1 test tube and 64 bottle type media inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |
| For tree cultivation | - For Test : 1 test tube and 10 trees inoculated with fungi  - For Storage : 3 test tubes inoculated with fungi |  |
| Ornamentals | Foliage plant | - For Test : 30 seedlings  - For Storage : 5 seedlings | Seedlings which can express its own characteristics in current year |
| Bulbs and tubers | - For Test : 30 bulbs  - For Storage : 5 bulbs | Bulbs which can flower in current year |
| Orchid | - For Test : 10 seedlings  - For Storage : 5 seedlings | Seedlings which can flower in current year |
| Succulent plant | - For Test : 35 seedlings  - For Storage : 5 seedlings | Seedlings which can express its own characteristics in current year |
| Perennial  plant | - For Test : 60 seedlings  - For Storage : 20 seedlings | Rooted cuttings or, Seedlings which can flower in current year |
| seed | - For Test : 600 seeds  - For Storage : 1,000 seeds or 3g(only the weight of 1,000 seeds is under 1g) | over 65% in germination rate |
| Flowering tree | - For Test : 15 seedlings  - For Storage : 5 seedlings | Rooted cuttings or, Seedlings which can flower in current year |

[Attached sheet1]

**Report on the diagnosis result of Potato Spindle Tuber Viroid**

Submit the diagnosis result of Potato Spindle Tuber Viroid as below according to Attached Table 1 of ｢Standards of plant material submission｣(Public Notice of Korea Seed & Variety Service No. 2016-2. 27 September 2016).

Year Month Day

**Diretor of Testing Institute/Person in charge of testing (signature)**

**□ Summary of testing**

|  |  |  |
| --- | --- | --- |
| Testing Institute | Name |  |
| Testing place |  |
| Person in charge of test | Name | Division and Title |
|  |  |
| Testing method | Test date |  |
| sampling | *※ place/date/quantity/sampling method* |
| Materials and method | *※ state easily about the materials and method including detection method(ex. RT-PCR) and conditions, primer, kit, etc, so that the professional in related field can understand* |

**□ Result**

○ Result of test

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variety denomination** | remarkd | **sample(quantity)** | | **result**  **(detected/non-detected)** |
| **Tested samples** | **Infected samples** |
|  |  | *(quantity>10)* | *(quantity)* |  |
|  |  |  |  |  |
|  |  |  |  |  |

※ the result of submitted plant materials only

○ Photograph of Gel

|  |
| --- |
| ※ Photograph of agarose gel which shows overall result of analysis including all samples and controls (check whether it matches with 판독결과표) |
|  |

**※ Remarks on Testing**

① Positive and negative control must be included in the test.

② The quantity to be tested must be over 10 samples per tuber in case the packing size is under 20 kg/105 potatos, and must be tested by each tubers without replicate or mixed sample with under 5 tubers at least 2 replicates.

③ The test should be done in the seedlings from harvested potato, which is at least 5cm in plant height.