Seed Propagation Protocol Form

BGCI | Propagation Protocol Forms 2024

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| **SEED PROPAGATION PROTOCOL**  |

**This form collates the information about the best method for seed propagation and growing up of the target species.**

Authorship *(people that contributed propagation information)*:

Date of publication:

*Logo/s of the affiliated organisation(s):*

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| **GENERAL INFORMATION** |
| **Taxon name** | *Scientific name of the propagated species* |  | **Name/s of propagator/** | *Name(s) of the person or people that carried out the propagation* |  |
| **Family** | *Plant family of the propagated species* |  | **Organisation** | *Organisation(s) where the propagation was carried out* |  |
| **Origin of seeds** | *Site(s) and country where seeds were collected* |  | **Site and country** | *Site(s) and country where the propagation took place* |  |

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| **SEED DESCRIPTION & PROCESSING** |
| **Description of the seeds and the processing of the seeds before seed sowing.** |
| **Time of year for seed collection** | *List month/s of the year when seed collection is best* |  |
| **Fruit/seed transport** | *Describe how fruit/seeds have been stored during transport from the field to the nursery* |  |
| **Processing of fruits/seeds** | *Describe how the fruits/seeds are processed in situ or in the nursery (seed extraction methods, seed cleaning, handling of fruits/seeds...)* |  |
| **Method to assess seed viability** | *Describe method used to estimate seed viability (e.g. floating test, cut test, tetrazolium test, X-ray test)* |  |
| **% Estimated seed viability** | *(Number of viable seeds) x 100 / (Total number of seed for which viability was estimated)* |  |
| **Type of seed** | *Choose one of these options: Orthodox, Intermediate, Recalcitrant or Unknown* |  |
| **Seed size** | *Include a measuring unit (e.g. mm, cm…)* |  |
| **Number of seeds per gram** | *Count a reasonable number of seeds and weigh them. Then, divide the number of seeds by their weight (e.g. 100 seeds / 5 g = 20 seeds/g)* |  |
| **Seed storage** | *If seeds have been stored before germination, mention storage facilities (seed bank, fridge, freezer), and describe conditions (humidity, temperature), type of container, and storage time length.* |  |

* ***Add photographs of the fruit and seeds. Make sure to include a detailed description of the photo, such as the growth stage, date, activity or process.***

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| **GERMINATION** |
| **Description of procedures, materials for seed germination and the germination success.**  |
| **Procedures** | **Seed treatment** | *Describe treatment applied to the seed before sowing (e.g. mechanical scarification, chemical scarification, soaking, stratification, smoke treatment…). If applied, include the duration of the treatment.* |  |
| **Seed sowing media** | *Media composition: include percentages/ratio for the different components* |  |
| **Container** | *Describe size and material of the container in which seeds are sown* |  |
| **Seed spacing**  | *Describe the recommended spacing between the seeds when sown. Include a measuring unit (e.g. mm, cm…)* |  |
| **Seed depth** | *Describe how deep the seeds are sown. Include a measuring unit (e.g. mm, cm…)* |  |
| **Watering technique** | *Describe watering tool, technique and frequency during sowing and germination*  |  |
| **Germination facilities** | *Describe the facilities where the germination of seeds took place (e.g. close case, outdoor shaded area, heated bench, covered/bagged container...)* |  |
| **Environmental conditions** | *Describe the environmental conditions where germination took place (temperature, humidity, and photoperiod)* |  |
| **Success** | **Time of year for seed germination** | *List month/s of the year when seed germination is best* |  |
| **Duration until germination** | *Average number of days/months/years until seeds germinated* |  |
| **% Germination success** | *(Number of seeds germinated) x 100 / (Total number of seeds sowed)* |  |
| **Materials** | *List the materials needed for seed germination to help with the planning of this activity. E.g. trays, sieves, dibbers, labels, ruler…* |  |

* ***Add photographs of the germination process. Make sure to include a detailed description of the photo, such as the growth stage, date, activity or process.***

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| **FIRST POTTING** |
| **Description of procedures and materials for the cultivation of the plants and the success of the growing of the plants.** |
| **Procedures** | **Growing Media** | *Media composition: include percentages/ratio for the different components* |  |
| **Container** | *Describe size and material of the container in which plants are potted* |  |
| **Fertiliser** | *If used, include: type (organic or inorganic); nutrient composition and its ratio; and application (added to soil, dissolved on water, foliar application)* |  |
| **Watering technique** | *Describe watering tool, technique and frequency while growing the plants* |  |
| **Plant growing facilities** | *Describe the facilities where the plant growing took place (e.g. glasshouse, outdoors, shaded area...)* |  |
| **Environmental conditions** | *Describe the environmental conditions where the plant growing took place (temperature, humidity, light levels)* |  |
| **Success** | **Number of days until first potting** | *Average number of days since the start of seeds sowing until first potting* |  |
| **Duration until established plants** | *Average number of days/month/years for which the plant growth was monitored until the establishment of plants* |  |
| **% Plants established**  | *(Number of plants established) x 100 / (Total number of plants potted)* |  |
| **Health observations** | *Record any signs of pest or disease, nutrient deficiency, damage… and the stage when they were observed (e.g. during germination, growing of seedlings, growing of plants.…)* |  |
| **Materials** | *List material needed for potting to help with the planning of this activity. E.g. pots, dibbers, labels…* |  |

* ***Add photographs of the pricking out, potting, and the growing of plants. Make sure to include a detailed description of the photo, such as the growth stage, date, activity or process.***