Seed Propagation Protocol Form

BOTANIC GARDENS CONSERVATION INTERNATIONAL

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):

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*	

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.***

SEED PROPAGATION PROTOCOL

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.***