Note of sowing / transplanting

Necessary material :

Calcium hypochlorite
2 vials of 100 ml mini
A balance of the kitchen
A funnel of the kitchen
Coffee Filters
Some of the bleach
One of the sprayers
A glovebox (See our construction sheet in the middle menu)
One or more test tubes with closure plug
A spatula in the sky
A pipette in the pipette
Sterile Water (Optional)
One of the scalpels
A tweezer for transplanting only.

Time for preparation :

10 Min for the equipment.
30 Min to sterilize the Glovebox.
10-15 Min for sowing and finishing.

Preparation of the calcium hypochlorite solution :

Attention this product is corrosive and releases chlorine vapours, use it with gloves and safety glasses in a ventilated area

Weigh 5g of calcium hypochlorite.

Dilute in 100ml of water (osmosis or distilled) stirring 5-10 min then allow to decant, the solution being saturated, the disorder is normal.

After 10 min of decanting filter the solution over a coffee filter, taking care to train as little deposit as possible which is at the bottom of the bottle.

The final solution called stock solution is usable 3-4 hours, for its storage up to 1 week, arrange in the refrigerator sheltered from air and light.

For disinfecting seeds, use 10ml of diluted stock solution in 100ml of water for Phalaenopsis seeds and 20ml for other seeds and disinfection of capsules (“Green Sow”), this final solution must be prepared just before use.

Preparation of the glovebox disinfection solution :

Attention this product is corrosive and releases chlorine vapours, use it with gloves and safety glasses in a ventilated area

Prepare a 50% diluted bleach solution in water (Careful, always pour bleach into water, not vice versa).

Arrange this solution in a sprayer.

Preparation of your planting material :

Place your seeds in a tube and seal it with a sintered cap or rubber cap (as many tubes as types of seeds to sow, make sure before you do not saturate your workspace, your movements must remain free).

In case of “Green Sowing”, place your capsule in a bottle filled with final disinfection solution and provide a scalpel.

Prepare a spatula for seed recovery in your tubing (make sure it is of the right size for the size of your tubing).

Prepare a pipette for the aspiration of the seed disinfection solution as well as the bottle of final disinfection solution.

Prepare as many seedlings as you deem necessary.

Prepare your sprayer with the glovebox disinfection solution.

If you wish, you can add a bottle of sterile water to rinse your tubes and adjust the amount of liquid in your bottles.

Preparation of your glovebox and seedlings :

This step is essential, a good arrangement of your workspace will allow you healthy work and will avoid contamination, always keep in mind that your movements must be limited to the maximum and do as little as possible toon top of your open seedlings. In case of doubt for beginners, do not hesitate to do simulations beforehand with empty pots and empty tubes in order to find the organization that suits you.

Lay your glovebox cover on your workspace and cover with a layer of Sopalin.

Spray this Sopalin with your glovebox disinfection solution.

Then place your material listed above by spraying it with disinfection solution of the box along with your vials and possibly sterile water so as to have maximum things at the locations you need.

Place the glovebox disinfection solution sprayer and your seeds.

Then return your box to its lid in order to create a closed enclosure.

Then put your arms into the gloves and spray the entire inner compound of your box, then let it work 30 Min.

Your glovebox is now sterile, repeat the following operations as many times as you have boxes and seeds.

1. For sowing in seed :
    1. For each seed tube, remove the food film from your boxes, open them and gently put the lid on them so they are ready to hold your seeds.
    2. Then open the seed tube and, using the pipette, introduce the final seed disinfection solution (the seeds must be well distributed in the solution).
    3. Leave 2 minutes to work, waving every 15-30 seconds.
    4. Locate during this phase if your seeds are floating or flowing in the liquid (all phases 3 and 4 should not exceed 3 min).
        - If the seeds float, then return the tube and remove the liquid gently opening the cap, the seeds will gradually remain stuck on the surface of the tube.
        - If the seeds sink, let them settle at the bottom and gently tilt the open tube to remove the liquid and collect the seeds at the bottom.

2. For "Green Sowing" :
    1. For each capsule bottle, retrieve the capsule and open it with your scalpel.
3. Then collect your seeds with your spatula and spread them delicately on the middle, repeat the operation as many times as you want to make seedling boxes.

4. If you have opted for the Sterile Water option, you can rinse your seed tubes and adjust the water in your boxes with a pipette (seeds should not swim but should not be “dry” on the middle.

5. Then close your boxes tightly as soon as your seedling is finished and move on to the next box.

You can now switch to the next seeding by taking care first to rinse your material (scalpel and spatula) so as not to make cross pollution in your seedlings.

Attention as soon as you have to reintroduce material into the glovebox, the sterilization operation of the glovebox must be renewed.

When your seedlings are finished, place a food film on your boxes to increase their watertightness.

Transplanting of protocorms and/or seedlings :

This operation takes place as for seeding except that it is no longer necessary to sterilize seeds, you will have taken care to add a clip to your equipment in order to catch the protocormes and/or seedlings and to put them back in a new box.