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Segra

# Regenerate and Preserve Program – Germplasm Preparation and Shipment Guide

## Plant Preparation

It is critical to provide Segra with healthy, young plants to increase the success rate of initiation into tissue culture. The following is a list that outlines Segra's criteria for accepting germplasm into their facility.

1) Provide a total of 100-150 nodes, ideally in the form of cuttings taken from 1-2 healthy plants in vegetative growth.
2) Germplasm must be of reasonable health, and free of pest pressure to a reasonable extent.
    a. No excess visible pests (adult, larva, or eggs) on leaves or stem.
    b. No excess visible fungal spores on leaves or stem.
    c. No yellowing or dead leaves proving a sick or old plant, within reason. This will severely decrease the likelihood of successful plant initiation into tissue culture.
3) The plants have been in vegetative growth for over two weeks and no longer than four months. Ideally, the cuts would be shipped shortly after it has produced 200 nodes.

## Packaging

Outlined below is a step by step process to package the germplasm for shipment to the Segra facility.

1) Take 100-150 cuttings of acceptable plant material from 1-2 two plants in vegetative growth. The cuttings should be anywhere from 4-6 inches in length.
2) Mist plant material lightly with water to prevent wilting.
3) Place in airtight plastic packaging (large recycling bags, large zip locks, etc.) to maintain moisture levels and avoid the plant material from drying out.
4) Plant material must be sealed in an insulated styrofoam container (see link for example shipment box: U-line insulated box) for temperature control during transport. It is crucial that the plant materials do not freeze during transport as this will kill the cells and make the plant non-viable for tissue culture initiation. If shipping in winter, please pack a temperature sensor (ex. Sensorpush) with the plant material to track temperature changes throughout shipment. Upon receiving the shipment, Segra can confirm through temperature data that no adverse temperature events occurred. Segra will then ship back the temperature sensor for future use.
5) Before shipment, take any necessary steps to ensure the container is sealed and free of any cannabis scent. Some shipments may be rejected by the shipper due to excessive cannabis scent.

**Shipping**

Express delivery is the preferred method of shipment. The plants must arrive at our facility within two days time after being packaged to ensure successful initiation into tissue culture. We require that you ship either the day of or the next day after packaging and use same-day or overnight shipping. It is important to select a shipping method where the conditions do not jeopardize the viability of the plant tissue (4 -15 °C is optimal). In our experience, guaranteed next day parcel delivery with Fedex or Purolator has been a reliable shipping method and the insulated packaging suggested above consistently ensures that temperatures remain within the desired range throughout shipment (including during air transport).

It is very important to coordinate the scheduling of the shipment with the Segra team prior to shipping. This is a necessity as the plant material will be processed on the day of arrival.