



CULTURE
WITHOUT
COMPROMISE

GREENHOUSE/OUTDOOR ACCLIMATION AND TRANSPLANT GUIDELINES

The most challenging aspect of moving from traditional to tissue culture clones is the acclimation and transplanting process. Tissue culture clones are not exactly like the traditional clones you might be used to; TC plantlets require different care when they arrive at your farm. Below are some tips that work well for us. If you find something that works well for you, our Product Development team would love to hear about it.

RECOMMENDED ENVIRONMENTAL CONDITIONS

- Substrates:** Any
- Container size:** 3"-4"
- Feed:** 0.2-2.0 until well established.
- Humidity:** Start at 80%.
Taper to desired vegetative environment.
- Light Intensity:** 100-500 PPFD.
Increase depending on health and vigor.



CONCEPTION NURSERIES

Conception Nurseries is the leading cannabis tissue culture company in North America with major facilities in California.

GREENHOUSE/OUTDOOR TRANSPLANT STEPS



PREPPING YOUR AREA

When you are ready to transplant begin in a shaded area. We recommend 50% or greater shade cloth. Full day shade coverage is essential for the first 7 days.

In automated mixed light greenhouses (non-hoop), opening the curtain approximately 6" is adequate for the first few days.

BOOST THE IMMUNE SYSTEM

Wearing gloves, remove the film layer on the sterile plant pack and carefully remove the rooting tray. Submerge the rooting tray in a trichoderma-based inoculant per the inoculant label between 65 and 70 degrees Fahrenheit.

Any trichoderma product listed to fight/protect against fusarium and pythium will help protect the plantlets. Remove from inoculant solution after being submerged for 10-20 seconds and set on your working table. Remember, these plants are coming from an extremely sterile environment and are still developing their immune systems like a seedling. This step bolsters their immune system.

PREPPING YOUR SUBSTRATE

We recommend using a brand new, commercially engineered soilless substrate (peat, coco, perlite and/or lava rock, fertilizer) to optimize your success rate. Wet your substrate with pH balanced (6.0-6.5) water with enough nutrient (0.2 EC-2.0 EC) to semi-saturate the substrate. Strength will depend on whether your media is fortified with nutrients or not. If in doubt, start low with the EC. Ideally, the water temperature will be between 65 and 70 degrees.

GREENHOUSE/OUTDOOR TRANSPLANT STEPS



ROOT THE PLANT

Wearing gloves, gently remove the rooting cube from the tray. Place the rooting cube in the semi-saturated substrate in a 3-4" pot and place even or just below the substrate line. Make sure the plug does not sit up above the substrate. Make sure the plug and its roots are snugly touching the semi-saturated substrate.



FEEDING THE PLANT

At this stage, give a light feeding around each plantlet with 2 oz of 6.0 to 6.5 pH water with 0.2-2.0 EC in 65-70 degree water.



MAINTAINING HUMIDITY

Place freshly transplanted tissue culture clones in a 60-80% RH environment or a 10" x 20" tray covered with a humidity dome (vents open) for 1.5-2 days. While the humidity dome provides the best possible outcome, another strategy would be wetting the floor of the shadehouse or setting up a simple misting system to boost humidity.

GREENHOUSE/OUTDOOR TRANSPLANT STEPS



FOLLOW THROUGH

Remove the domes after 2 days. The plant will likely not need water yet based on your temperatures and humidity but you check daily for signs of moisture stress. As soon as you see the plant perk up and identify new healthy growth, you are on the right track. After the first few days, backing off to 50-75% humidity is adequate for the next 5-8 days and beyond.

Between day 3 to 6 from transplant (depending on your environment), your clones will need a second feeding. Water each plant with 2-4 oz of water at 0.5-2.0 EC, 65-70 degree water.



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Between day 7 and 12, begin moving them in the sunlight for a few hours per day or remove the shade cloth for a few hours per day. Increase sun exposure over multiple days depending on growth and health. Irrigate as needed. At this stage you should see perky, healthy plants. Finally they will be ready to go into the outdoors or unshaded greenhouse.

GREENHOUSE/OUTDOOR - THE FIRST 10 DAYS

DAYS 0-2

Temperature: 68-78 °F

EC: 0.2-2.0

Humidity: 80%

Shade level: 50-90%

Irrigation pH: 6.0-6.5

Water temperature: 65-70 °F

DAYS 3-5

Temperature: 65-85 °F

EC: 0.2-2.0

Humidity: 60-80%

Shade level: 50-80%

Irrigation pH: 6.0-6.5

Water temperature: 65-70 °F

DAYS 5-7

Temperature: 65-85 °F

EC: 0.5-2.0

Humidity: 60-75%

Shade level: 50%

Irrigation pH: 6.0-6.5

Water temperature: 65-70 °F

DAYS 7-10

Temperature: 65-85 °F

EC: 0.7-2.0

Humidity: 40-75%

Shade level: 20-50%

Irrigation pH: 6.0-6.5

Water temperature: 65-70 °F

GREENHOUSE/OUTDOOR EXTRA TIPS FOR SUCCESS



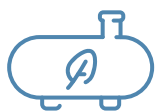
SHADE IS KEY

For outdoor and greenhouse cultivators the #1 most important thing is to not let the plantlets get any direct sunlight at any time of the day for the next 7 to 10 days depending on growth and health. Complete shade cloth coverage is essential. If your plants display any signs of stress in the first 10 days, the first thing we recommend is to back off on the sunlight.



KEEP LIGHT CONSISTENT

Many of the contemporary strains are more photoperiod sensitive than genetics from the 80s, 90s and 00s. Maintain light manipulation until the summer solstice for full term plants. Stopping manipulation early could lead to unwanted pre flowering characteristics and stunted growth.



CONSIDER APPLYING PLANT SUNSCREEN

Instead of weaning the plants off shade into full sun by increasing the hours of pure sunlight per day (day 7-12), some of our cultivator partners have success applying a kaolin clay foliar sunscreen on the plants between day 10-21 and going straight into full sun.



NO COLD SURFACES

Earlier in the spring and in some microclimates of the early summer, keep plants and trays off the cold ground. Microclimates vary across California and cooler temps can stunt growth and lead to problems.



SANITIZE

Make sure you sanitize your pots with a sanitizer solution and ensure the contact time meets the sanitizer label requirements.



ADD BIOLOGY

Day 7-12 might be a good time to add a broader spectrum biological product to optimize nutrition uptake.



LOW ECS

Not all cultivars will respond well to high ECs. If in doubt, start low.



ADJUST SHADE

Shade cloth at least 50% or greater. Recommend 60% for the first 3-5 days. Monitor for 10 days depending on growth.



AVOID FOLIAR KELP

We strongly do not recommend foliar sprays specifically derived from kelp. Our plants are sensitive to some of these products. We have noticed harmful impacts to flower development.