

## Standard Operating Procedure (SOP) for Successful Propagation using Excel QPlugs

**OBJECTIVE:** To ensure successful propagation of plants using iHORT Excel Plugs by following standardized procedures.

### MATERIALS REQUIRED:

1. iHORT Excel Plugs
2. Rooting hormone powder
3. Propagation trays
4. Watering can or misting system
5. pH meter
6. Labels for identification
7. Sterile tools (scissors or knife)

### PROCEDURE:

#### 1. Preparation of Cuttings:

- Take cuttings from healthy, disease-free plants using sterile tools.
- Apply rooting hormone powder to the base of each cutting to encourage root development.

#### 2. Inserting Cuttings into Excel Plugs:

- Immediately insert the prepared cuttings into iHORT Excel Plugs as they come out of the case or pallet.
- Ensure the base of the cutting is fully inserted into the plug to establish good contact with the rooting medium.

#### 3. Identifying Trays:

- Label each tray with the plant variety and date of propagation for identification.

#### 4. Initial Watering:

- Water the Excel Plugs immediately after insertion into trays using a misting system or watering can.
- Use a pH-balanced solution (5.5-6.3) to dampen the plugs. Avoid over-saturation.
- Prevent excessive standing water in bottom-carrying trays to avoid reabsorption by plugs.

#### 5. Observation and Maintenance:

- Monitor the moisture level of Excel Plugs regularly, ensuring they remain damp but not soaked.
- Check for signs of callousing and rooting after a few days.
- Do not initiate a nutrient program for the first few days to allow cuttings to establish.

#### 6. Nutrient Feeding:

- After approximately two days, check the runoff from the plugs to ensure they are absorbing nutrients.
- If using a nutrient solution, start with a light concentration, gradually increasing as plants develop.

#### 7. Temperature and Light Conditions:

- Place propagation trays in a well-lit area with indirect sunlight or under grow lights as appropriate.
- Maintain optimal temperature conditions suitable for the specific plant species being propagated.

#### 8. Monitoring and Record-keeping:

- Regularly monitor the progress of cuttings, noting any changes or issues.
- Maintain detailed records of watering schedules, nutrient feeding, and any adjustments made.

#### 9. Transplanting:

- Once roots have sufficiently developed, transplant rooted cuttings into individual pots or desired growing medium.

### SAFETY PRECAUTIONS

- Always use sterile tools to prevent the spread of diseases.
- Handle rooting hormone powder with care and follow safety guidelines provided by the manufacturer.

# Excel Plug<sup>®</sup>

Patented Quick-Start Trays

**Save money & time  
with pre-filled trays!**



**NOTE:** This SOP provides general guidelines for successful propagation using iHORT Excel Plugs. Adjustments may be necessary based on specific plant species and environmental conditions. Regular monitoring and attention to detail are essential for successful propagation outcomes. For specialized advice or assistance, contact iHORT directly.