

POTATO PLANLETS ACCLIMATIZATION

A. TOOLS:

- DFT (Deep Flow Technique) Installation
- EC/TDS meter
- pH meter
- Tray
- Tweezers
- Handsprayer
- Bucket

B. MATERIALS:

- Potato plantlet
- AB Mix nutrition
- Husk charcoal
- 70% alcohol
- Insecticide
- Detergent
- Clorox
- Razor blade
- Water
- Tissue

C. PROCEDURES:

1. Preparation

- a. Sanitize the screen house by cleaning all dirt (moss, plant residues, etc).
- b. Sanitize the Deep Flow Technique (DFT) installation.
- c. Sterilize the screen house with Clorox 2.5 ml/liter and insecticide 5 ml/liter (using formalin is better).
- d. Sterilize the DFT installation with Clorox 2.5 ml/liter.
- e. Perform sterilization activities 1 week before planting activities, do it 2-3 times.
- f. Wash the tray (planting media) with detergent until clean and soak with Clorox 2,5 ml/liter for 5 minutes.
- g. Make sure the husks burn completely (husk charcoal that has been burn completely and is being used for the first time, does not need to be sterilized).
- h. Put in the rice husk charcoal planting media into the tray, no need to press or compact it.
- i. Pour water into the planting medium with plain water until saturated.

- j. Make a planting hole with a distance of 2-3 cm and a depth of 3-5 cm.
- k. Planting media ready for planting plantlets.

2. Planting

- a. Prepare plantlets that are still in bottles from tissue culture techniques.
- b. Put the plantlets in the acclimatization room for 1-2 days before the planting process for adaptation.
- c. Prepare a plastic tray to clean the plantlets from the agar media.
- d. Open the bottle cap, then remove the plantlet from the bottle carefully using tweezers.
- e. Clean the plantlets from the agar media with clean water until there is no agar sticking to the plantlets.
- f. Store the cleaned plantlets in a container.
- g. Cut the plantlets that are too long at the rooted part using a sharp razor blade that has been sterilized with 70% alcohol.
- h. Plant in the planting media that has been prepared previously.
- i. Close the planting hole slowly (don't press too much).
- j. Place the embedded tray on the DFT installation.

3. Maintenance

- a. Make sure the nutrient circulation (AB Mix) in the DFT installation always runs for 24 hours (if using a timer, it is enough to set it 10-15 hours per day).
- b. Check nutrition every day (check nutrient volume, ion content in solution, and water pH) using EC/TDS Meter and pH Meter.
- c. Add nutrient solution if reduced.
- d. Make sure the DFT installation is always clean of moss and other debris. If the installation is dirty, clean it immediately.
- e. Perform plant selection (remove plants with purple trunks, wide and yellow leaves).
- f. Spray using insecticide 2 ml/liter 1 week 2 times or adjust to the intensity of the attack.
- g. Age 14-21 days, the plant is ready to be used as a source of planting material (seed) 1st Cuttings.
- h. Plants can be used as a source of seeds 2-3 times.

1st CUTTINGS SEEDS PROCEDURE

A. TOOLS:

- Instalasi DFT
- EC/TDS meter
- pH meter
- Tray
- Handsprayer
- Bucket

B. MATERIALS:

- 1st cuttings seeds
- AB Mix nutrition
- Husk charcoal
- 70% alcohol
- Insecticide
- Detergent
- Clorox
- Razor blade
- Plain water
- Tissue

C. PROCEDURES:

1. Preparation

- a. Sanitize the screen house by cleaning all dirt (moss, plant residues, etc).
- b. Sanitize the Deep Flow Technique (DFT) installation.
- c. Sterilize the screen house with Clorox 2.5 ml/liter and insecticide 5 ml/liter (using formalin is better).
- d. Sterilize the DFT installation with Clorox 2.5 ml/liter.
- e. Perform sterilization activities 1 week before planting activities, do it 2-3 times.
- f. Wash the tray (planting media) with detergent until clean and soak with Clorox 2,5 ml/liter for 5 minutes.
- g. Make sure the husks burn completely (husk charcoal that has been burn completely and is being used for the first time, does not need to be sterilized).
- h. Put in the rice husk charcoal planting media into the tray, no need to press or compact it.
- i. Pour water into the planting medium with plain water until saturated.
- j. Make a planting hole with a distance of 2-3 cm and a depth of 3-5 cm.
- k. Planting media ready for planting planlets.

2. Planting

- a. Soak the planting material (seed cuttings) with a root stimulant before planting.
- b. Plant the seed cuttings into the planting media that has been prepared previously.

3. Maintenance

- a. Maintenance 1st cuttings seeds stage is the same as the acclimatization maintenance.
- b. Age 14-21 the plant is ready to be used as a source of planting material (seed) 2nd Cuttings.
- c. Cut the plant from the top 3 nodes (3 leaves) with the stem length below the book/bottom leaf, 3-5 cm long. Use a sharp razor that has been sterilized with 70% alcohol.
- d. Plants that are still in the planting medium are left to grow new shoots for further cutting (maximum 2-3 times cuttings).

2nd CUTTINGS SEEDS PROCEDURE

A. TOOLS:

- DFT (Deep Flow Technique) Installation
- EC/TDS meter
- pH meter
- Tray
- Handsprayer
- Bucket

B. MATERIALS:

- Cuttings seeds
- AB Mix nutrition
- Husk charcoal
- 70% alcohol
- Insecticide
- Detergent
- Clorox
- Razor blade
- Plain Water
- Tissue

C. PROCEDURES:

1. Preparation

- a. Sanitize the screen house by cleaning all dirt (moss, plant residues, etc).
- b. Sanitize the Deep Flow Technique (DFT) installation.
- c. Sterilize the screen house with Clorox 2.5 ml/liter and insecticide 5 ml/liter (using formalin is better).
- d. Sterilize the DFT installation with Clorox 2.5 ml/liter.
- e. Perform sterilization activities 1 week before planting activities, do it 2-3 times.
- f. Wash the tray (planting media) with detergent until clean and soak with Clorox 2,5 ml/liter for 5 minutes.
- g. Make sure the husks burn completely (husk charcoal that has been burn completely and is being used for the first time, does not need to be sterilized).
- h. Put in the rice husk charcoal planting media into the tray, no need to press or compact it.
- i. Pour water into the planting medium with plain water until saturated.
- j. Make a planting hole with a distance of 2-3 cm and a depth of 3-5 cm.
- k. Planting media ready for planting planlets.

2. Planting

- a. Soak the planting material (seed cuttings) with a root stimulant before planting.
- b. Plant the seed cuttings into the planting media that has been prepared previously.

3. Maintenance

- a. Maintenance 2nd cuttings seeds stage is the same as the acclimatization maintenance.
- b. Age 14-21 the plant is ready to be used as a source of planting material (seed) 3rd Cuttings seeds.
- c. Cut the plant in each node (1 leaf). Use leaves that have opened (which are still buds removed). Use a sharp razor that has been sterilized with 70% alcohol.
- d. Plants that are still in the planting medium are left to grow new shoots for further cutting (maximum 2-3 times cuttings).

3rd CUTTINGS SEEDS PROCEDURE

A. TOOLS:

- Instalasi DFT
- EC/TDS meter
- pH meter
- Wadah/tray
- Sprayer/handsprayer
- Ember

B. MATERIALS:

- Benih stek
- Nutrisi AB Mix
- Arang sekam
- Alkohol 70%
- Insektisida
- Detergent
- Bayclin
- Silet
- Air
- Tissue

C. PROCEDURES:

1. Preparation

- a. Sanitize the screen house by cleaning all dirt (moss, plant residues, etc).
- b. Sanitize the Deep Flow Technique (DFT) installation.
- c. Sterilize the screen house with Clorox 2.5 ml/liter and insecticide 5 ml/liter (using formalin is better).
- d. Sterilize the DFT installation with Clorox 2.5 ml/liter.
- e. Perform sterilization activities 1 week before planting activities, do it 2-3 times.
- f. Wash the tray (planting media) with detergent until clean and soak with Clorox 2,5 ml/liter for 5 minutes.
- g. Make sure the husks burn completely (husk charcoal that has been burn completely and is being used for the first time, does not need to be sterilized).
- h. Put in the rice husk charcoal planting media into the tray, no need to press or compact it.
- i. Pour water into the planting medium with plain water until saturated.
- j. Make a planting hole with a distance of 2-3 cm and a depth of 3-5 cm.
- k. Planting media ready for planting planlets.

2. Planting

- a. Soak the planting material (seed cuttings) with a root stimulant before planting.
- b. Plant the seed cuttings into the planting media that has been prepared previously.

3. Maintenance

- a. Maintenance 3rd cuttings seeds stage is the same as the acclimatization maintenance.
- b. Ages 14-21 plants are ready to be used as a source of planting material (seeds) that are ready to be planted with the Aeroponics System (G0 Seeds).
- c. Cut the plant from the top 3 nodes (3 leaves) with the stem length below the book/bottom leaf, 3-5 cm long. Use a sharp razor that has been sterilized with 70% alcohol.
- d. Plants that are still in the planting medium are left to grow new shoots for further cutting (maximum 2-3 times cuttings).