

# Enhancing Capacity

## OF LOUISIANA'S SMALL FARMS AND BUSINESSES

SUSTAINABLE URBAN AGRICULTURE CERTIFICATION PROGRAM



*How to use Rockwool Cubes for Germinating Seeds and Propagating New Cuttings for Hydroponic Farming*

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**What are Rockwool Cubes?** Rockwool is a dense mat consisting of long strands of natural fibers. Rockwool cubes are considered to be a natural product even though they are man-made, because they originate from basaltic rock and chalk which are natural ingredients. Rockwool cubes are popular with hydroponics growers, as well as conventional growers because of their beneficial structure which makes them acceptable in organic growing systems.

### Preparation of Rockwool Cubes:

- Wear protective gear to keep yourself safe when handling rockwool material.
- Properly prepare rockwool cubes before starting seeds. Rockwool cubes pH levels are too high for optimum plant growth and will create problems and instability within the hydroponics system if left at that alkalinity.
- Sterilize the feeding solution before running it back through the rockwool cubes.
- Heat the rockwool cubes if you are going to reuse them for a successive growing season, or even numerous seasons (boiling hot water or steam).
- Dispose of the materials properly after you are done using the cubes.

Rockwool cubes usually have a pH of 8.0 which isn't optimum for growing plants. This high pH will make many plant essential nutrients unavailable for plant uptake, causing deficiency symptoms. The pH of rockwool cubes should be brought down to a more acidic level of 5.5 to 6.5 (slightly acidic to neutral).



### *Quick Note*

**Growing new plants through propagation techniques need to happen in a sterile environment, free of bacteria or fungus.**

Prepare the rockwool cubes for use, making sure to soak them in pH adjusted water to bring their pH down between 5.5 and 6.5.

# Step-by-Step Instructions

## Seed Planting

Insert 2 seeds in the hole on the top of the rockwool cube and press the seeds down to the bottom of the hole. Pinch the hole close and place the cubes in a nursery tray and cover with a humidity dome to lock in moisture. Try to maintain at 70 - 80°.

Continue to keep rockwool cubes moist by watering sparingly every couple of days. Remove from humidity dome and place under lights (if indoors) as soon as seeds sprout. Transplant when plantlets reach 2-3" in height.



## Propagate Cuttings

Water the stock plant well the night before beginning the propagation process. Remove a 3-4" leaf stem cutting from the main stem of the plant, cutting it off as close to the main stem as possible without damaging the node.

Plant the cutting in the rockwool cube making sure it doesn't poke out the bottom of the cube. Next fill a nursery tray part way full with perlite or vermiculite. Set rockwool cubes on top of growing media. Cover nursery tray with a humidity dome to lock in moisture.

Continuously check temperature to maintain close to 80°. Open vents on humidity dome when roots begin to emerge. Remove the humidity dome a couple of days after roots first appear. Transplant when roots begin to poke out the bottom of the cubes.



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