

# GrowBox



## Planting Q&A

Version 2.0

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Q1 : Sprouts are stuck in the sponge and can't come out.

A1 : Pull the sprouts gently out from the sponge with tweezers, make sure the seed capsule's top half is not stopping the growth of a sprout.

Q2 : Plant roots are rotting or are infected.

A2 : Remove the rotted or infected plant immediately. If this affected many plants, discard all plants right away and clean the machine. Get it dry, spray with alcohol and wait for 3-5 days, then start a new planting cycle.

Q3 : Leaves are smaller or color changed to yellow.

- A3 : 1. Make sure the sponge or plant's root is soaking in water. If not, add more water to obtain standard level.  
2. Check EC and pH according to **user manual** page 25.  
3. Press Pump button to ON to increase water and air flow to the plants.  
4. Press the LED button to ON to give more light per cycle to plants.



Q4 : Leaves are slender with a long stem.

A4 : The plant may need more light. Lower the LED Growth Lamps and ensure all plants are covered. Press LED button to ON to make it brighter.

Q5 : Leaves are becoming too dark green.

A5 : Please add water to lower EC by 500  $\mu\text{S}/\text{cm}$  (=0.5 ms/cm) on the scale.



Dark Green Normal Green



# Planting Q&A

Q6 : How do I get rid of algae during plant growth?

A6 : Just like any green plant, algae growth is affected by light, water/nutrition, and air.

We can make certain adjustments to reduce the occurrence of algae.

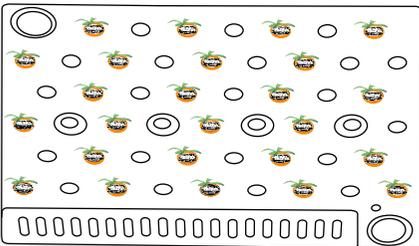
1. There may be too much light. You may to cover the growing plate with green cloth (see **user manual** page 13) and cover the sprout area with the sprout cover or a sprout sponge.
2. If algae is on the sponge, it may be caused by the sponge being too wet. Adjust the water level so that it does not reach the top of sponge.
3. There may be too much nutrition in the water; please check EC and keep it between 1000-2000  $\mu\text{S}/\text{cm}$  (=1.0-2.0 ms/cm) (refer to **user manual** page 25). If EC is too high, add water to dilute.

If there is still a lot of algae, you may want to replant after cleaning/drying the unit, and treating the machine, sprout box with alcohol to disinfect.

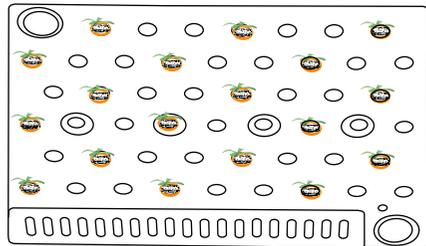
Q7 : As plants grow big, they don't have enough space.

A7 : GrowBox comes with 50 plant sites. With smaller plants like mint, you can grow in every hole and have the biggest harvest possible. With larger plants, you may want to grow in 20 to 25 holes to give the plants more space.

With a very large vegetable like Boston Lettuce, you may want to plant the seeds using 18 holes, as shown below.



25 plants



18 plants

Note that with hydroponic growing, we can put plants more closely than growing traditionally in soil, as the plants do not have to use a large soil area to get all the necessary nutrients. We feed the nutrients directly onto the roots so they don't need to use energy to grow as large of a root system.



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Q8 : Can we grow other plants with the GrowBox appliance than the seeds you provide?

A8 : Yes, you can. Plants that can grow hydroponically, can grow in OPCOM appliances, however each plant may need adjustment to the light, nutrition, cycle time, and pH level.

Opcom is developing an offering of seed packets that will be easy to grow with your GrowWall, and in our Learning Center at [www.opcomfarm.com](http://www.opcomfarm.com) you will find tips for growing a variety of plants.

Note that some fruit varieties may also need a flowering and pollination process.

Q9: Can standard seeds without capsules and seedling sponge be used?

A9 : OPCOM advanced capsule seed packets are easy to use, and maintains control of a good sprouting rate. Other market seeds or sponges may also be used in this machine, but we cannot guarantee the result. To plant other seeds, drop 3-4 seeds into the opening of a sponge, and just below the surface of sponge.

Q10: Can I grow edible sprouts with the GrowBox?

A10 : Yes, this appliance works not only for growing plants, you may also use it to sprout beans, wheatgrass etc. After sprouting plant seeds in the nursery area and moving the young plant transplants out into their growth holes, the nursery area will be free for around 3-4 weeks while the appliance is in use for growing the plants. Within one Hydroponics cycle time, you have 3-4 sprout harvests and each harvest cycle is 7-10 days. Refer to **user manual** pages 19-20 for details.

