

## Cucumber Manual For Better Pythium Resistance

Plant raiser stage:

1. Irrigate according to the variety (if more than one variety on the floor).
2. Do not let the block stay too wet or dry out too much – every variety will dry out at its own rate.
3. Deliver a younger plant rather than an old plant. The older plant seems to root in faster, but is more sensitive to infection.
4. Make sure the climate is active. Always use the pipes and do not over use the energy screens.

Planting out stage:

1. Try and avoid extreme high or low humidity levels in the greenhouse.
2. Consider using a preventative chemical root treatment/ root stimulator.
3. Different growing media will have different needs. Coco fibre slabs might draw more moisture out of the rockwool block than rockwool slabs for example. Do not let the rockwool block dry out in the days after planting. The young plant is getting all its water from the irrigation you give. In general the drier growing media is more resistant to pythium infection.
4. Monitor the water temperature in the irrigation system. Too high >25C or too low <12C will accelerate the problem.

After planting out:

1. If you used a chemical treatment when planting, remember to repeat it again according to the recommendations of the chemical company.
2. Plants that had a problem with pythium when planting out will be more susceptible again under heavy fruit load or whenever the correct conditions for the disease reappear.
3. Consider pruning the main stem fruits to a number that is less than normal for your greenhouse. This will help in developing the side shoots earlier and making for a better transition from the main stem to the laterals. Some varieties (like Addison RZ) are very fast in development and this makes for a lot of stress on the root system. What you give up in production on the main stem (from extra fruit pruning) you will be paid back extra in the laterals. You will have higher overall production and a more stable plant that is more disease resistant.
4. Avoid very low humidity. When the growing point cannot get enough water, you will lose roots and allow for disease infection.
5. Cucumbers need a lot of water with a heavy fruit load, but also keep in mind that the moisture content in the growing media needs to come down a bit overnight. This will ensure good root activity/ growth in the morning.
6. When the head is removed in the traditional system, you will also lose some roots and the plants will be more susceptible. This can be a good time to use a chemical root treatment/ stimulator.

