

TECH TIP: EDEMA AFFECTING BEGONIA

Question: My Begonia crop is showing signs of curly leaves and leaf edges, as well as odd flower forms. What could cause this? Is this a nutritional issue?

Answer: This appears to be edema. Also look for low B/Ca, which would happen with edema conditions (high Relative Humidity).

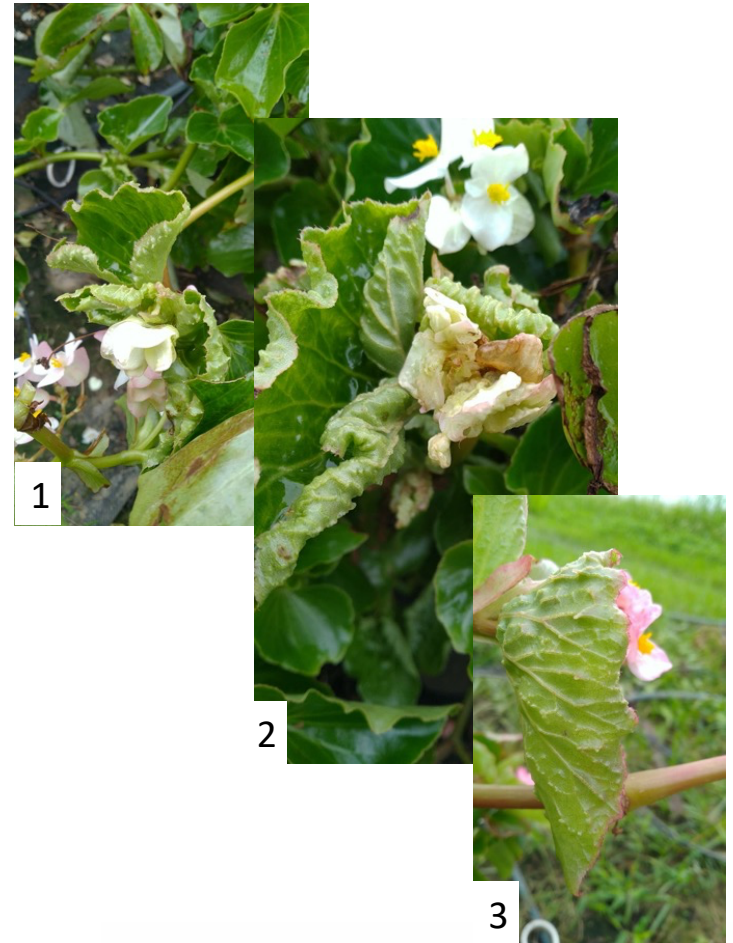
High RH causes low evaporation leading to lower uptake of Ca and B and increased edema risk.

Ca/B deficiency results in brown leaf edges, crinkled/cupped leaves and malformed flowers like you see in photos 1 & 2.

Signs of edema (oedema), a common physiological disorder, vary between susceptible species. They often include bumps, blisters or water-soaked areas on the undersides of leaves. These areas may expand and become corky, but in other plants, curling and distortion are common. White, crusty eruptions may form along the leaf veins or gall-like structures can develop under leaves with yellow corresponding spots on the upper leaf surface like you see in photo 3.

Here are some tips to avoid these problems under high RH conditions. Stimulate evaporation of the plants by:

- Creating air movement in the greenhouse to reduce RH around the plant by using HAF or opening the vents.
- Keeping the media slightly dry, especially at the end of the day. Try to avoid going into the night with wet (Level 4) growing media.
- Apply enough (extra) Ca and B with your fertilizer solution.
- Use drip irrigation instead of overhead watering to avoid wet foliage.



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