How to Handle New Vegetative Cuttings When They Arrive

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Many growers now receive a significant number of rooted cuttings that are part of their spring bedding plant program. However, we consistently see problems each year because each of these plants is treated the same and certain species need specific requirements early in production for a successful crop. For that reason, I will quickly go over specific issues with some species which have regular problems.

General Procedures:

- Cuttings should be unpacked as soon as possible, watered and placed in filtered sun. NEVER put on dirty benches, or even worse, on the ground!
- Cuttings should be planted into pots, packs or baskets as soon as possible.
- Care should be taken to not scratch the stem when planting and to not plant a cutting too deep into media. Both of these can increase the incidence of root rot.
- Rooting is optimal when media temperatures are between 68–76°F. For this reason, newly potted cuttings should be grown warmer to facilitate rooting.
- Cuttings should be initially watered in, but then allowed to dry out periodically to encourage rooting.
- One of the early, if not the first, watering should be with a fungicide that includes materials to control *Rhizoctonia, Pythium* and *Phytophthora.*

Specific Crop Requirements:

New Guinea Impatiens – New Guinea Impatiens need a higher pH and warm temperatures after they arrive. Every year we see cuttings that show symptoms of micronutrient toxicity because they are started at a pH that is too low or growers make the mistake of fertilizing with an acidic fertilizer which drives their pH down. Never use the 'Seedling Starter' fertilizer that is available with New Guinea impatiens! I recommend the following procedures:

- Plant cuttings into a media that has a pH of 6.2 – 6.8. Increase media pH by leaching with straight well water or using liquid lime.
- Fertilize with 15-0-15 fertilizer which is usually alkaline and will increase pH to keep pH in the range that you want.
- Initially grow rooted cuttings at temperatures above 68°F day and night!

Calibracoa – Calibracoa often have problems with root rot. In particular we notice that cuttings are very susceptible to *Phytophthora*. For this reason it is important to drench new cuttings for control of root rot. Drench with Subdue, Truban, Banrot, or Banol to control *Phytophthora*. In addition, Calibracoa prefer a lower pH (5.3 – 6.2) (in contrast to New Guinea Impatiens above). Apply acidic fertilizers (20-10-20) judiciously to keep pH down – remember to not let ammonium build up above 15 on a Spurway soil test. Alternatively, do a periodic acid drench with 2 oz sulfuric acid in 100 gallons of water to drop the pH about 0.5 units.

Bacopa – Bacopa is indigenous to South Africa. Bacopa prefers a pH of < 6.2. All of us have seen what happens to Bacopa when the pH is > 6.5 – leaf yellowing occurs. In addition, if Bacopa are grown too wet, leaf yellowing will also occur. Lastly, if Bacopa dry out, they will stop flowering. Bacopa can develop *Botrytis* in the box pretty easily – for this reason, unpack and space ASAP!

Nemesia – Nemesia as Calibracoa prefers a low pH (5.2 – 6.4). In addition, this crop is susceptible to *Rhizoctonia*. For this reason, drench with Banrot, Cleary's 3336, Terraguard or Chipco 26019. In addition, plant in a low pH media and use acidic fertilizers when possible (20-10-20) and do not let ammonium levels exceed 15. Nemesia also does not like to be grown wet.

Heliotrope - This crop is susceptible to *Rhizoctonia*. For this reason, drench with Banrot, Cleary's 3336, Terraguard or Chipco 26019. In addition, Heliotrope must be grown at warmer temperatures >65-68°F or they become more susceptible to root rots.

Scaveola – Scaveola is a South African species. Therefore it, like Osteospermum, prefers a lower pH (< 6.5). Therefore, fertilize with an acidic fertilizer periodically or do periodic acid drenches to bring pH down. I recommend including 20-10-20 and/or 15-5-15 fertilizer blends with your growing schedule.

Osteospermum – Treat Osteospermum as Scaveola above. Also remember that Osteospermum flowering is optimal when plants are grown cooler. For this reason, after the initial rooting period, grow at cooler temperatures, i.e. <70°F.

Zonal Geraniums – Zonal geraniums, as New Guinea impatiens, prefer pH levels that are > 6.2. I have noticed that this is becoming increasingly apparent with time with new cultivars – I wonder if seed geranium germplasm is being bred into zonal geraniums making them more sensitive to low pH! Usually, you will notice some cultivars that just don't seem to grow as well when pH is lower than 6.2. In addition to pH problems, zonal geraniums can have increased *Pythium* when grown in non-optimal conditions or when there are fungus gnat larvae. For this reason, make sure that you are applying a monthly drench of Truban, Banrot, Subdue, or Banol.