



By Erik Runkle



# Problems with Petunia Production?

Petunias are among the most common spring crops in the garden center, but some persistent challenges can lower quality and cause serious headaches for growers.

**P**etunia is one of the most common floriculture crops grown each spring. Petunias produced without any problems can look great and “walk” off the retail shelf. However, several challenges that commonly arise during production can lower the crop’s quality and even render them unmarketable if they’re not controlled. Here are some of the most common production problems I’ve encountered over the years.

## Plugs Held Too Long

If petunia is held too long in the plug tray, growth after transplant can be variable and poor. Plugs held too long can develop a tight, circular root system that may not root out well into their final containers. If root growth is inhibited, shoot growth is also usually inhibited, and plants may not fill their containers. In addition, the media pH of overgrown plugs can change rapidly because they have to be watered so frequently. Petunia should be a transplanting priority so that plants do not sit in plug trays longer than scheduled.

## Media pH Is Too High

Petunia performs best when the root zone pH is between 5.4 and 6.0. At a higher pH, some micronutrients (particularly iron) may not be readily available; as a result, plants often develop interveinal chlorosis. Because petunia is so sensitive to high pH, you should test and chart media regularly (once a week) so that you can identify drifts in pH before plants show high-pH symptoms. If the media pH becomes high, you may need to make changes to your fertility program and/or the acidification of your water.

For example, you could switch to a fertilizer that has a more acidic reaction (higher percentage of ammonium), and you could inject more acid to reduce the water’s alkalinity.



*Petunia shows early symptoms of high media pH.*

## Photoperiod Is Not Managed

A common production goal is to produce flowers in a minimal amount of time while still maintaining an acceptable plant quality. Long days either accelerate or are required for flowering, depending on the petunia cultivar. To ensure rapid flowering, provide artificial long days (at least 10 foot-candles of light, from any light source) until mid-April or until flower buds are visible.

Early flowering of petunia can be as much of a production challenge as delayed flowering. Lighting can begin toward the end of the plug stage if plants will be finished in small containers, but long-day lighting early during the plug stage may not be desirable if plants are to be finished in larger containers; flowering could occur too early and plants may not adequately fill their containers.

## PGRs Not Used Proactively

Many petunia varieties require height control techniques to finish at a desirable height. Some of the best petunias I’ve seen were treated with early, low-rate drenches of paclobutrazol (Bonzi, Paczol or Piccolo), but other plant growth regulators also can be used with effective results. Early PGR applications are often necessary, especially for more vigorous varieties. Avoid late spray applications, especially of products that contain paclobutrazol or uniconazole (Concise or Sumagic), because they can delay flowering by a week or more. **GPN**

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*Providing petunias with long days early in the plug stage can induce premature flowering after transplant.*