GROWERTALKS

Paul's Pointers

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Failing in the Fall is Not an Option

Paul Pilon

Many growers, particularly those who only produce and sell annuals (bedding plants), are accustomed to finishing their production for the year either after the Memorial Day holiday or after the fall (garden mum) sales windows. However, more and more growers are producing perennials and find themselves starting them in the summer and/or fall, overwintering them, and then selling them the following spring. Overwintering plants isn't necessarily easy and carries risks for those who elect to produce perennials in this manner.

Benefits of late summer/fall planting

There are four primary benefits (bulking, labor, quality and reduced heating) for summer/fall planting perennials:

- **Bulking**—Summer/fall planting allows them to size up before being overwintered. Think of bulking as a method to produce better plants. There are some perennials, such as hosta, that really benefit from long bulking periods (several months). Most perennials require less time, often only needing six to eight weeks to get established before winter arrives.
- Labor—Summer planting allows growers to keep the labor they have busy during the summer months, allowing them to reduce the workload in the late winter and early spring the following year.
- **Reduced heating**—Bulking in the late summer can be done without using heat. Therefore, growers will reduce some energy and costs associated with growing and sizing plants up compared with spring planting. Additionally, perennials that have been overwintered tend to grow faster and can be grown cooler, which also contributes to reduced energy consumption.
- Plant quality—Many perennials require a cold treatment (cold required) in order for them to flower, while others flower better (cold beneficial) when a cold treatment is provided. Overwintering satisfies these requirements. Late summer planting not only ensures plants receive this cold treatment, but fall bulking periods result in plants that generally have more branches (more flowers!) and appear fuller than spring-planted perennials.

Risks of overwintering

I briefly mentioned above that overwintering plants involves risk. The main risk is surviving the winter. That's a whole subject in itself (sounds like a good topic for the next article), but first thing's first. Successful overwintering almost exclusively entails the successful survival of the root system. Protecting roots from cold damage is very important, but many growers forget about the importance of optimizing root health in the fall before plants are even exposed to cold temperatures.

Simply put, a healthy root system must be present for a plant to survive the winter. All too often, I come across

perennials with poor, inadequate and/or unhealthy root systems going into the winter. Entering the winter with compromised root systems usually doesn't equate to great outcomes following the coldest months of the year.

Fall activities

I cannot emphasize enough the importance of taking steps now to ensure the root systems of the perennials you intend to overwinter are as healthy as possible in the fall.

- 1) Consider frequently inspecting the root systems early in the fall to identify crops that aren't well established and/or have compromised root systems. At a minimum, these evaluations should occur at least six weeks before the temperatures are expected to drop consistently below 50F (10C). This allows time for fungicide applications to be made and for the plants to regrow healthy root systems while temperatures are conducive for root development.
- 2) If the perennials appear variable, the containers are only lightly rooted or the roots appear unhealthy. I usually opt to apply broad-spectrum fungicide drenches to these crops. My go-to fall drenches usually consist of the fungicides Empress or the combination of Segway O + OHP 6672 (other broad-spectrum fungicides can be effective as well).





Unfortunately, many growers wait too long to apply these fall drenches, often making them at the onset of cold temperatures. This doesn't allow enough time for the roots to improve, and fungicides are also less effective at controlling pathogens when the temperatures are cold and the pathogens are less active. The key is to apply fungicides early in the fall when the temperatures are warm enough to better control the pathogens and to allow enough time for the plants to regenerate and grow healthy roots before winter sets in. Remember, healthy roots are critical for winter survival.

Pictured top: This crop of echinacea was planted five weeks ago. The plant on the left is fully rooted and the roots appear healthy; the plant on the right has healthy-looking roots, but there are significantly fewer roots. When there's significant variability in rooting within a crop, I consider applying a broad-spectrum fungicide drench to remove any pressure from root rot pathogens.

Below: Here's a summer planting of baptisia. The plant on the right had healthy roots at one time that have succumbed to undiagnosed root rot pathogens. It's very

important to apply fungicides to crops with unhealthy roots early in the fall to allow time to stop the disease and rebuild the root system before winter arrives.

- 3) As fall progresses, reduce the fertility being delivered to more closely match what the plants are using. Plant growth is greatly reduced with the cooler temperatures and the shorter days of the fall season. A good rule of thumb is to reduce the fertilizer rates being applied by about 50% in the fall. Plants grown with high fertility can be prone to root pathogens and take longer to acclimate to cold temperatures.
- 4) The amount of irrigation needed by plants in the fall is also significantly less than during the summer months. It's

relatively easy to overwater in the fall. Too much irrigation results in soft growth, delays acclimation, and most importantly, leads to crown and root rots.

In summary, success with late summer or early fall plantings of perennials is not a given. The largest, or should I say riskiest, obstacle is the winter. Growers who fail to monitor roots in the fall and take steps to maximize their health are at a great disadvantage and may find themselves dealing with undesirable plant mortality, crop variability and decreased plant quality in the spring. Failing to take these steps in the fall should not be an option. **GT**

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