To Pinch or Not to Pinch

Garden mum season is almost upon us. Pinching is one task that challenges many growers for various reasons. Understandably, many growers are thinking about moving to the “no-pinch” technique but have many questions.

Garden mums can be direct stuck in the finish pot or rooted in a liner before pinching and transplanting. The decision about which method to use depends most often on available propagation space, as well as the method of pinching used: mechanical or manual.

It’s difficult to mechanically pinch (often called “mowing”) direct-stuck garden mums due to differences in bench uniformity and shoot height. Direct-stuck garden mums generally remain more compact than tightly spaced plants in liners and, therefore, very small differences in height between plants can make it hard to get a good pinch with a mower. Generally, the only way to successfully mechanically pinch a direct-stuck mum is to allow the plants to grow to a “large” size, which can result in excessively hard pinches on some plants when plants are pinched (Figure 1). A hard pinch generally doesn’t break as well as a soft pinch and adds time to the crop.

Mechanically pinching plants in liners is easier than direct stick because tightly grown plants don’t immediately branch, but elongate upward. Elongated shoots are much easier to mow in a liner. Timing of mechanical pinching is critical—as one must wait until plants are well rooted and have started elongating—but not so late that lateral branching is inhibited on hard and old lateral shoots on the bottom of a tall plant. When done properly, plants have multiple nodes below the pinch or mow height with healthy leaves remaining on the plant (Figure 2).

The biggest problems associated with mowing a short plant is mowing too deep and scalping. Or as I often say, “butchering the plants” by cutting off most or all of the leaves and leaving a naked stem (Figure 3). However, I’ve seen as many tall plants butchered as short ones, so the person operating the mower must be well trained and on their game.

If one allows plants to get too tall before mowing, plants develop mature lower nodes that don’t readily branch after pinching. In my experience, garden mums are normally mowed about 16 to 18 days after sticking and as early as 14 days and sometimes as late as 21 days. In this window of time, plants are generally tall enough to easily mow without scalping, but not so tall and old that basal nodes don’t branch. Of course, manual pinching by hand is possible at essentially any time using either production method, as workers can get to the plants and remove the growing tip at the right time without worrying about height for a cutter.

The “no-pinch” method is by no means new, but many people don’t realize the many advantages this method holds. Growers using non-pinched plants benefit from savings in labor and reductions in production time. Producing unpinned plants can also be achieved by direct stick or by rooting in a liner. Direct sticking to the finish pot and then growing the plant as unpinned is very easy. Production in liners is also easy, but the key difference is that one ideally transplants the plant as soon as it’s rooted. Growers who switch to no-pinch mums often initially make the mistake of using the same amount of time from stick to transplant as they used in the pinch program. This extra time in the liner results in a naked stem at the base of the plant as shoots develop from the upper part of the plant versus the lower part of the plant (Figure 4).
Highlights from CAD include:

Immigration Reform: Solutions for a Broken Program | Immigration reform for agriculture has become a perennial issue for many SAF members. Despite passage of a Senate “comprehensive reform” bill last year, against the backdrop of political infighting and looming mid-term elections, passage in the House is a much harder battle.

The need for immigration reform drove first-time attendee Mike Mooney of Dramm and Echter in Encinitas, California, to attend CAD this year. “We’ve been growing [sales] for four years, but the potential to be stagnant next year motivated me,” he said, noting that myriad issues, including labor shortages and the convoluted immigration system, are posing steep challenges. Like many southern California growers, the team at Dramm and Echter depend on immigrant labor and need a stable workforce. About 11 of Mooney’s employees come legally from Mexico to work and then return home in the evenings. Crossing the border can take up to five hours in the morning, and then another two or three hours at night. “That’s on top of a 10-hour workday,” Mooney explained. The wasted time takes a toll on employees and reduces the efficiency of California growers, Mooney argued. If the system were improved, “we could start planting more plants tomorrow,” he said.

SAF Senior Director of Government Relations Lin Schmale said it isn’t unusual for growers to lose valued workers in that way, only to see them turn up at a competitor’s farm later. “These are economic issues,” said Schmale. “We’ve taken immigration reform to the Hill for many years. Don’t be discouraged by that. Every time we talk about immigration reform, it helps.”

ACA Fixes: Jobs Over Politics | CAD attendees also rallied to educate lawmakers and congressional staff on the real-world implications of how the new health care law defines full-time staff members (“with respect to any month, an employee who is employed on average at least 30 hours of service per week”) and seasonal workers (the ACA’s seasonal exception applies only to determining business size and can only be utilized by employers whose workforce exceeds 50 full-time equivalents for 120 days or less; only after those conditions are met can the limited seasonal exception be applied.)

The definition of full-time work in the law is unprecedented and potentially damaging to businesses of all size, said SAF Senior Director of Government Relations Corey Connors. “Until passage of the ACA, employers were free to determine what constituted full-time employment within their businesses,” Connors said, noting that terms defined in a law can have a “viral effect” moving from one piece of legislation to another. “Virtually all SAF members consider something greater than 30 [hours a week] to be a full-time standard.” GT
In my experience, the time from stick to start of short days (either by black cloth or by natural short days) should be less when plants aren't pinched compared to pinched plants if one wants the same final plant size. This is because non-pinched plants grown with the same time schedule tend to finish larger than pinched plants (Figure 5). A general rule of thumb is to reduce the grow time by one week, as one is no longer removing part of the plant when one doesn't pinch.

For example, if one was rooting in liners and normally transplanted three weeks after sticking and then grew the plant for an additional four weeks before short days (for example, a typical 8-in. production schedule), one could reduce this seven weeks from stick to short days to six weeks. Failing to transplant at two weeks rather than three weeks will almost certainly result in a taller plant with a naked basal part of the plant.

Essentially, all mum cultivars can be produced non-pinched in larger pots under normal day conditions. Most garden mum suppliers will indicate in their cultivar listings which cultivars perform well in a non-pinch production schedule. However, production of non-pinched blackout mums is less common, but not impossible. Genetics play a large part in the successful production of black cloth non-pinched mums. There can be more than one reason a cultivar doesn't perform well as a non-pinched plant produced under blackout conditions, but the typical reason is that the plant doesn't branch properly to form the "mounding" habit typically desired for a finished flowering garden mum. (Note the plant in Figure 6 where the plant has developed a dominant terminal bud with apical dominance over lower lateral shoot development.)

Producing high-quality mums can be achieved by many different methods, but growers need to pay attention to the small details. If you're currently pinching all of your crops, consider trialing a no-pinching crop this summer using the concepts above. GT