GROWERTALKS

Features

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Shrinking Your Shrink

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In its simplest form, shrink is the difference between the inputs you start with and the plants you get paid for. If you purchase 1,000 seeds, unrooted cuttings (URCs) or liners and get paid for 800 blooming plants, then you have a 20% shrink. If you add the indirect overhead costs of labor, electricity, fuel and so on to the direct costs of seed, plugs, soil and containers, you suddenly have a large number that's slipping through your hands.

Shrink hits you at the end of production after all your costs have occurred and your ability to remedy the situation is gone. Shrink is opportunity lost. With a clear eye we can easily uncover the obvious sources of shrink, but often we miss the hidden shrink that lurks around our industry.

Use High Germ Varieties

In an inefficient supply chain each segment tries to shift the cost of shrink up or down the supply chain. Varieties with poor germination or rooting shift the shrink to young plant producers. When growers produce plants with poor post-harvest characteristics they cause plants to die shortly after planting in the consumer's garden, which increases a consumer's shrink. Retailers use "pay by scan" to shift their shrink back to the grower. Growers shift their shrink up the channel by purchasing at the last minute to eliminate excess inventories, which lead to increased shrink.

Ball's "In by 5, out by 7, at your door by 10" and WebTrack computer system allows plug producers to keep only a couple of days of inventory on hand instead of several months as was done in the past. All of these practices reduce shrink within their segment—but the entire market channel never becomes efficient due to "shrink shifting"—a.k.a. making shrink someone else's problem.

Over the last several years many of the breeder producers have aggressively searched for ways to reduce shrink. By improving their production practices and product performance they've reduced downstream shrink.

Produce Larger Runs

When looking for the low-hanging fruit there are two main shrink drivers throughout the channel: accurate forecasting and batch size. As markets change, incorrect forecasting drives shrink, and batch size accelerate the shrink due to inefficiencies in small batches and need for greater machine accuracy with large batch sizes. As the number of varieties and tray sizes continues to expand, the batch size and forecasting problems will only increase. If the seeder is finely tuned and is operating at peak accuracy (97%), low batch sizes (less

than six trays) consistently produce yields below 95%. Decreasing the sowing accuracy to 87% with low batch sizes has no impact on yield. Once the batch size is greater than 15 trays, sowing accuracy dramatically impacts the number of buffer trays needed to yield full finished trays.

The bottom line is small batches create more shrink because of the low yields. This is not a production problem but rather a buffer problem. The buffer needed to ensure full trays guarantees waste in seed, soil and space. Small runs = shrink. With large batch runs small differences in equipment accuracy can dramatically increase shrink. Inaccurate operations = shrink.

What's the direct cost of this shrink? If you sow 512 trays with maximum precision but use low-germ seed or substandard germination techniques, the amount of soil that becomes shrink escalates dramatically. When you transplant plugs or liners with variable vigor, grow-out isn't uniform and the soil that's wasted in producing dumped plants drives soil shrink even higher. When indirect costs are calculated for these dumped plants the overall shrink costs can exceed 10% of the total production.

Demand Better From the New

What are the underlying causes of low batch size? One of the major causes is the explosive growth of new varieties in the last several years, which has encouraged retailers to "try something new." The pursuit of "new" during the last decade has increased the variety assortment by almost 10,000 new introductions! Granted, this has introduced consumers to an exciting collection of new plants. But how many of these new varieties have disappeared in the last decade? Our inability to discard low-performing varieties after three or four years has left the marketplace littered with varieties that never will generate large batch runs and therefore end up contributing to the small batch problem. These low performers also take up the space that newer introductions could occupy, allowing them to hopefully develop into major new varieties.

When it comes to forecasting a decade of new varieties, breeders and producers are left with guessing at the demand. Their inaccurate forecasts lead to shortages or excessive shrink. With vegetative crops, inaccurate forecasts can lead to shrinkage of great than 75%! Because the volumes never become very large with these low-demand varieties, one or two growers can dramatically shift the demand, which makes forecasting a craps shoot.

So what's the solution? All participants in the market channel have to look at new introductions with a rigid set of expectations where varieties that don't meet clear minimums are discarded after two or three years.

Manage Your Quality

Reducing shrink isn't just about batch size and improved forecasting. Shrink occurs when crops are dumped because of poor quality. It's not uncommon for a bedding plant grower to have 1% to 5% shrink due to poor quality. "Bad things happen when you grow plants," and these bad things always result in shrink.

A major reason for "bad things happening" is incorrect water management. When plants are kept continuously moist, root development is inhibited, plants stretch more rapidly and plant tone is soft. These weakened plants are more prone to root disease problems that require fungicide treatments to keep the plants healthy. Growth regulators are used to counteract the stretching that occurs with excessively wet soils. When plants are soft, insects and other diseases can become problematic. Shrink occurs when chemicals are used

incorrectly or in excess.

By growing drier plants, you will have a healthier root system and more compact plants with a harder tone. Simply watering a few hours later in the morning allows the plants to dry more, which will improve plant quality and reduce shrink.

Improper fertilization can also increase shrink. Research has conclusively shown that excess phosphorus application promotes stem stretch. Most growers apply excessive amounts of phosphorus either in their soil or fertilization programs. This excess phosphorus requires additional growth regulators to maintain plant size. Incorrect applications can increase shrink all the way to the consumer's garden, when her plants fail to grow. Excessive ammonia application results in soft plant growth. When soft plants are sent to the retail environment they're more prone to breakdown when the retail environment becomes unfavorable.

Help Retailers

Reducing shrink at retail is a complex process that involves product selection, product preparation and forecasting. Independent garden centers experience the lowest shrink, at about 5%; while big-box retailers experience upwards of 10% to 15% shrink.

Bad weather is the king of unplanned shrink. When inventory is shipped in anticipation of a good weekend and it rains instead, shrink follows in the coming weeks. For the last several years, retailers and growers have used weather forecasting to predict appropriate store inventories. When inventory in excess of a three- to four -day sell-through is moved into the store, shrink begins to climb. Therefore it's critical to monitor the in-store inventory to prevent a logjam of unsold plants.

Even with improved inventory loading of the stores, product continues to decline at retail if it doesn't sell within three days. But there are a number of actions that growers can take to improve survival after that critical three-day window. When selecting plant material for retail, flower maturity is the most important consideration.

Most bedding plant flowers will last three to six days after they begin to open. If you select flowers that are prime or past prime at the time of shipping, the shelf life at retail will be shortened and shrink will increase. Flowers normally won't open under the low-light and high-stress conditions. Therefore, it's unrealistic to expect tight buds to open or plants to re-flower at retail. And of course, bad-looking plants on the shipping dock are guaranteed to turn into shrink at retail.

To enhance product quality at retail, prepare the plants to survive under stressful conditions. To ensure a strong display at retail, grow the plants from the beginning with adequate nutrition to ensure sufficient nutrients are in the plant before they reach the ship date. Trying to "fix" nutrient deficiencies at the end usually end up as shrink at retail.

In the weeks leading up to the ready date you want to reduce, but not eliminate, fertilizer. As the plants are sent to shipping, apply a fertilizer to ensure some nitrogen in the soil during retail and when the plants are put into the garden. When plants are grown nutrient-free in the last weeks prior to shipping, they become severely stunted and don't take off as quickly, or may even die, when placed in the garden. Cutting back on fertilizer only shifts the shrink to the consumer.

A Little Shrink is Good

Completely eliminating all shrink is unrealistic and not profitable. So is there an acceptable level of shrink? Think of shrink as the grease that keeps the business running profitably. Planning on extra flats or pots that could become shrink (speculation) creates opportunities and growth potential. If there is absolutely no room for error, costs go up and order fulfillment goes down due to shortages. There has to be enough buffer (potential shrink) in the system to fix the “bad things that happened.”

However, when too much grease (shrink) is floating around, it becomes very slippery and uncontrollable. Each market segment must establish clear guidelines for their major crops as to what is acceptable shrink—“units in minus units invoiced” and drive changes to reduce shrink and improve their cost position.

As an industry we have to add more plants into our consumer’s garden each year.

It’s time we looked inside the industry for this growth. But considering there’s more than 80% shrink available in our market, we can plant vast gardens with just a little effort on everyone’s part. **GT**

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