BY PETER KONJOIAN AND WILL HEALY

Managing Product Assortment Shrink: New Genetics vs. Time-Tested Varieties

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Joining me this month is Will Healy, senior technical and research manager for Ball Horticultural Co., where he has worked for the last 28 years. Prior to joining Ball, Will was the state floriculture Extension specialist at the University of Maryland (1984-1991) and Colorado State University (1981-1984). He received all of his degrees (bachelor's, master's, Ph.D.) from the University of Minnesota where he worked with Harold Wilkins' group of students. Will has researched a diverse assortment of crops studying the effect of light, nutrition and temperature on growth and flowering. He has worked with growers around the world and brings a unique set of experiences to today's topics.

Peter: Welcome Will, thank you for taking time to join me. The two of us have been active in our industry for decades and have accumulated many experiences and observations. Please start the conversation with your perspective on plant genetics and variety assortment in the health of our businesses.

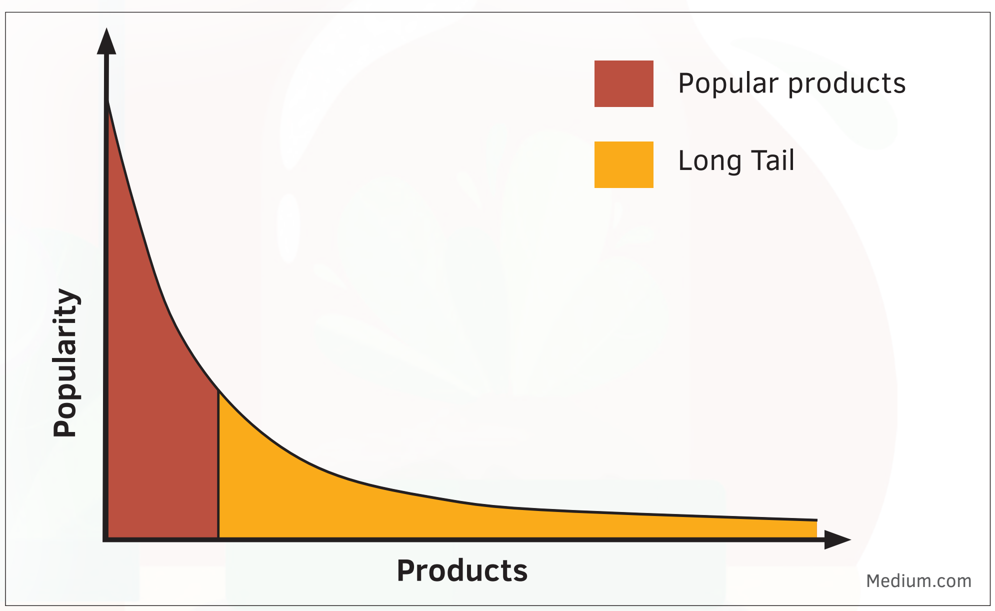
Will: I was cleaning out some files recently and ran across a 1977 list of "Ball Super Seedlings" with 38 variety names still in use today! Some are tried-and-true varieties, but some should have been retired years ago if you look at the incredible improvements that have been made in the last 42 years. During the 1990s, we experienced a "Field of Dreams" where breeders were developing world-class improvements in germination and flowering uniformity as well as introducing plants we have never seen before that have revolutionized our product assortment, i.e., calibrachoa. If we look at the yield improvements over the last 10 years, new genetics have increased germination and rooting yields 15 to 20%. Growers now have varieties that germinate more uniformly with higher yields just by dropping old varieties.

Peter: The edible crop side of our industry mirrors your comments about ornamental crops, Will. After shifting my research focus to hydroponic vegetable and herb systems, it became clear that cultivar selection is critical in high density controlled environment agriculture (CEA) systems. Poor choices result in challenging production conditions. Even with the vast assortment of edible crop cultivars currently available we need new material bred specifically for CEA systems. Therefore, an important questions arises: How should growers navigate the ever increasing number of cultivar choices?

Will: That's a good question, Peter. Since 1977, our industry has continued to innovate but at the expense of "how do I manage this assortment?" Since 2000, we have tripled the number of varieties that Ball Seed offers — even though Ball only offers a portion of what is available worldwide. A more stunning statistic is we replace 20% of the varieties every year with innovative replacements!

We must start thinking of our industry as a new product development industry and use the concepts and tools that our competitor industries (food, paint, etc.) use to manage their assortments. One strategy is to use the "long-tail" product development concept. The figure below shows how the long-tail concept works. When assessing your product assortment, you rank your products by popularity (sales $, margin $, units sold, etc.) on the y-axis and rank them in descending order on the x-axis. This clearly shows your high-demand, high-value products that you keep. Annually, you assess the "long tail" products, which are the products on the right end of the curve.

Annually drop the lowest 15 to 20% of the products that haven't increased after three years (moved to the left) and declined (moved to the right). The goal of the long-tail process is to find new products that move to the left rapidly



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syngenta flowers • beekenkamp PLANTS • Lazzeri GIOVANI PIANTE and eventually start to displace the historic top products. This method makes the assortment decisions data driven vs. emotional which don't reflect what the customers really want to buy. The new products can be added based on your beliefs but once in the assortment you need to use hard data to keep it in the assortment after three years. Assortment management is the most important task managers perform to increase profitability of their organization.

Peter: This long-tail approach reminds me of how I used the 80/20 rule to guide my crop assortment decisions. Twenty percent of one's product offering generates 80% of one's sales. I tried to generate profit from the reciprocal side of the rule as well by offering some of the other 80% of crop offerings that only contribute 20% of sales knowing that the mass marketers are focused only on the popular, high-volume items. What's your advice on these two rules side by side?

Will: That is exactly how to manage the long tail! The key to success is carefully monitoring the last 20% as they represent your future winners and profit losers. If a product in the 20% is increasing by double digits, on a small base, then devote more effort to turn this into an 80% crop. Each year cut the bottom 10 to 20 products in the 20% group to make way for new products. Without this aggressive management of the 20% your assortment can become boring.

Peter: Data driven and aggressive management, got it. Next, both of us share the position that minimizing shrink in our operations is a critical part of management. What are your thoughts on this? How is our industry dealing with it?

Will: We think of shrink all wrong. Shrink is NOT what you throw away, but rather it is the lost opportunities of not having the product to sell! I did a study several years ago and looked at shrink throughout our market channel. Based on the shrink from seed and liner production to consumer's garden, I estimated that we shrink by <88%. This means if we produce 100 seeds only 12 plants are in a consumer's garden of those original 100 seeds! To make it more alarming, vegetative products are even worse!

Peter: To your point, I was the scheduler in my family's operation. It took discipline to compile seed and vegetative cutting orders. Teaching certain family members to only plant what my crop schedules called for was exhausting. It's easy to look at a half tray of cuttings and say, "Oh, just plant them."

I remember a regional seminar tour John Gaydos (Proven Winners), Jack Williams (Paul Ecke Ranch) and I presented for OFA on new crops in 1999. During a plane ride John and I sat across the aisle from each other as I worked on my New Guinea impatiens rooted cutting order for the next season.

My work was on paper back then and involved a complex table whose rows were cultivars and columns were order/ship dates, container sizes, successive plantings and so on. I even included columns for dumped plants at the end of the season to record shrink. The table filled a page with two dozen cultivars (rows) and columns containing a half dozen ship dates, various container sizes and multiple plantings.

My decision criteria started with what my mother wanted to have at her fingertips in the spring to offer our retail customers. Next was managing the rooted cutting orders to minimize waste. At our next seminar stop John referenced watching me methodically working through that table. Another objective was to never have more than a half tray of cuttings of any cultivar left over after planting. Partial trays become whole trays quickly and waste money. Tell us more about your "lost opportunity value of shrink."

Will: When we look at the lost opportunity value of shrink, my "back of the envelope" calculation showed that for every dollar we sell we lose at least a dollar of retail potential in shrink. As I tell people, the seedling shrink is where the lost opportunities exist. The retail shrink is where we see the most dollars lost. The reason shrink management is so critical to business success is that shrink gobbles up profits faster than any other cost component. If the profit margin on a $3 wholesale product is 30% ($0.90) — which makes the production cost 70% ($2.70) — for every $3 plant you shrink you consume the profit from three plants you sell!

Peter: We're in lock step, partner, on the cost of dumping plants. My equation is essentially the same as yours, it says every plant dumped erases the profit from two and a half plants sold at full price. I learned to believe in it after my first year selling Christmas trees. After the back breaking work of handling them, it hit me like a ton of bricks how costly every tree left on Dec. 26 was to the final profit. The best seasons saw a few customers turned away, which meant I had sold out.

> "Shrink is NOT what you throw away, but rather it is the lost opportunities of not having the product to sell!"

Will: So, where else is the shrink in your business? EVERYWHERE! Remember the key to managing shrink is to target, record and improve activities where you think you have excess shrink. Dumping plants is an easy shrink target but look for other sources of shrink that represent costs you aren't getting paid for. Set up teams of employees to manage different shrink areas. Excess fuel consumption is an obvious shrink target. Incorrect temperature settings, inaccurate thermometers, heating empty areas and not filling heated areas are all examples of shrink. Electricity is a quiet cost we overlook — HPS lighting when the sun was shining, work areas with fluorescent vs. LED and fixing water leaks which cause pumps to run. Conduct a power down where everything is turned off to see if the electric meter still spins. Record daily water consumption with a meter to identify underground leaks and inaccurate billing. Reducing shrink requires you to engage your employees to identify a couple of shrink areas, solve these and then identify other areas that represent costs that don't add value to your products — like the trash!

Peter: I opened with the remark that both of us have been around for decades. During a conversation like this one I flash back to the '70s and '80s when margins were high and business was booming. Back then it was possible to be sloppy in many of the management areas you list and still be profitable. Good or bad, right or wrong … everything has changed.

Will, thanks for sharing your experience. Several topics remain on our list of industry discussion points, I hope you will join me again soon. gpn