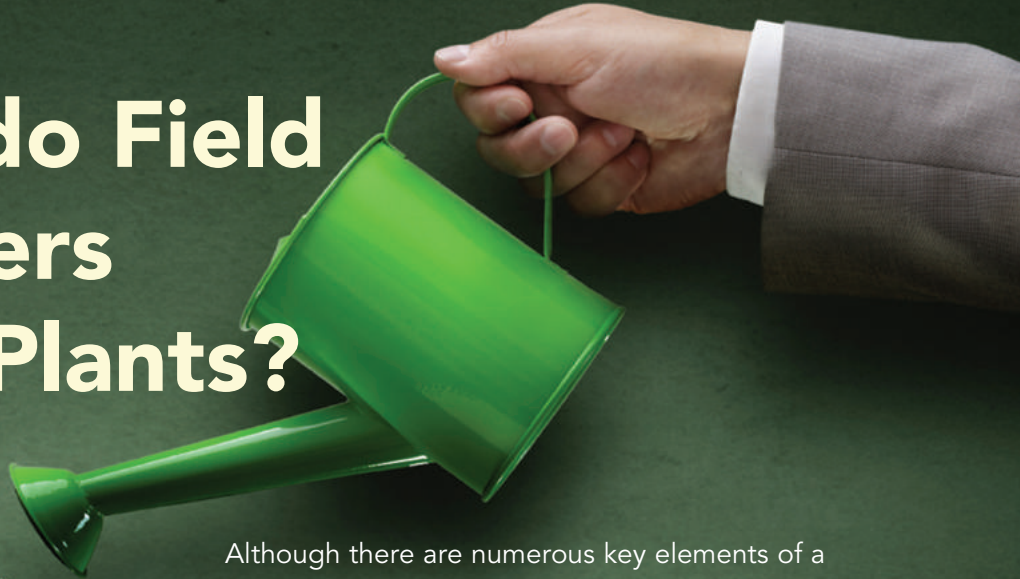




Jerry Faulring

How do Field Growers Price Plants?



Although there are numerous key elements of a business model that relate to success or failure, selling plants for a profit has to be near the top. Thinking about the subject here, I think it's like having to talk about the 'birds and the bees' with our children; some just won't do it and no one looks forward to it.

Reader beware! I am not a CPA, not a cost accountant nor anything related to those experts, except by way of over 4 decades of business experience and not all those years were happy times. What I propose in this article is a starting point for further discussion. The concept of my pricing scheme is very simplistic for good reason to be explained below.

This discussion focuses on field production nurseries but the basic concepts should apply to any growing operation.

It is my observation that pricing plants from in-ground field production entities is a complete mystery. Maybe overstatement but there is such wide disparity in prices that it can't be based on any rational scheme. It is true, we all have varying degrees of cost but we should consider costs based on real facts. For example, if the land and buildings are paid for and there is no current expense related to them, we should apply a cost to be certain we are fairly rewarded for the investment of capital. If no cost is allocated, your return on investment is zero for those assets.

(continued on next page)

I hear the following related to pricing plants:

"It depends on market conditions"

"Nobody complains about our prices"

"My prices reflect my competition's catalog prices"

"We are making money so my prices must be about right"

"My customers keep me in line"

"I am still fighting the pricing issues related to the Great Recession"

"Its impossible to figure out the exact cost... too many factors"

"Price depends on the customer"

What I never hear, "my prices reflect with precision my cost of doing business."

At Waverly, I have struggled with the cost accounting issue for 25 years. Over time I developed a huge spread sheet that tried to consider all the costs to produce each plant, starting with the liner cost. I then developed ratios for all the individualized costs of the plant and added in general overhead, sales cost, length of time in production, and specific plant issues related to labor for care, chemicals, harvest and on and on. The spread sheet was a nightmare to maintain as I was constantly updating it for new knowledge gained each year and got lost in the formulas. I still have it but abandoned it out of frustration.

Most of us are now having some pretty good years as inventories shrink and demand expands. Most are feeling good about the business as it is going well. Just a few years ago the opposite was true. The industry was gutted, probably shrank 40%, and the survivors quickly adapted to doing business differently.

Now is the time to do the analysis to determine why we are doing well ahead of the next downturn.

It's not as simple as volume is up, prices are probably up and let's just ride the rising tide until we hit bottom again. If we were manufacturing wire baskets we would know our costs and margins with a high degree of accuracy. Nursery production does not feel like a manufacturing business, but should we not know our costs with the same degree of accuracy? In

reality we are manufacturing a product. Okay, a wire basket maker doesn't have to worry about insects, disease, drought, too much rain and the many other variables we have on our plate. These factors are very important but are no excuse for ignoring the question.

I think this might make for an interesting seminar to be sponsored by MNLGA for all the different types of member organizations. I bury this thought in the middle of the article to see if our leaders are reading.

Cost accounting is real work. It takes someone driven to work with details. It takes a lot of time. It should probably be left to an outside specialist. Most, including me, will not want to spend the money with a consultant.

I have turned the process around 180 degrees from the old, failed spreadsheet. It is so simple I am surprised I am substantially satisfied with it. But it will evolve and what I share here may look different in a few years.



First Things First – A simple way to get at cost of doing business.

First, I consider all the cash costs of running the business for one year. This is up for discussion. Principal payments should be covered in depreciation but depreciation may not consider the timing of actual cash payments. Therefore, I take out depreciation and add in principal payments. Income taxes are not in the income statement but are real cash costs and I add them to costs; one can leave this out of cost if you want to look at profit before taxes. In an LLC business structure, the owner(s) are not allowed to take W-2 income so I add 'owner draws' to the cash cost of doing business. If a business has no debt there would be no principal payments. In this rare instance, study the balance sheet, add up all the assets and take a reasonable rate of return on those assets and consider it a cash expense. One should not let this be all-consuming to the extent the basic profitability question is not investigated.

So I include all cash going out the door for any reason. If you are paying for the boat with company money, you might want to skip that because your competitor probably doesn't have the expense.



Taking inventory is a daunting task!

2 Second – an accurate inventory is mandatory.

I look at the number of plants in the field at peak inventory in the year. Peak inventory will distort cost per plant down if it includes plants that will never sell or are scheduled for destruction. Likewise, I have always said “if we sold every liner planted, we would have no worries”. It does not happen. We have to consider culls and plants that are so difficult we only sell a percentage of those lined out. Peak inventory can only be known if we actually take inventory, of plants that we expect to sell, at least annually; guessing will distort the numbers up or down. I think using peak inventory is correct because it shows all the plants we are responsible for and the fact that all cash costs relate to that number; at least that’s what I want to believe. I have decided to ignore the cost of individual liners and just be satisfied with an average even though cost can range from a few dollars to \$30 or more. In our operation, concentrated shrub production, the average liner cost is low. At this point I am not assigning any special cost to a given plant such as extra chemical care, higher pruning cost, higher harvest cost and so on. Each plant looks like every other plant in terms of my cost scenario. This may be wrong but I am focused on simplicity.

When I analyze the data as described below, I can make pricing adjustments as I go for individual plants

based on accumulated knowledge for the angst some plants cause. What this process does is give me a really simplistic starting point. When I get the starting point it then opens up many questions about a specific plant for which additional thought clarifies the pricing issue. Supply and demand may be considered but I believe changing prices based on either factor is not real good business as supply and demand issues usually resolve themselves sooner than later; staying the course with predictable pricing makes for happy customers, which includes annual adjustments for inflation that our customers expect.

(continued on next page)



..... To finish



Now, and I think this is the key to understand which plants are more profitable or less profitable, I determine how long it takes to 'manufacture' a saleable plant. Most plants are sold in a range of sizes so I am using the time it takes to achieve the first sale and what it sells for. Most plants are harvested in a narrow size and time range; clear the block or row in no more than two years is the goal. When this doesn't happen, we usually have a lower demand plant or, we planted too many. Once we understand the 'global' cost as it relates to time, we can determine a plant's cost, its selling price and its contribution to profit in any year of its life cycle.

3 Third – a simple math exercise draws out a basic understanding of profitability.

You probably see where this is headed. Total cash cost in any year divided by the peak inventory yields a cost per plant per year in the production cycle. This should be reviewed annually or when making price changes.

Let's use a fictitious nursery called Trees by Ted, owned by Ted. Ted inherited the land from his father so there is no mortgage. Ted does not think land cost should be part of his cost structure because it is paid for and his reduced cost makes him more competitive. If he was selling a commodity like milk he would not care that his land is paid for except to the extent he would have more money at the end of the year compared to his mortgaged neighbor. The farm is 100 acres valued at \$1,000,000. He should be

adding a cost for this land to his prices if he believes he deserves a return on that 'free land'. If Ted's farm is in some way special and valued higher than average, he should consider this fact. In today's economy, Ted should be getting possibly a 3-5% return on the land value which should be added to his cost analysis. He may argue that he is achieving a financial reward by way of land appreciation but if he passes the land to children, he realizes no current return on the asset. This could be made very simple by asking those that rent their land to others what the income is; check this every year.

Ted has 100,000 plants in the ground at his nursery at peak inventory. In 2015 his total cash expenditure was \$1,000,000. Therefore all costs spread over all plants of all sizes and age equals \$10 of cost per year per plant. Ted wants to know if his selling price by plant actually generates a profit. He is making an overall profit (\$200,000 pre tax or 20% on sales of \$1,200,000), is happy with his business, but doesn't have a clue if the 10 year old boxwood makes money for him.

The calculation is simple if Ted knows when he planted the boxwood. Annual planting plans are required to do the calculation. We will assume he planted at a quart size which would be about 2 years old from a rooted cutting. Ted needs to count the planting year as year one even if it was planted in August because it is part of his peak inventory.

Based on the above, the ten year old boxwood cost Ted \$100 to achieve a saleable size. If he sells the plant for \$100 he just wasted 10 years. If sold at \$150, he actually contributed \$50 to the bottom line or 50% for that plant.

Consider a short cycle plant, such as *Viburnum plicatum*. Assume it takes four years from a 1 gallon plant to achieve a heavy four foot plant. His cost is \$40. If Ted sells it for \$80 he made a 100% profit.

How about a *Chamaecyparis obtusa* 'Nana Gracilis'? It might take 15 years for an 'own root' liner to grade out at 30" in Maryland and current market conditions could bring \$120 - \$150. It's a loser for Ted!

If one's production is exclusively, or dominated by trees, I don't think the higher cost of liners has any bearing on the methodology unless you book liners to the balance sheet instead of the income statement. That might make your head hurt figuring out what it

means to cost, unless of course you just say cash out is expense.

If you capitalize your inventory then the cost of goods sold (COGS) appears on your income statement. The COGS should work out to be the liner price of all of the trees sold that year. If the operation is at steady state (plant 5000 dig 5000) then there is no difference between a 'Liner Expense' line and the COGS line. Except that the COGS is the price of the liner from a number of years ago and 'Liner Expense' is the current year's price...now my head hurts. Either way you have captured the cost of the liner. If you are expanding, planting 6,000 trees while harvesting 5,000, costs go up per plant per year. The work around here is separate out the costs based on the plant 5,000 and dig 5,000 scenario. Again, this might make for a headache of significant scale.

I have been doing this analysis for our plants and I am often pleasantly pleased with cost versus selling price, but also have been shocked that some plants are selling at cost or below. If I look at market prices from competitor catalogs, I believe many plants are being sold at a loss even in profitable operations. From a strictly business point of view, this practice, known or unknown is stupid. This may not always be a bad thing if a given plant is considered a 'loss leader' to bring customers in the door to buy other profitable plants. The greater the diversity of a grower's plant list, the more likely an overall profit is achieved when some plants are sold at cost or a loss.

This analysis also has an emotional downside. Pull up to a block of plants that are selling very slowly. Do the math and determine your investment that has been

lost; 500 plants for 5 years at \$10 each per year equals \$25,000 down the drain plus the cost to destroy and replant the field. (Okay, maybe we should ignore this whole profitability exercise and just be happy!) But you also know right then that clearing to make room for profitable plants is the correct decision. If your sales have peaked without the slow sellers, maybe it's time to consider corn.

The system is so simple it might not be useful for everyone but I think it at least forces me to think about pricing based on cost. All that is needed are three data points; cash outlay, peak inventory, and number of years a plant boards at the farm. Very importantly, as mentioned above, I settle on a final selling price based on my understanding of costs specific to a particular plant. For example, pruning, harvesting or exceptional chemical care costs may skew the cost up and therefore I consider such in the price. Conversely, a given plant may have virtually no unusual cost, grows exceptionally well here and therefore I may choose to lower the selling point; this rarely happens. To be fair, this give and take should balance out or the exercise becomes a game rather than science.

(continued on page 50)

"Very importantly, I settle on a final selling price based on my understanding of costs specific to a particular plant. For example, pruning, harvesting or exceptional chemical care costs may skew the cost up and therefore I consider such in the price."



What can we do to improve profits?

Every business has variable cost structures.

Scale. Larger growers can be advantaged due to size and scale. Their payroll may run as low as 30% of sales where a smaller grower may be at 40-50%. Both can be successful. The smaller grower may find a niche market willing to pay more for specialty plants not commonly available.

Productivity and efficiency. All businesses must look in every corner of the enterprise to find opportunities to reduce cost without sacrificing quality, customer relations, staff happiness, and safety, etc.

Taking inventory is a huge time consumer that can involve many staff persons. We used to engage several people to walk the fields, record all the data on paper and then enter the information into a database. Issues arise such as subjectivity by many people can bias the results in the field, illegible documents create time loss, and input errors may distort the inventory. In an attempt to make this effort more efficient we contracted to have a cell phone application developed so we can take inventory in the field that is uploaded directly to our website database. This application became operational this June. Many steps are eliminated and fewer people are involved to remove error potential. For now, we see this as a vast improvement that saves time while providing consistent results.

Mechanization is always the answer if affordable.

When the correct equipment is chosen to reduce manpower it is always a better choice particularly with increasing labor costs and decreasing labor availability. Larger growers can easily justify large investments in mechanization. Smaller growers may feel they cannot play the game but with thoughtful integration of machines over time they can increase efficiency and productivity.

Technology. There likely will never come a time when investing in technology will be a bad decision. There are options today for information handling that are largely unused by our industry. For example if you save your field inventory data each year you can go back, crunch the numbers, and figure out the exact nominal growth rate for a given plant. This level of predictability can be very useful when working through planting plans for future harvest dates.

In summary, if you are performing great cost accounting and use it to set price points, you are probably in the minority and should be very proud of your work. If you are burying your head in the sand for this issue, you are probably a normal person but really making lots of uninformed decisions. We all spend enormous time and energy doing the things we like to do, mixing the hours with fire drills. Diverting some of that energy, only an hour a day, will make us all better at what we do and not feeling like pricing decisions are a cloud over our heads. If nothing else, even with my simple approach, I gain insight into everything we do to bring a plant to market. 🌱

Jerry Faulring

"Technology.

There likely will never come a time when investing in technology will be a bad decision."

