

GROWERTALKS

Features

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Grower Math: Cost Accounting Basics to Boost Profitability

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To better understand how greenhouse owners and managers can use relatively simple calculations using easily accessible data and metrics to positively impact the bottom line, it's important to understand what exactly cost accounting is and what numbers actually matter most.

Stephen Steiner is Senior Business Analyst at Ball Seed and a current MBA candidate at the University of Chicago Booth School of Business. He also has a background in both academic research and hands-on industry analysis, and recently spent time putting together presentations helping greenhouse owners uncover opportunities to maximize profitability using basic cost accounting practices.

What is cost accounting?

At its core, cost accounting is the practice of recording, analyzing and controlling all costs associated with producing goods or delivering services. Unlike general accounting, which tends to look at previous financial outcomes, cost accounting is forward-looking and helps managers understand the true cost structure of their operations so they can make better decisions about pricing, efficiency and where to invest.

For greenhouse businesses, this means calculating more than just soil, pots and young plants. It factors in many overhead costs like heating, fuel, labor and even the value of bench space that goes unused.

"Cost accounting allows you to add all of these costs together, identifying activities that are draining profitability and uncovering ways to operate more efficiently," Stephen explained.

Opportunity cost

One concept Stephen emphasizes with growers is opportunity cost: the potential profit lost when resources aren't used to their maximum potential—or worse, wasted. For growers, this often means inventory that doesn't sell (shrink).

As Stephen explained, if a greenhouse plans for 100 plants, but only 80 make it to retail, the bench space dedicated to the 20 lost plants represents not only wasted materials, but also lost revenue potential.

He illustrates it this way, "If you want to sell 100 plants at \$10 each, your target revenue is \$1,000. But if 20% of your crop fails, you still bring 100 plants to market because you planned for shrink. What you miss, though, is the \$250 in

revenue those lost plants could have generated. Spread across the crop, that's a \$2 opportunity cost per plant, effectively lowering your profit margin."

While traditional accountants may not assign a dollar value to missed opportunities, Stephen explained that greenhouse managers must. Empty benches in a heated facility are more than an annoyance to management—they're a major drain on profitability.

URCs vs. Liners: A quick case study

To clarify the basic concept above, Stephen compared two production scenarios for the same crop: starting from unrooted cuttings (URCs) versus purchasing liners. The results might seem counterintuitive, but Ball Seed sales reps have worked out the math with customers for years and, depending on the specific business, Stephen's results are not uncommon and just might save you a lot of money next season.

On paper, URCs almost always appear cheaper. Of course, the exact cost per cutting can vary, depending on variety, size, supplier, etc. But Stephen put together an example using 30 cents per URC and 75 cents per liner. Adding in additional direct input costs (soil, pots and tags) brought the total variable cost to about \$2.25 per URC unit, compared to \$2.50 for liners.

But when shrink is factored in, the equation changes. Starting from URCs may result in 10% losses in propagation and after transplant, compared to only 2% for liners grown by a specialized supplier. Working from a \$6 retail price that translates to an additional 60 cents per URC lost compared to 12 cents per liner.

"In this example, once you account for shrink, growing finished plants from liners actually cost less on average—\$2.62 compared to \$2.85 from URC," Stephen said. "And that's before fixed costs like heating and labor are even considered."

He goes on to explain that in colder climates, where greenhouses are heated for longer periods to produce URCs, the difference becomes even more pronounced. Averaging fixed costs across production volumes is where the difference really shows up, with a total cost of \$3.27 per plant for URCs versus just \$2.89 for liners—a nearly 14% difference in potential profitability.

Take the plunge

For growers new to cost accounting, the process may seem intimidating. But Stephen recommended the old crawl/walk/run approach. Starting simple might mean adding up fixed costs like fuel and labor, then averaging them across your production, and, finally, comparing outcomes with variable inputs. Just these general calculations can begin to reveal interesting insights you and your team can act on.

"Your first pass might not be highly detailed," Stephen said. "But once you see the impact, you'll want to go deeper. Over time, you can itemize costs more precisely and identify specific areas for improvement."

He encourages growers to view cost accounting as a tool for continuous improvement rather than a one-time exercise. Every year (or season), your production team can refine inputs, adjust crop timing and optimize greenhouse space. It's a never-ending process.

And it definitely requires your entire team. Perhaps you don't love spreadsheets and data analysis, but most operations have someone who does.

"Speaking as one of those people who gets excited about this stuff, I know others may not. But chances are you

have someone on your team who thrives on the numbers,” Stephen said. “Give them the responsibility and the whole operation benefits.”

In our industry currently, margins are tight and competition is fierce, so ignoring hidden costs is no longer a viable option. Cost accounting (even the simple steps shared above) can equip your team with information to address some of these challenges, turning data into possible strategies.

From talking with growers, Stephen understands that you know your operation better than anyone else, but cost accounting can give you a structured way to measure what matters.

“Even if you start small, the insights you gain can completely change how you run your business,” he said.

When you engage with your numbers, you’ll be better prepared not only to survive, but to thrive in our increasingly complex industry. **GT**

There are more resources available if you want to dig into greenhouse cost accounting on a deeper level, with more examples and tips for extracting the right data from existing sources. Check out some presentations and articles by [GOING HERE](#) and [HERE](#).