

Labor remains backbone of nursery production

Walk through any modern nursery today and you'll see technology everywhere.

Automated irrigation systems hum quietly at dawn. Sensors track moisture, temperature, and nutrient levels. GPS-guided equipment lines up rows with breathtaking precision.

Automation has undeniably improved efficiency, reduced waste, and helped growers remain competitive in a tight-margin business. But amid all this innovation, it's worth stating something plainly: our industry still runs on human hands.

When I am out visiting Oregon growers, I have conversations about labor shortages, rising wages, and the push toward mechanization. These are real pressures, and automation will continue to play an important role in our future.

Still, there's a growing misconception that technology can replace hand labor in nursery production. It cannot — at least not in the ways that matter most.

Plants are living systems, not widgets. They respond to subtle cues that no machine can yet fully interpret. An experienced worker can spot early signs of stress in foliage, notice an off-color leaf, feel when soil texture is wrong, or recognize a growth habit that won't meet market expectations weeks down the line. These observations don't come from data dashboards; they come from years of hands-on experience.

Hand labor is not just about tasks — it's about judgment. Automation excels at consistency. Hand labor excels at adaptability.

Many of our most successful nurseries are built on long-term crews who understand specific crops, soils, and microclimates. When weather throws a curveball or a disease pressure emerges unexpectedly, experienced workers are often the first line of defense.

None of this is an argument against automation. Quite the opposite. The smartest growers are integrating technology to support their workforce, not replace it. Automation can reduce the physical strain of repetitive tasks, improve safety,

and allow workers to focus on higher-skill responsibilities. Mechanized pot fillers, automated conveyors, and irrigation controls can all free up labor for tasks that require judgment and care.

The goal should be augmentation, not substitution.

The numbers don't lie

Nursery Management recently reported that U.S. nursery industry has been operating with a labor deficit for decades, and the crisis is worsening due both to a limited share of available labor and increased costs to hire workers. Additionally, the USDA Census of Horticulture (2020) recorded approximately 8,441 nursery and greenhouse operations in 2009 and only 6,458 in 2019, a 23.5% decline over 10 years.

The U.S. Bureau of Labor Statistics used 2017 data for hours worked for greenhouse, nursery and floriculture production (NAICS 1114) in the U.S. as an index to compare all other years. Since its peak in 2002 at 32% higher than in 2017, the total number of wage and salary workers within business establishments declined approximately 50% in 2024 from that 2002 high.

Convincing policy makers to support ag

I hear a common refrain from our state and federal elected officials that they support the family farm. In their hearts, I believe they do.

However, the policies coming out of Congress and state legislatures can convey a different message. I am gravely concerned that many urban legislators say they like farming but not the act of farming. As my friend Rod Park (**Park's Nursery**) is fond of saying, "They like family farms but not farming as a verb."

It is hard enough to run a business, but as we focus on our human resource of farmworkers, it seems like there is a disconnect with burdensome regulations, impacts to the supply chain, and business climate to make ends meet. When legislators get involved with the acts of farming, it is rarely acknowledged that they are



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outside of their knowledge base.

Reframing the labor crisis

From an association standpoint, we also need to reframe how we talk about hand labor. Too often, nursery work is portrayed as low-skill or temporary. That narrative does a disservice to the professionalism and expertise required to produce high-quality plant material.

We should be investing in training, career pathways, and recognition for skilled workers — just as we invest in equipment and infrastructure.

This matters not only for current operations, but for the future of the industry. As automation advances, the workers who remain will need even higher skill levels. They'll be interpreting data, managing systems, and making complex decisions that machines can't.

There's also a consumer angle we shouldn't ignore. Buyers — whether landscapers, retailers, or homeowners — care deeply about quality. They may appreciate efficiency, but they value healthy, well-grown plants above all else. Oregon is known for its quality nursery stock and we must preserve the building blocks of production to keep it that way.

As we plan for the future, let's resist the false choice between automation and labor. The real opportunity lies in blending the best of both — using technology to enhance human skill, and valuing the hands that make our industry possible. Because at the end of the day, no matter how advanced our systems become, nurseries will always be places where human hands — and human judgment — still matter. ©