

# GROWERTALKS

## Growers Talk Business

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### Turning the Tide on Diminishing Margins

*Susie Raker*



SUSIE RAKER

The greenhouse industry finds itself at a critical juncture. While advancements in technology have opened up new possibilities, issues like rising energy costs, labor shortages, market competition and a growing demand for sustainability are shrinking margins and challenging long-term viability. However, with challenges come opportunities—opportunities to innovate, adapt and transform the way greenhouse operations function, ensuring sustainability and resilience for the future.

Key obstacles hindering greenhouse growers today include:

- **Energy costs:** Heating and lighting account for up to 30% of operating expenses, according to the USDA. Greenhouses reliant on traditional energy sources face price volatility, directly impacting profit margins.
- **Labor shortages:** The Bureau of Labor Statistics highlights a workforce gap in agriculture. Rising wages and difficulty in attracting workers further strain budgets, leaving operators scrambling to fill critical roles.
- **Market competition:** The industry is becoming increasingly competitive, necessitating diversification to maintain relevance. On top of this, rising consumer and legislative expectations demand eco-friendly, sustainable practices, which can be costly to implement.
- **Environmental impacts:** Climate change introduces unpredictability, with extreme weather events posing risks to crops and facilities alike. These challenges require innovative solutions to secure the future of greenhouse production.

Innovation remains the key to meeting these challenges. Through a combination of technology, creative strategies and sustainability focused initiatives, growers can position themselves for resilience and success.

**1. Prioritize energy efficiency and renewable solutions.** Greenhouses can significantly reduce energy costs by adopting renewable technologies such as solar panels, geothermal heating systems and LED grow lights. Advanced climate control systems, which adjust heating and cooling based on real-time conditions, can further lower expenses without compromising crop quality. These measures not only improve efficiency, but also align operations with sustainability goals, reducing greenhouse gas emissions and meeting consumer expectations.

**2. Diversify to drive value, not just volume.** Growers must shift from bulk production toward niching down into specialized, high-value markets. Incorporating specialty crops like herbs, patio vegetables or even unique innovations like the bioluminescent Petunia Firefly allows greenhouses to stand out and command premium pricing.

Additionally, focusing on sustainable practices can position growers in the “eco-conscious” premium market segment, appealing to environmentally aware consumers willing to pay more for responsibly grown products.

**3. Automate operations to combat labor shortages.** Automation offers a critical lifeline to address labor gaps and rising wages. Investments in automated systems for tasks like seeding and harvesting can increase operational precision and reduce waste. However, human capital remains essential—training and retaining employees ensures the workforce can adapt seamlessly alongside new technologies, creating higher efficiency and a motivated team.

**4. View sustainability as a growth engine.** Rather than viewing sustainability as a cost, greenhouses can leverage it for growth, adopting water recycling systems, integrated pest management and nutrient-optimized fertigation. These methods not only reduce environmental impact, but also align with certifications such as USDA Organic and Fair Trade. Such credentials unlock new revenue streams, enhance customer loyalty and justify higher pricing.

**5. Mitigate climate risks with proactive planning.** Greenhouses must prepare for unpredictable weather with investments in resilient infrastructure engineered to withstand extreme conditions. Tools like weather analytics and sensor-based systems can provide early warnings, allowing proactive measures to protect crops from storms or temperature spikes.

**6. Foster collaborative innovation.** Collaboration with agricultural research institutions, industry associations and technology developers can unlock cutting-edge breakthroughs. From co-developing carbon-neutral production systems to piloting AI-powered diagnostic tools, these partnerships strengthen individual businesses while elevating the industry as a whole.

## Resilience is within reach

The challenges facing the greenhouse industry are significant, but they present an opportunity for reinvention. By adopting energy-efficient technologies, diversifying crops, automating operations and aligning with sustainability practices, greenhouse growers can reshape their operations for greater profitability and resilience.

Innovation and adaptation remain essential for ensuring long-term viability in an evolving landscape. Together, these strategies can help greenhouses not only survive, but thrive in a future that demands both responsibility and ingenuity. Now is the time for action—greenhouse growers hold the power to turn challenges into victories, planting the seeds for sustainable growth. *GT*

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*Susie Raker is Vice President of Raker-Roberta's in Litchfield, Michigan.*