

GROWERTALKS

Acres & Acres

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10 Reasons to Bulldoze Your Greenhouse

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It sounds drastic, but not when you add up all the potential benefits

If your greenhouse is less than 10 years old and is low-maintenance, energy efficient, laid out for smooth flow of materials and is serving your needs beautifully, you can stop reading right now and get back to making money.

But if you're like most greenhouse owners, your houses range from 20 to 50 years old, and they're a haphazard maze of hoop houses and gutter-connects of varying age, quality and efficiency. They may work, and they may be paid for, but are they the best for the long-term profitability of your business?

Which leads to the question of retrofit or replace. Should you upgrade your old houses with modern glazing, heating systems and automation? Or is that like the fabled silk-purse-out-of-a-sow's-ear trick?

If you're at that point—wondering if you should stick with what you've got, should retrofit, or should build fresh—here are 10 reasons to finally turn the key on that Cat D-8 and knock down that old greenhouse.

1. It's a labor hog. At 30% or even more of your production costs labor is your biggest single expense—and hence the place you stand to save the most money. Yet too many growers continue on with inefficient greenhouse space. Bill Vietas of Rough Brothers says you can waste “easily 20 percent” in labor, much of that due to the inefficient greenhouse layout and excess steps and motion.

Says Rick Ouding of Kalamazoo Specialty Plants in Kalamazoo, Michigan, who knocked down his old ground-to-ground houses to make room for a gutter-connected range, “My labor per dollar of sales is getting cheaper every single year, and we're paying our people more, so we're doing the right thing.” (Rick has also retrofitted another house instead of bulldozed it, so he can argue both sides of the topic; more on that later.)

But think about your labor use: Are employees using small carts to squeeze down narrow aisles rather than hauling full cart-loads of plants? Are they carrying one or two trays by hand instead of moving wagon-loads? How long does it take to spray, or apply PGRs, or do other routine chores? How many turns are you getting per season? If you answer one or two, you're losing money that could pay for a new range. Efficient performers can get four to six turns.

2. It's a space hog. For some growers, space use is the biggest reason to flatten those old houses, especially free-

standing ones. Granted, there's something to be said for individual isolated zones offered by multiple free-standing houses. But at what cost? All that land between the houses is going to waste. Worse, it requires labor-intensive maintenance such as mowing or weeding. And all too often it accumulates unsightly junk.

It's not just freestanding houses that waste space. Due to technological limitations, older gutter-connected houses were limited in size. Two hundred feet or so was a maximum bay length due to cooling pad limits, so houses needed space between them for ventilation. And bay widths were limited by glazing, meaning more post rows and less useable space. But today's widespan naturally ventilated houses can cover massive areas of land, leaving few dead zones on your property.

For New Jersey grower George Lucas of Lucas Greenhouses, space utilization is his number one priority. "The biggest reason to bulldoze is, for me, the useable square foot percentages. George has 80,000 sq. ft. of gutter-connected house built between 1978 and 1981 that he would dearly love to take down. "[My oldest house is] at 68 to 70% useable square footage at the most. My new glass house is at about 90 to 92%. That 20% (difference) of useable square footage will easily pay for our new structure." And, he adds, the new structure will be much more labor and energy efficient. (The reason he hasn't yet called in the heavy equipment, he says, is because demand for his product is so strong, even though he's building 100,000-plus sq. ft. every year or two, he always needs more. He says the old 80,000-sq. ft. house will come down in 2010 or 2011, for sure.

3. It's an energy hog. Lap glass, air leaks, no energy curtains, hoop houses with a high percentage of heat-losing surface area—all these factors add up to wasted energy. One knowledgeable grower told us he thinks old greenhouse use four times the energy of a new one that's equipped with all the modern energy-saving measures!

Today, whether you burn natural gas or oil, you need to think long-term conservation. Yes, you can staple up poly in the winter. But how much labor does that take? And how effective is it? And what does it do to your growing environment. At best, it's a stop-gap measure with numerous drawbacks.

Should you retrofit your old house with a modern glazing system? You can, but the experts say that could cost \$3 to \$3.75 per square foot. And you're still stuck with every other problem inherent to the old house. Add a new heating plant? Another couple bucks per foot. Energy curtains? Same thing. Pretty soon you're spent \$10 to \$12 per square foot on your sow's ear, and you've still got low gutters, old wiring and a labor-intensive layout.

4. It's a maintenance nightmare. Do you spend more time fixing old greenhouses than growing new crops? Wouldn't your time, energy and money be better spent working on the future, rather than keeping the past alive? As Kalamazoo Specialty Plants' Rick Ouding says, "Sometimes you just look at [a greenhouse] and say, 'You know what, it's just not worth maintaining that piece of junk anymore.'"

5. New automation won't fit. Booms and ECHOS in a 1940 Lord & Burnham? Supposedly it can be done ... but should you? Even if it looks practical on paper, in real terms a major retrofit is loaded with pitfalls. Just ask Jim Leider of Leider Greenhouses in Buffalo Grove, Illinois. Leider's did a major retrofit of Dutch container benches about 20 years ago, adapting them to their fairly new (at the time) gutter-connected houses, and they found there were many hidden costs. "We didn't count on the fact that we'd have to do some rewiring and some rewelding of certain structural things to get the automation in."

Jim was retrofitting fairly modern greenhouses. But one of the biggest drawbacks to an old house is its low gutter height. "Of any of the greenhouse dimensions, the height is probably more of an indicator that you need to get the bulldozer out," says Nexus's Jeff Warschauer. During the energy scares of the '60s and '70s, builders went low, thinking that less air volume to heat would mean lower energy use. What they didn't figure on was that the small volume of air would be extremely difficult to maintain at a constant temperature. We've since learned that a tall greenhouse is actually more efficient to heat than a low one, especially when you add one or two layers of energy curtains.

An added benefit is overhead space for modern mechanization, such as energy curtains, boom irrigation and hanging basket systems such as ECHO and Boomerang. According to sales manager Chris Lundgren of Cherry Creek System in Colorado, you need 12 feet of gutter height to effectively hang a single layer basket system. If you have a house with 14 feet of gutter clearance, you can install a double layer ECHO, which Chris says would produce 10,000 baskets per turn in a 1-acre greenhouse. That could be \$100,000 gross sales per turn, using existing overhead space—and at considerably lower labor than using stationary pipes.

Yes, you can jack up a house and weld in new posts, as Rick Ouding did. But unless you have lots of friends with jacks and forklifts, it's not easy. And Rough Brothers' Bill Vietas reminds you that the house may not now meet code for wind and snow loads. And remember, too, that there are hundreds of places where hidden costs come in, from changing your sidewall glazing to match the new height to adding on to electric, water, gas and other services.

6. You're crop quality is suffering. Humidity, higher temperatures, poor ventilation, drips, low light levels, a difficult-to-control climate due to its smaller air mass—an old greenhouse can be a bear to grow in. Yes, maybe you or your grower have adapted to it. But it's a rare case where someone doesn't tell us how much better their new house grows than their old one. And does it more consistently, and with less fuss and tinkering.

7. It makes a bad impression. Maybe it's not the top reason to bulldoze your greenhouse, but it's an added benefit of doing so. Having a facility you can be proud to show off to customers says a lot about your business, and it inspires confidence in you and your staff. An added benefit is in hiring new staff, especially higher-level staff. A new head grower, when faced with equal opportunities, will probably pick the more modern facility (unless you've spent so much on the greenhouse that you have no money left for staff).

8. You can depreciate it. In addition to all the savings above, Uncle Sam will also help pay for your new greenhouse through the tax savings of depreciation. Suppose you spend \$1 million on a new greenhouse. With seven years to depreciate it, you can deduct 1/7th of that (\$142,857) from your annual cost of sales, reducing your potential tax liability.

Suppose you gross \$2 million, and your cost of sales is \$1.5 million, leaving \$500,000 as taxable income. Add the depreciation to your cost of sales, and your taxable income drops to \$358,000. If the tax rate on that is 34%, you will pay \$48,571 less in taxes (34% of your depreciation value). Over seven years of depreciation, at those figures, you'll pocket \$340,000 of your original \$1 million investment.

9. You need to relocate. Thousands of horticulture businesses that used to be in the middle of nowhere are today surrounded by million-dollar homes. That means two things: 1) Land values have soared (even considering today's real estate slump) and urbanization makes it tough to maintain an agriculture business.

Florida's Kraft Gardens is a perfect example. Kevin Kraft did an article for GrowerTalks several years ago describing his company's move from Deerfield Beach to Ft. Pierce, 100 miles to the north. "By the late 1980s, I knew our Deerfield Beach facility was becoming untenable due to the urbanization of the area," he wrote. "On three sides of the property we had commercial, industrial and retirement community neighbors. The fourth side was scheduled to become a six-lane highway. Delivery trucks, pesticide and herbicide odors and water runoff made our existence increasingly difficult in the heart of the Boca Raton/Deerfield Beach urban community."

However, he also found that his 40 acres of raw agriculture land wouldn't sell for enough to finance the construction of the new facility. So he rezoned the land himself. "The effort was worth it," Kevin wrote. "When the platting was completed, the property was worth 30% more than before re-zoning, which was sufficient to relocate the facility and provide a fair return on the investment."

10. You want the business to be strong for the next generation. While you don't want to saddle the next

generation with debt, it will never be cheaper to upgrade your facilities. While loans aren't easy to come by, money is cheap, and today's modern greenhouse designs, such as open-roof houses, will last for generations, are inexpensive to operate, and will grow any crop. Rather than battling the facilities, your kids can focus on sales and marketing—which will be the most important skill set for the next generation of greenhouse owners.

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