GROWERTALKS

Acres & Acres

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Redneck Engineering

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I just visited one of the prettiest and most impressive single-build greenhouses I've ever been in: a BrightFarms hydroponic lettuce greenhouse in Macon, Georgia. Constructed in 2024 and producing its first crops in 2025, it's 8 acres of Venlo glass under one roof, with wide bays and sky-high gutters. But it's also semi-closed, meaning the air is fully conditioned before entering the greenhouse, optimizing the lettuce-growing environment year-round—even in the heat of a Georgia summer.

They wouldn't tell me how much they invested, but it could run to the princely sum of (rough guess) $40 or $50 per square foot—$18 million? Takes a lot of lettuce to pay that back! (BrightFarms can produce 300 million plants a year in that house, so I reckon they're on the right track.)

However, if you're a tad short on venture capital, there's that abandoned double-poly gutter-connect down the street you've been eyeing. Owner retired a year ago and it's been sitting empty ever since and you've been thinking it might make a nice addition to your existing operation. You've priced a new greenhouse from your current supplier and it's doable … but, golly, steel sure has gone up since the last one you built five years ago. Maybe it's time to save a few bucks and put in some sweat equity.
I mean, how hard can it be?

You wouldn't be the first grower to buy a used greenhouse, disassemble it, move it across town and set it back up. As long as there have been used greenhouses there's been somebody willing to buy it. But it's not easy, it takes time and there are swarms of hidden pitfalls if you don't know what you're doing. So how might you decide if a used greenhouse is a smart business decision?

To find out, I went to a guy who probably knows more about rebuilding used greenhouses than anyone: hydroponic vegetable grower Paul Mock of Mock's Greenhouse in West Virginia. Of Paul's 30 greenhouses, 29 are used. I asked him to share a few tips and precautions.

- Don't overpay. "I don't want to spend more than 13% of the brand new cost," Paul said. Why that figure? He starts at 10%, but that leaves him a little wiggle room to negotiate. That goes for equipment, too. For instance, he just bought $65,000 worth of LED lights for $7,300.
- Know the as-new price of what you're buying (in order to negotiate as above). But also know the value,

especially of the components. One-year-old poly is worth nothing and has to be disposed of. Electrical wiring—well, you can salvage some of it, but you're going to have to replace much of it, too.

- Be familiar with the manufacturers and the unique features of their structures. Paul has four brands of greenhouses, all poly covered. He said some have poly lock that he likes; others are a nuisance. "Those are the things you learn when you start buying used equipment."
- His age cutoff on a structure is 10 years. That surprised me, but you have to expect rust and corrosion, especially hidden inside tubes and on fasteners and brackets. Plus, any equipment like fans and heaters will be pretty much shot if more than 10 years old.
- Make sure it's engineered for your climate. For instance, Paul won't buy a Georgia greenhouse for his West Virginia nursery because it won't be designed for the snow load.
- You'd better be mechanically inclined … or as Paul puts it, a "redneck engineer." Cutting torches, fabrication, rusted fasteners, telehandlers, resetting new ground posts … there's a ton of work that goes into it.
- Know what the seller expects as far as site cleanup. Paul generally gets permission to cut the greenhouse off at ground level, leaving the concrete in the ground. In fact, he's never bought a greenhouse where removing concrete footings was required, nor would he want to, due to the hidden costs of disposal.
- Know when new is better. As a grower, your time and energy should be spent growing and selling plants, not dealing with facilities that may or may not work as intended. A new structure from a reputable manufacturer and designed for your site and needs should do exactly what you need it to, without surprises, allowing you to focus on producing and selling the perfect crop.

Many a successful grower has gotten his or her start in a used hoophouse set up in a backyard. And a rare few, like Paul, can build a business this way. Plus, it's environmentally friendly! But just know what you're getting into. Unless you take pride in your ability as a redneck engineer, leave the structure to the experts and focus on your crops. **GT**