

An investment in a biomass boiler is shoring up the bottom line at Pleasant View Gardens, and, in turn, saving its grower-customers money.

by JOLI HOHENSTEIN

ONG before sustainability became a buzzword and corporations made headlines for using the right light bulbs, the Huntingtons made energy conservation a priority at Pleasant View Gardens in New Hampshire.

But their latest innovations put even their own efforts in the shadows. Their new biomass boiler has the potential to reduce heating costs at their Pembroke, N.H., location by an incredible 85 percent. And their resume of energy- and



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labor-saving programs is helping their customers cut crop times by as much as 50 percent. Whatever it takes, Pleasant View puts the spotlight on increasing turns and decreasing costs.

"We ask, 'What can we do in our industry to be good to the environment and also save our grower customers and retailers money," says Carol Huntington, Pleasant View's marketing manager. "We're constantly being innovators and keeping our minds open."

Not Burning the Midnight Oil

Installing a \$2 million biomass burner and moving away from heating oil is no small feat for a multi-location, multiboiler room operation like Pleasant View. But it's finding out the proof is certainly in the numbers. "At this point when you see a four-year payback or less, to me that's a no-brainer,"

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President Henry Huntington says.

After all, Pleasant View Pembroke burns about 250,000 gallons of No. 2 oil a year. The Loudon, N.H., location burns 350,000 gallons. At roughly \$2 per gallon when the Huntingtons began looking at biomass, that's one heck of a fuel bill. And when prices shot up to \$3.50 per gallon and bills nearly doubled to almost \$1 million in one year for the Pembroke location alone, they knew it was time for action.

Their 4 ¹/₂-acre Pembroke facility, heated by a single-centralized boiler room, was ideal to install their first biomass heating system. (The 7-acre Loudon location runs multiple boiler rooms that are not centralized, making a conversion much more involved.)

Sustainability, Pleasant View Style

The bottom-line benefits of a Biomass Boiler at Pleasant View are:

- Total annual fuel savings that equal a quarter-million gallons;
- Energy and labor cutback plans
 Customer savings that equal up to 50 percent
- shorter crop times

Traveling through the Northeastern United States and into Canada to see systems using alternative fuels, Henry and Russ Elkins, the facilities manager, saw operations burning manure, tires, ground-up pallets and even demolition debris. Ultimately, given their location in a heavily forested area of New Hampshire, they decided the ideal choice for them was a Hurst biomass system that would burn wood chips.

Plentiful in supply, wood chips run just \$35 per ton. Pleasant View Pembroke requires about 4,200 tons a year, totaling a mere \$150,000 for one year of heating – a far cry from the \$1 million annual fuel bill they were facing with oil.

"We found wood chips would be the most cost effective and easiest to obtain," Elkins says. "We also did a lot of research to find reputable tree chipping companies that know what our expectations are."

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System and inputs chosen, the only question left was how to pay for the \$2 million investment. The answer came in a little-known government program, Renewable Energy and Energy Efficiency Loans and Grants.

To go after a grant, Pleasant View created a five-person committee, and after discovering the true complexity of the process, retained a grantwriting firm's services. Sharon Huntington took point on the project, working with the Pleasant View staff, the agency, local USDA office and vendors to gather the hundreds of pages of very specific documentation needed.

"It was a painstaking process to say the least," she says. "We had two months to meet the first deadline and four months to meet the second deadline."





Pleasant View not only met the deadline, but it exceeded it, earning one of the largest grants of its kind this industry has ever seen – a whopping half million dollars. (Grants are available to growers of any size. Contact your local USDA office for details.)

Chipping In

For its dramatic move to alternative power, Pleasant View chose a Hurst biomass burner and boiler with a reciprocating grate system that delivered the ultimate versatility, performance and efficiency.

In fact, ever the forward thinkers, Pleasant View installed two separate reciprocating floors to increase flexibility. "Down the road, if whole tree chips become expensive, we could create a mixture and use something else with them," Elkins says.

Installed at one end of the boiler building, reciprocating floor slats operate in sequence to move wood chips forward and dump them onto a conveyor. Chips are then augured into the boiler system. The burner combusts the wood chips to efficiently heat the greenhouse.

The biggest change? "It's not the boiler," Elkins says. "It's going from an oil-fired system to a biomass system which requires more monitoring."

Paying It Forward

Amazingly, Pleasant View says the new biomass burner will cut its oil use at Pembroke to zero, relegating the once-dominant fuel to backup status. And total oil use at its two facilities will drop by almost half – from 600,000 gallons for both locations to only the 350,000 gallons burned at the Loudon location.

But its energy-saving efforts don't end

Enhanced l iners

at its own greenhouse door. Customers benefit too, as Pleasant View focuses on innovation to reduce energy and labor costs. A quick glance at Pleasant View's program line reveals a wealth of potential for reducing labor and energy costs:

Cool-Tolerant Annual Program

Goal: Help growers increase production space by using outdoor areas more.

Method: Select a range of cold-tolerant plants that can be moved outdoors earlier in the season. All tolerate some frost, and most benefit from hardening off.



Payoff: Increased turns, maximized greenhouse space, and for retailers, earlier outdoor display setup.

"It essentially doubles the amount you can produce in that space," says Pete Gilmore, national sales manager. "For growers who don't want to put their crops outside, they can lower the heat at night and lower their energy costs."

Fast Tracks

Goal: Faster turns and faster finishing to reduce energy and labor costs alike.

Method: Broad-spectrum drenches, pinching and lighting help deliver better branching, flowering and performance.

Payoff:

Growers slash production time by five weeks and dramatically lower costs on 6.5-inch and larger containers and baskets.

Plant & Ship

Goal: Trim labor costs, bulk up sales. Method: For growers who want it all, it's all here - liner, tag, container, tray, soil - delivered together in one shipment.

Payoff: Plants take just three to six weeks to finish, and crops are ready with lower labor costs.

Enhanced Liners

Goal: More turns and lower energy and labor costs.

Method: Well-branched plants with initiated buds.

Payoff: "With Enhanced Liners, we've seen growers reduce their crop time by 40 to 50 percent on 41/2 inch," Gilmore says.

Pre-Finished Program

Goal: Start spring early and add a turn by moving plants through faster with just three to four weeks to finish.

Method: Pinching, broad spectrum drenches, plant growth regulators.

Payoff: Growers get a head start and spend less time in the greenhouse and less money on fuel and labor.

It's a beyond-comprehensive strategy that's growing ever year with Pleasant View's endless drive for savings. "It's all about understanding the constraints and cost increases," Henry says. "We give our customers products that work for them and that they can turn to decrease labor and energy costs." GG

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