

USING SHELLED CORN AS A GREENHOUSE FUEL – OCTOBER 25, 2007

11:00 am at Walker Farm, Dummerston VT to see the furnace in operation.

1:00 pm at Five Point Farm, Northfield MA to see how corn is dried, stored, and bagged.

To test an alternative to fossil fuels for heating, Jack Manix of Walker Farm (www.walkerfarm.com) recently installed a 165,000 Btu corn-burning furnace (www.cornheat.com) in one of his two dozen greenhouses, with the help of a small grant from UVM Extension. Although it's operated for just a short while, the fully-automated furnace seems to be working well. Jack is using local shelled corn available for \$200/ton in bags (or \$170/ton in bulk). This compares favorably with the price of propane. (Conservatively estimating 15.5% moisture content of corn and 75% efficiency of the furnace, a ton of shelled corn has the same energy content as about 133 gallons of propane.) The furnace burns very clean, and what little emissions it does produce smell like corn muffins.



Corn furnace with bags of fuel in the greenhouse, last spring

The corn being burned comes from Five Point Farm in Northfield, MA (www.fivepointfarmcorn.com) about 25 miles to the south. This dairy farm in the Connecticut River Valley is milking 200 cows and also grows, dries, and stores over 1,000 tons of fuel corn. Bill Llewellyn will tell us how it's done and explain the equipment he uses for harvest, drying, storage and packaging. It may be possible for other dairy farms in the region to grow shelled corn as a local fuel for greenhouse growers in their community.

Directions to Walker Farm: Take Exit 3 off I-91 in VT (Brattleboro, Keene NH). Go 3/4 of the way around the rotary, onto Route 5 north. The farm is 3 miles up on the right.

Directions to Five Point Farm: Take Exit 28 off I-91 in Bernardston MA. Turn east towards Northfield on Route 10. Go about 5 miles to the intersection with Route 63. Turn right (south) and go almost a mile to Upper Farm Rd. on the right. Five Point Farm is a half mile on the right.

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