

Growth in grass pellet industry highlighted at heating seminar By [Luke Geiver](#) | March 22, 2012

When Enviro Energy LLC's founder, Bob Miller, first started making pellets in upstate New York, he was just a farmer. The same can be said about [Kevin Sumner](#) and [John Brown](#), both with [Hudson Valley Grass Energy](#) out of New York. All three individuals presented a history of their paths from farmer to fuel pellet developers during the Northeast Agricultural Biomass Heating Seminar, a one-day event held in Saratoga Springs, N.Y., that preceded the [Northeast Biomass Heating Expo](#).

The presentations by Miller, Sumner, Brown and even [Dan Arnett of Ernst Biomass](#), a pellet manufacturing startup that is tied to a Pennsylvania seed developer, all highlighted the growth of the perennial grass and agricultural-based pellet sector.

Miller explained that when he started making fuel pellets out of everything from reed canary grass to switchgrass and straw, his family team simply wanted to see whether it could make a good pellet. To do that, his team engineered a pellet manufacturing facility capable of switching from one feedstock to another in a matter of two hours. The operation, he said, was built out of waste parts from junk yards. "We didn't really know what would work, but we were thoroughly convinced of what wouldn't."

Although Miller makes his operation sound amateur, his facility in New York has not only paved the way for others in the region to follow, but it has also attained a high level of success [providing bulk pellet options from both grass and woody biomass](#).

In Pennsylvania, Ernst Biomass is working with switchgrass to make its pellets. "What we tried to do with Ernst Biomass was to try and fill in the gap try and fill in the concept of grass energy and realizing it on a commercial scale," Arnett said. In roughly two months, Ernst Biomass will be running its facility. [The company aims to answer a series of questions including whether the market will support the switchgrass pellets; what the price point will be; and what the required capital will be for building a commercial facility, in comparison with the financial returns.](#)

Ernst Biomass is also building the facility to meet the heating needs of the region. [The 35,000-ton-per-year plant will produce pellets from both switchgrass fiber and wood fiber, and will also experiment with a hybrid of the two.](#) Several presenters during the conference noted switchgrass for its difficulty as a pellet feedstock, so Arnett gave a summary of the benefits.

["One way to sum up the benefits of switchgrass is that it was one of the most prevalent species in the North America tall grass prairie,"](#) he said. ["Switchgrass and the other native warm species grasses built the soil that is now the breadbasket of North America. It is very very healthy for the soil."](#)

But feedstock wasn't the only topic discussed at the agricultural seminar. [Sumner and Brown, of Hudson Valley Grass Energy, presented their portable pelleting system for biomass that can be used onsite at farms and energy crop plantations.](#) "Our project kind of started as an envelope sketch," Sumner says. That \$150,000 project is a truck with a flatbed trailer that also houses a portable pelletizing system. The system is run by a diesel generator and includes a hammer mill, an auger out of the hammer mill that feeds into a buffer bin, and an auger out of the buffer bin that feeds into a conditioning tube leading into the pellet mill. From there, Sumner said, the mill feeds into a cooling tower and a shake tray.

The operation can produce one to two tons per hour, and the pair has tested the system at 10 different farms, making pellets out of feedstock ranging from perennial grasses to soybean stubble. ["Our goal was to use U.S.-made equipment,"](#) Brown says. Most of the equipment used on the system was new, except for the truck, the genset and the pellet mill, all of which were refurbished. "Our cost is essentially how much diesel fuel you use in the generator and we use roughly 13-14 gallons of diesel per hour." On a per-ton basis at one hour of operation, Brown estimates the total cost for the system at \$83 per hour.

It seems all agricultural pellet projects come with a trial-and-error period. “It’s been a continual process of finding the weak link in our chain,” Sumner said of his project. “We upgrade it.”