

Corn Seed Production in Vermont
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I've been a seed saver for most of the 30 years that I have been growing grains. Cereals and beans present some challenges, but in most normal years, seed production is possible. An extra wet harvest season can compromise seed quality. Last year's barley remained in the field three extra weeks waiting for dry weather. The germination rate came in at 75%. So it's back to the seed dealer for new barley seed this year.

I have wanted to save my own corn seed for many years. We have tried numerous Open pollinated (OP) corn with only limited success. If you can't raise a passable crop with a particular variety – it's probably not worth saving seed. *Roy's Calais Flint* have been relatively easy to perpetuate because it ripens so early. *Matheson Dent* (which we obtained from Rob Johnston at Johnnys') ripened slowly and did not stand well during dry down. After that we moved on to a three year adventure with Victor Kucyk's *Wapsie Valley* and Wapsie crosses. Ear size and maturity were good but we waited until early November to harvest. At this time much of the corn had lodged. In our location *Wapsie Valley* seemed like a better variety to ensile rather than pick.

Our newest experiment began last year (2004) with Frank Kutka's *Early Riser* purchased from Klaas Martens at Lakeview Grain of Penn Yan, NY. The corn emerged quickly, grew well, stood well, and made black layer in a cool wet year. With a little convincing from Klaas, we decided to make seed out of our tow acre piece. Raccoon damage was rather severe in the center of the field and the corn was picked while it was still rather wet. We hand sorted the ears for ripeness and grain quality. The good ears were bagged up and sent on a 500 mile trip to the NY State Seed Improvement Cooperative – just outside of Ithaca, NY. The 30% moisture grain was dried slowly and safely shelled, cleaned, graded, sized, and bagged. In all we ended up with 45 bags of corn seed – Vermont's first "homegrown" corn seed since the 1940s.

Seed is one of the most expensive inputs when planting a crop of corn. Many hybrids from the mainstream companies are close to \$100/bag. Test weights are declining as grain yields increase. Couple this quality issue with the fact that the seed industry is heading toward increased reliance on genetic modification and you have the best possible reason to encourage the growth of seed breeding and saving here in Vermont.

Frank Kutka (a plant breeder at Cornell University) has offered to come and teach a one-day course on corn genetics and breeding. A date in June will be decided on rather soon. Several recent conversations with Frank have yielded the following basic plant breeding techniques:

- Walk your field during the season. Get to know your plants their stature and appearance. Save and plant the best.

- Harvest your crop before the onset of prolonged below freezing temperatures. Freezing weakens the germination quality.

- Variety is the spice of life. If there are several different types of ears make sure to save them all. Genetic diversity brings strength.

- Mix up your seed. Make sure to plant a diverse sample. If you can obtain seed of the same variety from another grower as this will help enhance the genetic diversity.

Vermont farmers saving and planting Vermont seed corn. It's only a dream right now. Production of a single and double cross hybrids is also a possibility. So please take a day in June and come hear Frank Kutka talk about corn and corn breeding.