LAKEVIEW ORGANIC GRAIN
Box 361, Penn Yan, NY 14527
315-531-1038

TIPS FOR USING UNTREATED SEED

Under USDA NOP organic standards, farmers must use untreated seed if it is commercially available in the quality, quantity and variety desired. Generally, organic seed means untreated seed. This means we have to be much more careful to:

(1) use soil tests to determine whether you need to adjust soil fertility and lime level

(2) use the highest quality seed possible – both %germination & vigor

(3) prepare a superior seedbed for good soil-seed contact

(4) use a well-adjusted corn planter or grain drill with uniform depth control

(6) use proper timing of planting for the crop

(7) make sure that soil temperature is suitable before planting

(8) consider adding conservation practices to improve soil drainage long-term

When using untreated seed, it is important to do everything possible to ensure rapid and uniform emergence, since that is our best defense against seed/seedling rots and insects. Non-uniform emergence also makes optimal timing of organic weed control much more difficult.

The soil temperature is very important, especially with untreated corn seed. If the soil temperature is below a reliable 50^{o}F, the seed will germinate and emerge slowly and be much more susceptible to insects and diseases which can weaken the seedling or even kill the young plant. Using a probe thermometer before and during planting is valuable.

Depth control is also very important. Seed that is planted too shallow or too deep will show non-uniform emergence and may have poor vigor, especially is there is moisture stress (either too much or too little) during the germination and seedling time period. Any delay in emergence can increase susceptibility to rot. More yield is lost due to improper or non-uniform planting than at any other step. Get off the tractor and check seeding depth regularly, especially as soil conditions change. Corn should be planted 1.5 – 2" deep, small grains should be planted 1-2" deep, soybeans should be planted 1-2" deep

Choose corn seed size carefully. In most cases, medium flat corn seed has the best vigor and health, while the small flats have the quickest emergence. There can be as much as a 3 day difference in emergence between small flat corn seed and large round seed, mostly due to the slower water absorption by the larger seed. The large round corn seeds may also have sustained more physical damage during harvest and conditioning, resulting in lower vigor. The small round corn seeds tend to be lower in vigor, due to incomplete maturity during seed production.

When planting untreated legume seed, always use Rhizobium inoculant of the appropriate strain. There are 4 major types of Rhizobium inoculant – (1) pea/vetch, (2) alfalfa/clover, (3) soybean, and (4) dry bean/snap bean. Using the wrong strain for the crop may result in little inoculation. Make sure to use a Rhizobium inoculant that is organically approved by your certifier.