

The Value of Neonicotinoid Seed Treatments

Global food supplies are very tight and food production must double by 2050 to feed the world. Seed treatments are the starting point for achieving future global food production needs. Neonicotinoid seed treatment is a highly specific and very efficient form of crop protection technology. With increasingly high input costs it is necessary for the modern farmer to maximize their crop production; therefore every seed planted needs to grow.

Neonicotinoids:

- Offer protection against above and below-ground pests including those that carry bacterial and viral disease.
- Reduce or eliminate the number of necessary insecticide foliar sprays due to its targeted and long lasting protection against pests. The insecticide is systemic; it is distributed in the tissues of the growing plant, offering protection through the critical period to around the 4-leaf stage and helping establish a healthy stand. As the plant grows the concentration in the tissues becomes increasingly diluted resulting in very low to non-detectable amounts of insecticide in the pollen and nectar.
- Reduce threats to the plant that can easily destroy a harvest, wasting huge amounts of natural resources (water, soil, nutrients) energy, money and labour.
- Changes in farming practices mean that seed is now being planted earlier in the year in soils that are often cold and wet to help maximize yields. Neonicotinoid protects the seed and seedlings from the risks associated with early season planting pests.
- Neonicotinoid seed treatment is the only way to protect the seed from pests, there is no rescue treatment available for below-ground pest control after planting.
- Safe and targeted use of neonicotinoid seed treatment introduces an efficient use of pesticides and reduces the amount of chemicals used on large areas of farmland.
- It is estimated that if neonicotinoid technology were no longer available to farmers, the productivity benefits that would be lost would result in the prices of agricultural raw commodities increasing by up to 2%.
- Aside from just controlling insect pests, neonicotinoids may also help improve plant health and vigor according to a recent study by researchers at the University of California, Berkeley.

Untreated Seed:

Seed treatments, like neonicotinoids and other crop protection products, are important tools for the modern farmer. The average loss without the use of crop protection products is estimated to be:

- 10% loss of crop at post-harvest,
- 13% loss due to disease,
- 14% loss due to weeds
- 5% loss due to insects.