Neonicotinoids are insecticides chemically related to nicotine. Neonicotinoids have success against sucking insects such as aphids and against chewing pests such as beetles and cutworms. Due to its water solubility, these chemicals are highly systemic in the plant roots and new leaf tissues and have been utilized for seed treatment since 1990's.

Recently, the Environmental Protection Agency (EPA) conducted a study of soybean seeds that have been treated with neonicotinoids versus not receiving any insect control treatment with an outcome that in most cases, yield was not affected.

The EPA also found that treatments do not overlap with the more important Ohio pests, as treatment only last the first 3 - 4 weeks after planting. The more problematic pests such as slugs, bean leaf beetles, and seed corn maggots are not affected by neonicotinoids.

Dr. Andy Michel, The Ohio State University (OSU) Ohio Agricultural Research and Development Center (OARDC) Professor of Entomology, sympathizes, "I know growers might be reluctant to do away with seed treatment, but their return on investment might be minimal."

Neonicotinoids have been up for review and concerns of its presence in water as well as its effect on the decreasing population of honeybees continue to raise awareness. Michel states that it's important for growers to know that this is not an outright ban on Neonicotinoids, but encourages farmers to try an alternative.