

Talking Biotech: Benefits and unanticipated consequences of neonicotinoid insecticide use

Neonicotinoids (neonics) are a class of insecticides based on natural plant compounds that disrupt the insect nervous system. They are used because they have relatively low toxicity on non-insects. They are applied as seed coatings, so when a seed germinates the water-soluble insecticides are taken up and mobilized throughout the plant, providing protection against insects that feed on it. The strategy decreases the need for aerial spraying of broad-spectrum insecticides.

Because of these attributes, neonic use has increased significantly. As usual, when a single strategy is employed there can be collateral effects. Dr. John Tooker from Penn State University describes his work on today's podcast. Dr. Tooker examines a situation where the reliance on neonics has led to problems with other pests. This reminds us that integrated pest management is important, that there are no one-size-fits-all solutions, and that we have to exercise care in monitoring unanticipated effects of insecticide use.

Dr. Tooker's [website](#)

Follow on Twitter: [@jftooker](#)

Follow Talking Biotech on Twitter [@TalkingBiotech](#)

Follow Kevin Folta on Twitter [@kevinfolta](#) | Facebook: [Facebook.com/kmfolta/](#) | Lab website: [Arabidopsisthaliana.com](#) | All funding: [Kevinfolta.com/transparency](#)

[Stitcher](#) | [iTunes](#) | [Player FM](#) | [TuneIn](#)

https://geneticliteracyproject.org/wp-content/uploads/2017/07/090_tooker.mp3

Visit Kevin Folta's [Talking Biotech](#)