

Hi Jim, thank you and the committee again for the opportunity to present at the hearing today. I wanted to pass along these studies in response to Rep. Jacobs' question about the benefits of seed treatments.

As I stated in my testimony, independent, peer-reviewed research consistently demonstrates that neonic-treated corn and soybean seeds do not provide income or yield benefits to growers. Studies generally compare plots sown with neonicotinoid-treated seeds with plots sown with fungicide-only treated seeds and/or completely untreated seeds.

- A [2020 analysis](#) by Cornell University researchers, which looked at over 1,100 peer-reviewed studies, concluded that **“there is no overall net income benefit to using neonicotinoid treatments on corn and soybean seeds instead of untreated seeds.”** [See p. 236.](#)
- [A joint extension publication by the University of Minnesota and 12 other universities](#) explains that “For typical field situations, independent research demonstrates that neonicotinoid seed treatments do not provide a consistent return on investment. **The current use of neonicotinoid seed treatments in soybean and other crops far exceeds pest pressures.**”
- [Spyridon Mourtzinis et al. \(2019\)](#): “Here we show that across the principal soybean-growing region of the country, there are **negligible and management-specific yield benefits attributed to NSTs.** . . . These results demonstrate that the current widespread prophylactic use of NST in the key soybean-producing areas of the US should be re-evaluated by producers and regulators alike.”
- [Jocelyn Smith et al. \(2020\)](#): “Infrequent incidence of economic injury and the absence of a consistent yield response to NST and DSTs throughout the 4 yr of the study indicate that **widespread use of seed-applied insecticides in corn and soybean is unlikely to provide benefit to producers.** These data highlight an opportunity for reducing input costs, environmental loading, and nontarget effects without adverse outcomes for Ontario producers.”
- [Genevieve Labrie et al. \(2020\)](#): “[N]o significant differences in plant stand or yield were observed between treated and untreated corn or soybeans during the study.”
- [Jacob Pecenka et al. \(2021\)](#): Researchers implemented an Integrated Pest Management cropping system which did not use neonic-treated seeds and decreased insecticide use by 95%. “In IPM corn, **the absence of a neonicotinoid seed treatment had no impact on yields,** whereas IPM watermelon experienced a 129% increase in flower visitation rate by pollinators, resulting in 26% higher yields.”
- 2022 field trials by Cornell University researchers demonstrate no yield benefit of using neonicotinoid seed treatments in corn. In fact, several trials showed increased pest damage in neonic-treated plots. [See here](#) (“Once the data from all sites was pooled and a multivariate analysis conducted, it was determined that **there were no significant differences in any of the treatments,** meaning that overall, seedcorn maggots were not a factor in establishing corn in any of NYSIPM’s year-one trials.”).

Please feel free to reach out with any additional questions.

Best,

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