

## EFFECTS OF SEED TREATMENTS ON THE BIOLOGY OF SOYBEAN CYST NEMATODE

Gregory L. Tylka<sup>1/</sup>

Nematode-protectant seed treatments are available for managing the soybean cyst nematode (SCN). Information about how these products affect specific aspects of the biology of SCN is limited. Research methods were developed at Iowa State University to determine how seed treatments affect the biology of the nematode (Beeman et al., 2016; Jensen et al., 2018a), and then those methods were used in experiments with Avicta, Clariva, Ileva, and Votivo seed treatments (Beeman and Tylka, 2018; Beeman et al., 2018; Jensen et al., 2018b). Results of experiments revealed that soybean roots grown from seeds treated with Avicta, Clariva, Ileva, and Votivo did not attract or repel SCN juveniles. Leachates of soil in which Avicta-treated seeds were planted reduced the speed, movement, and curvature of SCN juveniles, and penetration by nematode juveniles of roots grown from Avicta-treated seeds was reduced. Movement of SCN juveniles incubated in leachates of soil planted with Clariva-treated seeds also was reduced, and development of the juveniles in roots grown from Clariva-treated seeds was slowed. Leachates of soil in which Ileva-treated seeds were placed reduced hatching, speed, and movement of SCN juveniles, and penetration of roots from Ileva-treated seeds by juveniles was reduced.

### References

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<sup>1/</sup>Professor, Department of Plant Pathology and Microbiology, 1344 Advanced Teaching and Research Building, 2213 Pammel Drive, Iowa State University, Ames, IA 50011