**General summary:**

Spring planting conditions throughout Iowa were first cold and wet, and most soybean fields were planted later to accommodate corn planting. Then May was warmer than normal and June turned exceptionally wet throughout most of Iowa. Population fluctuations between locations and years is typical soybean aphid dynamics for Iowa. Soybean aphids arrived on soybean in July, slightly behind average infestation dates. Soybean aphid colonization was initially patchy and continued to grow at a slow pace, likely due to hot evenings providing little relief to adults. Some commercial fields experienced exponential growth of soybean aphid after bloom, especially in northern Iowa. However, few fields in northwestern and northcentral counties had soybean aphid exceed the economic threshold. Some populations did persist until after seed set (R5–R6), but very quickly crashed at most locations by mid-September. When applications had sufficient coverage and applied at the labeled rate, efficacy for soybean was good (i.e., >95% knockdown within three days after application) throughout most of Iowa.

In addition to soybean aphid, Japanese beetle, bean leaf beetle and soybean gall midge were prevalent in some Iowa soybean fields. We conducted a “on the fly” efficacy evaluation at the ISU Johnson Research Farm and hope to have yield data summarized for the next reporting cycle.

I was able to complete proposed work, including research and extension related to soybean aphid management. I established a foliar insecticide efficacy evaluation at two locations in 2018 (northwest and northeast Iowa). I had 25+ treatments at each location. My extension efforts are summarized here:

**Recent Extension publications: 12**

Hodgson, E. W., and G. VanNostrand. 2018. Evaluation of insecticides for control of soybean aphid, 2017. Entomological Society of America Arthropod Management Tests. [DOI: 10.1093/amt/tsx045.](DOI: 10.1093/amt/tsx045.  )

Hodgson, E. W. 2018. Using immediate feedback to improve short-term learning in extension. Journal of Integrated Pest Management. [DOI: 10.1093/jipm/pmy001](https://doi.org/10.1093/jipm/pmy001)*.*

Hodgson, E. W. Use IPM to manage field crop pests, p. 19. In Proceedings: Iowa State University Crop Advantage Series, Ames, IA, January 2018.

Hodgson, E. W., and R. Koch. 2018. Soybean aphid management field guide for the north-central region, 62 pp. (2nd edition). North Central Soybean Research Program, [Publication IPM 0060](https://store.extension.iastate.edu/product/12817).

Koch, R., E. Hodgson, J. Knodel, and A. Varenhorst. 2018. Management of insecticide-resistant soybean aphids, 4. pp. North Dakota State University, [Publication E1878](https://store.extension.iastate.edu/product/15384).

Hodgson, E. “When is it too late to spray for soybean aphid?” *In* ICM News. 8 August 2018.

Hodgson, E. “You ‘mite’ want to scout drought-stressed crops.” *In* ICM News. 6 August 2018.

Hodgson, E. “New soybean pest in Iowa: soybean gall midge.” *In* ICM News. 31 July 2018.

Hodgson, E. “A tough winter for bean leaf beetle.” *In* ICM News. 23 April 2018.

Hodgson, E. “Soybean aphid egg hatch predicted in northern Iowa.” *In* ICM News. 8 May 2018.

Hodgson, E. “Japanese beetle adults emerge in southern Iowa.” *In* ICM News. 14 June 2018.

Hodgson, E. “Summary of soybean aphid efficacy evaluation for 2017.” *In* ICM News. 21 December 2017.

**Extension presentations (in 2018): 12**

Hodgson, E. W. Soybean IPM: using thresholds to manage defoliators. University of Missouri Crop Management Conference, Columbia, MO [2 sessions; 150 people] 14 December 2017

Hodgson, E., and A. Saeugling. A new emerging pest: soybean gall midge. Armstrong Farm, Iowa State University, Lewis, IA. [50 people] 5 September 2018

Hodgson, E. W. Resistance management plans for soybean aphid. 2018 Iowa State University Extension and Outreach Crop Advantage Series Workshops.

- Okoboji, IA. [45 people] 4 January 2018

- Burlington, IA. [7 people] 5 January 2018

- Storm Lake, IA. [18 people] 9 January 2018

- Atlantic, IA. [32 people] 16 January 2018

- Waterloo, IA. [2 sessions; 110 people] 18 January 2018

- Iowa City, IA. [40 people] 24 January 2018

- Davenport, IL. [2 sessions; 35 people] 26 January 2018

Hodgson, E. W. Soybean aphid bites back: update on pyrethroid resistance. Iowa State University Extension and Outreach Integrated Crop Management Annual Conference, Ames, IA. [2 sessions; 155 people] 29 November 2017

Hodgson, E. W. IPM and economic thresholds for insects. Iowa State University Extension and Outreach Ag Chem Dealer Update.

- Iowa City, IA. [110 people] 21 November 2017

- Ames, IA. [95 people] 13 December 2017

Hodgson, E., and E. Rodbell. Host plant resistance for soybean aphid. Practical Farmers of Iowa Field Day, Marble Rock location?, IA. [22 people] 6 September 2018

Hodgson, E. Insect updates. Stine Field Day, Field Extension Education Laboratory, Iowa State University, Ames, IA. [2 sessions; 50 people] 23 August 2018

Hodgson, E. Soybean aphid efficacy evaluation using Sefina. Corteva Field Day, Northwest Research Farm, Iowa State University, Sutherland, IA. [8 people] 22 August 2018

Hodgson, E. Insect updates. Monsanto Field Day, Field Extension Education Laboratory, Iowa State University, Ames, IA. [45 people] 21 August 2018

Anderson, M., and E. Hodgson. IPM 101 Quiz. Wyffels Field Day, Field Extension Education Laboratory, Iowa State University, Ames, IA. [5 sessions; 60 people] 1 August 2018

Richardson, J., and E. Hodgson. Insect identification and scouting in field crops. Corteva New Agronomists Field Day, Field Extension Education Laboratory, Iowa State University, Ames, IA. [3 sessions; 35 people] 25 July 2018

Hodgson, E. Seed and seedling pest management in field crops. Early-Season Clinic, Field Extension Education Laboratory, Iowa State University, Ames, IA. [2 sessions; 25 people] 10 May 2018

**Other extension activity:**

**Videos:**