This newsletter and the advice herein are free. You usually get what you pay for.

**Crop weather**
Rainfall, air and soil temperatures, degree-days, soil moistures, and other current and historical weather data for a little spot about two miles west of Lamberton, MN can be found at the University of Minnesota *Southwest Research and Outreach Center (SWROC)* website: [http://swroc.cfans.umn.edu/WeatherInformation/index.htm](http://swroc.cfans.umn.edu/WeatherInformation/index.htm).

Reliable sources have reported a few soybean fields with symptoms of **white mold** in SC and C MN and **SDS** in SC MN.

**Corn rootworm** beetles should be scouted now. Western corn rootworm survival is better than I expected.

**Green cloverworm** adults, eggs and larvae are very abundant in many soybean fields. I would use the 20% defoliation of the plant (assess the top, middle and healthy lower canopy leaves, not just the top leaf or two) as an action threshold if larvae are still abundant. It sounds like a field or two may have been treated for these insects. I don't know if these were real problems or just someone afraid their insecticide stockpile would get stale if they didn't use it quick. However, a few green cloverworm or holes in the leaf *are not* a reason to adjust economic thresholds for aphids.

**Soybean aphid notes:**
Populations are increasing...rapidly in some fields, not so much in others. Scout fields before you spray. Some fields have low numbers, particularly in areas with recent heavy rainfall, and winged aphids may start to leave some of the more mature and moisture-stressed fields, possibly lowering numbers.

*Do not assume that soybean aphids are controlled just because you sprayed.* Mixing and application errors happen. Recheck the field, some products work faster than others but all should show results 4-5 days after treatment. Recently deceased aphids may remain on the leaf but can be easily brushed off or will fall off if you shake the leaf.

Live aphids, mostly in the lower canopy, indicate a **coverage problem**. Use adequate water volumes when spraying. Very course droplets provide poor coverage and very fine droplets do not penetrate the canopy. Use the right spray tip for the job.
Live aphids, mostly near the top of the plant, indicate a re-infestation problem. Unfortunately, there are many winged female aphids available to re-infest fields right now.

While claims for insecticide residual can vary widely, the more realistic ones are based on the probability of an insect population rebounding to economic levels after the insecticide treatment.

Hot weather can decrease the efficacy of some synthetic pyrethroids and can increase the volatilization of some organophosphates.

Hot weather increases the speed at which some insecticides are degraded.

Temperature inversions or wind can affect spray distribution.

Contrary to rural myth, effective concentrations of systemic insecticides do not move through the entire plant. Late-emerging leaves will not be protected.

To put marketing claims into perspective, I can personally guarantee season-long residual control for any soybean aphid insecticide if you get 100% control and if no new aphids immigrate into the field; neither of which is likely.

Re-spraying a field with the same insecticide is not advised, particularly where the first application performed poorly. Repeat applications of the same insecticide, or even the same insecticide class, would quickly identify an insecticide-resistant insect or mite population in your field...an intellectually stimulating but not economically stimulating discovery. Try to switch chemistries when re-treating a field. This possibility of needing to re-treat is one reason we do not recommend premixes or tank mixes of insecticides unless resistant populations or multiple species at economic levels are targeted.

At this point, we do not have good evidence of any insecticide resistant populations of soybean aphids in Minnesota. Only one insecticide resistant two-spider mite population has been documented.

However, Bob Koch, U of MN, Extension soybean entomologist is screening for insecticide resistance. Please let us know if you suspect an insecticide performance problem on soybean aphids or spider mites. New populations of pesticide resistance can always develop.

Happy trails,

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