**Soybean IPM Education Programs: On-Farms in NYS**

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New York soybean acreage continues to increase with an estimated 255,000 acres of soybeans planted in 2009, an increase of 25,000 acres over last year. Favorable soybean commodity prices provide growers with an enhanced incentive to seek knowledge and means to optimize management of soybean production with an eye towards optimizing net profitability. For extension educators these conditions provide a timely opportunity to share crop and pest management information with highly motivated soybean producers.

This years Northeast Soybean Board grant is funding two types of soybean educational efforts in New York: a traditional intensive local TAg program and a series of more broadly focused on-farm IPM/ICM education events. These efforts are being facilitated at the local level by Cornell Cooperative Extension educators including: Mike Stanyard*, **, NWNY Dairy and Field Crops Team; Janice Degni**, SCNY Dairy and Field Crops Team; Kevin Ganoe **, Central New York Dairy & Field Crops Team; and Mike Hunter*, Jefferson County. **Traditional soybean TAg, ** on-farm IPM/ICM education event.*

Three on-farm soybean IPM education programs, nicknamed "tactical agriculture teams" ("TAg"), are meeting on a monthly basis this season.. TAg teams are operating in Seneca and Wayne counties and in Jefferson County under the direction of Mike Stanyard (CCE) and Mike Hunter (CCE) respectively. Each TAg team is comprised of 6-7 growers each and have met 2 times so far this season. In addition to grower participants, the Seneca and Wayne county groups each have 1 industry representative. More information about the TAg program is available online at www.nysipm.cornell.edu/fieldcrops/tag/.

Early season TAg meetings were held to introduce participants to the soybean TAg program and to administer a pre-questionnaire assess current producer pest and crop knowledge. As in previous years we continue to see a trend toward producers correctly answering questions regarding basic agronomic concepts, while fewer participants correctly answer questions about soybean pest identification and management. These results help us to identify "areas of opportunity" and refine our curriculum to better meet producer needs.

Traditional TAg enrollment 2009

| County | No. Participants | Soybean Acreage Managed |
|---|---|---|
| Seneca | 6 growers + 1 Industry | 2310 |
| Wayne | 7 growers + 1 Industry | 4075 |
| Jefferson | 6 growers | |

In addition to the traditional soybean TAg efforts, the soybean board grant is supporting a series of topical grower meetings during the growing season. To date, 4 such meetings have been held in Cortland, Tompkins, Schoharie, and Broome counties with a total attendance of 33 persons. Additional meetings are scheduled for later this growing season. The objective of these on-farm education programs is to provide a forum for discussing agronomic and economic aspects of soybean production in New York, with an emphasis on the identification and management of insect, disease, and weed pests. The topical grower meetings have also addressed other soybean integrated crop management / production issues. We emphasize plant growth stage assessment at every meeting to help participants understand vulnerable stages in plant growth and development and to correctly time actions if management is necessary.

Early season on-farm IPM/ICM educational events concentrated on soybean production aspects such as assessments of plant populations, and pest management issues such as weed control and soybean aphid management. Participants in educational events were asked to complete a meeting evaluation providing feedback on meeting content and suggestions for future topics. Pre and post TAg participant survey comparisons are not available at this time but will be completed at season's end. Information from the soybean educational events have been positive. When participants were asked to rate their pre and post meeting knowledge (1 = low, 5 = high) on various soybean topics their responses indicated noticeable improvement, see table 1:

Table 1. Pre/Post participation survey feedback from soybean educational event.

| TOPIC | BEFORE* | AFTER* |
|---|---|---|
| Soybean aphid | 2.5 | 4.3 |
| Diseases of Soybean/Fungicide use decision-making | 2.6 | 4.1 |
| Soybean growth stages | 2.6 | 4.4 |
| Weed Management | 3.8 | 3.9 |

* mean response

Local field scouting observations are discussed at each meeting to highlight current pest conditions. The TAg program provides field scouting for one field per producer. The soybean educational events typically involve an in-the-field time monitoring / activity as well. Field observations are shared throughout NY with field crop educators and others with field crop interests in the NYS Weekly Field Crop Pest Report (available online at http://nysipm.cornell.edu/fieldcrops/tag/pestrpt/default.asp).

New York soybean producers have faced challenges this season. Wet conditions delayed planting for many growers and weather has been cool and wet for much of this season. In many places where soybeans are produced the growing degree days are lagging behind by 1 to 1.5 weeks. Because of the lack of heat many fields of soybean beans have remained short and have not progressed in growth. As the temperature starts to warm the beans should start to develop. In many areas of central, western and now northern NY soybean aphid (SBA) infestation levels reached very high numbers early with many fields over threshold and requiring treatment. Soybean fields in the Wayne and Seneca county TAg teams all went over threshold for SBA. In some cases an average of 1000+ aphids were observed each plant, more than 4 X the 250 per plant threshold guideline. These fields received insecticide treatments for SBAs. It is speculated that the growers would have lost 8 to 10 bu/acre had they not scouted fields and treated over threshold aphid populations. A few fields that were sprayed needed a second treatment 1-3 weeks later. As of August 6, reports from across New York indicate SBA populations continue to remain high. In some cases biological control (fungal pathogens and insect predators) are helping to curb soybean aphid populations. Insect and disease pest information collected from TAg farms is part of the data set used to develop the NY commentary for the National Soybean Rust / Soybean Aphid IPM PIPE website (www.sbrusa.net).

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