

Final Project Report to the NYS IPM Program, Agricultural IPM 2002 – 2003

Title:

Integrated Pest and Crop Management TAg Teams in NWN

Project Leader(s):

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Cooperator(s):

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Type of grant:

Training practitioners to use IPM techniques

Project location(s):

Yates County, Rushville
Ontario County, Stanley
Wayne County, Clyde

Abstract:

Tactical Agriculture Teams (TAg) have proven effective for teaching farmers, agri-business representatives, and extension personnel the principles of integrated pest management (IPM) as well as nutrient management and improved crop cultural practices. In 2001, we continued our education within the Mennonite community and successfully developed two strong teams in Yates County and an additional team of traditional farmers in Seneca County. Many Mennonite growers continued to inquire about establishing new teams and our efforts this year were aimed at expanding TAg Teams in that venue as well as across the NWN area. In 2002, two Mennonite Teams were established in Ontario and Yates County. A third team of traditional growers was established in eastern Wayne County.

Background and justification:

TAg Teams provide members with a learning environment within a small group who are usually neighbors. Meetings are normally close to their farm and therefore, they do not spend much time traveling to the meeting. In the case of Mennonite or Amish communities, distance to travel to a meeting is crucial in their decision to attend. Therefore, there is a built in comfort level and growers can feel less intimidated about new concepts and asking questions if they do not understand.

The concept of organizing a small group of members from the agricultural community into TAg Teams has been well accepted in the Finger Lakes Region. Since 2000, we have organized eight teams with 55 members, predominantly growers. During the season, we are continually asked about where we are going to initiate new teams and if they can be participants next year. Additionally, TAg members occasionally

bring along guests such as family members or neighbors who are interested in that days field activities. Therefore, information learned about IPM reaches much further than just its members.

A large portion of our time is spent on IPM topics for corn and alfalfa. Teaching IPM techniques on smaller dairy and crop farms seems to be more beneficial when it comes to sampling and implementation. This is mainly due to smaller field sizes and these farms usually do all their own spraying. Larger farms want to know the information we present, but have their own field crops scout or consultant making all the IPM decisions.

Additionally, a summer assistant has been crucial in making our TAg Teams successful. The assistant can do much of the logistical work to initiate teams, schedule meetings, develop written reference materials for participants, obtain scouting data and assist with pre and post testing for evaluation.

Objectives:

- 1.) Establish three TAg Teams in the NWNYS area for this season.
- 2.) Provide one soil test and one Pre Sidedress Nitrogen Test (PSNT) for each cooperating farm. Encourage growers to soil sample other fields and perform PSNT's on cornfields.
- 3.) Develop timely pest management notes and distribute references (2002 Cornell Guide for IFCM, Corn and Alfalfa Handbook, Building Soils for Better Crops) to participants for inclusion in a reference notebook.
- 4.) Expand the use of scouting data so information gained is placed on the NWNYS Team website and used in "Nate's Notes", "Mike's Pest Update", and Ag Focus newsletter.
- 5.) Assist any participants with computers to develop their skills for using the computer to access the NWNYS Team web page (and other sources of IPM information).
- 6.) Improve the evaluation tests that have been used in the past to test impact in 2001 and program adoption in 2002. Complete a follow-up evaluation after the sessions. Develop a questionnaire for use the following season to document practice changes.

Procedures:

1.) In 2002, each TAg Team was made up of six farmers, plus the county extension agricultural program leader. Three teams were established in the NWNYS regions. Two teams located in southern Ontario County and northern Yates County consisted of all Mennonite growers. The third team was established in eastern Wayne County and consisted of a mix of dairy and cash grain farms. In all cases, the main commodities grown were corn and alfalfa with some soybeans.

Meetings were scheduled approximately every three weeks during the growing season with each participant hosting a TAg meeting at their farm. All farms were viewed as open classrooms and pest management and crop cultural practices were viewed and discussed in the field. Between April 30th and November 23rd, seven meetings were conducted with each team.

2.) During our first meeting, the teams discussed local soil types, pH testing, soil sampling procedures, interpreting lab results, fertilizer applications, and PSNT's. We also reviewed the County Soil Surveys and found everyone's farm and identified their predominate soil type. Copies of soil survey maps of each grower's farm were included in their TAg Team notebooks.

3.) Each TAg member was given a three-ringed binder to be used as an IPM notebook. The notebook was utilized to incorporate handouts given at each meeting. Insect fact sheets on most of our feature pests (alfalfa weevil, black cutworm, early corn pests, potato leafhopper, and corn rootworm) were handed out to growers to keep for future reference. Most of these were accessed through the NY IPM web page. Other references included information on how to soil sample, submit a soil sample, and fill out the appropriate information sheet. Also included were pesticide application record sheets from the DEC, NWNy Team monthly newsletters (AgFocus), Keys to Whole Farm Planning, and Nutrient Management: Crop Production and Water Quality booklet. Other references included the 2002 Cornell Guide to Integrated Crop Management and Alfalfa and Field Corn Management Pocket guide.

4.) Each farmer picked one cornfield and one alfalfa field that Nancy Glazier, Team Assistant scouted once a week throughout the summer. If problems such as weeds, diseases or insects were found to be over thresholds, growers were contacted and we worked with them on a one-on-one basis. Nancy gave scouting reports from all farms at TAg meetings to give growers an idea of pest populations in the surrounding area.

Sampling data were also placed on our NWNy Team web page (www.nwnyteam.org) on a weekly basis. Nancy has her own section to post results from each county. Nate Herendeen and Mike Stanyard also used these scouting reports in greater detail on "Nate's Notes" and "Mike's Pest Update". Nancy also wrote articles about TAg team activities in the team's newsletter, Ag Focus. This publicity has helped promote TAg Team participation in NWNy.

5.) We have not had much success using computers with the TAg Team members. None of the Mennonite farmers use computers or would use one if given access. A few of the Wayne County participants have computers in the home but only the school-aged children seem to utilize them. More work needs to be done to make growers feel comfortable using this valuable tool.

6.) Some team members have given me suggestions on how to make some of the questions on the pre/post exam easier to read and understand. These will be passed on to the IPM specialists. Additionally, a survey is going out to the past three years of TAg participants to follow up on impact the TAg program has had on their farms. Ken Wise and the TAg programs in eastern NY currently use this survey. Results will be reported at a later date.

Results and discussion:

Overall, the TAg program went very well in 2002. We had some very active participants who kept us constantly challenged. Logistics were sometimes a problem, particularly with the Mennonite groups. However, in most cases we were able to get them picked up and to the meeting on time. This type of commitment is crucial to keeping these teams together through the whole season.

Throughout the growing season, TAg teams learned how to assess pest populations and their potential for crop damage, including insects, weeds and diseases. Most of the participants were dairy producers and therefore, crop pest education consisted of alfalfa and grain and silage corn. However, the cash grain growers and quite a few of the dairy producers grew soybeans, and therefore everyone learned how to scout and identify soybean aphids. Insect pest management education included alfalfa weevil, wireworm, seed corn maggot, white grub, potato leafhopper, armyworm, black cutworm, corn borer, and corn rootworm. Because of the drought conditions, late season weeds and diseases were not as big an issue as they have been in past years.

The scouting program spearheaded by Nancy Glazier, was very valuable to growers, the NWNy Team, the Counties, and anyone who reads our weekly reports on our web site. Additionally, Nate Herendeen

occasionally posted pertinent pest and crop findings on the fieldcrops list server which is read by many Cornell employees and agribusiness personell throughout the state.

The results of Nancy's scouting reports were also integrated into a newsletter called TAg Notes. Six issues were released throughout the growing season. TAg Notes was released in a timely basis when certain pests of corn, alfalfa, and soybean were at or nearing economic thresholds. This newsletter did not just go out to TAg Team member,s but to our whole NWNY mailing list of close to 800 recipients.

The scouting service also provided significant buy in by the growers to become part of the TAg Team. This was very attractive to them since most of these farms did not scout for insects such as potato leafhopper or western corn rootworm. Many of the growers told me they looked forward to seeing Nancy each week and were anxious to see the scouting results. If there was a field that was close to or over threshold, the grower was personally contacted that day and a management decision was made on the spot.

Potato leafhoppers populations in alfalfa were a concern throughout the whole summer. Drought stress did not help the overall senario and alfalfa fields had to be continually monitored. This year, TAg participants received their own sweep nets to assemble and keep as part of their overall alfalfa IPM program. These nets were left over from last years net making program in Yates County. TAg members put these nets to good use this year and I was called out to double-check leafhopper catches in plenty of fields. In many circumstances insecticide sprays were waranted

Another attractive facet to TAg Team participation was pesticide certification points. Keith Waldron really saved educators a lot of time and headache by pre-applying for credits based on key meeting topics (alfalfa weevil, potato leafhopper, corn rootworm, etc.). This is particularly important to the Mennonite growers who all hold private licenses and are limited in their ability to travel long distances to meetings.

A new meeting topic that we introduced this year was a Comprehensive Nutrient Management Plan Walk Through. Nate Herendeen, Mike, and Nancy, held a walking tour with each team on one of the TAg participant's farms and guided the team through specific changes that would need to be made to comply with the nutrient management standards. Participants found this information very valuable and were surprised by the number of changes that needed to occur. Even though these smaller farms will not be required to have a CNMP until 2009, our goal was to get them pointed in the right direction and start thinking about the future. We urged them that soil sampling and manure testing for nutrient content would be an excellent start.

Pre and post-tests were given at the first and last meetings of the year to measure any impact our TAg program may have had on the knowledge base of our team members. Collectively, all three teams increased their general knowledge of intregrated crop and pest management. Test averages for the Ontario team increased from 43 to 64%, Wayne from 52 to 71%, and Yates from 74 to 86%.