

## **Title: NYS Field Crops Weekly Pest Report- Evaluation 2010**

### **Project Leaders:**

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**Cooperators:** Cornell Cooperative Field Crop Extension Educators and Faculty

**Type of project:** Public Education

**Project location:** New York State

### **Abstract**

The NYS Field Crop Weekly Pest Report provides timely pest information to field crop extension educators and agricultural professionals. The report compiles weekly pest and crop observations collected by field crop extension personnel across NYS. In addition, the weekly report provides a vehicle to disseminate other relevant IPM information such as pest identification, scouting techniques and a calendar with suggestions for pest management activities. The pest report is distributed via the Cornell general and “In-house” Field Crops List Serves. Subscribers to these list-servers include: Extension Educators, crop consultants, growers, agribusiness, and Cornell University Faculty. Twenty-two issues of the NYS Weekly Pest Report were published in 2010. Extension Educators and crop consultants utilize the Weekly Report as an overview of timely pest information, and have found the report useful in alerting their local clientele regarding pest management issues. About 150 people receive the pest report as an email from our Cornell list serves. Many articles from the report were also used in extension newsletters that reached at least 10,500 people. In addition the Weekly Pest Report is available to readers via the NYS IPM Program website.

### **Background and Justification**

The NYS IPM Field Crops Pest Report is designed to inform Extension Educators and crop consultants on items of immediate pest management concern and provide a convenient news summary which can also be used in an outreach multiplier capacity with their clientele. Extension Educators and crop consultants are responsible for providing their clientele with timely information to help enhance crop and pest management decisions. The report is written to provide educational information for Extension Educators to use in their programming, newsletters, list-serves and outreach efforts. They can select the pest information that best fits their county situation and clientele’s needs. The report is a compilation of recent pest observations, and the amount and potential significance of their crop infestation. The pest report is short, concise and contains links to pest identification photographs and additional management information. Much of the pest alert information is obtained through a weekly conference call with extension field crop educators. This conference call is funded through a grant by Cornell Cooperative Extension.

The report, now in its ninth year of publication, was developed by the NYS Livestock and Field Crop IPM Program Team with the involvement of several extension educators and faculty across

NYS. The pest report is distributed electronically on the Cornell general and “In-House” Field Crop list-serves and the NYS IPM Program website.

**Objectives:**

1. Provide current pest information to field crop extension educators, crop consultants, growers, agribusiness, and Cornell Faculty on a weekly basis
2. Evaluate the impacts of the weekly pest report

**Procedures:**

The NYS IPM Program Livestock and Field Crop (LFC) team worked with extension educators to identify timely pest and crop management issues. The LFC team collaborated with Extension Educators and crop consultants from across NYS who shared their local pest and crop observations. The LFC Team prepared the report based on anticipated pest occurrence and feedback on timely field observations. Many of these field observations were communicated by extension educators via a weekly field crop field crop IPM conference call. The report used a concise newsletter format and targeted educational articles. The LFC Team was responsible for developing, compiling and publishing the Weekly Pest Report. Regular features of the weekly report included a view from the field, weather outlook, soybean rust, soybean aphid and western bean cutworm update, clipboard checklist, growing degree days and alfalfa weevil life stage predictions, livestock pest updates, and articles highlighting critical, timely or emerging pest issues. Photographs and internet links to identification pictures and in-depth management practices were provided within articles where possible.

The information was formatted into the weekly report and shared with clientele via Cornell general and “In-House” Field Crop list-serves, The weekly report was also posted to the NYS IPM Program website at: <http://nysipm.cornell.edu/fieldcrops/tag/pestrpt/default.asp>

At the completion of the growing season, Cornell extension personnel and field crop consultants were invited to complete a survey to evaluate usefulness and the potential impact of the 2010 NYS Field Crop Weekly Pest Report. The evaluation survey was conducted electronically via the In-house Cornell Field Crops Staff list-server and the General Cornell Field Crops list-server.

**Results and Discussion:**

The report addressed a wide variety of field crop insects, plant diseases, weeds, and vertebrate pests of concern this past season.

The following tables summarize the topics that were presented in the weekly pest report:

**Table 1: Insect Pest Topics**

<i><b>Insect Pests</b></i>	<b>Alfalfa</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Field Corn</b>	<b>Clover</b>
Alfalfa Snout Beetle	<b>X</b>				
Alfalfa Weevil	<b>X</b>	<b>X</b>			
Aphids	<b>X</b>		<b>X</b>	<b>X</b>	
Armyworms			<b>X</b>	<b>X</b>	
Bean Leaf Beetle		<b>X</b>			
Black Cutworm			<b>X</b>	<b>X</b>	
Cereal Leaf Beetle			<b>X</b>		
Clover Leaf Weevil	<b>X</b>				<b>X</b>
Clover-root curculio	<b>X</b>				<b>X</b>
Clover Stem Weevil	<b>X</b>				<b>X</b>
Corn Rootworm				<b>X</b>	
European Corn Borer				<b>X</b>	
Hessian Fly			<b>X</b>		
Japanese beetle		<b>X</b>		<b>X</b>	
Potato leafhopper	<b>X</b>	<b>X</b>			

Slugs		<b>X</b>		<b>X</b>	
Seed Corn Maggot		<b>X</b>		<b>X</b>	
Soybean Aphids		<b>X</b>			
Spider Mites		<b>X</b>			
Stored Grain Pests		<b>X</b>	<b>X</b>	<b>X</b>	
Tarnished Plant Bug	<b>X</b>				
Western Bean Cutworm				<b>X</b>	
Wireworms		<b>X</b>		<b>X</b>	
White Grubs			<b>X</b>	<b>X</b>	

**Table 2: Plant Disease Topics**

<i>Plant Diseases</i>	<b>Alfalfa</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Field Corn</b>
Anthracnose	X	X		X
Anthracnose Stalk Rot				X
Bacterial blight		X		
Bacterial pustule		X		
Brown Root Rot	X			
Brown spot (Septoria leaf spot)		X		
Cercospora leaf blight		X		
Cladosporium ear and kernel rot				X
Common Rust				X
Common smut				X
Crown rots	X			
Diplodia ear rot				X
Diplodia stalk rot				X
Downy mildew	X	X	X	
Eyespot root rot			X	
Fusarium ear rot				X
Fusarium head blight			X	
Fusarium stalk rot				X
Fusarium wilt	X			
Frogeye leaf spot		X		
Gibberella ear rot				X
Gibberella stalk rot				X
Glume Blotch			X	
Gray Leaf Spot			X	
Leaf & stem rust		X	X	
Leaf Spots	X			
Leptosphaerulina Leaf Spot	X			
Northern Leaf Spot			X	
Northern Corn Leaf Blight			X	
Penicillium ear rot or blue eye				X
Phoma			X	
Phytophthora root rot	X			
Purple sheath spot			X	
Powdery mildew	X		X	
Pythium	X			
Pythium stalk rot				X
Rhizoctonia	X		X	
<i>Sclerotinia sclerotiorum</i>	X	X		
Seed Decay		X	X	X
Seedling Blights		X	X	X
<i>Septoria tritici blotch</i>			X	
Snow Mold			X	
Soil borne mosaic virus			X	

<b>Plant Diseases (<i>continued</i>)</b>	<b>Alfalfa</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Field Corn</b>
Soybean rust		X		
Spring Black Stem	X			
<i>Stagonospora nodorum blotch</i>			X	
Straw Breaker			X	
Stored Grain Pests		X	X	X
Verticillium wilt	X			
Wheat rust			X	
Wheat spindle streak mosaic virus			X	
Yellow dwarf virus			X	

**Table 3: Weed Topics**

<b>Weeds and Information</b>	<b>General Weeds</b>	<b>Field Corn</b>	<b>Soybean</b>	<b>Livestock</b>	<b>Wheat</b>
	X	X			
Think Weeds in the Fall!	X	X	X		
Fall Weed Management in Winter Wheat	X	X			X

**Table 4: Other Pest Information Reported**

<b>Vertebrate Pests</b>	<b>Alfalfa</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Field Corn</b>
Birds-Field and Stored Grain		X	X	X
Deer				X
Mice-Stored Grain		X	X	X

<b>Biological Control Agents</b>				
Damsel bugs	X	X	X	X
Green lacewings	X	X	X	
Ground Beetles				
Lady Beetles	X	X	X	X
Parasitoids	X	X	X	X
Syrphid flies	X	X	X	X
<i>Zoophthora phytonomi</i> -Fungi	X			

<b>Livestock Pests</b>	<b>Pasture</b>	<b>Confinement</b>
Dung Beetles	X	
Face Fly	X	
Horn Fly	X	X
House Fly		X
Stable Fly	X	X
Pasture Fly Traps	X	

<b>Other</b>	<b>Alfalfa</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Field Corn</b>
Checking Plant Populations	X	X	X	X
Frost Damage		X		X
Keeping Records	X	X	X	X

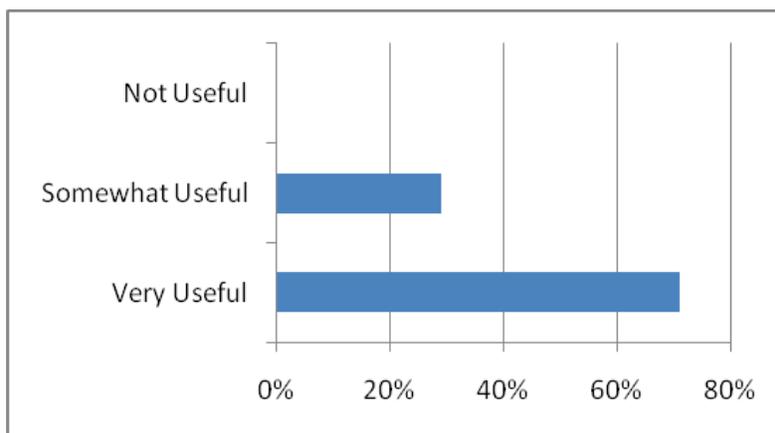
### Weekly Report Evaluation:

To obtain feedback on the effectiveness of the weekly pest report our users were invited to respond to a survey questionnaire. Questions on the questionnaire ranged from “How useful was the pest report?” to “What did you like the most about it?” The Weekly Report Evaluation Survey questionnaire is presented in Appendix 1. Fourteen individuals returned completed surveys via email. Survey responses were very positive indicating satisfaction with the Report’s content, format, timeliness, and usefulness as a source of valuable subject matter information for use in additional outreach situations. The following tables and figures summarize responses to survey questions:

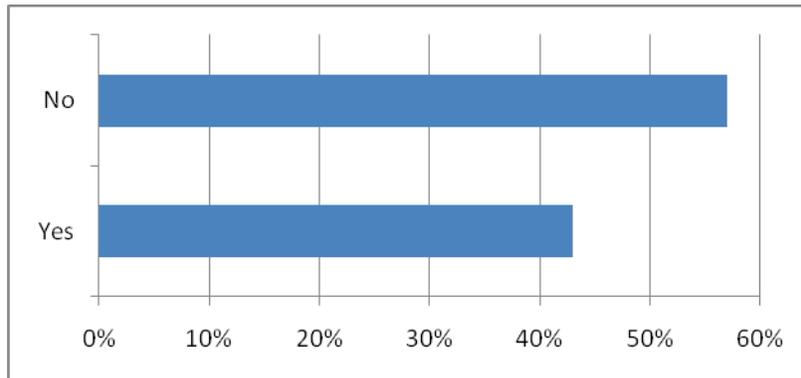
**Table 5: Responses to “We are interested in your assessment of the usefulness of the following topic items that regularly appeared in the Field Crops IPM Weekly Pest Report.”**

	<b>Very Useful</b>	<b>Somewhat Useful</b>	<b>Not Useful</b>
<b>The NYS 2010 Weekly Field Crops Pest Report was:</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>View from the field</b>	100%	0%	0%
<b>Weather Outlook</b>	22%	64%	14%
<b>Weekly Featured article(s)</b>	77%	23%	0%
<b>Pest Images / Photographs</b>	79%	21%	0%
<b>Western Bean Cutworm Update</b>	64%	29%	7%
<b>Clipboard Checklist</b>	36%	74%	0%
<b>Internet Links</b>	36%	50%	14%

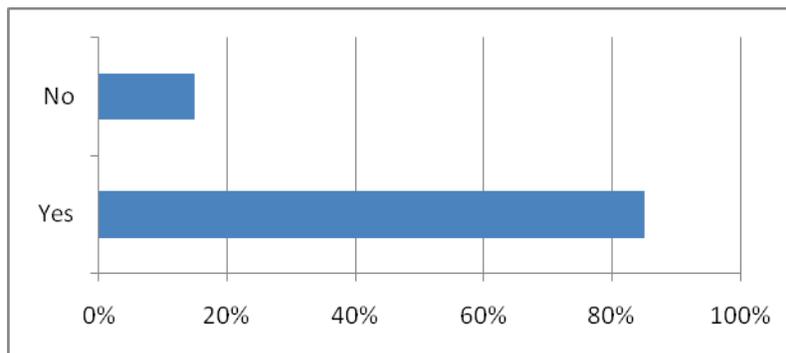
**Figure 1: Did you use the web version the NYS Weekly Field Crops Pest Report?**



**Figure 2: Have you provided your clientele with the URL for them to link to the NYS Weekly Field Crops Pest Report via the web?**



**Figure 3: Have you used articles from the NYS Weekly Field Crops Pest Report in your extension programming, outreach, or newsletters?**



The pest report articles were used in extension newsletters that reached approximately 10,500 people in NYS on a regular basis throughout the growing season. The IPM information in the pest report was used in many different ways in addition to extension newsletters. These included: field meetings with growers, one on one contact with growers, forwarded emails to growers and agribusiness personnel, personal knowledge of what pest problems are occurring in NYS with extension educators and crop advisors, and providing a direct internet link from agricultural related websites to the pest report.

**Table 6: Selected comments to: “What did you like the most about the NYS Weekly Field Crops Pest Report?”**

It is always so timely with up to date pest and crop management information. While some of this material may be repetitive year after year, we still need this information.
Great information this year on the WBC. This has certainly been useful to keep us updated on this new pest.
It gives me a heads up of things to look for when I am in the field. This report lets me know

what other areas around the state are finding in the field. Being on e mail it gave me the chance to look at it when I had time and go back to it if I needed more information.
View from the field and clipboard checklist
A great reminder of what pest topics to be aware of for certain points in the growing season. Very well written concise articles that I could share with farmers through one on one visits, email and our county newsletter.
It comprises suitable and simple practical information pest alerts, scouting and IPM issues. It is farmer user friendly
I think growers may appreciate the practical nature and simplicity of some of the topics such as view from the field, what to expect from any pest invasion, The measures to take at prevention/scouting, the preferential period in the season for pest manifestation, the clipboard check list and the linkage between The GDD and pest development
Reports on specific pests and crops. The updates on livestock pests.
Pest updates. Good way for alerts of potential problems.
Pictures , alerts , practical info on ID, control, level of risk to crop
Timely tips..... If someone had more time to invest in this part of the email newsletter a lot could be incorporated especially on equipment related info.
Timely, liked the pictures & links for novice folk like me-
Used it for update on weekly radio show during the season aired on Thunder 102.1 6:30am Saturday “Ag Show”; also pass it along to consultants in our county, and on 39 phone consultation/farm visit- also share info with our veg/hort specialist when their newsletter went dark.
Color photos
The format is extremely user friendly, info is current
Kept me abreast of current issues I should be aware of with my clientele. While I try to scout fields, I am not able to make it every week and I like the consistency of the reports. Furthermore, the reports come from experts in those areas so they are able to pick up on possible issues sooner than I may, due to their familiarity with the timing and life cycles of certain pests and diseases, as well as when there are new pests or uncommon pest occurrences.
It's all quite helpful and handy! I refer to it a lot during the growing season

**Table 7: Comments to: “What did you like the least about the NYS Weekly Field Crops Pest Report?”**

Weather info (I get my own local info)
Nothing to report at the moment
Maybe it is me, but I do not use the IPM checklist. Maybe I should. I just don’t think that farmers will use it.
The weather summary is a little confusing, because no specific date is stated. On what day is the weather summary written? And then on what day am I getting it?? So, I am confused regarding which days the report is about

It was long
like it all perhaps the weather info is the least useful
Nothing, except that I seldom used the info on what growers should be doing at that time.

**Table 8: Comments to: “Have you used information from the NYS IPM Weekly Field Crops Pest Report in your extension programming and outreach (other than in newsletters)?”**

I have used the information about the WBC for scouting, articles, and a presentation that I gave at a local agribusiness crop meeting.
Yes some information was used on farms visits and scouting exercises.
Info used in many ways including on farm visits, emails, webpages and telephone calls
Info was sent to mailing list via e-mail. In addition I used the info on farm visits if I knew the farmer had access to the internet
We used some of the information in our Tag teams, teaching pest education and scouting techniques on the farm.
Information is always useful on farm visits, particularly with alfalfa (a huge crop in NYS) because I do not have much experience with it coming from row crop seed sales. I refer to the IPM pages on what insects and diseases to look for and when.
I use an email alert system to send out timely information between the monthly newsletter. Use the pictures for farm visits and when talking to other crop consultants and scouts.

**Table 9: Comments to: “Do you have any comments or suggestions to improve next season's NYS Weekly Field Crops Pest Report to better suit your field crop IPM needs and those of your clientele?”**

Keep up the good work and thanks for taking the time to share this information.
Continue to prepare the report in a simple and farmer friendly form.
Keep up the good work.
Send directly to farmers.
If possible improving clipboard checklist
Not that I can think of. Definitely when Elson gets more information from his research on trait performance, put that in. I understand he's only been able to do research comparing one company's trait to another company's trait for about a year now. But it will be interesting to see how unbiased research holds up to company claims and understand which insects are controlled or suppressed by which traits.

In 2008 we began adding more current statewide field crop pest observations gleaned from reports provided by CCE personnel in a weekly conference call.

### Summary

Twenty-two NYS Weekly Pest Reports were published in 2010. Extension Educators, crop consultants, agribusiness personnel, growers and others utilized the Weekly Report as an

overview of timely pest information, and have found the report useful in alerting their local clientele regarding pest management issues. For example soybean aphid (SBA) infestations were low this year and we were able to alert Extension Educators, crop consultants and growers about the issue. Because soybean aphids were low farmers were able to make the decision not to spray fields this season, thus protecting the environment and saving \$1000s on input costs. Many growers were also able to make better educated decisions about using fungicide on corn and soybean fields. Many fungicide companies have been claiming the use of fungicides increase yields with whether there is a disease on the plants or not. With research based information we were able to counter these claims. A third example a new corn pest called western bean cutworm (WBCW) was found in Western NY in 2008. We were able to alert our clientele about this issue and WBCW was found in other locations in the state. About 150 people received the pest report as an email from our two Cornell University based field crops list serves. Many of the articles from the report were used in extension newsletters that reached at about 10,500 people. In addition, the Weekly Pest Report is available more generally through our NYS IPM Field Crops website. We are reaching many growers with critical pest information and alerts weekly in NYS both through extension educators and crop consultants.

The weekly report has been an effective means to share timely Livestock and Field Crop IPM information with clientele including extension personnel, consultant, growers, and others in the agriculture community. We have been pleased with the positive feedback received from clientele through our end of season survey, the use of articles in county extension publications and the ease of access afforded by the report being available on the world wide web.

**Samples of materials:**

A link to archived NYS IPM Field Crops Pest Reports is available on-line at:

<http://nysipm.cornell.edu/fieldcrops/tag/pestrpt/default.asp>

**Key Words:** alfalfa, clover, field corn, small grains, soybeans, wheat, insect pests, leaf diseases, pod diseases, root diseases, stalk diseases, stem diseases, weeds, biological control, chemical control, cultural control, demonstration/implementation (TAg), economic analysis, monitoring, research & education, IPM, integrated pest management,

## Appendix 1: NYS IPM Field Crops Pest Report Survey 2010

Your input on the effectiveness of the NYS Weekly Field Crops Pest Report is important to us. By providing your perspective you can help us design the report to better fit your extension needs in the future. Please take a minute to complete the following survey questionnaire. Indicate your answer by placing an "X" on the line or a response to the specific questions about the 2010 Weekly NYS Field Crops Pest Report. *Thanks for your help!*

1. The NYS 2010 Weekly Field Crops Pest Report was:

Very Useful \_\_\_\_\_ Somewhat Useful \_\_\_\_\_ Not Useful \_\_\_\_\_

2. What did you like the most about the NYS Weekly Field Crops Pest Report?

3. What did you like the least about the NYS Weekly Field Crops Pest Report?

4. We are interested in your assessment of the usefulness of the following topic items that regularly appeared in the Field Crops IPM Weekly Pest Report.

Featured Articles / Topics	Very Useful	Somewhat Useful	Not Useful
View from the field			
Weather Outlook			
Weekly featured article(s)			
Pest Images / Photographs			
Western Bean Cutworm Update			
Livestock IPM information			
Growing Degree Days in NYS			
Clipboard Checklist			

Comments:

5. The Internet links provided in the NYS Weekly Field Crops Pest Report to additional information and identification pictures about specific pests were:

Very Helpful \_\_\_\_\_ Somewhat Helpful \_\_\_\_\_ Not Helpful \_\_\_\_\_

6. Did you use the web version the NYS Weekly Field Crops Pest Report? Yes \_\_\_\_\_ No \_\_\_\_\_

-If yes, do you prefer the web version over the email version of the pest report? Yes \_\_\_\_\_ No \_\_\_\_\_

7. Have you provided your clientele with the URL for them to link to the NYS Weekly Field Crops Pest Report via the web?

Yes \_\_\_\_\_ No \_\_\_\_\_

8. Have you used articles from the NYS Weekly Field Crops Pest Report in your newsletters?

Yes \_\_\_\_ No \_\_\_\_

-If yes, please indicate the name of the newsletter and the number of people that are targeted to receive it.

9. Have you used information from the NYS IPM Weekly Field Crops Pest Report in your extension programming and outreach (*other* than in newsletters)?

- If yes, please explain (For example, information was useful at an on-farm meeting, or farm visit; or information was useful for scout training, etc.)

10. Do you have any comments or suggestions to improve next season's NYS Weekly Field Crops Pest Report to better suit your field crop IPM needs and those of your clientele?

Thank you for taking the time from your busy schedule to complete this evaluation

*Your input is greatly appreciated!*