

Progress Report-2007

The following is a progress report summary of the WV SNP program activities.

Objectives:

1. Information Source for Federal/West Virginia Agencies

The West Virginia pesticide and alternative strategies program has met this objective by providing reliable information, linking to stakeholders and West Virginia researchers by maintaining contact with neighboring partner universities with pesticide and alternative programs, the agricultural industries, and the West Virginia and federal regulatory agencies.

2. Liaison

The West Virginia pesticide and alternative strategies program has met this objective by serving as a liaison among the Northeastern IPM Center, West Virginia University, and other key agencies in the state.

3. Communication to West Virginia Stakeholders

The West Virginia pesticide and alternative strategies program has met this objective by communicating pest management information to stakeholders via direct contact, mail, e-mail, newsletter, and website information.

4. Advisory Committee

The West Virginia pesticide and alternative strategies program met this objective by maintaining contacts and meeting with the West Virginia Advisory Committee members to keep them abreast of pest management issues and seek their advice and recommendations.

Results

1. Information Source for Federal/West Virginia Agencies Work Pertaining to Regulatory Agency Queries, Issues

The WV SNP has responded to the following regulatory requests required by the

Northeastern IPM Center by forwarding the information to individuals with agricultural responsibilities who have direct contact with stakeholders.

1. Aldicarb registration/usage
2. Metaldehyde/Iron Phosphate usage
3. Siduron usage
4. methomyl (Lannate) and thiodicarb usage
5. Ferbam usage on cherries and grapes
6. Proposed risk mitigation decision for 9 rodenticides
 - Brodifacoum
 - Bromadiolone
 - Bromethalin
 - Chlorophacinone
 - Cholecalciferol
 - Difethialone
 - Warfarin
 - Zinc Phosphide
7. Comments on soil fumigants
 - Vapam
 - Metam Sodium
 - Telone
8. Nicotine request
9. Comments on Fusilade usage
10. Request for allergy friendly pesticide alternatives
11. Methyl Bromide critical use exemption
12. dichlorvos usage in livestock operations
13. Avitrol usage
14. Methomyl usage
15. Aldicarb RED
16. Endosulfan risk mitigation impact
17. Usage of Malathion
18. Usage of chlorpyrifos

Copies of responses received are attached.

Contact was made with the West Virginia Department of Agriculture, Pesticides Division to seek information on Section 18 emergency exemption update information. In addition, we have kept up to date on information dealing with strategy and pesticide registration to manage soybean rust in 2007. This information was related to West Virginia stakeholders via list serve.

Communication has occurred with staff members of the West Virginia Department of Agriculture to discuss registration of pesticides in West Virginia.

Pesticide information dealing with registration, cancellation and web site update were included in a monthly newsletter, "Look What's Out There in Integrated Pest Management." In Look What's Out There, we try to provide information to extension agents, growers, and the general public on current research and events in pest management. Articles presented include information on new pest management strategies such as resistant plant varieties, biocontrol agents, new or reissued pesticides, and pesticide alternatives. The newsletter also includes further information on pesticides and provides notices of pesticide cancellations and pesticides that are up for registration. Other articles deal with the current status of quarantined pests and strategies for their control, the effects of pests on people, plants and structures, and general information about pests. Included in the newsletter are lists of funding opportunities and events such as conferences and training opportunities dealing with pest management.

2. Liaison

The West Virginia SNP continued to utilize the established links with federal, regional, West Virginia agencies and agricultural researchers, extension specialists, and other stakeholders to distribute pest management program information via e-mail, website, and a list serve.

Collaboration has been maintained with the West Virginia University IPM and IR-4 Programs. Cooperating research activities involve a study on the susceptibility of genetically modified alfalfa to insect and disease pests, introduction of beneficial insects into vegetable crops and management of powdery mildew in pumpkin. Information from the IPM Coordinator was placed in the "Look What's Out There in Integrated Pest Management" newsletter.

Collaboration has also been maintained between the Pesticide Safety Education Program, and the West Virginia Department of Agriculture. In joint efforts with Craig Trippett, survey pathologist of the West Virginia Department of Agriculture, site visits were made to selected locations in the state to monitor for Soybean rust in 2007. Grant Bishop, Assistant Director, WV Department of Agriculture, provided updated information on registered pesticides in West Virginia and information on critical use exemption for methyl bromide for strawberry growers in the state. Six (6) Extension agents have been trained as First Detectors of the Northeastern Plant Diagnostic Network Program.

We continue to solicit and facilitate applications from qualified individuals or groups in West Virginia for funds available from the NE IPM Center. The WV SNP has collaborated with research counterparts by being an active participant in proposals for funding. The WV SNP liaison continues to participate in all subcontracts between the

Northeastern IPM Center and other entities of West Virginia University in order to minimize total indirect costs for the Center. The project director continues to pass funds from the Northeastern IPM Center to any programs or individuals of West Virginia University that have contracts with the Center. The project director continues to communicate with West Virginia University Office of Sponsored Programs to ensure that grants are consolidated and funds are transmitted to Principle Investigators who hold NE IPM Center IPM Partnership grants.

Distribution of Information

We served as a liaison among the Northeastern IPM Center, West Virginia University, and other key agencies in state. Information such as release of RFAs (e.g., National Research Initiative-Arthropod and Nematode Biology and Management (B) and (C): Suborganismal Biology and Tools, Resources, and Genomics through USDA-CSREES, USDA Grant and Partnership Programs –Invasive Species Research, Technical Assistance, Prevention and Control, EPA Development of Environmental Health Outcome Indicators, National Science Foundation: Grant Opportunities for Academic Liaison with Industry (GOALI), National Research Initiative –Arthropod and Nematode and Management: Organismal and Population Biology, IR-4 Biopesticide Research Program, SARE: Partnership Grant Program, SARE: Farmer Grant Program, USDA Coordinated Agricultural Project (CAP)-Health and protection of honeybees, the Northeastern Integrated Pest Management (IPM) Center availability of funding through the Northeastern Regional IPM Competitive Grants Program, CSREES availability of funding through its Plant Biosecurity program, the Northeastern Integrated Pest Management (IPM) Center availability of funding through its IPM Partnership Grants Program, Request for Applications (RFA) for the Integrated Organic Program (IOP), and the RFA: Vegetable/Strawberry IPM Educator Exchange Program) provided to Extension agents, Extension Specialists, advisory committee members, and West Virginia University faculty. Other information dealing with publications was included in the WV SNP newsletter and posted on the website.

Collaboration with Members of the NE IPM Center

Communication and cooperation across state lines and sharing of resources has been carried out with members of the NE IPM Center. Support was given to Dr. Amy Brown, a Maryland SNP member for her creation of a database for training material and resources to be shared across state lines.

Coordination of program activities is maintained with the MAinPAS partners (NE SNPs) (New Jersey, Maryland, Pennsylvania, Delaware, and New York). A listserv has

been utilized to facilitate communication across state lines. The New Jersey Network Project Director set up the listserv as "MAinPAS Partners" in March 2002. Members have used this listserv to transmit meeting minutes; announce and coordinate pesticide surveys, crop profiles, and pest management strategic plans (PMSP's); as well as announce the release of state newsletters such as West Virginia's "Look What's Out There in Integrated Pest Management." Also, we continued to provide information on Section 18 and 24C for West Virginia to be included in the home page for MAinPAS at: <http://www.pestmanagement.rutgers.edu/NJinPAS/PesticideRegistration/MAINPASHome.htm>.

Information on pest management practices were made available to federal/ West Virginia agencies in a timely manner in response to current and future issues dealing with IPM tactics, including pesticides. The URL for the West Virginia monthly newsletter was sent to Liz Thomas (Amy Galford) of the Northeastern IPM-center to be included in the center's newsletter "On Target."

3. Communication to West Virginia Stakeholders Website, Newsletter, and other Stakeholder Outreach

The West Virginia SNP web site has been maintained to facilitate communication links with stakeholders and comply with the NE IPM Center.

The site: <http://www.wvu.edu/~agexten/ipm/pestprog/WVINPAS/index.htm>

Pest management workshop information (i.e., agenda, registration, credits, and contacts) was posted and made available via e-mail to county agents, specialists and interested stakeholders. Pesticide information, WV-crop profile information and IPM program activities have been included in the newsletter "Look What's Out There in Integrated Pest Management", which is linked to the West Virginia Pest Management Web site. Announcement of this information and the URL were sent electronically to a mailing list of stakeholders. Growers and Extension agents were contacted to add their names to the mailing list using the "add name feature on the web site." Key members of state-wide commodity groups were added to the e-mail list for notification of new postings of our newsletter. Notice of new posting of the WV- newsletter "LWOT" was sent to the Northeastern IPM-center to be included in the center's newsletter "On Target."

http://Northeasternipm.org/news_ontarget.cfm

A web site listing direct links to West Virginia Extension professionals has been maintained and will be updated and made known to other agencies.

<http://www.wvu.edu/~agexten/ipm/contacts.htm>

4. Advisory Committee

The West Virginia advisory committee has been revised and the current members include: Dale Yoder, strawberry grower, Charles and William Grose, Ron Higson, John Nibert, Steve Miller, and Keven Mullooly, alfalfa, corn, fruit, and potato growers; the West Virginia IPM Coordinator, Rakesh Chandran; staff of the

West Virginia Department of Agriculture Pesticide Section, Grant Bishop and Peggy Powell; President of the West Virginia Pest Control Operators Association, Sue Spiroff; President of the West Virginia Nurseryman Association, Brian Beckett; West Virginia University Horticulture specialist, John Jett; WVU Entomologists, James Amrine and Yong-Lak Park; the West Virginia Pesticide Safety Education Program Coordinator Liaison, John F. Baniecki; the Extension Specialist for Plant Pathology, Alan Biggs; the Extension Specialist for Entomology, Henry Hogmire; IPM users such as growers and crop consultants, Extension agents, the Extension Specialist for Weeds and IR-4, Rakesh Chandran; and the Director of the organic farm project, James Kotcon, representing environmental groups, Tom McCutcheon and William Shocky, members from the WV- Environmental Stewardship Committee; West Virginia University Extension agents, John Murray, Kari Mazzaferro, Craig Yohn, Wayne Bennett, Rodney Wallbrown, and Dave Workman and Jennifer Williams, Director, Extension, Agriculture and Natural Resources; Betty Forbes, Registered Dietitian, Licensed Dietitian, and Dr. Barbara E. Liedl, a representative from the West Virginia State University (1890 institution).

Members of the West Virginia Advisory committee were contacted by e-mail, phone, fax and regular mail to keep them abreast of the WV SNPactivities and to communicate current pest management issues, and request their comments and suggestions on pesticides up for review.

Teleconference of Advisory Committee Members Dealing with Pest Management and Pesticide Issues

On June 29th, an Advisory Committee (university scientists carrying out integrated pest management activities, West Virginia University Extension agents, state regulatory personnel, a representative from USDA, a representative from an environmental concerns group, and a West Virginia University certified nutritionist) participated in a conference call dealing with pest management and pesticide issues in West Virginia. Twenty individuals from across West Virginia participated in the discussion dealing with pesticide availability and registration, management strategies, and access to new management methods. A number of issues were brought up. One such issue was the misuse of pesticides by individuals not qualified to apply pesticides. An example cited was home owner use of pesticides for professional use only. If a pesticide is restricted use, it is labeled so. Brought out in discussion was the fact that there is a lot of misunderstanding with the "commercial use only" pesticide. If it is not restricted use, then it is available for use. The problem goes back to the manufacturer. It was stated that growers and professionals should be aware of the website www.kellysolutions.wv, which lists all pesticides registered in WV and also lists pesticide use restrictions. Other proper pesticide use issues included the continual need for calibration education for pesticide applicators.

Another issue of concern was that many pesticides registered in other states for use on field and orchard crops need to be registered in West Virginia. For example, the loss of Nema-cur as a registered pesticide for treatment of fruit trees may lead to problems with lesion nematodes or dagger nematodes and virus transmission. Research is being conducted on cultural practices for controlling nematodes, but in the mean time there is no good management available.

Many that participated in the call were concerned with resistance management. Persistent weeds are becoming a problem in orchard situations and some weeds are not being controlled by the products available. It is difficult to adapt many of the cultural practices for controlling these problems. Research is needed on products to control persistent perennial weeds without injuring the fruit trees. In pastures, problem weeds are multi-flora rose, autumn olive, iron weed, Japanese stilt grass. In turf, perennial broad leaf weeds are a problem. Matrix is used for control of a broad spectrum of weeds, but it is not registered for use in West Virginia. On small fruit, no herbicide is available for control of yellow nut sedge.

Grower's use of genetically modified corn and correct use to prevent development of resistance was discussed. Mention was made of Roundup ready soybeans, resistant mare's tail and correct use of Bt corn with refuge planting. This past year, 20% of corn sold by a major dealer was Bt corn and roundup ready was 60-70%. Next year, all but 3 varieties being sold will be Bt corn. There is a need to show growers the economics of using these new pest management strategies. For example, the difference between Bt corn and a non-resistant variety. More education also is needed to show how using pest management methods improperly will lead to pest resistance, such as not planting refuges when planting Bt corn. Non-Bt corn is not required to be sold with Bt corn for a refuge and there is no enforcement of growers to plant the non-Bt corn with Bt corn, so it is important that growers understand the purpose of the refuges.

In organic agriculture, research is needed for organic seed treatments for Pythium and Rhizoctonia. Seed maggots in sweet peas and beans are becoming a problem and need management.

Other research being conducted in West Virginia includes a study by West Virginia State University on tomato grafting for greenhouse and high tunnel production. At West Virginia State University, greenhouse tomatoes are being bred for insect and disease resistance to reduce pesticide use. The greenhouse industry is making a concerted effort to shift towards more sustainable production.

Additional Work (Coordination, Surveys, Events, Publications, Training)

The WV SNP liaison provided technical assistance to State associations (Pest

Control Operators Association, Vegetation Management Association, and Golf course Superintendents Association) to facilitate training of their members to maintain pesticide certification. The project director is technical advisor and board member of the WV Pest Control Operators' Association, board member of the WV Vegetation Management Association, and honorary member of the WV Golf Course Superintendents Association. Approximately 400 members have attended the state association workshops in 2007. We participated in commodity meetings and pesticide-user meetings to stay abreast of pest control measures used in the state.

The WV SNP liaison coordinated a workshop on new and upcoming IPM solutions for insect and disease problems on turf and ornamentals relating to new pesticides and alternatives. The workshop was held on September 19, 2007 in conjunction with the Pest Control Association Annual meeting at the Ramada Inn, Morgantown, WV. A note concerning program information and recertification credits was sent to Extension agents, specialists, and stakeholders in the state. Approximately 55 people attended the turf and ornamental sessions.

The WV SNP liaison collaborated with Michael Wunsch, plant pathologist, at Cornell University to conduct a survey on the incidence of alfalfa brown root rot in West Virginia.

In cooperation with a vegetable grower, work is underway to investigate fungicides and alternative strategies to manage powdery mildew of pumpkin. In collaboration with a West Virginia University research entomologist, an alternative strategy, select beneficial insects, will be used to manage economic insects of vegetables.

A presentation on pesticide and the environment was delivered to Biology students at West Virginia University. Presentations on pesticide and pest management were given to stakeholders in Ritchie and Wood counties in 2007.

A presentation on pesticides and food has been given to a nutrition class in November, 2007.

In 2007, plant identification clinics were conducted in Wetzel and Marshal Counties to provide stakeholders with technical information on integrated pest management and problem solving techniques.

Presentations on plant diseases and their management were delivered to approximately 254 Master Gardener candidates in 12 counties in West Virginia.

The WV SNP published 3 articles entitled, "Easy Steps to Prevent Garden and Lawn Diseases", "Properly Submitting Specimens Important for Diagnosing Diseases, Pests", and "Teleconference of Advisory Committee Members Dealing with Pest Management and Pesticide Issues" in the West Virginia Farm Bureau News.

In 2007, a CD with images of Plant Diseases: Field Crops, Fruit, Ornamentals, Turf, Vegetables was updated and made available to county Extension agents for their reference. Also, a CD with images of Insects: Field Crops, Fruit, Household, Ornamentals, Turf, Vegetables was also updated and made available to county Extension agents as a reference.

Five PowerPoint presentations entitled, "Pesticide and the Environment", "Turf Diseases and Management", "Pesticides and Food", "Dealing with Landscape Problems" and "Economic Insects and Management" were given to students and to stakeholders in the counties.

The WV SNP liaison provided technical and financial assistance for the development of a DVD for the Private Applicator Recertification Training-2007. The DVD contains a presentation given by the project director dealing with management of powdery mildew of pumpkin.

The WV SNP is currently collaborating with a research entomologist to seek SARE and Northeast IPM Center funds to carry out research involving alternative strategies for management of vegetable pests.

The WV SNP members completed technical review for the pesticide and plant pathology sections of the West Virginia Master Gardener Manual.

Collaboration was carried out with 160 Future Farmers of America, training them in pest identification and integrated pest management methods for field, fruit, and vegetable crops and ornamentals and turf.

Approximately 90 e-mail inquiries on pests and pest management were answered by the WV SNP.

Appendices

Baniecki, J.F. Plant Diseases: Field Crops, Fruit, Ornamentals, Turf, Vegetables. 2007. CD. Images.

Baniecki, J.F. "Easy Steps to Prevent Garden and Lawn Diseases", "Properly Submitting Specimens Important for Diagnosing Diseases, Pests", West Virginia Farm Bureau News, Vol. 15, May 2007.

Baniecki, J.F., Eggers., and R.S. Chandran. "Look What's Out There in Integrated Pest Management" newsletter, 12 issues. 2007.

<http://www.wvu.edu/~agexten/pubnwsltr/newslett.htm>

Baniecki, J.F. Economic Insects and Management. 2007. PowerPoint Presentation.

Baniecki, J.F. Pesticides and the Environment. 2007. PowerPoint Presentation.

Baniecki, J.F. Pesticides and Food. 2007. PowerPoint Presentation.

Baniecki, J.F. and McCutcheon, T. Insects: Field Crops, Fruit, Household, Ornamentals, Turf, Vegetables. Updated 2007. CD. Images.

Baniecki, J.F. Dealing with Landscape Problems. Updated 2007. PowerPoint Presentation.

Baniecki, J.F. et. Al. West Virginia Master Gardener Manual (in preparation). 2007.

Baniecki, J.F., T. McCutcheon, et al. 2007 Private Applicator Recertification Training. DVD.

Note: Copies of the above produced program materials (i.e., CD's, Presentations, and DVD) are available upon request.