



Pesticide Notes

A bi-monthly newsletter from the
Michigan State University
Pesticide Education Program



Vol XIV, Number 3, May - June 2001

In This Issue

Feature Article

Conducting Surveys 2

Chemical Update

New Registrations/Formulations 5
Residue Tolerances 5
Label Additions/Changes 6
Label Deletions/Cancellations 6
In the Pipeline 6
Miscellaneous 7

Resources

New Publications from MSU Pesticide Education Program 7
Training Materials/Ideas Available on the Web 7
Crop Advisory Team (CAT) Alerts 8
Employment Opportunity..... 8

Pesticide Applicator Recertification Seminars 9

Pesticide Education Staff Directory 9



Conducting Surveys

Ting Bienvenida, PhD Candidate, Department of Resource Development, MSU

There are many occasions during the course of our jobs that we find the need to conduct a survey. A survey can help us evaluate a program, gather information to help design an appropriate program, or determine the needs and wishes of our constituency. The following article provides some pointers to help in the design and implementation of a survey. This is intended only as a guide. **Remember**, in many instances you need to get approval from UCRIHS (University Committee on Research Involving Human Subjects) to use human subjects in a study. Call 517/355-2180 for more information, or check out their web site at: www.msu.edu/user/ucrihs.

Purpose of a Sample Survey

The purpose of conducting a sample survey is to obtain information about the characteristics, behavior, or opinions from a few respondents, in order to describe the characteristics of hundreds of thousands or even millions of people.

Randomization

A very important concept in sample surveying is to be able to select the participants in such a way that the results can be generalized from a small group of people to the general population. Here we introduce the concept of **randomization**. Randomization refers to selecting your sample, or survey respondents, randomly. Randomization requires that everyone in the target population has an equal chance of being selected for the sample. Another important prerequisite for a randomized sample is that the respondents who answered the survey should have similar characteristics to those who did not respond. Randomization is important in surveys because it gives your data



and results more credibility.

For example, you have already decided on a target neighborhood. You found out that a lot of the residents from this particular neighborhood go to the same church on Sundays. Then you go to that church for the 10 a.m. service, stand outside after the service, and hand out forms to the people leaving the church. This might seem random because you don't know the people or which individual will answer the survey. But this sample is not randomized because you are excluding the people who don't go to church at all, those who don't go to that particular church, or those who don't go to that particular service. In short, not everyone in that target neighborhood has an equal chance of being selected to participate in your survey.

Steps in Survey Development: an Overview

1. *Be specific about what information you need and why.*

Make sure the survey will provide useful information to you. Thinking in terms of results can also help narrow your focus. Answer the following questions before you venture on to developing your own surveys.

- *What is the survey for? What is the purpose?* Knowing the purpose of your survey will help mold the questions that you need to develop.
- *What is the fundamental issue you are trying to address?* Be specific about what the issue is, and why you believe it is important.
- *What new information do you need?* Be precise about what you actually need to know. Some of the information you need might be found somewhere else, like the Census data.



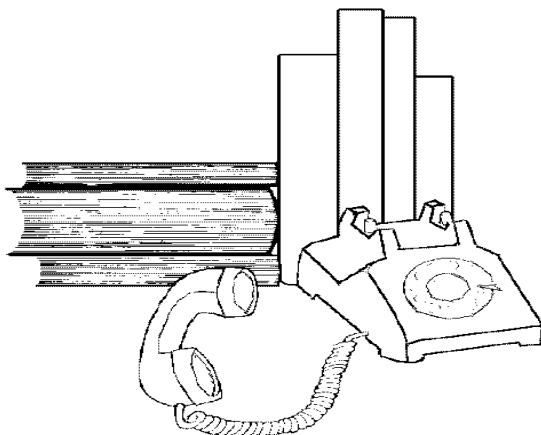
2. Choose the survey method that works best for you.

No single method can be judged superior to the others. Each method should be evaluated in terms of the topic, budget, staff and time constraints. There are three major survey methods, namely: mail, telephone, and face-to-face surveys.

Mail Survey

What happens: Select the sample randomly from your target population and obtain the addresses. Then, you may mail an advance notice letter, followed by the survey questionnaire. Send follow-up reminders via postcards. The respondents complete the questionnaire themselves and send the survey back to you.

Mail surveys require the least amount of materials and resources compared to the other two methods. After all, all you need are paper and stamps. And since the respondents fill out the questionnaires themselves (no interviewers required), fewer people are required to conduct the survey. A mail survey is a good choice if you have very limited budget. But mail surveys take the longest to get results. Once the questionnaires are mailed, the researchers have very little control over what happens next. Most people are less likely to respond to the questionnaires. When the respondents do answer the questionnaires, the questionnaires can be filled out the wrong way or incompletely. One problem that mail surveys confront is the issue of illiteracy. In effect, the people who are not able to read are excluded from the survey.



Telephone Survey

What happens: Select the sample randomly from your target population either through telephone directory or other list (for other randomized methods for telephone surveys, refer to Bickman et. al. 1998). If the phone interviewer is given consent, the people in the sample are interviewed. The phone interview can take place at the time of the first phone call or at another more convenient time. Interviewers record the answers either on a survey form, or directly into a computer.

Telephone surveys produce results quickly. You can have more telephone interviews per hour compared to face-to-face surveys, because you don't need to travel anywhere and go knocking on doors. You also get more interviewer control in telephone surveys. Unlike mail surveys, phone interviewers can encourage the respondents to answer all the questions. One drawback of a telephone survey is that not everyone has telephones. Hence, a subgroup of the population is already excluded from being surveyed. On the other hand, some people have two phone lines at home, which means that they have a greater chance of getting picked to participate. Another drawback is that some people consider unwanted phone calls a nuisance and may be reluctant or unwilling to participate.

Face-to-face Survey

What happens. Select the sample randomly either through a list or geographical boundaries. Interviewers conduct the interview by talking to the respondents in person and recording the answer to each question on a survey form. If the respondent is not home when the interviewer arrives, the interviewer must make additional visits to complete the job.

Face-to-face surveys require more people, and it takes more time to complete the job. On the other hand, face-to-face surveys give interviewers more control—they can explain the importance of the survey and assure the respondents about the confidentiality of the survey. They can make questions simpler or less threat-



ening by using visual aids such as pictures or flashcards. If the population to be surveyed has a low educational level, a face-to-face survey is a good choice.

3. Write good questions that will provide useful, accurate information.

The central part of every survey is the questions. The survey questions should be able to answer your research questions. Also, the wording should not be offensive to participants. For tips on how to write good questions, please refer to Salant and Dillman (pages 92-100, 1994).

It is worth mentioning here that we cannot just pick up a survey that was developed for a totally different purpose and use the same survey for your program. Somebody else's survey might not answer your research questions. You may have been interested in a different slant on the topic. Development will be easier if the survey is developed as a group with participation from different stakeholders.

4. Design and test a questionnaire that is easy and interesting to answer.

Make sure you test the questionnaire first before going out to the field. This gives you the opportunity to fine-tune your questions. There might be questions that are ambiguous or difficult to understand, or words that might be offensive to your target population. Make sure that those issues are hammered out before you send your interviewers out in the field. You can test your questionnaires by conducting a mini-survey of your target population, or during the interviewer training (see below).

5. Put together the necessary mix of people, equipment, and supplies to carry out your survey in the necessary time frame.

Get your survey into motion. Whatever survey method you choose, make sure that you have obtained the addresses or telephone numbers, you have prepared your survey materials such as advance letters, questionnaires, or help sheets for your interviewers (phone or face-to-face).

This is also the time to choose and train interviewers if you are conducting telephone or face-to-face interviews. Whether the interviewers are

volunteers or paid staff, training the interviewers is not optional! They need ample opportunities to practice their interviews out loud. This also gives everyone a chance to learn from each other's mistakes and improve their own ability to conduct their own interviews. Interviewer training also provides a good opportunity to test your questionnaires. Ask your interviewers for inputs.

Interviewer training is also the time to give your interviewers the background information of your research project—the purpose of the project and why the information they will be collecting is important. They also need to learn about the ethics of interviewing and interviewing techniques.

6. Code, computerize, and analyze the data from your questionnaires.

It is not necessary to wait until you have all the completed questionnaires to begin processing your data. You need to design a coding system that assigns numbers to every answer in the questionnaire. Then you need to go through the questionnaires to edit answers and code those choices that are not numerical in form. For easier data management and analysis, enter the data from your questionnaires into a computer. Then all that is left to do is summarize and analyze your data, and then interpret your results! (Sounds easy, but you need patience on this part.)

7. Present your results in a way that informs your audience, verbally or in writing.

You have developed a survey and you have successfully put your survey into motion. You have coded, analyzed and interpreted the data that you have collected. Now, the next step is to share and report your findings. (For more tips on how to write up your survey results, see Salant and Dillman, 1994, Bickman et. al., 1994).

References:

Salant, P. and D. Dillman (1994). *How to conduct your own survey*. New York: John Wiley and Sons.

Bickman, L. and D. Rog eds. (1998). *Handbook of applied social science research*. Thousand Oaks: Sage Publications, Inc.





Chemical Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by MSU Extension.



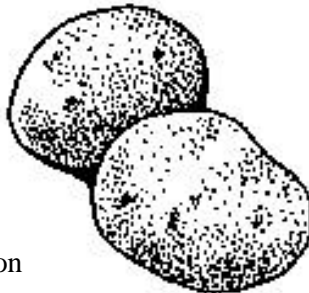
*Products are listed by trade name with active ingredient name and manufacturer following. Please note that multiple manufacturers may make the same product. A change in the registration, formulation, or label of a product from one manufacturer **may not apply** to the same product made by another manufacturer. If you have any doubts about the status of a pesticide, please read a current label and/or check with the manufacturer directly.*

Chemical Updates

New Registrations/Formulations:

Insecticides

- Bio-Control (oil: UAP)—new oil-based pesticide received EAP registration for use on pome fruits.
- Intrepid (methoxyfenozide: Rohm & Haas)—new IGR received EPA registration for use on pome fruits.
- Leverage (imidacloprid + cyfluthrin: Bayer)—received EPA registration for insect control on potato.
- Maxguard (bifenthrin: Scotts)—new formulation for use on home lawns.
- Pylon (chlorfenapyr: BASF)—application approved to register the use of this mite control product on ornamentals in greenhouses.



Herbicides

- Everest (flucarbazone sodium: Bayer)—received conditional registration for post-emergence grass control in spring wheat and winter wheat.
- Select (clethodim: Valent)—received registration for post-emergence application to sunflower.

Fungicides

- Contans (*Caniothyrium minitana*: Prophyta)—received registration for use on field, vegetable, and ornamental crops. Will be marketed by Encore Technologies, Minnetonka, Minnesota.

Residue Tolerances:

Insecticides

- Akari (fenpyroximate: Nihon Hohyaku)—time-limited tolerances set on hops and grapes for wine, expiring April of 2004.
- Api Life Var (thymol and thyme oil)—EPA has been asked to exempt this product from the need for a tolerance in honey and wax. Api Life is used in beehives to control varroa mite. Comments were due in early May. The IR-4 project provided the info for this petition.
- Baythroid (cyfluthrin: Bayer)—EPA was petitioned to establish tolerances on dry beans, based on data generated by the IR-4 Program.
- Intrepid (methoxyfenozide: Rohm & Haas)—proposed residue tolerance on field and sweet corn.
- Knack (pyriproxyfen: Valent)—proposed residue tolerances on stone fruits.
- NyLar (pyriproxyfen: MGK)—residue tolerances established on all food based on use in food handling establishments.
- Provado (imidacloprid: Bayer)—residue tolerances established on beans, cilantro, field and sweet corn, and turnip greens, based on data generated by the IR-4 Program.

Herbicides

- AEF 130360 (foramsulfuron: Aventis)—residue tolerances proposed on corn grain and forage.
- Aim (carfentrazone-ethyl: FMC)—proposed residue tolerance on cranberries, due to work by the IR-4 Program.
- Husar (iodosulfuron methyl sodium: Aventis)—proposed tolerances on corn grain and forage.
- Prowl (pendimethalin: BASF)—residue tolerances reestablished for mint hay and oil, expiring December 2002.
- Select (clethodim: Valent)—proposed residue tolerances on alfalfa forage and hay, dry beans, and tomato paste / puree. Also, based on work by the IR-4 Program, tolerances established on carrots, cranberries, cucumbers, melons, onion, radish, strawberry, sugarbeets, sunflower, squash, and tuber/ corm/ fruiting vegies.



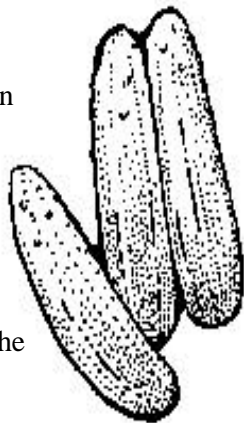
Fungicides

- Bravo (chlorothalonil: Syngenta)—Residue tolerance established on asparagus. Based on data generated by the IR-4 Project.
- Contans (*Caniothyrium minutana*: Prophyta)—EPA granted an exemption from a tolerance for this biofungicide.
- Enable (fenbuconazole: Rohm and Haas)—tolerances proposed on stone fruits.

Label Additions/Changes:

Insecticides

- Adage 5FS (thiamethoxam: Syngenta)—control of wireworm and aphid added to the barley, sorghum, and wheat labels.
- Admire (imidacloprid: Bayer)—awarded a 24c label in California for insect control in sugarbeets.
- Danitol (fenprothrin: Valent)—control of stink bugs on tomato, and use on cucurbits, added to the label.
- Hexagon DF (hexythiazox: Gowan)—the statement “Do not use this product on crops growing in greenhouses” was removed from the label.
- Yardex (tau-fluvalenat: Wellmark)—product can now be applied as a perimeter treatment.
- Sevin XLP (carbaryl: Aventis)—added use on okra to the label.



Herbicides

- Dacthal (chlorthal-methyl: Amvac)—aerial application added to the label.
- Finale (glufosinate ammonium: Aventis)—aerial application and greenhouse application added to label.
- Kerb (pronamide: Rohm and Haas)—added use on warm season grasses to the label.
- Prism (clethodim: Valent)—application via chemigation on onion and garlic added to the label.
- Progress (ethofumesate: Aventis)—added use on dormant bermudagrass to the label.
- Roundup (glyphosate: Monsanto)—aerial application on alfalfa, corn, wheat, brush, and pasture added to label.

- Treflan TR10 (trifluralin: Dow AgroSci)—preharvest interval for grazing/ hay is now 21 days.

Fungicides

- Terrazole (etr Diazol: Uniroyal)—many label changes:
 - Golf course use restricted to tees and greens.
 - Use on golf course fairways is eliminated.
 - Reduced application rate on turf to 10 ounces per 1,000 square feet.
 - Changed application frequency on turf to a maximum of once every 10 days.
 - Use on potting soil is eliminated.

Label Deletions/Cancellations:

Insecticides

- Catalyst (propramphos: Wellmark)—company made an agreement with EPA to eliminate residential uses of this cockroach product. Commercial application by licensed pest control operators will remain.
- DiSyston (disulfoton: Bayer)—company asked EPA to delete use on corn, oats, and tomato from the label. Request was due to the high cost of reregistration.
- Pyrellin (pyrethrin + rotenone: Webb)—company asked EPA to delete use in barns, dairies, milking parlors, poultry houses, and use on harvested fruit and grains. Request was due to the high cost of reregistration.

Herbicides

- Finale (glufosinate ammonium: Aventis)—some woody species removed from the label.

In the Pipeline:

Insecticides

- Fulfill (pymetrozine: Syngenta)—registration expected soon for use on cole crops & leafy vegies. Target is aphid control.
- Fury (zeta cypermethrin: FMC)—registration expected soon for use on sweet corn and brassica vegetables.



- Mustang (cypermethrin: FMC)—registration expected soon for brassica vegies, leafy vegies, sugarbeet, and sweet corn.

Herbicides

- Eclipse (2,4DP/ MCPA/ clopyralid: Riverdale)—new turf herbicide will be introduced in 2001.
- Foramsulfuron (Aventis)—new herbicide being developed for use in corn.

Fungicides

- Acrobat 50WP (dimethomorph: BASF)—new formulation will replace Acrobat MZ. Used for late blight control in potato and tomato.
- Gavel (zoxamide + mancozeb: Rohm and Haas)—in development as a control for early and late blight in potato.

Miscellaneous:

- Liberty Link cotton is in development by Aventis.
- No more New Leaf—Monsanto is dropping genetically engineered potatoes.
- Dupont is stopping the manufacture and sale of the fungicide Benlate.
- Thermo Trilog, maker of some Bt insecticides, is being sold to Mitsui.
- DowAgro is purchasing the Ag Chem division of Rohm and Haas. Manufacturing plants in Europe, China, South and North America are part of the deal.

(Sources: Federal Register notices; *Ag Chem News*, April & May 2001)

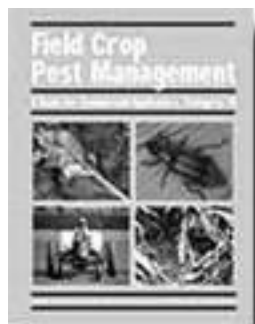


New Publications from MSU Pesticide Education Program

Field Crops Pest Control, Category 1A, E-2034

The Category 1A manual, *Field Crops Pest Control*, has been completely rewritten and revised. The new manual includes 40 color photos of field crop insects and diseases.

The new manual can be ordered through the MSU Bulletin Office at a retail cost of \$15.50 (Telephone 517-353-0240). It can also be downloaded in pdf format from the MSU Pesticide Education website at www.pested.msu.edu/BulletinsSlideSetsNewsletters/bulletins/index.html.



Choosing a Pest Control Company: Guidelines on making informed decisions to help solve pest problems in your home, E-2760

This is the second brochure in the Community IPM Education Series prepared by Erica Jenkins and Becky Hines of MSU Pesticide Education Program. Like the previous bulletin in this series (*What does a label say?* E-2725), this is a full-color brochure for

homeowners and the general public. The bulletin discusses issues that informed consumers should consider when deciding to hire a pest control company, relevant issues in the Michigan state law, questions to ask, and resources available for more information. The bulletin is now available through the bulletin system (one copy free to Michigan residents) or can be found in pdf format on our website at www.pested.msu.edu/BulletinsSlideSetsNewsletters/Home&Garden/index.html. Several other brochures in this series are in development.

Training Materials/Ideas Available on the Web

There are several websites with useful ideas and materials for training in IPM and other pesticide-related topics. The Northeast IPM Program, for example, has prepared a 15-module series of IPM teaching lesson kits available for free downloading at www.nysaes.cornell.edu/ipmnet/sare.mod/. The modules can be used as a stand-alone source or complemented with local materials.

Other useful websites for training information include:

Be Safe with Pesticides. Read the label.
www.udel.edu/pesticide/label.htm



Straight Talk about Minimizing Spray Drift Worksheet
www.udel.edu/pesticide/driftworksheet.htm

How Can You Protect the Environment?
www.udel.edu/pesticide/2minuteenviron.htm

IPM in Action: Putting it all Together
www.udel.edu/pesticide/IPM.htm

FQPA: How does EPA Register Pesticides?
www.udel.edu/pesticide/roleplay.htm

Crop Advisory Team (CAT) Alerts

CAT alerts are in full swing and it is not too late to start your subscription. The CAT Alert program has a separate team for each of the four newsletter editions: fruit, vegetable, field crop, and landscape. Each issue contains articles written by MSU Specialists and MSUE County Agents with advice for managing the current pest and crop concerns. The newsletter articles also recommend long-term preventative actions such as resistance management and protection of beneficial organisms. The following subjects are covered in all editions:

- Preventing insect, disease, and nematode injury
- Weed management and fertilizer recommendations
- Pesticide and other pest management strategies
- Pesticide regulation and registration changes including emergency registrations
- Reports from MSU's Diagnostic Services
- Weather conditions, growing degree days, precipitation totals, and production implications

Subscribe now!

I am subscribing to the following editions of the CAT Alerts for the 2001 season:

Fruit CAT Alert (\$35) _____
Vegetable CAT Alert (\$35) _____
Field Crop CAT Alert (\$35) _____
Landscape CAT Alert (\$35) _____
Total amount enclosed: _____

Name _____
Company _____
Address _____
City/State _____
Zip Code _____
County _____
Phone(____) _____

Make check payable to:

Michigan State University

Send check and completed form to:

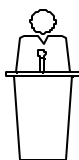
Michigan State University CAT Alerts
B18 Food Safety and Toxicology Building
East Lansing, MI 48824

Employment Opportunity

Integrated Pest Management Coordinator

Associate, or full professor 12-month basis, 100% time (75% extension, 25% research). The coordinator will work closely with research and extension specialists, and will supervise the professional staff in the IPM Program in the Center for Integrated Plant Systems. The coordinator is expected to foster the development of balanced programs that emphasize reduced reliance on FQPA targeted pesticides, and increased use of alternative strategies, including induced resistance, biological control, reduced risk pesticides, and management strategies focusing on tillage, rotation, variety selection, and other areas that may influence insect, pathogen and weed pests. The coordinator will serve as the team leader for regional Extension agents and IPM and Integrated Crop Management responsibilities. A qualified candidate will have a Ph.D. in plant pathology, entomology, nematology, weed science, or related fields with a minimum of five years of research and outreach experience. For a complete job announcement contact: Dr. Patrick Hart, Center for Integrated Plant Systems, Michigan State University, East Lansing, MI 48824 (phone, 517/353-9428, email, hartL@msu.edu).





Pesticide Applicator Recertification Seminars

This partial listing of recertification seminars was provided by MDA. Certified applicators and registered technicians may earn recertification credits by attending these programs. For additional information, call the MDA Lansing office at (517) 373-1087.

NOTE: Renewal of pesticide applicator certification credentials can be done by taking the appropriate exam(s) or by obtaining the necessary number of recertification credits by attending approved seminars.



Date	Seminar	Location	Credit	Category	Phone #
9/25	FC Food Plant Pest Mngmt Seminar	Cincinnati, OH	4	ComCore,7A,ST	(913)782-7600

Instructions for recertification training seminar attendance and training seminar dates are posted at the MDA website: <http://www.mda.state.mi.us/industry/schedule.html>.

Pesticide Education Staff Directory

Pesticide Education Program www.pested.msu.edu

B18 Food Safety & Toxicology Building
Michigan State University
East Lansing, MI 48824

Chris DiFonzo
Coordinator and Field Crops Entomologist
517-353-5328
difonzo@pilot.msu.edu

Carolyn Randall
Editor, Certification Manual Development
517-353-5147
randallc@msue.msu.edu

Becky Hines
WPS, Certification Manual Development
517-353-9490
hinesre@msu.edu

Erica Jenkins
Community IPM & IPM in Schools
517-353-4494
jenkinse@msue.msu.edu

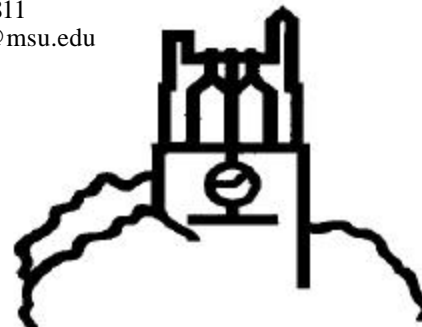
Affiliated faculty/staff

Larry Olsen
North Central Pest Management Ctr. Director
517-355-3459
olsenl@msu.edu

Lynnae Jess
Extension Associate
517-432-1702
jess@msue.msu.edu

Rebecca Thompson
Communications Specialist
517-353-4703
Thomp241@msu.edu

Pat Sutherland
Administrative Assistant
517-353-8811
suther24@msu.edu



Michigan State University



MSUE Pesticide Education Programs
Center for Integrated Plant Systems
B18 Food Safety & Toxicology Bldg.
Michigan State University
East Lansing, MI 48824

