

**Pesticide Safety Education Program
(PSEP)**

**Michigan State University
East Lansing, MI**

OUR WEB SITE: <http://www.pested.msu.edu/>

Final Report (Oct 2005 to September 2006)

to the

Michigan Department of Agriculture, Pesticide Section

and the MDA Pesticide Advisory Committee

and Bruce Wilkinson of EPA Region 5

Submitted by the MSU Pesticide Safety and Education Program, Oct 2006

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Temporary Labor Employees: John Stone, Erica Jenkins, Eva-Marie Muecke

Student Intern: Christina Cottrell

Our Objective:

The MSU Pesticide Safety Education Program (PSEP) works with the Michigan Department of Agriculture Pesticide Section to carry out applicator certification and training. As its part of a Memorandum of Understanding, the Program conducts training and education in seven major areas. Each quarter, the Pesticide Safety Education Program reports its activities to the Pesticide Advisory Committee (PAC), and provides a final report to MDA at the end of the fiscal year. Below is a summary of program accomplishments – based on the major points in the Memorandum of Understanding – for the 2005 fiscal year.

1) Develop and revise applicator training manuals, and provide exam questions.

Manuals Completed:

- *National Pesticide Applicator Certification Core manual*. A pdf version was placed on the NASDA (National Association of State Departments of Agriculture) website in March 2006.
- *Regulatory Pest Management*, Category 9, E-2055. A pdf version made available on the PSEP and Bulletin Center websites in January 2006. The printed version of the manual is available for sale directly through MSU PSEP rather than through the Bulletin Center.
- *Aquatic Pest Management*, Category 5, E-2035. A major revision was completed on this manual. Most of the changes were made to Chapter 1 on Laws and Regulations with help from staff at MDEQ. The old color photos had been lost and replacement photos had to be identified. The cover was also redesigned. Fifteen thousand copies (1,500) were printed through the Bulletin Center and a pdf was placed on the PSEP website in February 2006.

Manuals in progress:

- *Microbial Pest Management*, E-2621. Carolyn had the final chapters reviewed by industry. Work is still needed on the glossary and answers appendix and on the lay-out and design.
- *Aerial Standard*, E-2019. A draft of the manual was sent to the review committee including Robert Dow, MSU Extension, Mike Schiffer and Cora Schiffer, MAAA; and Polly Kapala, of MDA. Comments were returned and Carolyn will work on updating the draft.
- *Public Health Pest Management*, E-2049. An undergraduate student in MSU's Professional Writing Program, Christina Cottrell, was hired in October 2005 to work on the draft of this manual. Christina worked 10 hours per week on the draft until the end of April 2006. Christina reported a positive learning experience in working on the draft and the lay-out in PageMaker. She went on to take a summer writing position at MSU Department of Biochemistry. A temporary labor employee, Eva-Marie Muecke, who recently completed a Ph.D. in Zoology, was hired to work on the draft in late May to early July. Eva made many technical improvements to the draft. Eva left to take a teaching position in Oregon. However, further improvements are needed to the draft before it is published. Carolyn has been converting the draft to an Adobe InDesign format.
- Carolyn Randall received funding from Project GREEN to produce the Category 3A *Turfgrass Pest Management* manual. The grant was funded for \$8,000 for a period of one year (April 1 2006 to June 30, 2007). The funds are being used to pay a salary to Erica Jenkins to work on the Category 3A manual.

2) Monitor and maintain stocks of bulletins in the MSU system.

MSU PSEP monitors manual stocks and arranges for reprinting of current bulletins as needed. Often this provides an opportunity to make minor corrections and changes. In FY 2005, the following bulletins were reprinted with minor or no revision:

- Category 5B, *Microbial Pest Management*, E-2195: 100 copies reprinted due to low inventory.
- Category 3A, *Turfgrass Pest Management*, E-2327: 2,000 copies reprinted due to low inventory.
- Category 5C, *Sewerline Root Control*, E-2609: 250 copies reprinted due to low inventory.
- *Aerial Application Standard*, E-2019: 50 copies reprinted due to low inventory.

3) Develop other pesticide-related materials as requested and needed.

- The printing of “Guidelines for Michigan Communities on Developing a Self-help Rat Control Program” published by MDA was arranged by Carolyn Randall. Six hundred copies were printed—300 in black and white and 300 in color. The manuals were delivered to MDA.
- The “Spray Demonstration Table” was made available for loan to Extension agents. The instructions for setting up the table were posted on the website at: <http://www.pested.msu.edu/Resources/LendingLibrary/SprayTable/SprayTable.htm>. Ned Birkey, Extension agent from Monroe County, used the table at several educational meetings. It was used a field crops meeting at the MSU Pavilion on December 20 and Extension agent Roberta Osborne used it a “Farmers’ Day” in Coldwater on February 20. A strobe light was purchased from Monarch Instrument to go along with the Spray Demonstration table per request of Ned Birkey.
- The updated *Emergency Planning for the Farm* (November 2005), Extension Bulletin E-2575, was posted on the website at: <http://www.pested.msu.edu/Resources/bulletins/EmergencyFarm.html>. It was updated again in July 2006 and reposted. The bulletin covers farm emergency planning requirements including SARA Title III requirements.
- Copies of the “USDA Recordkeeping Guide for Greenhouses” were distributed to all interested counties in Michigan.
- Carolyn Randall and John Stone developed a brochure advertising training programs in commercial/private core and 3B ornamentals offered by MSU PSEP. Two-thousand copies of the brochure were printed and distributed to MDA’s industry database list, Michigan municipalities, and to county Extension offices.
- Carolyn put out an issue of the *Pesticide Notes* newsletter dated Jan – May, 2006. It can be downloaded from the web site at <http://www.pested.msu.edu/Resources/>

[PesticideNotes/index.html](#). The feature article is “Extension Seminars of Value to Pesticide Applicators” by Hannah Stevens, Macomb County Extension.

- More materials were added to the Pesticide Safety Education Lending Library and the webpage was updated to show the added materials.
- Carolyn worked with staff at MDA in developing a new 3-panel brochure in the Community IPM Series entitled *Questions and Answers About Bedbugs: Guidelines to help you solve bedbug problems in your home*. Four-thousand (4,000) copies were printed—1,000 copies were put in the MSU Bulletin System (Bulletin #2971), 2,000 were delivered to the State Fair in August, and 1,000 copies were kept by PSEP. The Bulletin can also be downloaded from the web site at: <http://www.pested.msu.edu/Resources/Home&Garden/index.html>. Due to the popularity of the bulletin an additional 4,000 copies were printed in late September.
- Many materials were printed or purchased by PSEP for distribution at the MDA booth at the Michigan State Fair (August 22 – September 3) including 2,000 copies of the Purdue publication the *Benefits of Pesticide: A Story Worth Telling*. PSEP also purchased 2,000 copies of each of the seven Community IPM series brochures published by MSU PSEP and printed 4,000 “Bee Cool: Don’t Mess with Pesticides” stickers.
- Two-hundred receipt booklets with 50 receipts in each for a total of 10,000 receipts were printed for MDA. The receipts will be used as temporary credentials after applicators take the certification exams.
- Carolyn completed a draft of the PSEP Business Plan and distributed it to reviewers as part of the agreement under the current Project GREEN grant. The plan details how PSEP will become a self-sustaining program over the next 5 years.
- After a discussion with Larry Swain and Allen Krizek on confusion over how to apply for seminar credits, Carolyn redesigned a section of the PSEP website to more clearly define how persons can become certified applicators or registered technicians, seminar hosts, and/or approved trainers. Several new pages were added to the website. The pages can be viewed at <http://www.pested.msu.edu/PesticideApplicatorCertification/index.html>.
- Website: There was a 4-fold increase in January through March 2006 compared to November/December in the number of hits to the website after we started advertising the core and 3B training seminars (See attachment). Several pages were added or updated including adding the information about the seminars and registration forms. From November 2005 to the end of September 2006 there was a total of 13,298 hits for an average of 282 hits per week. Most of the hits involve downloading information from manuals.

4) Oversee the Registered Technician Program

- Checks still come in occasionally for the for Approved Trainer study guides. The checks are returned along with a letter explaining that the study manual can be downloaded for free from the website.

- Carolyn redesigned the PSEP website to more clearly define what is required to become an approved trainer of registered technicians. The guidelines can be viewed at: <http://www.pested.msu.edu/PesticideApplicatorCertification/Trainer.htm>.
- John Stone completed the requirements and is now an approved trainer of registered technicians.

5) Host in-service programs.

- The 2005 Michigan Agricultural Aviation Association (MAAA) Conference was held October 18-19 at the Comfort Inn in Okemos, Michigan. Carolyn Randall invited the speakers and moderated the program. On October 18, Polly Kapala from MDA gave the enforcement update. FAA representatives were also present at the meeting to give their updates—Tim Phillips and Dan Allison from Grand Rapids FSDO, and Carol Callan and Glen Shaw from the Detroit FSDO. Steve Powell from Bouvier Kelly, Inc., a public relations agency, was the featured speaker this year. Mr. Powell was invited on the recommendation of the National Agricultural Aviation Association (NAAA). He presented a “Media Message Workshop” and “Making your Point through the Media.” Joey Barnes from Regulatory Consultants, Inc. presented “Facility Planning.” The special guest dinner speaker was Jack Lousma, former NASA astronaut. Participants were very pleased with the program as indicated by the returned evaluation forms.
- MAAA 2006: A meeting to plan the Michigan Agricultural Aviators Association (MAAA) Educational session in October 2006 was held at the Schuler Bookstore in Lansing on March 31. Lucille Schiffer, Mike Schiffer, Jim Barens, Larry McKillop, and Ron Evans of MAAA, Polly Kapala of MDA, and Carolyn Randall of MSU PSEP were in attendance. The 2006 MAAA Educational Session will be held on October 18 and 19 at the University Club in East Lansing. Four more hours of instruction will be added to the conference, so instead of two 4-hour days there will be two 6-hour days of conference time.
- Carolyn Randall and John Stone planned six core and 3B training seminars throughout the state of Michigan: at the Kellogg Center in East Lansing (March 9 and 10), at Wayne County Community College District in Belleville (March 13 and 14), at the Genesee County Extension Office in Flint (March 20 and 21), at Kalamazoo Valley Community College on March 27 and 28, at the Alpine Center in Gaylord (March 29 and 30), and at Muskegon Community College in Muskegon (April 10 and 11). The instructor for these courses was John Stone and the cost for each course was \$100 for two days and \$75 for one day. The courses ran from 10:00 a.m. to 3:00 p.m. with a lunch provided at 12 noon. Two commercial/private core recertification credits were given for the first day of attendance and two Category 3B ornamental recertification credits were given on the second day of attendance. A pre- and post-test and evaluation form was developed and handed out at each meeting. Carolyn assisted with the registrations and bubble sheets at the Kellogg Center meeting.

There were 30 attendees at the Kellogg Ctr. meeting, 16 of which were MSU grounds crew. In Flint, 20 people attended and 6 people attended at KVCC. However, the Belleville and Gaylord sessions were cancelled due to low registrations. The Muskegon course ran on April 10 and 11

with 7 persons in attendance. EPA funds were used to pay for the costs of setting up and running the meetings. The expense of running the programs exceeded the amount received for registrations. A complete budget analysis for the programs is attached.

6) Participate in other programs and events as needed.

- Carolyn Randall presented safety information about household poisons and pesticides to 25 kindergarteners at St. Martha's school in Okemos on January 10. She also talked about what is an insect, what is a pest, the emerald ash borer, and handed out information about the Bughouse at MSU's Department of Entomology.
- John Stone was the trainer for the Core category training at the Great Lakes Trade Exposition on January 11. Carolyn also attended the Great Lakes Trade Exposition and assisted MDA with the exam session following the training.
- Carolyn attended "Working with Latinos" an Extension development conference at the Kellogg Biological station on March 22 and 23.
- Carolyn attended the Invasive Species Symposium at MSU on May 12. Information on the 2006 symposium is posted at www.invasivespecies.msu.edu.
- Carolyn attended "Policy Making in Lansing" a day-long Extension training seminar offered at the state capitol building on May 23.
- Carolyn attended "Becoming an Innovation Counselor" at "The Starting Block" in Hart, Michigan. Carolyn learned how this Extension program is training agents to help ag-related businesses grow in Michigan.
- Carolyn attended ANGEL Introduction on July 11 and ANGEL Content and Communication on August 22 to learn how MSU's ANGEL system can be used for on-line testing.
- Carolyn attended a meeting on September 21 to plan ANR week in March of 2007. Carolyn has 4 programs lined up for ANR week including a "Pesticide Education and Regulatory Update" on March 6, "Core Training" on March 7, "Category 3A Turfgrass Training" on March 8, and "Category 3B Ornamental Training on March 9." All seminars will be 4-hours long and will be held at the Kellogg Center from 10:00 a.m. to 3:00 p.m. with a lunch served at 12 noon.
- PSEP helped MDA in obtaining building materials to put up their booth at the 2006 State Fair from August 22 to September 3.

7) Serve on university, state, and national committees, and attend conferences, related to pesticide issues.

- Carolyn Randall participated in MDA's Regulation 637 Rulemaking Committee meetings from October 2005 through June 2007. Her service on this committee is now completed.

- Carolyn Randall and John Stone participated in the Certification Program meeting at the Genesee County Extension Office in Flint on January 6 and Carolyn attended the meeting on March 3 and April 27. Larry Swain of MDA directed the meetings.
- Carolyn participated in the Region 5 pre-SFIREG (State FIFRA Issues Research and Evaluation Group) on May 8 and 9 in Chicago. An Extension breakout session was held where funding for PSEP was discussed.
- Carolyn met with Kirk Heinze and Ken Fettig of MSU ANR Communications on June 6 to discuss a way to help support the PSEP Program through manual sales. Both Kirk and Ken agreed to an increase in the price of newly published manuals by \$10 to be directed into a PSEP account. This is expected to generate \$80,000 or more per year to PSEP but will take two to three years to start up. No revenues will be received until a new manual is produced. Carolyn estimates that adapting the national core manual for Michigan and selling it next year will bring in about \$40,000 to \$50,000 to PSEP in 2007.
- A conference call of Carolyn's Faculty Advisory Committee was held on June 19. Members of the Committee participating included Christina Difonzo from MSU Dept. of Entomology, and Hannah Stevens, Dean Krauskopf, and Mary Wilson from MSU Extension. Ideas to help make PSEP a self-sustaining program were discussed during the call including making the national core manual specific to Michigan, increasing the price of newly published manuals by \$10 to go to the PSEP, and organizing more pesticide applicator training seminars.
- Carolyn led the Michigan Core Manual Committee Meeting at the Turfgrass Research Center on August 11. Participants on the committee include Larry Swain from MDA, Amy Frankmann from MNLA, Diane Andrews from MNLA, Ben Hamza from TrueGreen, Michael O'Connor from Consumers Energy, and Dean Krauskopf from MSU Extension. The committee decided to adapt the national core manual and make it Michigan specific. Two separate core manuals will be produced—one for commercial and one for private. The Michigan commercial core manual will have state specific laws added to it and the Michigan private core manual will have the state specific laws and information on private applicator equipment and calibration.
- Carolyn, along with Larry Swain from MDA, attended the North Central Pesticide Education and Certification Workshop in Fargo, ND August 14 -16. The regional conference included a tour of IPM practices in the Roman Meal Milling Company and mosquito control at Cass County Vector Control. Speakers included Fred Whitford, PSEP coordinator at Purdue University; Gerome Ringo, Director of the National Wildlife Federation; Jim Parochetti, from USDA, Donald Eckerman from EPA and others.
- John Stone attended the Southern Regional Pesticide Safety Education Center Workshop on September 18 – 20, 2006. This is a pesticide safety education train-the-trainer program.

**2006 Core and Category 3B Pesticide Applicator Training Seminars
Budget Sheet**

Deposits

48 registrants for 2 days @ \$100 (minus 6 percent sales tax = \$97.60)*	4,735.20		
14 registrants for 1 day @ \$75.00 (minus 6 percent sales tax = \$73.80)	1,033.20		
TOTAL DEPOSITS	\$5,768.40		\$5,768.40

Expenditures

Meals (2 days)

Kellogg Ctr (30 attendees, March 9-10)	1,276.86		
Genesee County Extension (21 attendees, March 20-21)	450.00		
Kalamazoo Valley Community College (6 attendees, March 27-28)	119.25		
Muskegon Community College (7 attendees, April 10-11)	131.57		
Total Meals	1,977.68	-1,977.68	

Room Charges

Kellogg Ctr.	0.00		
Genesee County Extension	0.00		
Kalamazoo Valley Community College	210.00		
Muskegon Community College	0.00		
Total Room Charges	210.00	-210.00	

Promotional

Brochures (2,000)	765.00		
Postage	637.65		
Total Promotional	1,402.65	-1,402.65	

Personnel

John Stone (Salary for 3.5 months)	4,787.30		
Travel (In-state)	262.48		
Total Personnel	5,049.78	-5,049.78	

PCR (minus 10% of gross)

576.84	-576.84		
TOTAL EXPENDITURES	-\$9,216.95		-\$9,216.95

NET LOSS -\$3,448.55

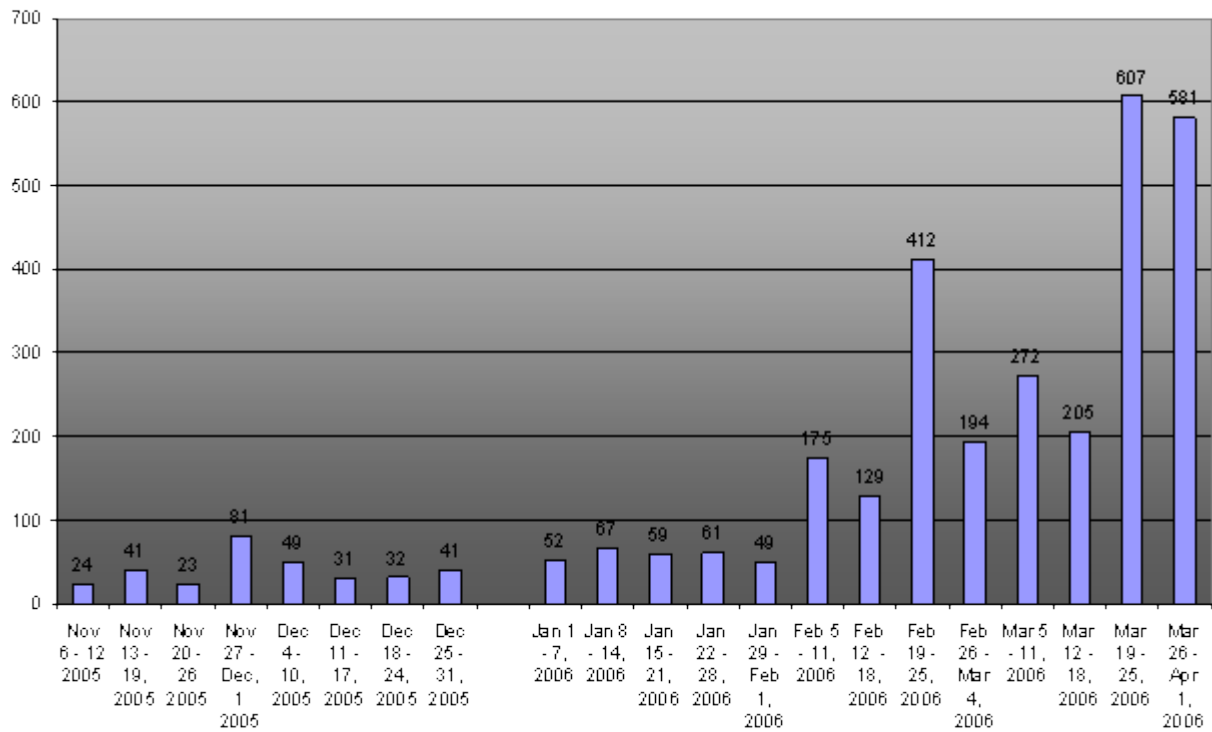
*Sales tax was not always deducted from every registrant's fee.
Registrants from schools or universities did not have to pay sales tax.

Web Statistics

MSU Pesticide Safety Education Program

www.pested.msu.edu

During the period November 6, 2005 to April 1, 2006 there were a total of 3,185 requests (i.e., hits) to the MSU Pesticide Safety Education websites. Relatively few requests were received between the period of November 6, 2005 to the end of January 2006 (610 total requests). There was a 4-fold increase in requests in February and March 2006 when the program started advertising its core and 3B training courses (2,575 total requests). In February, over 2,000 brochures advertising the training were sent out to industries, municipalities, and MSU Extension offices with the web address included. Another boost in the number of hits occurred in March after press releases came out for the Kalamazoo, Gaylord, and Muskegon training sessions (see figure).

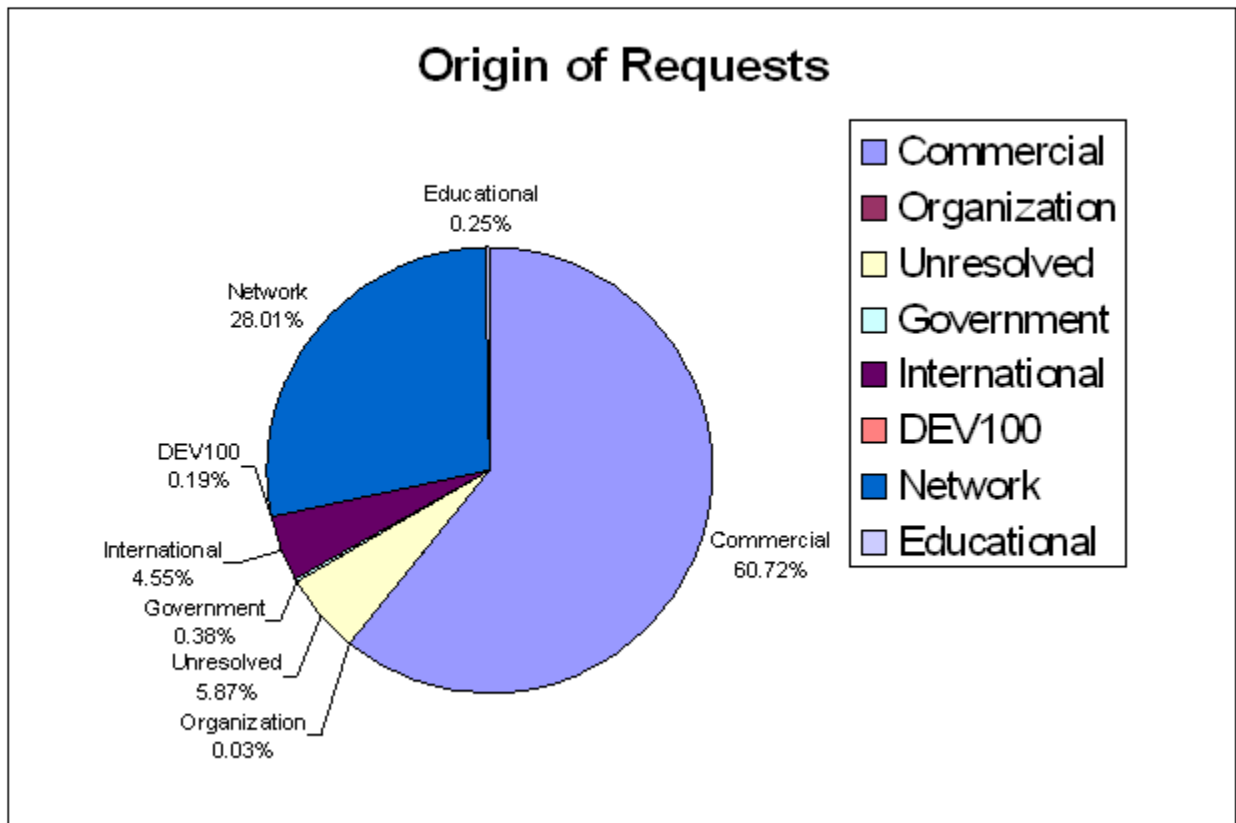


**Number of Requests per Week
Nov 6, 2005 - April 1, 2006**

Where are Requests Coming From?

Most of the hits between November 6, 2005 and April 1, 2006 were coming from commercial (.com) sources at 60 percent (1,934), followed by network (.net) at 28 percent (892).

“Unresolved” was the third highest category at 6 percent and international hits totaled approximately 5 percent (145) of the requests with most coming from Mexico (43) followed by Saudi Arabia (32) and Singapore (27) (see figure).



What are People Downloading?

The most popular downloaded item from the site is the Category 7A manual General Pest Management—there were 660 downloads of all or part of this manual within the November 6, 2005 to April 1, 2006 time period. Other popular items included the Pesticide Applicator Core Training Manual (248 downloads), Category 5A Swimming Pool Pest Management (210 downloads), Category 7B Wood-destroying Pests (196 downloads), Category 7G Small Animal Pest Management (187 downloads), Category 1B Vegetable Pest Management (132 downloads), Category 1D Livestock Pest Management (120 downloads), Category 7D Vertebrate Pest Management (113 downloads), to name a few. The question has been raised whether we should continue to provide free downloads of publications or start charging a fee. The impact to sales of manuals by providing the on-line bulletins is not known. However, fewer people may visit the site if the information is not provided for free.