

Pesticide Safety Education Program PSEP

**Cooperative State Research, Education, and Extension Service
U.S. Environmental Agency
Partnership to Provide Pesticide Safety Education**

**Report on EPA Interagency Agreement
4/30/01 – 9/30/06 with a no-cost extension through 9/30/07**

**Prepared
September 2008
James V. Parochetti, Sr. and Elizabeth L. Ley**

Table of Contents

I.	Background	1
	Table 1. Amount of certification training and funding by fiscal year	
II.	Funding	2
	Table 2. Account balances at HHS as of July 30, 2008	3
III.	Program Accomplishments	4
IV.	Increased Emphasis on Accountability	6
V.	Conclusion	6

Attachments

A.	Memo from CSREES to State Extension Directors on funds and request for a budget. (2006 example)	7
B.	List of funds dispersed to individual Pesticide Safety Education Programs FY 2002 – FY 2006.	8
C.	Budget form required of each PSEP every fiscal year. (2006 example)	10
D.	Guidelines: Budget and Accountability for State Cooperative Extension Services Pesticide Applicator Training Programs. (2006 example)	11

**Cooperative State Research, Education, and Extension Service (CSREES)
U.S. Environmental Agency (EPA)
Partnership to Provide Pesticide Safety Education
EPA Interagency Agreement
4/30/01 – 9/30/06 with a no-cost extension through 9/30/07**

I. Background

The Pesticide Safety Education Program (PSEP) assists both private and commercial applicators in meeting the initial and continuing standards of certification to apply restricted use pesticides. The following are some, but not all, of the subject matters addressed by the training modules: the proper, effective, and safe use as well as storage and disposal of pesticides, adverse risks associated with pesticide misuse, and consequences of pesticide drift. Emphasis is placed on personal safety, protection of the environment, prevention of pesticide drift, endangered species, water quality, and food safety.

The USDA and the EPA initiated agreements to provide pesticide education required for applicator certification in the mid 1970's. The current Pesticide Safety Education Program reaches a significant number of citizens. On average, 1.24 million people were trained each year through the PSEP during this project period (see Table 1). Reports from 2006 alone indicate that 642,214 people adopted at least one practice that decreased human health risk and/or decreased environmental risk as a result of their participation in a PSEP training session.

Table 1. Amount of Certification Training and Funding by Fiscal Year

	2001	2002	2003	2004	2005	2006	TOTALS
Certification	*	114,859	102,416	99,878	82,785	94,191	494,129
Re-Certification	*	311,634	291,685	290,551	291,224	290,947	1,476,041
Non-Certification	*	285,394	1,091,413	1,001,256	628,824	630,008	3,636,895
Train the Trainer	*				5,980	5,900	11,880
TOTALS	*	711,887	1,485,514	1,391,685	1,008,813	1,021,046	5,618,945

* Performance Planning and Reporting System (PPRS) initiated in 2002
Train-the-trainer numbers collected starting in 2005

FUNDING SOURCE

EPA	\$1,880,000	\$1,880,000	\$700,000	\$1,200,000	\$1,200,000	\$1,200,000	\$8,060,000
Other	*	\$7,200,000	\$7,700,000	\$7,300,000	\$7,700,000	\$7,800,000	\$37,700,000
TOTALS	\$1,880,000	\$9,080,000	\$8,400,000	\$8,500,000	\$8,900,000	\$9,000,000	\$45,760,000

“Other” includes funds from state governments, CSREES formula funds, and county governments

II. Funding

Beginning in fiscal year 1979, Congress directed EPA to “use the services of the Cooperative State Research, Education, and Extension Service (CSREES) to inform and educate pesticide users about accepted uses and other regulations” under the Federal Insecticide, Fungicide and Rodenticide Act. (See Guidelines, paragraph (c), attached). These programs assist pesticide applicators in becoming certified to apply restricted use pesticides. The 2001 -2006 Interagency Agreement (AIG) between EPA and CSREES provided a total of \$8.06 million to land grant universities and territories to support Extension programs to provide pesticide applicator training needed to meet requirements of state certification for applicators. The funds provided by EPA, administered by CSREES, are leveraged at the state level. The States’ contributions must at least be equal to the Federal funds provided by EPA. In addition, PSEP efforts are supported by county Extension services, CSREES Smith-Lever funds, and in some cases by program fees. CSREES estimates that the state Cooperative Extension Services provide approximately \$6 for every \$1 from EPA (see Table 1, Funding Source Totals).

The amount of funds that EPA is able to pass on to USDA each year for the IAG depends on EPA’s annual budget. The funds are distributed to the State Extension Directors by CSREES based on a formula determined earlier in the program’s history. The Extension Directors are required to submit a budget indicating the intended use of EPA funds and listing the matching funds they will utilize. The EPA funds can not be drawn down until a budget has been submitted. The CSREES Administrator sends an allocation letter each year which provides guidelines on how the EPA money can be used (see attached memo).

Factors used in the formula to allocate IAG funds are: a base amount for each entity, the numbers of farms, private and commercial applicators trained since the inception of the program, and currently certified private and commercial applicators. The formula does not consider factors such as numbers of training sessions, category-specific training, or applicators trained in a given year. The federal funding formula is under review to ensure it best reflects current needs.

The timely draw down of funds by the states from the U.S. Department of Health and Human Services (HHS) Payment Management System (where EPA funds are dispersed) has been a problem for a few states and territories during this project period. As of September 3, 2008, a balance of \$37,713.42 had yet to be disbursed by HHS (see Table 2). CSREES is working closely with the six states and territories that have balances to identify roadblocks and educate personnel on the correct process to obtain their funds.

Table 2. Account Balances at HHS as of September 3, 2008

State	Payee Name	2004 Balance	2005 Balance	2006 Balance	2002- 2006 TOTALS
GU	UNIVERSITY OF GUAM			625.10	625.10
CM	NORTHERN MARIANAS COLLEGE	0.00	1,020.43	0.00	1,020.43
AS	AMERICAN SOMOA COMMUNITY COLLEGE	0.00	0.00	1,848.29	1,848.29
CT	UNIVERSITY OF CONNECTICUT	0.00	0.00	2,531.82	2,531.82
NM	NEW MEXICO STATE UNIVERSITY	0.00	0.00	6,303.85	6,303.85
DC	UNIVERSITY OF THE DISTRICT OF COLUMBIA				
	TOTALS:	<u>4,387.93</u>	<u>10,561.00</u>	<u>10,435.00</u>	<u>25,383.93</u>
		4,387.93	11,581.43	21,744.06	37,713.42

A new IAG was developed in 2007 to address a three year period (10/1/06 through 9/30/2009.) FY 2007 funding and program communications were handled in a similar fashion as previous years. It was determined in FY 2008, however, that a review of the way the yearly agreements are set up and administered would be beneficial to all parties. Communications among CSREES staff and EPA personnel are on-going to clarify the responsibilities of all parties and to ensure proper documentation of both administrative and programmatic elements of the program. The FY 2008 guidelines to the participants will be revised to help remedy some of the reporting problems that have been identified. These include, but are not limited to, the timely draw down of funds by the participants from DHHS accounts, and the timely reporting of program activities.

The partnership between Extension personnel and the EPA to provide relevant, accurate training has long been recognized by EPA and USDA, as well as a wide range of stakeholders, as an efficient and effective way to meet the needs of pesticide applicators. The EPA has a mandate to ensure that pesticide applicators are properly certified to use restricted use pesticides. EPA works with individual state regulatory agencies to ascertain that this is accomplished. Extension personnel have a long tradition of providing up-to-date information that assists their clientele (both farm and urban populations) in safely and efficiently utilizing tools that enable them to meet their goals to manage all pests, (including weeds, insects, and plant diseases) in a safe, economic, and sustainable manner.

The PSEP training programs reach both certified and non-certified audiences. While fulfilling the need to ensure restricted use pesticides are applied properly by certified applicators, the Pesticide Safety Education Program adds value to its work by welcoming non-certification students to its programs. Both individuals and the environment as a whole benefit from this partnership. The shift to a more holistic approach to pesticide training is reflected in the name change of the program in the early 1990s from Pesticide Applicator Training (PAT) to the Pesticide Education Safety Program (PSEP), which emphasizes both worker safety and environmental safety issues.

III. FY 2001 – 2006 Program Accomplishments

The period of FY 2001-2006 saw the beginning of a shift in how education programs are delivered and an increased emphasis on reporting and accountability. It is anticipated that the more successful programs will provide guidance and support to the other states. As of 2002, PSEP programs are required to report on specific elements of their programs in the Performance Planning and Reporting System (PPRS) supported by CSREES and maintained at the National Science Foundation Center for Integrated Pest Management at North Carolina State University. Funding, program planning and coordination, certification and recertification outputs and outcomes, and other outputs and outcomes are tracked by the system. The data in Table 1 come from the PPRS.

The increased access to, and knowledge of, the Internet by both pesticide safety educators and the targeted applicators has led to the development of on-line training opportunities that can be used at the time that best fits the participants' schedules and are cost efficient. This trend is expected to continue. Some of the innovative programs developed by the states include:

Illinois: The PSEP at the University of Illinois, Urbana, regularly uses surveys to evaluate the effectiveness of their training programs. The 2005 and 2006 surveys both indicated 80% of private applicators trained improved their pesticide practices, particularly by reducing pesticide exposure to themselves and properly storing and protecting pesticides. The program staff is proactive in using the media to reach the public. During the five year term of this project, Illinois' outreach activities included 340 news releases, radio presentations, television appearances, and other media efforts.

The pesticide educators utilize the web as just one part of their program to train applicators on the subject of pesticide drift and the importance of choosing the proper nozzle to effectively apply pesticides. In 2003, the PSEP posted a Virtual Spray Table that illustrates by video software, the spray pattern and drift that result from using various nozzles with variable pressures under different wind speed conditions (<http://www.pesticidesafety.uiuc.edu/facts/calibration/spray.htm>.)

In 2004, they developed another visual tool, a "drift garden" at the Illinois Department of Agriculture which they planned to maintain for several years. This effort was followed by Operation Safe Fly-in which ensures agricultural aircraft from Illinois have the right spray patterns and droplet spectrum for making safe and accurate applications. The program involved 18 aircraft in 2005, 15 in 2006.

In 2006, in an effort to reach more people efficiently, the Illinois PSEP program used the Latitude Bridge system (a combination of teleconferencing and online content) for a private PSEP clinic that provided education simultaneously at four sites. Trainers were able to teach from their offices, with the audio portion of the clinic carried over the telephone and the visual portion shown via the internet. A total of 467 people were trained at the four locations, with nine different trainers participating in the teaching effort.

North Carolina: The North Carolina PSEP has played a leading role in leveraging the resources of the 13 individual states in the Southern Region by coordinating the Southern Region Pesticide Safety Education Center, a train-the-trainer program for Extension Agents and Pesticide Inspectors. Their Center's web site, <http://ipm.ncsu.edu/srpsec/>, offers pesticide training materials, presentation aides and tips, access to web based training modules, and links to individual state pesticide safety resources. In addition, the Center offered three-day workshops throughout the project period that were attended by an average of 40 people each time, representing 20 states and Canada. Additional people have been reached through an on-line training component developed by the VA Tech Pesticide Program. Another example of a collaborative effort by the North Carolina PSEP is the publication of a three-state Turfgrass and Ornamental Pest Control Manual (NC, GA, SC) in 2004.

Pennsylvania: The Pennsylvania PSEP is another example of a dynamic program that engages partners to reach both traditional and non-traditional audiences in innovative ways. The program has an active advisory board that consists of specialists, extension agents, Penn State College of Agricultural Science administration, and Pennsylvania Department of Agriculture staff. The program has a strong commitment to support train-the-trainer programs. In 2006, it received additional funds to extend their three year effort to provide hands-on train-the-trainer education through the Northeastern Region Pesticide Safety Education Center workshop, patterned after the southern region. This effort is supported by the Pennsylvania Department of Agriculture, EPA Region III, and EPA Headquarters.

Looking ahead to train future pesticide handlers, both agricultural and urban consumers, the Pennsylvania program has developed displays that are used at the Philadelphia Flower Show (reaching upwards of 30,000 people a day), interactive games for public fairs, and training material for agricultural science teachers. They are fully engaged with the teachers in incorporating pesticide alternatives and pesticide safety education into established school curriculum, as directed by Pennsylvania's education standards. These efforts are in addition to the traditional program support of pesticide certification including the development of training materials, communicating training opportunities, and working with the state department of agriculture.

Washington: In 2002, the Washington State University (WSU) PSEP (Carol Ramsay) won two awards: The American Distance Education Consortium Program Award – Certified Pesticide Application Training and Testing Web Program and the Environmental Stewardship Award - Washington Pest Consultants Association and NW Ag. Plastics. In 2002, the website (<http://pep.wsu.edu/>) had 60,000 unique visitors. By 2006, the number of unique visitors had grown to 95,000. Today, one feature of the site lists over twenty courses that can be taken on-line at a cost of \$10 each. Eight states (including AK, AZ, ID, NV, OR, PA, WA, and WV) accept some of the classes as credit towards certification/recertification. In 2006, the program developed a nuisance, public health pest fact sheet web database, PestSense, to complement the existing home and garden pest management decision tool, HortSense. These tools help draw visitors to the Washington PSEP web site.

IV. Increased Emphasis on Accountability

The initiation of the use of the Performance Planning and Reporting System in 2002, the development of the report “Strategic Program Assessment of the Pesticide Safety Education Program” coordinated by the EPA Office of Pesticide Programs in 2005 (<http://www.epa.gov/oppfead1/safety/2005/program-assessment.pdf>), and the current review of the administration details of the PSEP by EPA and CSREES program and budget staffs, all illustrate the need to ensure that the PSEP effectively and efficiently uses federal dollars allocated to the program, is responsive to stakeholder needs, and properly address pesticide applicator certification requirements.

Field personnel are becoming more adept in creating and administering survey tools to assess the effectiveness of their programs. A recent Darke County, Ohio, Pesticide Recertification Program Evaluation shows an overall rating above 4 out of a possible 5, for 5 questions. The thirty four respondents gave the program an average score of 4.55, indicating that the PSEP program improved safety, increased knowledge of pesticides, and increased profitability.

1. This program helped improve my pesticide handling and safety procedures. Score 4.52
2. This program increased my knowledge of selection and proper use of pesticides. Score 4.38
3. This program helped increase my profitability. Score 4.19
4. Overall, I thought the speakers were well prepared and knowledgeable about their topics. Score 4.56
5. Overall, I thought the speakers were effective teachers and presented their topics well. Score 4.55

(4 = Agree, 5 = Strongly Agree) 32-34 respondents for each question.

V. Conclusion

The funds provided by the EPA to the individual state programs ranges from 4-20% of the states’ PSEP budgets. Some states are successful in generating additional funds through the sale of training materials, securing outside grants, and partnering with other organizations. The EPA funding, however, remains a core and essential part of the PSEP program in every state. The joint effort to raise the level of pesticide education training for both certified and non-certified pesticide applicators is responsive to Congressional legislation and supports the goals of EPA, CSREES, land-grant universities, and state departments of agriculture.