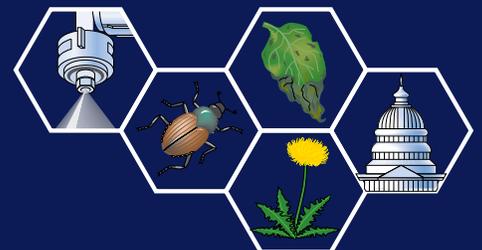


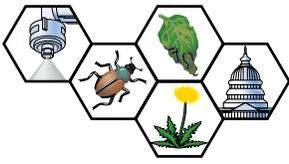


Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



2020 Annual Report
University of Illinois Extension
Pesticide Safety Education Program





Illinois Pesticide Safety Education Program

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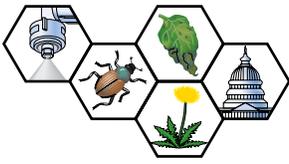
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Prepared by: Travis Cleveland, Matt Gill, Sarah Hughson, Jean Miles,
Maria Turner, and Michelle Wiesbrook

May 2021 (Reflects activities from July 2019 through June 2020)

Program Highlights and Impacts

- Training and Testing Events Scheduled by PSEP
 - 25 Commercial Applicator Clinics
 - 22 General Standards and Commercial Category Clinics
 - 2 State Agency Training General Standards and Commercial Category Clinics
 - 1 General Standards Training for Illinois Fertilizer Chemical Association
 - 11 Private Applicator Clinics
 - 4 Commercial Test-only Clinics
- Completed Training and Testing Events
 - 17 General Standards and Commercial Category Clinics
 - 10 Private Applicator Clinics
- All PSEP events were suspended mid-March 2020 in response to state and university COVID-19 mitigation measures.
 - 13 PSEP events were subsequently cancelled
 - 8 Commercial Applicator Clinics
 - 1 Private Applicator Clinic
 - 4 Test-only Clinics
- A total of 7,706 people received pesticide certification training
 - 6,706 Commercial Applicators and Operators
 - 1,000 Private Applicators
- TEconomy Partners, LLC recently prepared a report assessing the annual economic and functional benefits of Illinois Extension. Within the report, TEconomy Partners, estimated that PSEP helped to support \$153 million in combined annual pay through pesticide applicator jobs. ([The Economic and Functional Impact of University of Illinois Extension](#))
- PSEP developed an Online General Standards Workbook that enabled commercial applicators to complete pesticide training with existing online private applicator training modules
- PSEP Trainings were approved for continuing education credits with American Society of Agronomy Certified Crop Adviser, Illinois Department of Public Health, International Society of Arboriculture, and Golf Course Superintendents Association of America
- Illinois Pesticide Safety Education Manual: Fruit Crops published
- Six issues of The Illinois Pesticide Review newsletter were published



Program Mandate

Authority

Illinois law, in accordance with the Federal Environmental Pesticide Control Act, requires that anyone who purchases or uses pesticides classified as “restricted use” must be certified as a commercial pesticide applicator or operator, or a private (farmer) pesticide applicator. In addition, those who apply “general use” pesticides commercially must also be certified. The responsibilities of the Illinois Department of Agriculture (IDA) and University of Illinois Extension (Extension) in pesticide certification and training are clearly defined. The IDA, as lead agency, has responsibility for the certification and issuing of permits or licenses to persons who apply pesticides. Extension, working in cooperation with IDA staff, is responsible for conducting educational training programs for private, commercial, and non-commercial pesticide applicators and operators.

Purpose

Since 1966, Extension has been conducting training schools for private applicators, and commercial agricultural and urban operators and applicators. The purpose is to train applicators and operators in the proper and safe use of pesticides to prevent misuse and to avoid accidents. In addition to keeping applicators up-to-date on new developments in both chemical and nonchemical pest control methods, the training sessions help to prepare applicators to pass the certification examinations required for obtaining a license. This quality pesticide safety education is ultimately vital to Illinois residents in terms of public health protection and environmental stewardship.

Support

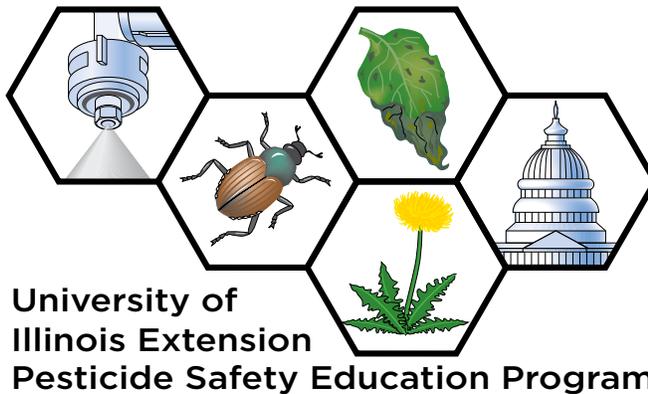
Initial funding for the Pesticide Safety Education Program (PSEP) was provided by the U.S. Environmental Protection Agency (USEPA) through the USDA Federal Extension Service, starting in 1974. These funds have been reduced over the years in amount and also in value due to inflation.

The Pesticide Control Fund, approved by the Illinois State Legislature in August 1985, provides funds to the IDA “for the purpose of conducting a public educational program on the proper use of pesticides and for other activities related to the enforcement of this act.” This fund provides the bulk of the dollars needed to conduct educational programs related to the safe and proper use of pesticides.

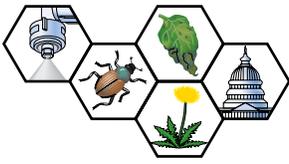
State Lead Agency Cooperation

Since 1998, the PSEP team has worked with the Illinois Department of Agriculture to review exam questions (based on our PSEP manuals) for use in the certification process. As a result, both parties feel more comfortable with the exams given to our clients. During the past year, PSEP assisted the IDA in reviewing exam questions on the general standards, field crops, and ornamentals certification exams.

Close interaction with the Illinois Department of Agriculture regarding the number of attendees at each clinic and other operational issues results in consistent information from both training and testing personnel to our PSEP clinic attendees.



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Illinois Pesticide Safety Education Program

PSEP Specialists



Patty Bingaman

Extension Assistant, Office Assistant
Department of Crop Sciences

Facilitates operational functions of the PSEP team including publication data, processing orders along with the monetary obligations. Handles the telephone queries and collects program registrations.



Travis Cleveland

Extension Specialist, Plant Pathology
Department of Crop Sciences

Provides subject matter expertise and training in pesticide safety with an emphasis on plant pathology. Provides diagnostic support for the UI Plant Clinic. Coordinates PSEP annual report, commercial and private PSEP trainer scheduling, and the Home, Yard and Garden Pest Newsletter. Coordinates Illinois' Worker Protection Standard outreach.

<https://extension.illinois.edu/staff/travis-cleveland>



Matt Gill

Outreach Specialist, Application Equipment
Department of Agricultural and Biological Engineering

Provides subject matter expertise and training in pesticide application equipment and calibration. Conducts special aerial calibration clinics, research, and pesticide drift reduction programs. Coordinates and maintains PSEP online training and website

<https://extension.illinois.edu/staff/matt-gill>



Sarah Hughson

Extension Specialist, Entomology
Department of Crop Sciences

Provides subject matter expertise and training in entomology, specializing in herbivorous insects. Provides insect identification support and IPM recommendations for the UI Plant Clinic. Serves as a member of the Illinois Structural Pest Control Advisory Council with Illinois Department of Public Health and a planning committee member with the Purdue Pest Management Conference.

<https://extension.illinois.edu/staff/sarah-hughson>



Jean Miles

PSEP Program Facilitator and Office Manager
Department of Crop Sciences

Coordinates PSEP clinics. Conducts clinic preregistration and PSEP publication distribution. Maintains financial accounts, develops new databases, and prepares special reports and brochures. Coordinates acquisition, reprinting, and marketing of PSEP study material.

<https://extension.illinois.edu/staff/jean-miles>



Maria Turner

Extension Specialist, Pesticide Safety - Integrated Pest Management
Department of Crop Sciences

Provides subject matter expertise and training in pesticide safety and integrated pest management. Coordinates private applicator training program. Co-coordinates PSEP social media. Provides expertise in organic pest control.

<https://extension.illinois.edu/staff/maria-restrepo-turner>



Michelle Wiesbrook

Extension Specialist, Weed Science
Department of Crop Sciences

Provides subject matter expertise and training in pesticide safety with an emphasis on horticultural weed science. Serves as IPR newsletter editor, collecting and organizing material; co-coordinates social media information and ensures its timely publication. Facilitates accreditation of trainings through various professional organizations.

<https://extension.illinois.edu/staff/michelle-wiesbrook>

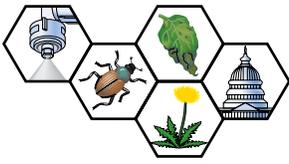


Adam Davis

Professor and Head, Department of Crop Sciences
Chair of the PSEP Steering Committee

<https://cropsciences.illinois.edu/people/profile/asdavis1>

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Illinois Pesticide Safety Education Program

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Pesticide Safety Education Program Administrative Office

The University of Illinois Extension Pesticide Safety Education Program (PSEP) maintains an office to carry out administrative and secretarial functions. Close interaction with the Illinois Department of Agriculture regarding specific clinic operations results in consistent information from both training and testing personnel to our PSEP clinic attendees.

Pesticide Training and Testing Clinic Coordination

The PSEP office coordinates the Commercial Applicator and Private Applicator training and testing clinics. These include private applicator training and testing clinics, general standards and commercial category training and testing clinics, state agency clinics, and commercial test-only clinics. State agency clinics provide additional training and testing opportunities for applicators employed by the Illinois Department of Transportation, Illinois Department of Natural Resources, etc.

The office identifies potential training clinic locations by analyzing regional license renewal data and past clinic registrations. They then develop a schedule to match facility availabilities with that of PSEP specialists and IDA staff. The office also initiates financial contracts and communicates with event facility staff. The office processes all clinic registrations and regularly updates PSEP specialists and IDA staff with upcoming clinic registration data.

Educational Materials

The PSEP office conducts the sale and distribution of over 35 manuals, workbooks, and pest guides. Customer response is positive because they are able to register for training and order desired publications with one action, by mail, telephone, or our online system. The PSEP office mails educational materials within 72 hours; however, this is usually accomplished within the same day. The office also tracks publication inventory and facilitates reprints and revisions. A listing of PSEP publications, including the most recent publication date, is available on the PSEP website.

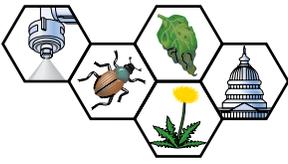
Clientele Communication Options

The PSEP website (www.pesticidesafety.illinois.edu) serves as a convenient “one stop shop” for clientele needs. This site hosts training clinic schedules, pertinent clinic information, online training courses, and a list of PSEP publications. PSEP clientele can register for training clinics and purchase educational materials directly through the website. They also have the option to complete these transactions by phone or by mail.

In addition, the telephone system includes 24-hour voice mail, an automated attendant to assist the caller in selecting which option is needed and a direct rollover option to the Illinois Department of Agriculture. Many customers still want to be reassured that their online registration was received and is being processed. There are currently 56 voice mail lines so that a busy signal does not occur. With the high volume of in-coming calls, this telephone system helps to direct patrons to the phone service they need in a timely manner.



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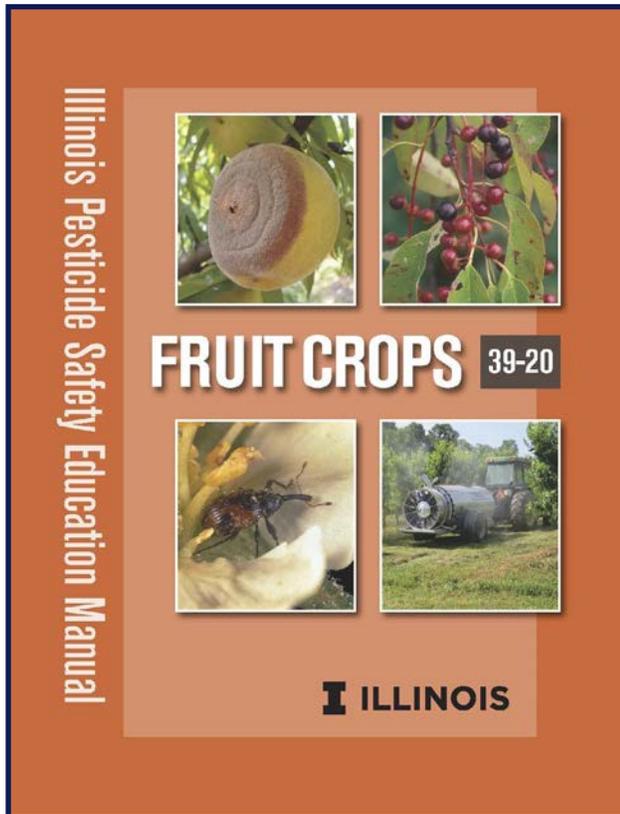


Illinois Pesticide Safety Education Program

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Educational Materials

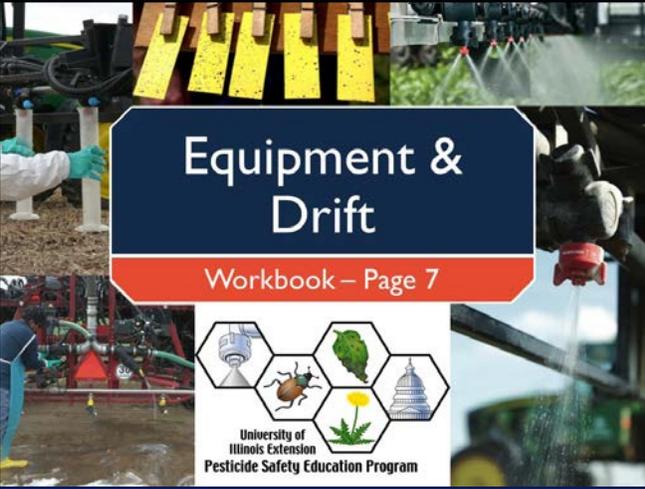
University of Illinois PSEP publishes nineteen manuals that address most areas of pesticide certification in Illinois. Ten workbooks are produced to cover the twelve most commonly licensed areas. Our manuals and workbooks continue to be used not only as references and learning tools before and during training clinics, but also as self-tutorial guides for those who wish to study on their own. These publications allow us to educate more operators and applicators than those who attend PSEP clinics.



**Fruit Crops Manual
(Revised October 2019)**

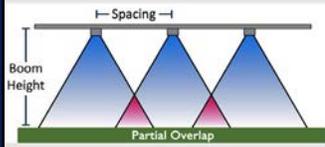
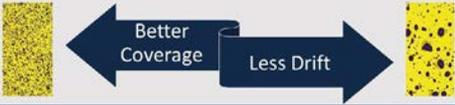


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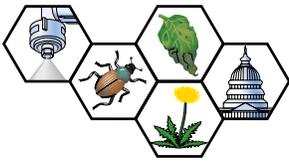
Equipment & Drift
Workbook – Page 7

University of Illinois Extension
Pesticide Safety Education Program

<div style="background-color: #1a3d4d; color: white; padding: 5px; font-weight: bold;">Sprayer Components</div>  <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Nozzle Most important equipment selection</p> </div> <p style="font-size: small; text-align: right;">Photo: Jensen Equipment Co.</p>	<div style="background-color: #1a3d4d; color: white; padding: 5px; font-weight: bold;">Overlap and Uniformity</div> <div style="border: 1px solid gray; padding: 5px; margin-top: 5px;"> <p>Overlap: Percentage of spray pattern that applies to the adjoining pattern</p> </div> <p>Determined by Nozzle Spacing and Boom Height</p>  <p style="font-size: small;">Raise boom to increase overlap Lower boom to decrease overlap</p>						
<div style="background-color: #1a3d4d; color: white; padding: 5px; font-weight: bold;">Types of Applications</div> <table style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center; font-weight: bold;">Spot</td> <td style="padding: 5px;"> Treat only where pest is located</td> </tr> <tr> <td style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center; font-weight: bold;">Band</td> <td style="padding: 5px;"> Treat only strips or over rows</td> </tr> <tr> <td style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center; font-weight: bold;">Broadcast</td> <td style="padding: 5px;"> Treat <u>entire</u> area or field</td> </tr> </table>	Spot	Treat only where pest is located	Band	Treat only strips or over rows	Broadcast	Treat <u>entire</u> area or field	<div style="background-color: #1a3d4d; color: white; padding: 5px; font-weight: bold;">Droplet Size</div> <p style="font-size: small;">Droplet size influences Coverage and potential for Spray Drift</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 5px; text-align: center;"> <p style="font-size: x-small;">Small Droplets provide better coverage but are more likely to drift</p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 5px; text-align: center;"> <p style="font-size: x-small;">Nozzles produce a range of droplet sizes known as the Droplet Size Spectrum</p> </div> <div style="text-align: center; margin-top: 10px;">  <p style="font-size: small;">← Better Coverage Less Drift →</p> </div>
Spot	Treat only where pest is located						
Band	Treat only strips or over rows						
Broadcast	Treat <u>entire</u> area or field						

Revised Training Manuals, Workbooks, and Presentations

The Fruit Crops category manual was revised and published as a stand-alone publication separate from the Vegetable Crops manual. PSEP revised Private Applicator, General Standards and category training presentations. The revised training slides were updated with new branding and appearance. Other publications that were revised during this period include: Mosquito Workbook, Grain Facility/Seed Treatment Workbook, and General Standards Workbook for use with the online Private Applicator Training.



Illinois Pesticide Safety Education Program

Commercial PSEP Clinics



PSEP conducted 17 commercial pesticide training and certification clinics throughout the state during the 2019-2020 training season. All training clinics included General Standards training and one or more of the following categories: Field Crops, Turf, Ornamentals, Rights-of-Way, Aquatics, Seed Treatment, and Mosquito. A total 6,706 commercial applicators and operators received training while attending PSEP clinics (See Table 1).

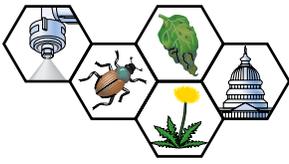
General Standards trainings covered 8 topics over a 3.5 hour session. Training topics included: Understanding Pesticides, Pesticide Application Equipment and Drift Reduction, Human Pesticide Protection, Equipment Calibration and Examples, Integrated Pest Management, Pesticides and the Environment, Labels and Labeling, and Pesticide Laws and Regulations. Category trainings ranged from 1.5 hours to 3.5 hours in duration. Topics covered during the training sessions were specific to the category.

Training clinic attendees received workbooks formatted as “guided notes” to encourage engagement, highlight important points from the presentations, and to facilitate full and accurate notes.

Table 1. Attendance by Category for 2019-2020 Commercial PSEP Clinics

CLINIC DATE	LOCATION	GS	S	T	O	FC	MOS	ROW	AQ	TOTAL
Dec 3-4	Utica	139	20			40				199
Dec 11-12	Mt. Vernon	296	17			121		70		504
Dec 17-18	Springfield	224	40			99		47		410
Jan 6-7, 2020	Champaign	375	72			210				657
Jan 9-10	Peoria	159		44	24				9	236
Jan 14-15	Mt Vernon	280		29	16		42	67		434
Jan 22 (IFCA)	Peoria	33								33
Jan 23-24	Matteson	193		53	11				27	284
Jan 27-28	Champaign	292		48	31			66		437
Jan 30-31	Rockford	247		73	28					348
Feb 4-5	Alsip	276		67	21			59		423
Feb 10-11	Jacksonville	202				192				394
Feb 13-14	Springfield	196		48	26			32		302
Feb 19-20	Collinsville	375		73	30			128	27	633
Feb 26-27	Crystal Lake	245		65	27		32	51		420
Mar 5-6	Skokie	309		91	32			31		463
Mar 11-12	Rockford	322		66	26		42	73		529
Mar 17-18	Peoria	Cancelled Due to COVID-19 Pandemic								
Mar 25-26	Moline									
Apr 7-8	Matteson									
Apr 15-16	Collinsville									
Apr 21-22	Alsip									
Apr 28-29	Skokie									
May 5-6	Des Plaines									
May 12-13	Springfield									
	Total:									

GS=General Standards; S=Seed Treatment; T=Turfgrass; O=Ornamentals; FC=Field Crops; MOS=Mosquito; ROW=Rights-of-Way; AQ=Aquatics



Illinois Pesticide Safety Education Program

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Clinic Instructors

PSEP Specialists conducted all training clinics. Extension Educators and other Extension Specialists throughout the state also assisted with the trainings. PSEP Specialists provided assistance to the training efforts of these Extension Educators by furnishing PowerPoint presentations, notes, and other training materials. This afforded additional educational contacts for the participating Extension Educators and allowed the campus-based staff to pursue additional activities. All mosquito category training sessions were conducted by specialists employed by the Illinois Department of Public Health.

The following professional educators assisted PSEP specialists with Private Applicator Training Clinics and Commercial Applicator Training Clinics. We thank them for their support.

- Bruce Black
- Sam Davis
- Samantha Debosik
- Chris Enroth
- Dennis Epplin
- Duane Friend
- Doug Gucker
- Russ Higgins
- Richard Hentschel
- April Holmes
- Kim Isaacson
- Ken Johnson
- Jim Morrison
- Phil Nixon
- Barbara O'Meara
- Ryan Pankau
- David Robson
- Marion Shier
- Jesse Soule
- Teresa Steckler
- James Theuri
- Kayla Valcheva
- Elizabeth Wahle

Continuing Education Units

Continuing Education Units (CEU) offer an added benefit to pesticide applicators that complete certain PSEP training sessions. The following organizations offered CEUs:

- Illinois Certified Crop Adviser Program
- Golf Course Superintendents Association of America
- Illinois Department of Public Health
- International Society of Arboriculture

COVID-19 Response

Cancelled Events

The COVID-19 pandemic had a substantial effect on pesticide certification and training programs nationwide. University of Illinois and the Illinois Department of Agriculture adopted proactive policies to help curb the spread of the SARS-CoV-2 virus, which causes the COVID-19 disease. As part of these policies, all university-sponsored in-person events and meetings with 50 or more attendees were suspended indefinitely on March 13, 2020. PSEP and IDA subsequently cancelled all remaining 2020 training and testing clinics.

Table 2. PSEP Events Cancelled Due to COVID-19

Event Type	# Cancelled
Commercial Applicator	8
Private Applicator	1
Test-only	4
Total:	13

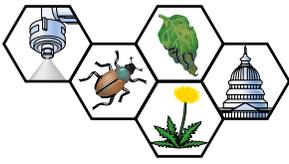
Pesticide Safety Training

PSEP and IDA immediately began to develop innovative ways to ensure that Illinois' pesticide applicators and operators had options for pesticide safety training and certification. PSEP adapted an existing private applicator online training course to meet commercial clientele' needs. We accomplished this by developing a new digital workbook that elaborated upon the existing private applicator course content and added content to cover any missing commercial pesticide applicator competency standards.

Online Training Course Development

PSEP determined that in-person training would not be feasible during the 2020-2021 training season. The decision to cancel in-person training was based on the health of not only clinic attendees but the staff and the surrounding community with whom we share spaces. Additionally, in-person training was not financially feasible given the restrictions within the state's COVID-19 Resurgence Mitigation Plan.

PSEP immediately began to plan and develop new online training courses to take the place of in-person training sessions. Our existing online training courses each required several months to build. We accelerated the development process to have seven new courses ready for the 2020-2021 training season. Each of the new online training courses will mirror the traditional in-person training clinics and will establish and reinforce applicator competencies.



Illinois Pesticide Safety Education Program

Online Training Courses

A variety of interactive online training programs are available to assist applicators preparing for category exams. These courses also serve to expand training opportunities to areas of the state where on-site training is not feasible.

The training modules are scripted, as well as voiced. Lessons are self-paced and can be completed in approximately 3 hours. Users can choose to finish them all at once or over the course of several days. Additionally, participants can review any of the previously accessed modules. Training modules cost \$15.

During this reporting period, online training courses included:

Demonstration and Research

The Demonstration and Research training course is designed for people who demonstrate safe and effective use of pesticides to public, as well as for people who supervise or conduct field research with pesticides. Training modules include: Laws and Regulations, Pesticide Characteristics, Experimental Design, Calibration, and Plant Injury Diagnosis.



Plant Management

Plant Management is geared towards commercial applicators managing interiorscapes. Training modules include: cultural requirements and stress management; common insect and disease pests and their controls; and application equipment and calibration.



Grain Facility

The Grain Facility course covers topics related to stored grain pest management and is for those who manage pests around grain elevators or other grain holding facilities. This convenient online course helps prepare applicators for the Grain Facility category exam. Private Applicators, who plan to fumigate their own grain, can use an abbreviated version of this training course to prepare for the Grain Fumigation exam. Modules include: insect identification and control; storage molds of grains; and rodent and bird pests.



Vegetable Crops

The Vegetable Crops online training modules were developed to provide applicators with the knowledge needed to pass the Vegetable Crops category exam. The training covers four areas – Diseases, Insects, Weed Management, and Application Equipment and Calibration.

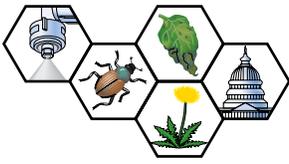


The diseases module deals with the common diseases of cucurbits, tomatoes and peppers, and sweet corn. The Insect module includes chewing and sucking insects, focusing on the pests for specific vegetables. Weed management deals with the issues involved with controlling weeds as well as a few

weeds for identification. Application Equipment and Calibration deals with the current innovations in spray application, and basic calibration equations.

Private Applicator

Online training for private applicators is discussed on page 17.



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Private Applicator Training Clinics

Private Applicator clinics are designed for grain farmers, orchardists, and small acreage farmers (vineyards, vegetable growers, etc.) who apply restricted-use pesticides on their properties or managed lands. While similar to General Standards training, Private Applicator clinics put an added emphasis on changing technology, modes-of-action and reducing pesticide resistance, environmental issues including drift and stewardship with emphasis on protecting pollinators, and human pesticide protection.

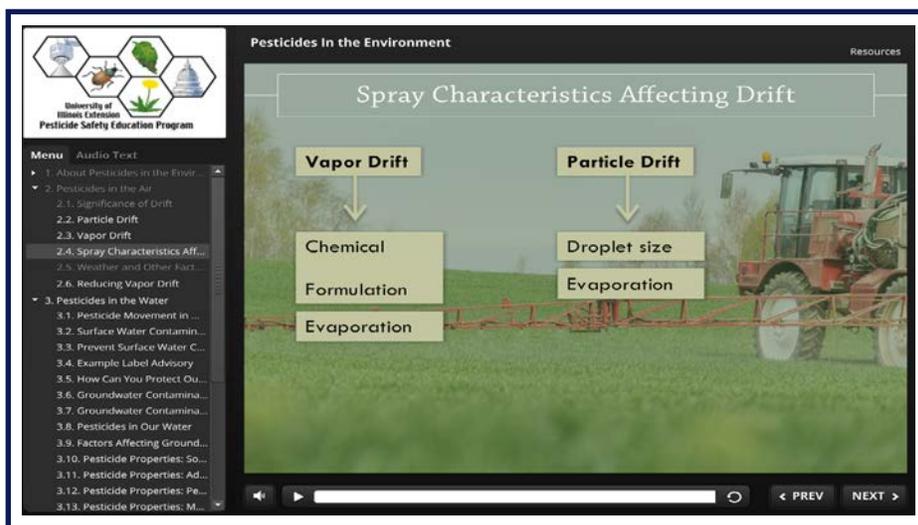
Private applicator training and recertification needs were met with regional training clinics and test-only clinics. Private Applicator training clinics are taught by PSEP specialists with assistance from local county extension educators and retired regional extension educators. Private pesticide testing occurs immediately after training, with an average passing rate greater than 95%.

Table 3. Attendance for 2019-2020 Private Applicator Trainings Clinics

Clinic Date	Location	Clinic Attendance
Dec 10	Mt Vernon	96
Dec 13	Champaign	99
Dec 16	Springfield	60
Jan 8	Galesburg	81
Jan 17	Bloomington	184
Feb 6	Effingham	137
Feb 18	Collinsville	118
Feb 25	Bradley	60
Mar 3	Quincy	96
Mar 10	Rockford	69
Mar 24	Moline	Cancelled Due to COVID-19 Pandemic
	Total:	1000

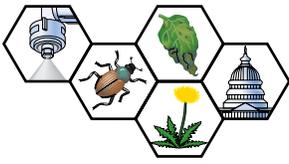
Online Private Applicator Training

The online private applicator training course allows a person to obtain training without attending a training clinic or working through the Private Applicator Training Manual and Workbook. Access is through a password obtained after the online training fee is paid. The training is organized into the same topics as the manual and face-to-face training. Presentation typically consists of an illustration or photo with accompanying written and narrated text. Slide progression is controlled by the trainee so participants can go back to visit previous slides as well as skip slides with familiar content. The modules also include interactive activities. Testing is not available online. The trainee makes arrangements to take the test at a testing only session or at an IDA office.



Spanish Online Private Applicator Training

A Spanish translation of the online private applicator training was updated May 2018. The training modules were reformatted, and numerous new pictures were added as well as new interactive activities. The training is organized into the same topics as the manual and face-to-face training.

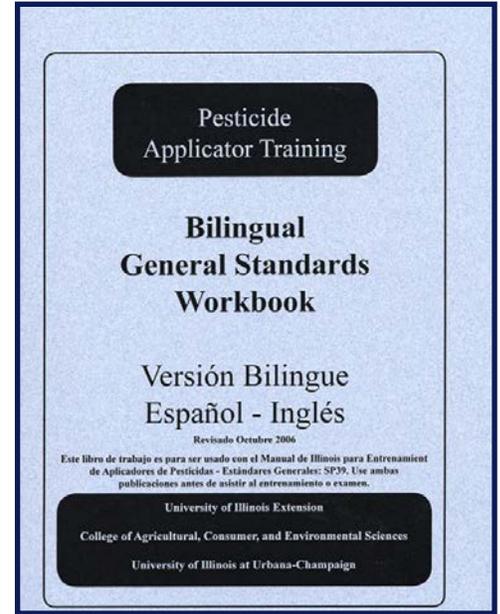


Illinois Pesticide Safety Education Program

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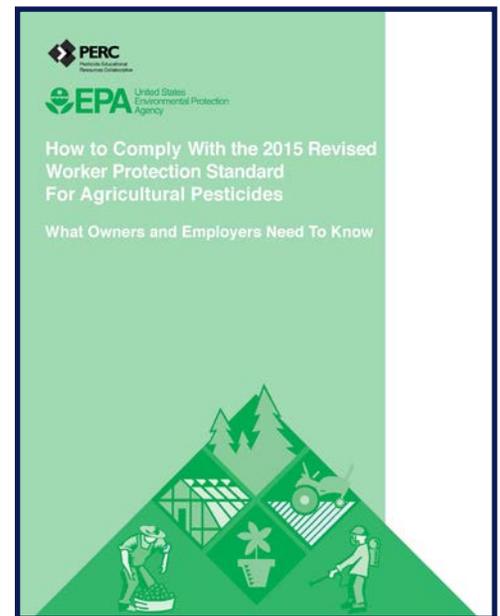
Bilingual Training

Hispanic clientele are progressively becoming a larger proportion of our clientele. Many have excellent English language skills and are fully capable of understanding training and testing in English. Others have difficulty with English, but still must pass an English written exam to obtain pesticide certification due to most pesticide labels being in English only. Individuals seeking bilingual training are directed to the Spanish version of our online private applicator training. A Spanish version of the General Standards Manual and a Bilingual Workbook are also available.



Worker Protection Standard

Travis Cleveland coordinated the Worker Protection Standard (WPS) efforts for the PSEP team. We answer questions and provide guidance on how to comply with the Worker Protection Standard regulation. We also work to inform employers, employees, IDA inspectors, and educators about the WPS through newsletter articles and during PSEP clinics. We keep up-to-date on new developments through training sessions, new publications, e-mail, and other methods.

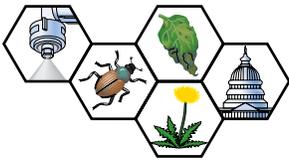


Operation S.A.F.E. Fly-ins

The purpose of an Operation S.A.F.E. fly-in is to make sure aerial applications are made accurately and safely. At a fly-in clinic, an aerial applicator can view the spray pattern, determine effective swath width, and examine the spray droplet size created by the aircraft. If corrections need to be made, the applicator can make adjustments to the aircraft setup and then immediately re-run the aircraft over the flight line to verify that the changes have improved the spray pattern or droplet size. In many cases an aerial applicator may run multiple series over the flight line, checking the different setups they use for the various spray application rates they used throughout the course of a spraying season. For instance, nozzle orifice size, nozzle deflection angle, and the number of nozzles used on the boom can vary depending on the GPA (gallons per acre) that the applicator is setting the aircraft up to apply.

Table 3. Fly-ins Conducted by Matt Gill			
Date	Location	Number of Aircraft Tested	Number of Test Runs
June 1, 2020	Mattoon, IL	11	78
June 18, 2020	Rochelle, IL	4	21

Due to COVID-19, experimental software was developed by Matt Gill to facilitate self-testing of aircraft spray patterns by applicators themselves. This software was distributed to several operations across the US and successfully used to prepare their aircraft for the 2020 spray season. Further development and refinement of this software in coordination with the National Aerial Application Research and Education Foundation is planned. There is a severe shortage of certified S.A.F.E. Analysts nationwide, and this tool will hopefully serve to extend the reach and expertise of those analysts to more applicators.



Illinois Pesticide Safety Education Program

Agronomy Day

Illinois PSEP developed an informational display for Agronomy Day, held on August 22, 2019, at the Illinois Crop Sciences Research and Education Center. The display highlighted the hazards associated with pesticide formulations that look similar to everyday household products and included several examples of potentially harmful pesticides that can easily be mistaken for consumable products. Agronomy Day attendees were able to pick up pesticide safety information, including a new fact sheet with tips to prevent pesticide poisonings. An interview with PSEP Specialist, Michelle Wiesbrook, from that day was used to create a promotional video for future Agronomy Days.



Avoid Accidental Pesticide Poisonings: Don't let look-alikes fool you

Pesticides can be beneficial in many ways. However, they can pose human health hazards when not properly stored. We often think of poisoning as something that only happens to children, but it is also easy for adults to mistake one product for another. Pesticides are potentially harmful substances that can easily be mistaken for look-alike consumable products. They may look the same, have similar packaging and may be ingested when improperly stored, such as, in food or beverage containers.

What can you do?

Here are some simple prevention tips:

1. Store pesticides in their original containers, with the label identifying the product
2. Store pesticides separately from food & feed
3. Secure poisons in a locked location
4. Keep potential poisons out of the reach and sight of children. Children's bodies are small, so even small amounts of poisonous chemicals can cause significant problems.
5. Have adequate light in storage areas so that the labels can be seen or read easily
6. Read labels to find out if items could be harmful
7. Dispose of old and outdated pesticide containers properly
8. Teach children about pesticide look-alikes
9. Apply "Mr. Yuk" stickers to potentially poisonous products
10. Poison Control Centers are not just for emergencies. They are open 24 hrs a day, 7 days a week as a resource for help and information 1-800-222-1222

Pesticide	Safe Product Look-alike
Mouse Poison	Candy (tic tacs)
Moth Balls	Marshmallows, or sugar cubes
Horticultural Oil	Milk
BT	Cereal (grape nuts)
Acetic Acid	Water



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Mass Media

Through radio, television, newspapers, and magazines, PSEP specialists increased client knowledge of proper pesticide application, new developments in human and environmental pesticide safety, and recently enacted rules and regulations. Newspaper and magazine articles were published as the result of news interviews or news releases produced by PSEP specialists. Social media was used to promote proper pesticide use.

Press Releases

- COVID-19 forces changes in pesticide training, testing. University of Illinois ACES press release resulting from my article. Apr. 16, 2020.
- Creative solutions ensure pesticide applicators can go to work in Illinois. University of Illinois ACES press release resulting from an interview. Apr. 24, 2020.

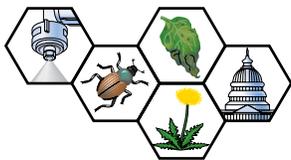
PSEP Website

The Pesticide Safety Education website (www.pesticidesafety.illinois.edu) continues to provide up-to-date information. The site features fact sheets, tips, links to relevant websites and resources, The Illinois Pesticide Review newsletter, an online registration system for clinics and an online ordering system for training manuals and workbooks.

These efforts serve to keep clientele up-to-date about pesticide safety issues outside of the PSEP clinics that they attend. Important information is communicated to the clientele when it is needed. In addition, many homeowners and other Illinois residents learn how to apply pesticides correctly and safely in and around their homes.

Facebook

The PSEP Facebook page continues to grow in its use. It provides yet another avenue for timely information to be delivered to pesticide users and other interested parties. This Facebook page frequently posts article links for the Illinois Pesticide Review, the Home, Yard, and Garden Pest Newsletter, and the Bulletin. It also serves as a platform for clients to have their pest control and licensing questions answered by PSEP Specialists. As of June 30, 2020, University of Illinois Extension Pesticide Safety Education Program had 594 “likes” and 627 followers.



Illinois Pesticide Safety Education Program

Illinois Pesticide Review

Six issues of The Illinois Pesticide Review newsletter were published this year. This bimonthly newsletter is written by PSEP specialists to address pesticide safety issues, regulatory information, and changes in pesticide registration and label status. Each issue contains at least one in-depth article addressing current pesticide issues or pesticide-related activities. The newsletter is available on the Pesticide Safety Education website. This newsletter had approximately 350 subscribers during this reporting period

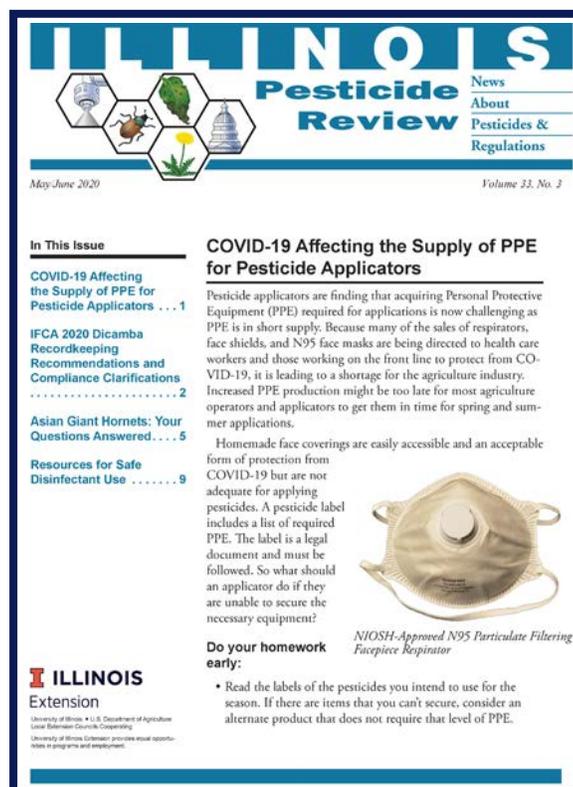
Issues and Articles

July/August 2019

- Wanted: Home for Unused Treated Seed
- 2019 Agricultural Container Recycling Schedule
- New Pesticide Resources Available
- EPA Takes First Step Towards Revising Application Exclusion Zone Requirements within the Agricultural Worker Protection Standard
- Who P'd There?: Phosphorus Law Reminder for Illinois Turf Managers
- Registration for New Uses of the Insecticide Sulfoxaflor

September/October 2019

- Record Number of Pesticide Misuse Complaints Received
- Household Hazardous Material Collection Events Scheduled for Fall 2019
- 2019 Agrichemical Container Recycling Program a Success
- EPA Reviews Pesticide Applications for Use in Hemp Crop Protection
- Pest Alert for the Cannabis Aphid



November/December 2019

- Fruit Crops Manual Revised
- Revised Guide on Air Temperature Inversions Available
- Changes for Dicamba Use on Soybeans in Illinois for 2020
- New Working Group Focused on Dicamba and 2,4-D Drift Risk
- Winterizing Your Spray Equipment
- Illinois Pest Alert: European Pepper Moth (*Duponchelia fovealis*)
- 2019 Operation S.A.F.E. Fly-Ins: Takeaways

January/February 2020

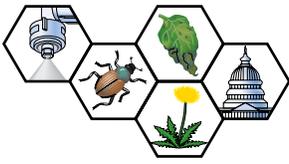
- Pesticide and Field Record-Keeping App Available
- Are You Following All of the Record-Keeping Requirements When Applying Dicamba on Soybeans?
- The EPA's Review of Glyphosate: Determinations for Human Health, the Environment and Label Changes
- Common Pesticide License Questions
- National Pesticide Safety Education Month

March/April 2020

- COVID-19 Effects on Illinois Pesticide Applicator Training, Testing, and Licensing
- Help with Selecting Disinfectants for COVID-19
- University of Illinois Plant Clinic Operations during COVID-19
- Dicamba Resource Available
- 2020 Fungicide Table Available for Corn and Soybeans

May/June 2020

- COVID-19 Affecting the Supply of PPE for Pesticide Applicators
- Illinois Fertilizer & Chemical Association 2020 Dicamba Recordkeeping Recommendations and Compliance Clarifications
- Asian Giant Hornets: Your Questions Answered
- Resources for Safe Disinfectant Use



Illinois Pesticide Safety Education Program

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Homeowner Programs

Illinois homeowners and other residents are educated by Extension on proper pesticide use through the Master Gardener Program and various gardening, home safety, and other programs. The PSEP specialists wrote the Pesticide Safety and Weeds sections and revised the Plant Diseases and Insects sections of the current Illinois Master Gardener Handbook. They also developed several of the color slide presentations used to train Master Gardeners and deliver training sessions for beginning and advanced Master Gardeners.

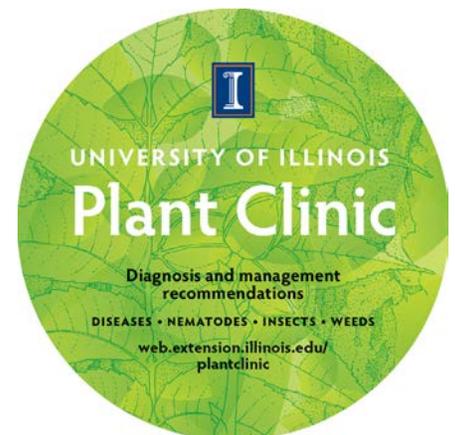
Pest Management for the Home Landscape provides important pest management information on specific pests to Illinois residents. Included in this guide is a section on pesticide safety. Much of this pest guide was written by PSEP specialists.

An online training site for retailers who sell pesticides called, *Responsible Pest Management for Retailers* was developed by PSEP specialists and support trainers. The training consists of modules with quiz questions.

Community Garden Pest Management Training Module. This module is part of the University of Illinois Extension's Community Garden Series. Michelle Wiesbrook created the content and did the voicing for this module which covers the basics of pest management including weeds, insects, and diseases as well as chemical control, reading the label, and licensing requirements.

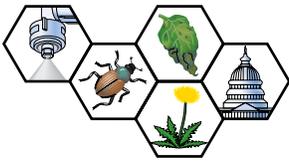
University of Illinois Plant Clinic

The University of Illinois Plant Clinic offers services in plant and insect identification, diagnosis of disease, insect, and weed problems and provides appropriate control recommendations. The success of the Plant Clinic relies on cooperation of many specialists at the University of Illinois. PSEP specialists are among those who contribute expertise to the Plant Clinic.



Extension Programs and Invited Talks Given by PSEP Specialists

- Four Seasons Gardening Series: Monarch Action Plan. University of Illinois Extension, Webinar
- General Standards. Illinois Fertilizer and Chemical Association Annual Conference, Peoria, IL
- Good Growing Podcast: Diseases of Trees. University of Illinois Extension, Podcast
- Good Growing Podcast: Weed Woes. University of Illinois Extension, Podcast
- Illinois Arborist Association Summer Conference, Champaign, IL
- Illinois Association of Vocational Agriculture Teachers Horticulture Career Development Event, Urbana, IL
- Integrated Pest Management and Pesticide Safety. University of Illinois Extension Master Gardener Training
- Difficult Weed Management: 5 Weeds to Know. Illinois Prairie Hosta Society
- Pesticide Look-alikes. University of Illinois Agronomy Day, Champaign, IL
- Pesticide Safety. Ag PhD with Brian Hefty
- What's in My Backyard: Tree Identification. University of Illinois Extension, Webinar
- What's in My Backyard: Weed Identification. University of Illinois Extension, Webinar
- University of Illinois Guest Lecturer
 - ABE 361 - Chemical Application Systems
 - TSM 262 - Chemical Application Systems



Illinois Pesticide Safety Education Program

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Professional Involvement by PSEP Specialists

Professional Societies and Associations

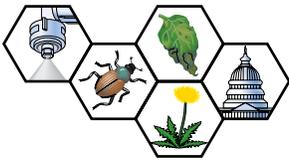
- American Association of Pesticide Safety Educators (AAPSE)
- American Society of Agricultural and Biological Engineers (ASABE)
- Entomological Society of America (ESA)
- Illinois Agricultural Aviation Association (IAAA)
- Illinois Farm Bureau (IFB)
- Illinois Fertilizer and Chemical Association (IFCA)
- Illinois Turfgrass Foundation (ITF)
- National Agricultural Aviation Association (NAAA)
- National Agricultural Aviation Research & Education Foundation (NAAREF)
- Pre-State FIFRA Issues Research and Evaluation Group (Pre-SFIREG)
- North Central Weed Science Society (NCWSS)
- The Pesticide Stewardship Alliance (TPSA)
- Weed Science Society of America (WSSA)

Professional Committees

- American Association of Pesticide Safety Educators Professional Development Committee
- Illinois Interagency Committee on Pesticides
- Illinois Structural Pest Control Advisory Council
- Illinois Worker Protection Stakeholders Committee
- National Agricultural Aviation Association – Research and Technology Committee
- National Agricultural Aviation Association NAAA – Precision Application Committee
- National Agricultural Aviation Research & Education Foundation – Operation S.A.F.E. Committee
- National Agricultural Aviation Research & Education Foundation – PASS Program Development Committee
- National Pesticide Safety Education Center Board of Directors
- The Pesticide Stewardship Alliance Board of Directors
- USEPA Region 5 State and Federal Regulatory Committee

University Committees

- Crop Sciences Extension and Outreach Committee
- Crop Sciences Academic Professional Promotion Committee
- Extension Horticulture Development Team
- Purdue Pest Management Conference Planning Committee



Illinois Pesticide Safety Education Program

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Professional Improvement Participation by PSEP Specialists

- Association of Pesticide Safety Educators Exam Development Workshop, Duluth, MN
- American Association of Pesticide Safety Educators National Meeting, Virtual Meeting
- Entomological Society of America National Annual Meeting, Virtual
- National Agricultural Aviation Association Annual Convention - Orlando, FL
- National Agricultural Aviation Association Fall Board Meeting, Denver, CO
- National Agricultural Aviation Association Spring Board Meeting - Washington D.C.
- North Central Pesticide Safety Education Workshop, Duluth, MN
- The Pesticide Stewardship Alliance Annual Meeting, San Antonio, TX
- Purdue Pest Control Conference, West Lafayette, IN
- Purdue Turf and Landscape Field Day, West Lafayette, IN
- University of Illinois Agronomy Day, Urbana, IL
- University of Illinois Annual Extension Conference, Urbana, IL
- University of Illinois Extension Horticulture Team Fall In-service, St. Louis, MO
- University of Illinois Extension Horticulture Team Spring In-service, Virtual
- University of Illinois Lasco Lightning Weeder Demonstration, Urbana, IL
- University of Illinois Weed Science Field Day, Urbana, IL
- Weed Science Society of America Annual Meeting, Maui, HI

Summary of Accomplishments

<u>Accomplishment</u>	<u>Date of Completion</u>
Online Pesticide Safety Training Courses	Available Year-round
Aerial Fly-In Clinics Conducted	All Season
Illinois Pesticide Review Newsletter Published (6 issues).....	Bi-monthly
Home, Yard, and Garden Pest Newsletter (14 issues)	Bi-weekly (summer)
State Agency Flyer Created and Printed.....	July 2019
Rights of Way Manual Reprint w/corrections	July 2019
Rights of Way Workbook Reprint	July 2019
Turf & Ornamental Workbook Reprint	July 2019
Aquatic Workbook Reprint	July 2019
Private Applicator Workbook Reprint.....	July 2019
General Standards Manual Reprint	July 2019
Field Crop Workbook Reprint	August 2019
Bilingual GS Workbook Reprint	August 2019
Pesticide Look Alike Fact Sheet NEW	August 2019
Commercial PSEP Clinic Schedule Created & Published	September 2019
Private PSEP Clinic Schedule Created & Published.....	October 2019
Mosquito Workbook Revision	October 2019
Grain Facility/Seed Treatment Workbook Revision.....	October 2019
Fruit Crop Manual NEW	October 2019
Grain Facility/Seed Treatment Workbook Reprint	January 2020
Private PSEP Clinics Conducted (10).....	March 2020
Commercial PSEP Clinics Conducted (17).....	March 2020
General Standards Online Workbook NEW	April 2019
2018-19 Annual Report Created & Published.....	June 2020



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