

Title: Pesticide Education Program

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Project Overview

Pesticides are vital tools for controlling pests and maintaining an adequate food supply. If used improperly, pesticides can also threaten human health and the natural environment. Inexperienced applicators, accidents, inadequate protection and equipment continue to be areas of concern that increase the potential for negative personal and environmental impacts from pesticide exposure.

The Pesticide Education Project works closely with the Massachusetts Department of Agricultural Resources to educate pesticide users about safe application, state regulation and proper use of pesticides in Massachusetts.

Situation & Priorities:

Workforce Development - Workers in the agricultural and green industries need training opportunities to help them operate their businesses efficiently and in ways that are safe for both people and the environment. The Pesticide Education Program conducts training in order for these workers to obtain and maintain pesticide applicator licenses.

Integrated Pest Management (IPM) - Extension Educators and UMass Faculty are recognized nationally for the development and promotion of IPM practices. IPM is a systems approach based on accurate pest identification and monitoring and suitable control measures in an ecologically compatible manner, to maintain pest population levels below those causing economically-significant injury. The use of IPM in the agricultural green industries can reduce management and production costs, reduce the risk of contamination, increase marketability, and improve the health of soil and water. Many of the workshops conducted by the Pesticide Education Program stress the importance of integrated pest management as well as the need to use pesticides appropriately with an eye to protect human health and the environment.

Environmental Stewardship - Pesticides can have a negative impact on non-target organisms, water quality and air quality. The Pesticide Education Program provides pesticide users with the knowledge to reduce the impact of pesticides on wildlife (including pollinators), surface water and groundwater, and maintaining biological diversity through the management of invasive species.

Participants in all workshops are given opportunities to suggest program changes and topics for future workshops during written evaluations. The Massachusetts Department of Agricultural Resources provides input on what are current topics of importance to be included on programs. All participants in workshops are given evaluations that are completed during the workshops. These evaluations are used to determine if there are changes that need to be made to the workshops. In addition, participants are asked whether or not they have "learned" anything and whether or not they plan to "adopt" a new practice.

Activity Summary - 2020

- Pesticide Applicator State Exam Preparatory Workshops (15)
- Pesticide Recertification Training Workshops (6)
- Pesticide Exam study Materials Distribution (556)

Total educational contacts

	Adult Contacts
Direct Contacts	812
Indirect Contacts (Print, Web, etc...)	556

Narrative Summary and Impact

The UMass Extension Pesticide Education Program in cooperation with the Massachusetts Department of Agricultural Resources is responsible for providing initial and continuing education to Massachusetts licensed and certified pesticide applicators.

Approximately 2265 pesticide exam study manuals were distributed by the Program to approximately 600 individuals preparing for the state administered pesticide exams.

The Pesticide Education Program conducted fifteen workshops to help individuals prepare for the Massachusetts state pesticide license exams. Seven of these workshops were held online using Zoom video conference. Approximately 12% of the individuals, who take the state pesticide applicator license exam, participate in the optional workshop. The workshop covers a variety of topics, including: pest identification, pesticide types and formulations, toxicity of pesticides, first aid for pesticide poisoning, pesticide label comprehension, personal protective equipment, environmental fate of pesticides, integrated pest management, and state and federal laws and regulations. Individuals receive a take-home practice exam to use as a pesticide exam study tool. The program used exam results provided by the Massachusetts Department of Agricultural Resources to determine the exam-passing rate for our workshop participants. Individuals who took the workshop continue to pass at a higher rate than those who did not take the workshop. Seventy-three percent of the individuals who took the workshop passed the exam compared to a passing rate 53% for nonparticipants.

The program also offered six online Zoom pesticide recertification training workshops to individuals that have pesticide licenses and certifications. Topics covered in the series included: Massachusetts Pesticide Laws and Regulations, Pesticides and Impacts on Wildlife, Fungicides Modes of Action, Pesticide Applicator Safety, Pesticide Respirator Fit Train the Trainer and Special Topics for Pesticide Applicators. There were 571 individuals who participated in the workshops.

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protection and equipment continue to be areas of concern that increase the potential for negative personal and environmental impacts from pesticide exposure.

The Pesticide Education Program works closely with the Massachusetts Department of Agricultural Resources to educate pesticide users about safe application, state regulation and proper use of pesticides in Massachusetts.

This program helps agricultural and green industry businesses stay competitive and relevant through education on environmental issues that affect their industry and continued notice of updates to local and federal laws and regulations.

The Program had over 20 two-day pesticide exam prep workshops scheduled. Unfortunately many were canceled because of COVID 19. The state also suspended exams for a three month period. The program was able to offer seven pesticide exam prep workshops in a new format over the course of three consecutive mornings using Zoom video conference. The program used exam results provided by the Massachusetts Department of Agricultural Resources to determine the exam-passing rate for our workshop participants. Individuals who took the workshop continue to pass at a higher rate than those who did not take the workshop. Seventy-three percent of the individuals who took the workshop passed the exam compared to a passing rate of 53% for nonparticipants.

The Program scheduled twenty pesticide recertification training workshops that were all canceled due to COVID 19. After regrouping and revising the schedule, the Program was able to offer six recertification training workshops in May and June using Zoom video conference. This system was new for most of the participants and several Zoom tutorial workshops were offered. Although there was a good attendance for these workshops, many were already too busy into the growing season, etc. to participate. Plans were made to offer a second workshop series in the Fall.

Collaborating Organizations

- Massachusetts Department of Agricultural Resources

