

New Hampshire
 Department of Agriculture,
 Markets & Food

Shawn N. Jasper, Commissioner

April 27, 2020

His Excellency, Governor Christopher T. Sununu
 and the Honorable Council
 State House
 Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the New Hampshire Department of Agriculture, Markets & Food, Division of Pesticide Control to grant funds and enter into a Cooperative Project Agreement, in the amount of \$38,430, with the University of New Hampshire Office of Sponsored Research, vendor #177867, for the advancement of agricultural research and to assist in the promotion of Integrated Pest Management practices in New Hampshire, for the period from Governor and Council approval through September 30, 2021. 100% Other Funds.

Funding is available in account, Integrated Pest Management, as follows:
02-18-18-183010-21820000 INTEGRATED PEST MANAGEMENT

<u>OBJECT</u>	<u>ACCOUNT</u>	<u>FY 2021</u>	<u>Total</u>
CLASS 075-500590	Grants and Subsidies	\$38,430	\$38,430

EXPLANATION

The New Hampshire Department of Agriculture, Markets and Food (NHDAMF), Division of Pesticide Control in fulfilling its responsibilities under the Integrated Pest Management (IPM) Program, RSA 430:50; to promote the principles of IPM and assist New Hampshire citizens to advance the practice of such principles, has reviewed the project, "2020-2021 Pesticide Applicator Training – Integrated Pest Management", and finds it exemplifies good practices associated with Integrated Pest Management. The educational focus of this project is training individuals that use pesticides in a manner that considers integrated pest management. Additional benefits include safety considerations when managing pesticides. Experience and results of this project serve the benefit of all citizens of New Hampshire. The attachment includes a summary of the project and the dollar amount associated with each component.

Respectfully submitted,

Shawn N. Jasper
 Commissioner

COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE, Department of Agriculture, Markets & Food

and the

University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, **Department of Agriculture, Markets & Food**, (hereinafter "State"), and the University System of New Hampshire, acting through **University of New Hampshire**, (hereinafter "Campus"), for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective date") and shall end on **9/30/21**. If the provision of services by Campus precedes the Effective date, all services performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

Project Title: 2020-2021 Pesticide Applicator Training - Integrated Pest Management

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

State Project Administrator

Name: David J. Rousseau
Address: State House Annex
25 Capitol Street
P.O. Box 2042
Concord, NH 03301
Phone: 603 271-3640

Campus Project Administrator

Name: Cheryl Moore
Address: University of New Hampshire
Sponsored Programs Administration
51 College Road
Durham, NH 03824
Phone: 603 862-1992

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports and related correspondence shall be directed to the individuals so designated.

State Project Director

Name: David J. Rousseau
Address: State House Annex
25 Capitol Street
P.O. Box 2042
Concord, NH 03301
Phone: 603 271-3640

Campus Project Director

Name: Rachel Maccini
Address: UNH Cooperative Extension
329 Mast Road - Room 115
Goffstown, NH 03045
Phone: 603 351-3831

F. Total State funds in the amount of \$38,430 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

Campus will cost-share _____ % of total costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. _____ from _____ under CFDA# _____. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as a part of this Project Agreement.

G. Check if applicable

Article(s) _____ of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

H. State has chosen **not to take possession** of equipment purchased under this Project Agreement.

State has chosen **to take possession** of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the University of New Hampshire and the State of New Hampshire, Department of Agriculture, Markets & Food have executed this Project Agreement.

By An Authorized Official of:
University of New Hampshire

Name: Louise Griffin
Title: Sr. Director Research, SPA & Director EOS
BSC

Signature and Date: Louise Griffin/cm 3/13/20

By An Authorized Official of: the New
Hampshire Office of the Attorney General
Name: Erik Bal

Title: Assistant Attorney General
Signature and Date: Erik Bal 5/22/2020

By An Authorized Official of:
Department of Agriculture, Markets &
Food

Name: Shawn N. Jasper
Title: Commissioner

Signature and Date: Shawn Jasper 5/7/2020

By An Authorized Official of: the New
Hampshire Governor & Executive Council
Name:

Title:
Signature and Date:

EXHIBIT A

- A. **Project Title:** 2020-2021 Pesticide Applicator Training - Integrated Pest Management
- B. **Project Period:** April 1, 2020 through September 30, 2021
- C. **Objectives:** The objectives of the University of New Hampshire are to assist the Department of Agriculture, Markets & Food in the promotion and advancement of Integrated Pest Management in New Hampshire
- D. **Scope of Work:** A detailed scope of work is on file with the Department of Agriculture, Markets & Food and described in Attachment A of this agreement.
- E. **Deliverables Schedule:** A detailed description with schedule for each project is on file with the Department of Agriculture, Markets & Food and described in Attachment A of this agreement.

Major Project Components:

Integrated Pest Management Training

- Supervisory Registration Certificate-General Use Training September 2020 (6 days), January 2021 (7 days), and September 2021 (6 days)
- Initial Certification Training for Commercial and Private Applicators March 2021 (6 days)
- Structural Pest Control Training September 2020 (1 day), January 2021 (1 day) and September 2021 (1 day)
- Initial Certification Training for Commercial Pesticide Technicians April 2020 (1 day)

Final Report: October 31, 2021

- F. **Budget and Invoicing Instructions:** Campus will submit an invoice on regular Campus invoice form for \$38,430 at the time of Governor and Council approval. State will pay Campus within 30 days of receipt of the invoice. Any unused funds must be returned to the State after the project end date.

Budget Items	State Funding	Cost Sharing (if required)	Total
1. Salaries & Wages	\$ 22,620	0	\$ 22,620
2. Employee Fringe Benefits	7,880	0	7,880
3. Facilities & Admin. Costs	7,930	0	7,930
Total Project Cost			\$ 38,430

G. Other

A representative of the Department of Agriculture, Markets & Foods reserves the right to attend seminars and audit any work performed by the grant recipient.

Attachment A: Project Proposal - "2020-2021 Pesticide Applicator Training using IPM Strategies"

I. Itemized Budget

Funding can only be used for items detailed in your budget. Requests for the purchase of non-consumable equipment that may serve a broader purpose than the IPM project will be rejected. Itemized budget must be specific. If necessary to accomplish the objectives of a Project Agreement, the University of New Hampshire may reallocate up to 10% of the cumulative cost of a Project Agreement between major cost categories (Salaries & Wages, Employment Benefits, Travel, Supplies/Services, Equipment, Facilities & Administrative Costs) in order to meet unanticipated needs.

Expense Account	TOTAL
Personnel	
UNH Cooperative Extension Staff Salaries	\$16,408
Abigail Perry (Pesticide Safety Education Program Assistant)	\$6,212
Benefits	\$7,880
Subtotal:	\$30,500
Indirect Costs at 26%	\$7,930
Total	\$38,430

Personnel: \$22,620

1. UNH Extension staff salaries. Seven Extension specialists will contribute a total of 70 days effort to program development and delivery, teaching sessions focused on Core pesticide use and safety, Rules and regulations, Turf pest control, Forest pest control, and Ornamental pest control.
 - Rachel Maccini, Pesticide Safety Education Program (PSEP) Coordinator, PI: 3 days development, 12 days delivery. This expense will be partially offset by program income.
 - Dode Gladders: 4 days development, 10 days delivery
 - Carl Majewski: 4 days development, 9 days delivery
 - Jeremy Delisle: 4 days development, 9 days delivery
 - George Hamilton: 2 days development, 3 days delivery
 - Jonathan Ebba: 2 days development, 3 days delivery
 - Emma Erler: 2 days development, 3 days delivery
2. The PSEP Coordinator, Rachel Maccini, will contribute an additional 35 days effort as grant manager, identifying and recruiting expert speakers, coordinating planning meetings, coordinating and facilitating all training sessions, and conducting project evaluation and report. This expense will be offset by program income.
3. One hourly assistant will coordinate all administration activities, communications, and information dissemination. Hourly rate \$20.00. Expected effort is 314 hours.
4. Fringe benefit rates on benefited salaries = 45%; non-benefited wages = 8%. The Employee Benefit Rates are based on UNH's most current Rate Agreement with the US Department of Health and Human Services.

5. Speaker Fees: \$14,400. Speakers from outside of Extension will be contracted to present material in their field of expertise. Over the course of 16 days of training, speakers will deliver a total of 48 presentations at an average fee of \$300 per presentation. Speaker fees will be offset with program income.
6. Speaker Travel Expenses: \$7,800. Fee for out of state speakers to travel to New Hampshire (airfare, hotel and food allowance) Travel expenses are based on the U.S. General Services Administration per diem rates. Mileage reimbursement is based on the government rate of .58 per mile. 14 speakers will charge mileage, and 5 will charge for airfare and/or overnight accommodations. Average travel per person \$558. Travel expenses will be offset with program income.
7. Workshop supplies: \$23,000 Supplies include refreshments and lunch for 23 days of all-day training, plus refreshments for 6 days of training (\$16,400). Manual printing fees (\$4,500); miscellaneous supplies (\$1,000) and meeting room costs (\$1,500). Supplies expense will be offset with program income.
8. F&A: 26%. The facilities and Administrative Cost Rate is based on UNH's most current Rate Agreement with the U.S. Department of Health and Human Services.

Expected Income:

9. Participant registration fees: \$72,690 total.

Participant registration fee (supervisory & structural training): \$68,000 = Expected 24 participants per day x 19 days of training @ \$150.00 per person per day.

Participant registration fee (initial private training): \$2,200 = Expected 20 participants per session x 2 sessions of training @ \$55 per person per session.

Participant registration fee (initial commercial training): \$2,090 = Expected 38 participants x 1 day of training @ \$55.00 per person per day.

II. Project Description (3 lines or less, to be used for publicity purposes):

IPM Grant funds will provide support to the New Hampshire Department of Agriculture, Markets & Food, Division of Pesticide Control and the University of New Hampshire Cooperative Extension to plan, organize and execute pesticide safety applicator training to New Hampshire's and surrounding states already licensed and unlicensed pesticide applicators. We propose to develop a comprehensive integrated pest management training, that is interactive presentation based to provide key information pertaining to various commodity topics (Right of Way, Shade and Ornamental, Turf, Structural, Forestry, and Mosquito, biting fly and tick) covering disease, insect and weed pests, with an emphasis on integrated methods of control.

III. Project Objectives (be sure to include how this project serves the concepts of IPM):

Primary objective is to increase pesticide applicator and industry professionals' knowledge about Integrated Pest Management concepts through lectures and hands-on training.

A series of twenty-nine face to face classes will be held throughout New Hampshire to accommodate applicators looking to become certified under Pes 101.36, looking for recertification opportunities or looking to become certified for the first time as Private or Commercial applicators in the state of New Hampshire. These sessions will include six to eight hours of core specific instruction that incorporate IPM concepts and how these concepts apply to pest identification, types of pesticides available, reading and understanding pesticide labels, equipment needed to apply both chemical and biological controls, calibrating equipment, disposal and storage of unused pesticides and containers and NH Pesticide Rules and Regulations and category specific instruction in a variety of categories [B-Right of Way and Commercial Weed and Brush Control; C1-Forest Pest Control and Timber Treatment; F2-Mosquito and Black Fly (for use of FIFRA Section 25b pesticides only), G1-Shade and Ornamental Pest Control; G2-Turf Pest Control and Structural Pest Control F1]. By emphasizing the integrated aspects of pest management, and encouraging early pest identification and scouting, we wish to encourage the development and utilization of effective and environmentally sound management practices for the work these professionals are involved in.

Participants will receive lecture, hands-on and in-field training.

IV. Economic and Environmental Impact

In the USA, approximately 1,006 million pounds of more than 600 different pesticide types are applied annually at a cost of \$14 billion (Pesticide Industry Sales and Usage, US EPA, 2017). Pesticides are used by people engaged in agriculture production, occupationally for public health programs, vegetative management, lawn, grounds and garden applications and in and around homes and other structures. In New Hampshire individuals are required to be licensed or certified if they are using pesticides (Restricted-Use), applying any Restricted or General-Use pesticides (including 25B products) in the course of employment on the property of their employer or on the property of another. No matter what the use a pesticide, by their very nature, are designed to impeded and/or prevent the development of living organisms, to interfere with their ability to reproduce, or to kill them outright.

Pesticides have proved to be a boon for people all around the world by increasing agricultural yield and by providing innumerable benefits to society at large. But the issue of hazards posed by pesticides to human health and the environment has raised concerns about the safety of their use. Although we cannot eliminate the hazards associated with pesticide use, we can circumvent them in one way or the other. By using an "ecological approach in pest management we can manage pest populations in such a manner that economic damage is avoided, and adverse side effects are minimized" (NAS, 1969).

The aim of the training is to provide pesticide applicator professionals with integrated pest management (IPM) tools that they can implement in their work. IPM includes an assortment of techniques designed to maintain pest infestations at economically acceptable levels rather than attempting to completely eradicate all pests (Vandeman et al., 1994). While there are several conceptual definitions of IPM, according to the USDA: "IPM is a management approach that encourages natural control of pest populations by anticipating pest problems and preventing pests from reaching economically damaging levels. All appropriate techniques are used such as enhancing natural enemies, planting pest-resistant crops, adapting cultural management, and using pesticides judiciously." (USDA 1993).

Economic impact analyses of IPM programs can be hard to assess because good impact assessments are tailored to the objectives of the programs they are evaluating. By emphasizing the integrated aspects

of production and pest management, and encouraging early pest identification and scouting, we wish to encourage the development and utilization of effective and environmentally sound management practices. These programs can influence pest control costs, the level and variability of producer income, and the health of pesticide applicators. Experience has shown that developing and implementing an IPM program is only the first challenge. Maintaining an IPM program in which the pest and its damage are managed economically and with minimum risk to the environment and human health is often not easily achieved.

The classes will provide New Hampshire applicators with information and education on Integrated Pest Management practices that will lead to the reduction of pesticide use and would, theoretically, then lead to reduced pest control costs and lower total costs, thereby increasing net returns to the participants.

V. How will your goals be accomplished? (i.e., experimental design)

A group of educational trainings will be scheduled over the course of a year - September 2020 - September 2021. UNH Cooperative Extension Field Specialists and other experts in their fields will provide instruction and support to pesticide applicators looking to get licensed or receive recertification credits.

A request to New Hampshire Department of Agriculture, Markets & Food, Division of Pesticide Control, will be made to receive pesticide recertification credits for those who attend the trainings.

VI. Sampling Methods (if applicable):

N/A These trainings are educational events, not a research project where data is being collected.

VII. How will your data be evaluated?

N/A These trainings are educational events, not a research project where data is being collected. However, the New Hampshire Department Agriculture, Markets & Food, Division of Pesticide Control will keep track of all applicators testing and/or receiving recertification credits for their attendance.

VIII. Explain how the results of your project will be shared/publicized.

(Papers, presentations, publications, advertisements, etc.) All published literature must contain a statement attributing funding to the New Hampshire Department of Agriculture, Markets & Food IPM Grant Program. Publications must be submitted with the final report.

These trainings, will be advertised through local company newsletters, UNH Cooperative Extensions website, programs mailing lists, NH Department of Agriculture, Markets & Food, Weekly Market Bulletin and other such publications.

IX. Detail how other groups may adopt some of the information you learn or develop:

Handouts and or presentations will be available to any individual requesting them by contacting UNH CE - Pesticide Safety Education Program.