

**New Hampshire**  
 Department of Agriculture,  
 Markets & Food

Lorraine S. Merrill, Commissioner

May 31, 2013

Her Excellency, Governor Margaret Wood Hassan  
 and the Honorable Council  
 State House  
 Concord, New Hampshire 03301

Dear Governor Hassan and Honorable Council:

**REQUESTED ACTION**

Authorize the New Hampshire Department of Agriculture, Markets and Food, Division of Pesticide Control to enter into a Cooperative Project Agreement, in the amount of \$11,632, 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 December 31, 2013. 100% Other Funds - Integrated Pest Management Fund.

Funding is available in account, Integrated Pest Management, as follows with the authority to adjust encumbrances in each of the State fiscal years through the Budget Office if needed and justified, pending FY 14 budget approval.

Funding is available in account, Integrated Pest Management, as follows:

**02-18-18-183010-21820000 INTEGRATED PEST MANAGEMENT**

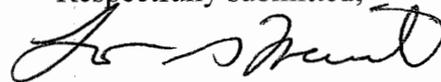
## OBJECT

<u>CLASS</u>	<u>ACCOUNT</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>TOTAL</u>
075-500590	Integrated Pest Mgmt	\$11,032	\$600	\$11,632

**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, "*Development of NH Field Corn Pest Identification & Management Guide*", and finds it exemplifies good practices associated with Integrated Pest Management. The grant will support the efforts of the University of New Hampshire Cooperative Extension in developing a guide to assist corn producers with identifying insect pests, diseases, and nutritional deficiencies. The 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,



Lorraine S. Merrill

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 **12/31/13**. 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: **Development of NH Field Corn Pest Identification & Management Guide**

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

**Campus Project Administrator**

Name: Dianne Hall  
 Address: University of New Hampshire  
Sponsored Programs Administration  
51 College Road  
Durham, NH 03824  
 Phone: 603 862-1942

- 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: Carl Majewski  
 Address: UNH Cooperative Extension  
Cheshire Country  
800 Park Ave  
Keene, NH 03431  
 Phone: 603 352-4550

F. Total State funds in the amount of \$11,632 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.

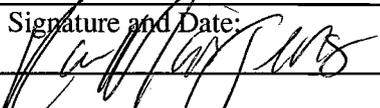
This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties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

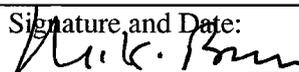
Title: Manager, Sponsored Programs  
Administration

Signature and Date:  4/23/13

**By An Authorized Official of: the New  
Hampshire Office of the Attorney General**

Name: ~~Rosemary Wiant~~ Michael K. Brown

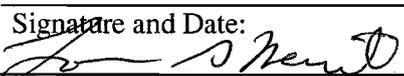
Title: Assistant Attorney General

Signature and Date:  6/3/13

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

Name: Lorraine Merrill

Title: Commissioner

Signature and Date:  5-6-13

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

Name:

Title:

Signature and Date:

## EXHIBIT A

- A. Project Title:** Development of NH Field Corn Pest Identification & Management Guide
- B. Project Period:** Upon Governor and Council Approval through December 31, 2013
- 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 Item G ("Other") of EXHIBIT 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

### Major Project Components:

Development of a guidance document for use by corn growers that will facilitate identification of insect and disease pressures and assess the level of injury in crops. The guidance will provide information to respond immediately to pest threats and also for long-term strategies to protect future plantings.

- F. Budget and Invoicing Instructions:** Campus will submit an invoice on a regular Campus invoice form for \$11,632 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	\$5,630	0	\$5,630
2. Employee Fringe Benefits	2,618	0	2,618
3. Travel	110	0	110
4. Supplies and Services	874	0	874
5. Facilities & Admin. Costs	2,400	0	2,400
Subtotals		0	\$11,632
In Kind Contribution		0	0
Total Project Costs			\$11,632

### G. Other

Attachment A: Project Proposal - "Development of NH Field Corn Pest Identification & Management Guide"

### II. Project Description

Insect scouting, an important component of IPM plans, relies on a producer's ability to identify pests accurately. This proposal would fund development of a guide to aid producers with

identifying insect pests, diseases, and nutritional deficiencies frequently encountered in NH.

### III. Project Objectives

Field corn producers have a wide array of pest management tools available: crop rotation and/or other ways to disrupt pest life-cycles, insecticides, corn hybrids with insect and disease resistant traits, and seed treatments. Whether or not these tools are appropriate for use on farms depends on their specific pest pressures. Therefore, producers need to determine what pests may be present and to what extent they're causing crop injury, and they need to know the threshold levels when actions need to be taken to protect the crop.

Our primary objective is to develop a pictorial guide that will make it easier for field corn producers to identify insect and disease pressures and assess the level of injury in their crops. This will give them the confidence to take immediate action when necessary, and to help them consider what longer-term strategies may be called for to safeguard future plantings.

### IV. Economic and Environmental Impact

Seed corn with pest-resistant traits or seed treatments frequently costs more than \$100 per acre. Insecticides, besides being costly, must be applied accurately to be effective without affecting non-target species. Use of these tools when they're not required can result in thousands of dollars of input costs: labor, fuel, and equipment time. Unnecessary trips across fields also contribute significantly to soil compaction, a crop limiting factor which has been documented in many NH locations, as measured by the Cornell Soil Health Assessment. Alternately, if producers are able to do a better job identifying pest pressures when they scout their fields, they can reduce or eliminate many of these input cost while ensuring a good harvest.

Using pesticides and other pest management tools without determining the need for them often results in excessive pesticides being present in the environment, which in turn can pose risks to soil and water resources. If we can reduce pesticide use by getting farmers to base their decisions on accurate scouting information, we can reduce these environmental risks.

Moreover, using insecticides or pest-resistant corn when it isn't necessary increases the risk of pests developing resistance; if farmers use these products only when pest pressures are high enough to warrant it, they will remain effective pest-management tools for a longer period of time.

### V. How will your goal be accomplished?

We will develop a pest identification guide which includes both photographs to aid with identification and information to help growers decide if and when they need to take action. The guide will be designed to be durable and easy to transport for use in the field by farmers and other crop advisors, and to be easy to follow. In order to make the guide more accessible to corn producers, we plan to offer the guide in an electronic format on the UNH Cooperative Extension website, and would be available to post on the NH Dept. of Agriculture, Markets, and Food website as well.

There have been several similar guides published in other parts of the country. While these have some value to NH producers, they feature pests that are not active in this part of the country, and they list different thresholds than what is appropriate for conditions in the state. Members of UNHCE's Animal Husbandry and Forage Crop team have an extensive collection of photographs, and we have field experience trouble-shooting insect pests, diseases, nutritional deficiencies, and other crop disorders. Compiling this will result in a guide that will be most useful for producers in the state.

### VI. Sampling Methods

Not applicable

VII. How will your data be evaluated?

We will evaluate how effective the pest ID guide is by observing how many producers possess and use it regularly. We will track how many copies have been distributed, and we will track how many times the electronic version has been downloaded from our website.

We conduct farm visits throughout the state, and we have the ability to informally survey pest management practices three months after the anticipated publication of the guide. Six months after its anticipated publication we will provide producers with the opportunity to critique the guide at our regional fall crop meetings. Farmer input will be used to refine any future printings. We will also take input regarding the development other such guides for forage crops, small grains, and other agronomic crops.

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

We will advertise the availability of the pest ID guide through a number of venues: UNHCE's website and publications page, the Weekly Market Bulletin and the NH Farm Bureau Communicator. We will also have the guides available for distribution at fall and spring crop meetings and other Extension programs such as the Small Farm Conference and the annual Dairy Conference; together, these programs typically draw a crowd of nearly 200 producers. County Extension offices will also have a supply for distribution to growers. This guide will also be recommended for pesticide applicators preparing for certification exams.

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

The guide that we develop will be useful throughout northern New England and the Northeast; we envision producers, crop advisors, and other agricultural service professionals finding it useful.