

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

Shawn N. Jasper, Commissioner



August 26, 2026

Her Excellency, Governor Kelly A. Ayotte
 and the Honorable Council
 State House
 Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the New Hampshire Department of Agriculture, Markets, and Food, Division of Agricultural Development (DAMF) to enter into Cooperative Project Agreement (CPA) with the University of New Hampshire (VC #315187). Durham, NH in the amount of \$50,184 to improve management of Phytophthora capsica by identifying local strains and their resistance to fungicides, effective upon Governor and Council approval through April 30, 2028.

100% Federal Funds

02-18-18-180010-88890000, SPECIALTY CROP BLOCK GRANT IV

FY2027

072-500577 Grants to Schools – Federal

\$50,184

EXPLANATION

The New Hampshire Department of Agriculture, Markets & Food (DAMF) received Specialty Crop Block Grant (SCBG) money from the United States Department of Agriculture to fund projects that increase the competitiveness of specialty crops in New Hampshire. The projects for **25SCBPNH1305-00** were solicited through the RFP process and submitted for review by USDA, Agricultural Marketing Service as part of our state application. The proposal submitted by the University of New Hampshire was one of the projects accepted by USDA for funding as enumerated in the CPA.

New Hampshire lacks region-specific data on the strains of Phytophthora capsici - a soilborne plant pathogen - affecting local farms and their resistance to commonly used fungicides. Researchers at UNH will address knowledge gaps by collecting diseased samples from farms across the state and analyzing them to identify the genetic makeup, mating types, and fungicide resistance profiles of local P. capsici strains. Findings will inform the development of updated, New Hampshire-specific disease control strategies, which will be shared through fact sheets, grower meetings, and field days.

In the event that Federal Funds are no longer available, General Funds will not be requested to support this program.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Shawn N. Jasper". The signature is fluid and cursive, with the first name "Shawn" and last name "Jasper" clearly distinguishable.

Shawn N. Jasper
Commissioner

COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE, **Department of Agriculture, Markets, and 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, and 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 **4/30/28**. 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: **Genetic Characterization and Fungicide Sensitivity Profiling of *Phytophthora capsici* (2025 SCBG Project #2)**

- 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: Rebecca Ross
Address: NH Dept. of Agriculture, Markets, &
Food
1 Granite Place
Suite 211
Concord, NH 03301
Phone: 603-271-8071

Campus Project Administrator

Name: Gretchen Swain
Address: University of New Hampshire
Sponsored Programs Administration
51 College Rd
Durham, NH 03824
Phone: 603-862-4865

- 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: Rebecca Ross
Address: NH Dept. of Agriculture, Markets, &
Food
1 Granite Place
Suite 211
Concord, NH 03301
Phone: 603-271-8071

Campus Project Director

Name: Christopher Hernandez
Address: University of NH
422 Kendall Hall
129 Main St
Durham, NH 03824
Phone: 603-862-1368

- F. Total State funds in the amount of **\$50,184.00** 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. **USDA-AMS-25SCBPNH1305-00** from **AMS/USDA** under **CFDA#10.170**. 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, and Food** have executed this Project Agreement.

**By An Authorized Official of:
University of New Hampshire**

Name: Dianne Hall

Title: Manager, Pre-Award Compliance

Signature and Date:

Dianne Hall

Digitally signed by Dianne Hall
Date: 2026.04.23 05:27:59
-04'00'

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

Name: Vasilios Manthos - Attorney

Title:

Signature and Date:

Vasilios Manthos 9/4/26

**By An Authorized Official of:
NH Dept. of Agriculture, Markets, and
Food**

Name: Shawn N. Jasper

Title: Commissioner

Signature and Date:

Shawn N. Jasper

8/20/26

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

Name:

Title:

Signature and Date:

EXHIBIT A

- A. Project Title:** Genetic Characterization and Fungicide Sensitivity Profiling of *Phytophthora capsici* (2025 SCBG Project #2)
- B. Project Period:** 4/30/26 - 4/30/28
- C. Objectives:** The University of New Hampshire researchers will lead a project to improve management of *Phytophthora capsici*, a destructive disease of vegetable crops, by identifying local strains and their resistance to fungicides. Researchers will collect infected samples from farms, analyze genetic diversity and fungicide sensitivity, and deliver region-specific management recommendations to growers through factsheets, field days, and Extension outreach.
- D. Scope of Work:** *Phytophthora capsici* is a soilborne plant pathogen that poses a serious threat to many of New Hampshire's most valuable vegetable crops --including squash, pumpkins, peppers, and beans. Closely related to the organism behind the Irish Potato Famine, *P. capsici* can devastate entire fields and persist in soil for years, making it exceptionally difficult to manage. According to the 2024 New England Vegetable Report, crops vulnerable to *P. capsici* account for the majority of vegetable acreage in the region outside of sweet corn. Recognizing its impact, the New Hampshire Vegetable and Berry Growers Association has identified *P. capsici* as a top research priority. Despite its importance, New Hampshire lacks region-specific data on the strains of *P. capsici* affecting local farms and their resistance to commonly used fungicides. As a result, growers must often rely on generalized, calendar-based fungicide applications that may not be effective --leading to compounded losses from failed crops and wasted inputs. This project will address knowledge gaps by collecting diseased samples from farms across the state and analyzing them to identify the genetic makeup, mating types, and fungicide resistance profiles of local *P. capsici* strains. It may also detect other harmful *Phytophthora* species, contributing to a broader understanding of plant disease threats in New Hampshire. Findings will inform the development of updated, New Hampshire-specific disease control strategies, which will be shared through fact sheets, grower meetings, and field days. By translating science into practical tools, this project will reduce unnecessary chemical use, slow fungicide resistance, and improve both the profitability and resilience of the state's specialty crop industry. In doing so, it directly supports the goals of the Specialty Crop Block Grant Program by enhancing the sustainability and competitiveness of specialty crop production. While focused on disease management, this project also lays the foundation for long-term market growth. Without effective tools to manage *P. capsici*, growers often scale back production or exit vulnerable crop markets entirely --as happened with pumpkins at Wilson Farm. Sadly, this is not an isolated case. Helping farmers stay viable in these crops preserves local supply chains and stabilizes markets --key prerequisites for sustained demand and industry growth. Although this impact may not be immediately measurable within the project's timeline, it represents a significant long-term benefit.

PROJECT OBJECTIVES:

Objective 1:: Isolate and confirm the presence of *Phytophthora capsici* strains from specialty crop fields across New Hampshire.

Objective 2: Characterize the mating types and assess the genetic diversity of local *P. capsici* populations using molecular tools.

Objective 3: Evaluate the fungicide sensitivity of regional *P. capsici* isolates to commonly used chemical treatments.

Objective 4: Develop a regional risk map highlighting the distribution of mating types and fungicide resistance profiles.

Objective 5: Translate research findings into practical tools through Extension activities, including factsheets, presentations, and grower outreach.

EXPECTED MEASURABLE OUTCOME- INCREASE FOOD SAFETY KNOWLEDGE AND PROCESSES

Outcome 4: IMPROVE PEST AND DISEASE CONTROL PROCESSES

4.1 Number of stakeholders who gained knowledge about science-based tools to combat pests and diseases: 50

4.2 Number of stakeholders who adopted pest and disease control best practices, technologies, or innovations: 20

Outcome 6: Expand Specialty Crop Research and Development. Indicators:

6.1 - Number of research goals accomplished: 2;

6.2 a -Yielded findings that supported continued research: 2;

6.2b - Yielded findings that led to completion of study: 4;

6.2 c - Yielded findings that allow for implementation of new practice, process or technology: 2;

6.3 Number of industry representatives and other stakeholders who engaged with research results: 50

6.4 - Total number of research outputs published to industry publications and/or academic journals, and for each published research output, the:

6.4a- Number of views/reads of published research/data: 15

6.4b - Number of citations counted: 5

DATA COLLECTION AND REPORTING

To evaluate project impact, we will collect data aligned with Outcomes 4 and 6 using a combination of pre/post surveys, attendance records, field and lab data, documentation of research outputs, and website analytics. All project data will be organized in a secure Microsoft OneDrive folder shared with project collaborators for coordinated access and reporting.

Outcome 4 - Improve Pest and Disease Control Processes:

For Indicator 4.1 (number of stakeholders who gained knowledge), we will track attendance at Extension events and monitor engagement with project-related digital resources (e.g., factsheets, grower bulletins) via website analytics. Indicator 4.2 (number of stakeholders adopting best practices) will be measured through brief surveys administered during routine spring and fall grower meetings. These surveys will ask participants about any changes in their management practices attributable to project guidance.

Outcome 6 - Expand Specialty Crop Research and Development:

To address Indicator 6.1 (research milestones met), we will track the number of *P. capsici* isolates characterized, mating types identified, and fungicide sensitivity profiles completed. Indicator 6.2 will be measured by counting submitted research papers and subsequent grants building on this project. For Indicator 6.3, we will collect qualitative feedback from stakeholders and track downloads, shares, and citations of published Extension materials. Indicators 6.4a and 6.4b will be supported by

documentation o of outreach activities, including the number and type of dissemination events, and copies of all educational materials distributed.

E. **Deliverables Schedule:** 6 month and annual reports on project activity due in June and December of 2026, 2027 and 2028. Final printed and digital report due by December 31, 2028

F. **Budget and Invoicing Instructions:** Campus will submit invoices to State on regular Campus invoice forms no more frequently than monthly and no less frequently than quarterly. Invoices will be based on actual project expenses incurred during the invoicing period, and shall show current and cumulative expenses by major cost categories as shown below. State will pay Campus within 30 days of receipt of each invoice. Campus will submit its final invoice not later than 75 days after the Project Period end date.

Budget Items	State Funding
1. Salaries & Wages	\$21,715.00
2. Fringe Benefits	\$ 1,781.00
3. Travel	\$ 3,568.00
4. Supplies and Services	\$ 23,120.00
5. Indirect Costs	\$0.00
Total	\$50,184.00

EXHIBIT B

This Project Agreement is funded under a Grant/Contract/Cooperative Agreement to State from the Federal sponsor specified in Project Agreement article F. All applicable requirements, regulations, provisions, terms and conditions of this Federal Grant/Contract/Cooperative Agreement are hereby adopted in full force and effect to the relationship between State and Campus, except that wherever such requirements, regulations, provisions and terms and conditions differ for INSTITUTIONS OF HIGHER EDUCATION, the appropriate requirements should be substituted (e.g., OMB Circulars A-21 and A-110, rather than OMB Circulars A-87 and A-102). References to Contractor or Recipient in the Federal language will be taken to mean Campus; references to the Government or Federal Awarding Agency will be taken to mean Government/Federal Awarding Agency or State or both, as appropriate.

Special Federal provisions are listed here: ☐ None or **No indirect costs allowed**

The scope of this project shall be construed consistent with the Project Plan as approved by USDA, AMS which hereby incorporated by reference including compliance with all federal requirements as indicated in the Project Plan. Campus shall comply with the 2025 USDA Specialty Crop Block Grant Terms and Conditions. Deviations from the Project Plan to the State as soon as possible and may require USDA approval.

As required in 2 CFR § 415.2, Campus must acknowledge USDA AMS support in all publications written or published with USDA AMS grant or cooperative agreement support. This includes reports, pamphlets, posters, brochures, and social media and, if feasible, any publication reporting the results of, or describing, a grant-supported activity. Recipients must also acknowledge USDA AMS support on any audio or video product including live or prerecorded radio or television programs, audio recordings and multimedia presentations..