New Hampshire
Department of Agriculture, Markets, and Food
Shawn N. Jasper, Commissioner

October 22, 2026

Her Excellency, Governor Kelly 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 $73,972 to determine the effects of nitrogen fertilization on quality and postharvest storage potential for several types of radicchio, effective upon Governor and Council approval through August 31, 2028. **100% Federal Funds.**

02-18-18-180010-88890000 Specialty Crop Block Grant IV

		FY2027
072-500577	Grants to Schools – Federal	$73,972

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.

Radicchio is a leafy vegetable that is increasingly being grown as a niche vegetable in northern New England but there remains little research-based information to guide producers. UNH researchers aim to evaluate factors affecting the success of radicchio cultivation in New Hampshire, including postharvest storage and fertilization rates. Awareness among commercial farmers and consumers regarding the potential of radicchio will be raised through outreach efforts that include a new written chapter for the New England Vegetable Management Guide, recipe and high-quality photo collections for growers to share with consumers, and a field day that features a range of varieties and types.

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

Respectfully submitted,



Josh Marshall
Assistant 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 **8/31/28**. 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: **Bitter greens, sweet opportunity: Optimizing radicchio production for New Hampshire farms (2025 SCBG Project #4)**

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, and 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, and Food
1 Granite Place
Suite 211
Concord, NH 03301
Phone: 603-271-8071

Campus Project Director

Name: Becky Sideman
Address: University of NH
51 College Road
Durham, NH 03824
Phone: 603-862-3203

Initial DH
Date 4/16/26

F. Total State funds in the amount of **$73,972.00** 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: 2026.04.16 11:32:44 -04'00'

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

Name: Shawn N. Jasper
Title: Commissioner
Signature and Date: 4/16/26

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

Name: Vasilios Manthos, Attorney
Title:
Signature and Date: Vasilios Manthos 10/22/26

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

Name:
Title:
Signature and Date:

Initial DH
Date 4/16/26

EXHIBIT A

A. **Project Title:** Bitter greens, sweet opportunity: Optimizing radicchio production for New Hampshire farms (2025 SCBG Project #4)

B. **Project Period:** 4/15/26 - 8/31/28

C. **Objectives:** University of New Hampshire will determine the effects of nitrogen fertilization on quality and postharvest storage potential for several types of radicchio, increasing knowledge about radicchio production to increase availability and access to this specialty leafy greens crop.

D. **Scope of Work:** . Radicchio (C. intybus var. latifolium) is a leafy vegetable that is grown widely throughout Europe, especially northern Italy. The red round-headed Rossa di Chioggia type is the most widely grown in the U.S., but the crop includes several biotypes that differ in color and shape. Radicchio has exploded in popularity in the pacific Northwest (see https:// www.chicoryweek.com/), and this enthusiasm is spreading to growers, chefs and consumers across the U.S. These bitter, colorful greens are commonly used as components of salad mixes, but are also used as a feature ingredient in salads or cooked. In addition to having interesting color and flavor profiles, they are rich in phenolics and other bioactive compounds. While radicchio is increasingly being grown as a niche vegetable in northern New England and some local growers have had good success growing and marketing this specialty crop, there remains little research-based information to guide them. From discussions with producers and from scientific literature, we know that major gaps in knowledge exist. Many types and cultivars are extremely sensitive to bolting (premature flowering) under warm summer temperatures; it is common for fewer than 50% of radicchio plants to form marketable heads. Our work with radicchio over the past three years has revealed that some cultivars and types are more susceptible to bolting and other disorders than others and that many are well adapted to our region, but many questions remain. Some that are very attractive from a marketing standpoint do not perform well when grown under typical planting dates and conditions, and it remains unclear whether altering growing practices may improve their performance in our climate. Growers believe that rates of nitrogen and timing of application affect bolting rates, but these effects are not well understood. Radicchio reportedly requires some cold temperature exposure for good color development, but it is also sensitive to extreme cold temperatures that frequently occur in late fall. Finally, the effects of pre-harvest factors (cold exposures, nitrogen rate, etc.) on flavor, post-harvest storage life, and eating quality are also poorly understood. A long post-harvest storage life makes radicchio an excellent specialty crop for diversified vegetable growers who have a market season extended through late fall and winter. USDA post-harvest guidelines statethat storage life is 20-30 days at 3-5C but can extend to three months at -2 to -3C. From our work, we know that some types and cultivars have much better storage potential than others and that some can remain marketable for several months; but type-specific guidance is currently lacking for growers and current practices vary widely. In brief, there is a need for regionally-relevant research to provide answers to the many questions that growers have about growing and marketing this unique specialty crop in our climate. In this project, we propose to use representative well-adapted cultivars from five (5) types of radicchio (sugarloaf, rossa di Chioggia, rosa del Veneto, Treviso, and Lusia) to evaluate post-harvest storage potential under realistic on-farm conditions, and to explore the effects of nitrogen (N)fertilizer rates on post-harvest storage and crop marketability. We willuse replicated field trials at Woodman Horticultural Research Farm inDurham. The field trials will use split-plot designs, with N rate and cultivaras main and split plot, respectively. Post-harvest life will be evaluated byplacing heads in storage (at 0-2 degrees C) and monitoring marketability,degree of trimming required, and presence of other diseases or disordersweekly until no marketable heads remain. The proposed project lasts 2.5years to give sufficient time for two full growing seasons and post-harveststorage periods of several months, with time to analyze data andcommunicate results.

Initial DH
Date 4/16/26

PROJECT OJECTIVES:

Objective 1: Evaluate the postharvest storage potential under typical on-farm storage conditions for several radicchio cultivars and types by monitoring marketability and the degree of trimming required for several weeks after harvest.

Objective 2: Determine the effects of N fertilizer rates on post-harvest storage and other attributes that affect marketability (e.g. the presence of bolting, head rot, and other diseases and disorders) for several radicchio cultivars and types.

Objective 3: Raise awareness among commercial farmers and consumers regarding the potential of radicchio as a fall/winter specialty crop to enhance local offerings. Conduct outreach efforts that include a new written chapter for the New England Vegetable Management Guide, recipe and high-quality photo collections for growers to share with consumers, and a field day that features a range of varieties and types.

EXPECTED MEASURABLE OUTCOMES

Outcome 2: INCREASING ACCESS TO SPECIALTY CROPS AND EXPANDING SPECIALTY CROP PRODUCTION AND DISTRIBUTION

2.1 Number of stakeholders who gained technical knowledge about producing, preparing, procuring, and/or accessing specialty crops : 150

2.2 Number of stakeholders who reported producing, preparing, procuring, and/or accessing more specialty crops: 50

2.4 Number of stakeholders who gained knowledge about more efficient and effective distribution systems: 150

2.5 Number of stakeholders who adopted best practices or new technologies to improve distribution systems: 50

Outcome 5: DEVELOP NEW SEED VARIETIES AND SPECIALTY CROPS

5.4 Number of growers adopting new cultivars and/or varieties: 25

Outcome 6: EXPAND SPECIALTY CROP RESEARCH AND DEVELOPMENT

6.1 Number of research goals accomplished: 2
6.2a Yielded findings that supported continued research: 1
6.2b Yielded findings that led to completion of study: 1
6.2c 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: 150
6.4 Total number of research outputs published to industry publications and/or academic journals, and for each published research output, the: 2
6.4a Number of views/reads of published research/data: 250
6.4b Number of citations counted: 10

DATA COLLECTION TO REPORT ON OUTCOMES AND INDICATORS

We will collect data on the number of participants, their learning outcomes, and their intended and actual adoption of new practices in radicchio production at field days/meetings and grower conferences related to this project. At field days, data will be collected verbally through group Q&A or via digital technology (e.g. Mentimeter polling); at workshops and conferences, data will be collected through digital techniques and/or formal paper evaluations; and we will distribute a Qualtrics survey through

Initial DH
Date
4/16/26

our social media (Instagram) and via UNH Extension networks at the conclusion of the project. We will also document radicchio-related communication that we have with specialty crop producers by maintaining a project communications spreadsheet that includes a consistent set of information (contact information, dates and nature of information exchanged) throughout the project. All project data will be maintained in shared OneDrive folders.

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	$53,803.00
2. Fringe Benefits	$19,379.00
3. Travel	$ 0.00
4. Supplies and Services	$ 790.00
5. Equipment	$ 0.00
6. Indirect Costs	$0.00
Total	$73,972.00

Initial DH
Date 4/16/26

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. .

Initial DH
Date 4/16/26