

# SCBGP PROJECT PROFILE TEMPLATE

## AWARD YEARS 2022 FORWARD

The State Plan should include a series of project profiles that detail the necessary information to fulfill the goals and objectives of each project. The acceptable font size for the narrative is 11 or 12 pitch with all margins at 1 inch. The following information must be included in each project profile.

### PROJECT TITLE

*Provide a descriptive project title in 15 words or less in the space below.*

Safe Harvest and Processing of Traditional and Ground Harvest Apples for Hard Cider

### DURATION OF PROJECT

**Start Date:** October 1, 2023

**End Date:** September 30, 2025

### PROJECT PARTNER AND SUMMARY

*Include a project summary of 250 words or less suitable for dissemination to the public. A Project Summary provides a very brief (one sentence, if possible) description of your project. A Project Summary includes:*

- 1. The name of the applicant organization that if awarded a grant will establish an agreement or contractual relationship with the State Department of Agriculture to lead and execute the project,*
- 2. The project's purpose, deliverables, and expected outcomes and*
- 3. A description of the general tasks/activities to be completed during the project period to fulfill this goal.*

#### FOR EXAMPLE:

The ABC University will mitigate the spread of citrus greening (Huanglongbing) by developing scientifically-based practical measures to implement in a quarantine area and disseminating results to stakeholders through grower meetings and field days.

Slaughter Orchard and Cidery will demonstrate to orchards, cider mills, cideries, and wholesale buyers that ground harvested apples can be safely and legally harvested, processed, and fermented into hard cider by creating a HACCP Plan, demonstrating the HACCP Plan for stakeholders during multiple field days, and writing a position paper explaining how the process can be achieved safely and legally by others in the apple, cider, and hard cider industries.

### PROVIDE A PROJECT TIMELINE BY QUARTER AND YEAR BELOW.

Fall 2023 (Q4)

a. Draft and Professional Review HACCP Plan

b. Procure Equipment

c. Pilot Project – harvest ground apples from our orchard – press into cider for fermentation – ferment cider – HACCP Testing for Validation

d. Apply to present the presentation at CiderCon (American Cider Association), Great Lakes Fruit and Vegetable Expo, and Indiana Small Farm Conference.

Winter 2023 (Late Q4 2023 – Q1 2024)

a. Review Findings – Adjust HACCP Plan and Protocol

b. Send project announcements and invitations to Spring & Fall Field Days to every orchard and cidery in Indiana.

c. Present Findings at the Great Lakes Fruit and Vegetable Expo in Grand Rapids, MI. (December)

d. Present Findings at the annual meeting of the American Cider Association (CiderCon) in Portland, OR. (January)

e. Present Findings at Indiana Small Farm Conference

f. Complete draft of position paper for internal and external legal and peer review.

Spring 2024 (Q2)

a. Spring Field Day - In Orchard Demonstrations and Education Day

Summer 2024 (Q3)

a. Fall Field Day - In Orchard Demonstrations and Education Day

b. Orchard Demonstrations for individuals and groups requesting alternative days or private tours

Winter 2024 (Q4 2024 - Q1 2025)

a. Publication of final findings

b. Publication of the final draft of the position paper

## DESCRIBE HOW YOUR ORGANIZATION WILL INTERACT WITH ANY PARTNERS ON YOUR PROJECT.

All partners in this project will be held to the same research and reporting integrity standards as the applicants. Partners contacted for technical or marketing support include the following organizations: American Cider Association (ACA), Cider Institute of North America (CINA), Cornell University AgriTech Food Research Lab, Monroe County Soil and Water Conservation District, and Purdue Extension Services - Monroe County. Letters of support are attached to this proposal outlining the involvement of each organization and how the project will address issues in the apple and cider industry.

## PROJECT PURPOSE

### PROVIDE THE SPECIFIC ISSUE, PROBLEM OR NEED THAT THE PROJECT WILL ADDRESS

#### 1. Problem Description

- a. Issue 1: Orchards leave upwards of 40% of their crop unharvested due to apples dropping off the trees and onto the ground (windfalls or ground apples). This unharvested crop is a huge waste for the orchard and unrealized economic potential.
- b. Issue 2: Cideries (producers or purchasers of wholesale cider for the fermentation of cider into hard cider) do not have a steady supply of cider from fully ripe apples (high sugar, tannin, and acid fruit). The juice which is readily available lacks sugar and taste due to being pressed from apples that are not fully ripe. Most apples picked from the tree are picked before they are fully ripe. Most other cider-making areas of the world (examples: England, Spain, France) make their hard cider from ground harvested (fully ripe) fruit.
- c. Issue 3: Cideries frequently purchase apple cider (or juice or concentrate) from suppliers outside of Indiana, due to a lack of available Indiana produced cider, resulting in lost economic opportunities for Indiana communities.

## 2. Frequency and prevalence of the issue.

- a. All orchards surveyed in Indiana and surrounding states are not pressing ground apples for cider intended for fermentation into hard cider. All orchards surveyed reported that they do not harvest ground apples due to a lack of understanding of what is required for them to safely (HACCP Plan) and legally (position paper with citations) harvest ground apples for fermentation into hard cider.
- b. The production of hard cider is growing double digits each year for the past 10 years according to the American Cider Association.
- c. Indiana has had seven new cideries in the past 10 years. Examples: Ash & Elm Cidery, Friendly Beasts, Ambrosia, Slaughter Orchard & Cidery.
- d. Indiana has multiple wineries which have started producing hard cider in recent years. Examples: McClures Orchard & Winery, Owen Valley Winery, Oliver Winery, Huber Winery.

## Indiana State Department of Agriculture Priorities

This project addresses both ISDA Priority I and Priority II.

Priority I – The project will create clear market enhancement by creating an economic gain for orchards through utilizing fruit that is currently being wasted and economic gain for cideries which will have access to a higher quality local product with lower shipping costs than purchasing out-of-state juice.

Priority II – The project provides education and training to orchards, cider mills, and cideries about how to safely and legally utilize ground harvested apples for producing cider intended for fermentation. It will also provide education for other stakeholders in the process such as wholesale purchasers.

## PROVIDE A LISTING OF THE OBJECTIVES THAT THIS PROJECT HOPES TO ACHIEVE

*Add more objectives by copying and pasting the existing listing or delete objectives that aren't necessary.*

|             |   |
|-------------|---|
| Objective 1 | <p>All three of the above issues can be solved by:</p> <ul style="list-style-type: none"> <li>a. Educating orchards that they can safely and legally harvest ground fruit for processing and fermentation into hard cider.</li> <li>b. Providing orchards with a clear and thorough HACCP Plan for the safe harvest and processing of ground apples into hard cider.</li> <li>c. Harvesting the currently unharvested apples will result in an economic boost for Indiana orchards. It will also make a steadier supply of Indiana apple cider available to the growing number of Indiana cideries. This cider will be higher quality, local, and more available than out-of-state products.</li> <li>d. Providing a position paper with detailed information and citations will provide needed proof for all stakeholders (orchards, cider mills, cideries, wholesale buyers) of the safety and legality of harvesting, processing, and fermenting ground apples into cider.</li> </ul> <p>The first objective (deliverable) is to create a HACCP Plan for the harvest and processing of ground apples into cider intended for fermentation into hard cider.</p> |
|-------------|---|

|  |  |
|--|--|
|  | <p>The second objective (deliverable) is to write a position paper with citations that producers and consumers can use to educate themselves and their stakeholders about cider for fermentation from ground apples.</p> <p>The third objective is to share both of the above deliverables with the stakeholders identified above through educational field days and orchard demonstrations.</p> <p><b>Project Methodology</b><br/> The creation of a HACCP Plan for the harvest, processing, and fermentation of ground harvested apples will be tested against a parallel plan for the harvest, processing, and fermentation of tree harvested apples. This dual testing will allow for a direct comparison of products from tree harvested apples and ground harvested apples. A comparison of pasteurized and unpasteurized final products will allow for detailed comparisons.</p> <p>The HACCP Plan will be reviewed by at least two unrelated outside professionals.</p> <p>The key performance indicator (KPI) for testing the HACCP Plan will be microbial load. The microbial load found on equipment and within the cider will be swabbed and tested at each critical control point (CCP) and processed by an outside pomology or wine lab, such as Cornell University in Geneva, New York.</p> <p>The test of each CCP will be conducted three times. Standard statistical analysis will be utilized to report the findings.</p> <p>The position paper will be written for general consumption by orchard owners and managers; cider mill owners and managers; cidery owners and managers; and wholesale buyers. Specific detail will be given for informing orchard quality control managers and cidery fermentation and quality control managers. Citations to relevant research, regulations, and statutes will be provided in a citation section formatted in the Chicago style.</p> |
|--|--|

## PROJECT BENEFICIARIES

**Estimate the number of project beneficiaries:** 125

**Does this project directly benefit socially disadvantaged farmers and/or underserved communities as defined in the RFA?** Yes ☒ No ☐

If you selected yes, please describe how the project directly benefits socially disadvantaged farmers and/or underserved communities.

The ownership of Slaughter Orchard & Cidery is 100% comprised of beginning farmers and members of disadvantaged groups. The project is targeted at reaching members of our communities. Additionally, our contacts would be utilized to publicize the project with the American Cider Association (we serve on their Government Affairs Committee, Data Committee, and presented at CiderCon 2023). The ACA has provided a letter of support. We would also promote the project through Indiana Extension Services, which has provided a letter of support. A large part of reaching underserved communities is utilizing our network and social networks to reach new and underrepresented farmers. The American Cider Association claims that over 20% of hard cider makers identify as members of the underserved LGBTQ+ community and over 15% identify as members of BIPOC. Distribution through the ACA will be key to reaching these communities.

**Does this project directly benefit beginning farmers as defined in the RFA?** Yes ☒ No ☐

If you selected yes, please describe how the project directly benefits beginning farmers.

The ownership of Slaughter Orchard & Cidery is 100% comprised of beginning farmers and members of disadvantaged groups. The project is targeted at reaching members of our communities. Additionally, our contacts would be utilized to publicize the project with the American Cider Association (we serve on their Government Affairs Committee, Data Committee, and presented at CiderCon 2023). We would also promote the project through Indiana Extension Services, which has provided a letter of support. A large part of reaching underserved communities is utilizing our network and social networks to reach new and underrepresented farmers.

As reported by the U.S. Department of Treasury Tax and Trade Bureau, 77.8% of the cideries within Indiana qualify as beginning farmers. This project will directly benefit all 9 cideries currently in operation within the state, 7 of which are less than 10 years old. We will reach these cideries through direct contact, the ACA, and Extension Services.

**Does this project directly benefit veteran farmers as defined in the RFA?** Yes ☐ No ☒

If you selected yes, please describe how the project directly benefits veteran farmers.

N/A

#### STATEMENT OF ENHANCING SPECIALTY CROPS

By checking the box to the right, I confirm that this project enhances the competitiveness of specialty crops in accordance with and defined by the Farm Bill. Further information regarding the definition of a specialty crop can be found at [www.ams.usda.gov/services/grants/scbgp](http://www.ams.usda.gov/services/grants/scbgp). ☒

List of Specialty Crops: Apples

#### CONTINUATION PROJECT INFORMATION

**Does this project continue the efforts of a previously funded SCBG project?** Yes ☐ No ☒

*If you have selected "yes", please address the following:*

DESCRIBE HOW THIS PROJECT WILL DIFFER FROM AND BUILD ON THE PREVIOUS EFFORTS

PROVIDE A SUMMARY (3 TO 5 SENTENCES) OF THE OUTCOMES OF THE PREVIOUS EFFORTS

PROVIDE LESSONS LEARNED ON POTENTIAL PROJECT IMPROVEMENTS

**What was previously learned from implementing this project, including potential improvements?**

**How are the lessons learned and improvements being incorporated into the project to make the ongoing project more effective and successful at meeting goals and outcomes?**

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**DESCRIBE THE LIKELIHOOD OF THE PROJECT BECOMING SELF-SUSTAINING AND NOT INDEFINITELY DEPENDENT ON GRANT FUNDS**

Each orchard, cider mill, and cidery that implements the HACCP Plan will be self-sufficient. No additional funding would be needed.

Additionally, we would not need any additional funding as the applicant after the completion of the deliverables (HACCP Plan, Spring Field Day, Fall Field Day, Position Paper).

**OTHER SUPPORT FROM FEDERAL OR STATE GRANT PROGRAMS**

The SCBGP will not fund duplicative projects. Did you submit this project to a Federal or State grant program other than the SCBGP for funding and/or is a Federal or State grant program other than the SCBGP funding the project currently?

**Yes**

☐

**No**

☒

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**IF YOUR PROJECT IS RECEIVING OR WILL POTENTIALLY RECEIVE FUNDS FROM ANOTHER FEDERAL OR STATE GRANT PROGRAM**

**Identify the Federal or State grant program(s).**

N/A

**Describe how the SCBGP project differs from or supplements the other grant program(s) efforts.**

N/A

**EXTERNAL PROJECT SUPPORT**

*Describe the specialty crop stakeholders who support this project and why (other than the applicant and organizations involved in the project).*

This project is supported by the American Cider Association (ACA), Cider Institute of North America (CINA), Cornell University AgriTech Food Research Lab, Monro County Soil and Water Conservation District, and Purdue Extension Services. Letters of support are attached to this application.

External apple and cider stakeholders support this project as it increases the economic viability of orchards and the cider available for production into high quality craft hard cider.

**EXPECTED MEASURABLE OUTCOMES**

**SELECT THE APPROPRIATE OUTCOME(S) AND INDICATOR(S)/SUB-INDICATOR(S)**

*You must choose at least one of the eight outcomes listed in the SCBGP Performance Measures, which were approved by the Office of Management and Budget (OMB) to evaluate the performance of the SCBGP on a national level.*

## OUTCOME MEASURE(S)

Select the outcome measure(s) that are applicable for this project from the listing below.

- ☐ **Outcome 1:** Increasing Consumption and Consumer Purchasing of Specialty Crops
- ☒ **Outcome 2:** Increasing Access to Specialty Crops and Expanding Specialty Crop Production and Distribution
- ☒ **Outcome 3:** Increase Food Safety Knowledge and Processes
- ☐ **Outcome 4:** Improve Pest and Disease Control Processes
- ☐ **Outcome 5:** Develop New Seed Varieties and Specialty Crops
- ☒ **Outcome 6:** Expand Specialty Crop Research and Development
- ☐ **Outcome 7:** Improve Environmental Sustainability of Specialty Crops

## OUTCOME INDICATOR(S)

Provide at least one indicator listed in the SCBGP Performance Measures and the related quantifiable result. If you have multiple outcomes and/or indicators, repeat this for each outcome/indicator.

### FOR EXAMPLE:

Outcome 1, Indicator 1.1a

Total number of consumers who gained knowledge about specialty crops, Adults 132.

#### Outcome 2, Indicator 10

Number of market access points that reported increased:

- a. Revenue [4].
- b. Sales [4].
- c. Cost-savings [0].

#### Outcome 2, Indicator 9

Total number of new individuals who went into specialty crop production as a result of marketing [3]. Of those, the number who are:

- a. Beginning farmers or ranchers [3].
- b. Socially disadvantaged farmers or ranchers [3].

#### Outcome 3, Indicator 1

Number of stakeholders that gained knowledge about prevention, detection, control, and/or intervention food safety practices, including relevant regulations (to improve their ability to comply with the Food Safety Modernization Act (FSMA) and/or meet the standards for aligned third party food safety audits such as Harmonized GAP/GHP) [100].

#### Outcome 3, Indicator 4

Number of prevention, detection, control, or intervention practices developed or enhanced to mitigate food safety risks [2].

#### Outcome 3, Indicator 5

Number of stakeholders that used grant funds to:

- a. Purchase [1].
- b. Upgrade food safety equipment [1].

#### Outcome 3, Indicator 3

Number of specialty crop stakeholders who implemented new/improved prevention, detection, control, and intervention practices, tools, or technologies to mitigate food safety risks (to improve their ability to comply with the Food Safety Modernization Act (FSMA) and/or meet the standards for aligned third party food safety audits

such as Harmonized GAP/GHP) [10].

Outcome 6, Indicator 4

Total number of research outputs published to industry publications and/or academic journals [2]. For each published research output, the:

- a. Number of views/reads of published research/data [150].
- b. Number of citations counted [0].

## MISCELLANEOUS OUTCOME MEASURE

*In the unlikely event that the outcomes and indicators above the selected outcomes are not relevant to your project, you must develop a project-specific outcome(s) and indicator(s) which will be subject to approval by AMS.*

## DATA COLLECTION TO REPORT ON OUTCOMES AND INDICATORS

*Explain how you will collect the required data to report on the outcome and indicator in the space below.*

Attendees at field days and demonstrations would be asked to complete an anonymous exit survey asking about information learned, anticipated next steps, and demographics. Surveys will be tallied and reported to demonstrate outcomes.

Attendees at field days and demonstrations would be asked to complete an anonymous exit survey asking about information learned, anticipated next steps, and demographics. Additionally, a webpage would be created dedicated to the project, and hits on the page would be recorded. Surveys will be tallied and reported to demonstrate outcomes.

The number of industry presentations made and attendance at each of the presentations would be recorded. Attendees would be asked to complete an anonymous exit survey asking about information learned, anticipated next steps, and demographics. Attendance at presentations will be reported by presentation. Surveys will be tallied and reported to demonstrate outcomes. Number of publications in industry journals will be recorded and reported.

## BUDGET NARRATIVE

*All expenses described in this Budget Narrative must be associated with expenses that will be covered by the SCBGP. If any matching funds will be used and a description of their use is required by the State department of agriculture, the expenses to be covered with matching funds must be described separately. Applicants should review the Request for Applications section 4.7 Funding Restrictions prior to developing their budget narrative.*

## BUDGET SUMMARY

| Expense Category | Funds Requested |
|------------------|-----------------|
| Personnel        | \$84,000.00     |
| Fringe Benefits  | \$8,400.00      |
| Travel           | \$9,046.51      |
| Equipment        | \$5,500.00      |
| Supplies         | \$34,423.00     |



| Expense Category              | Funds Requested |
|-------------------------------|-----------------|
| <b>Contractual</b>            | \$13,500.00     |
| <b>Other</b>                  | \$8,810.00      |
| <b>Direct Costs Sub-Total</b> | \$163,679.51    |
| <b>Total Budget</b>           | \$163,679.51    |

## PERSONNEL

List the organization's employees whose time and effort can be specifically identified and easily and accurately traced to project activities that enhance the competitiveness of specialty crops. See the Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Salaries and Wages, and Presenting Direct and Indirect Costs Consistently under section 4.7.1 for further guidance.

| # | Name/Title  | Level of Effort (# of hours OR % FTE) | Funds Requested |
|---|---|---------------------------------------|-----------------|
| 1 | <b>Clayton Slaughter, Head Cidermaker</b>           | 0.70 %                                | \$42,000.00     |
| 2 | <b>Tara Slaughter, Business Development</b>         | 0.55 %                                | \$33,000.00     |
| 3 | <b>Zachary McIntosh, Data and Quality Assurance</b> | 0.15 %                                | \$9,000.00      |

**Personnel Subtotal: \$84,000.00**

## PERSONNEL JUSTIFICATION

For each individual listed in the above table, describe the activities to be completed by name/title including approximately when activities will occur. Add more personnel by copying and pasting the existing listing or deleting personnel that aren't necessary.

|              |  |
|--------------|--|
| Personnel 1: | As the principal investigator, Dr. Slaughter will oversee the drafting, peer review, implementation, and review of both the HACCP Plan and position paper. He will provide internal legal review. He will also present the findings at industry conferences. |
| Personnel 2: | As the co-investigator, Tara will contribute to the drafting, peer review, implementation, and review of both the HACCP Plan and position paper. She will also present the findings at industry conferences.   |
| Personnel 3: | Zack is the co-investigator for data support for research findings and analysis. Zack is a data engineer with extensive experience in data collection, storage, and analysis. He will also present findings at industry conferences.                         |

## FRINGE BENEFITS

Provide the fringe benefit rates for each of the project's salaried employees described in the Personnel section that will be paid with SCBGP funds.

| # | Name/Title                                   | Fringe Benefit Rate | Funds Requested |
|---|--|---------------------|-----------------|
| 1 | Clayton Slaughter, Head Cidermaker           | 0.10 %              | \$4,200.00      |
| 2 | Tara Slaughter, Business Development         | 0.10 %              | \$3,300.00      |
| 3 | Zachary McIntosh, Data and Quality Assurance | 0.10 %              | \$900.00        |

**Fringe Subtotal: \$8,400.00**

## TRAVEL

Explain the purpose for each Trip Request. Please note that travel costs are limited to those allowed by formal organizational policy; in the case of air travel, project participants must use the lowest reasonable commercial airfares. For recipient organizations that have no formal travel policy and for-profit recipients, allowable travel costs may not exceed those established by the Federal Travel Regulation, issued by GSA, including the maximum per diem and subsistence rates prescribed in those regulations. This information is available at <http://www.gsa.gov>. See the Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Travel, and Foreign Travel for further guidance.

| #  | Trip Destination  | Type of Expense (airfare, car rental, hotel, meals, mileage, etc.) | Unit of Measure (days, nights, miles) | # of Units | Cost per Unit | # of Travelers Claiming the Expense | Funds Requested |
|----|---|--|---------------------------------------|------------|---------------|-------------------------------------|-----------------|
| 1  | American Cider Association Annual Meeting (CiderCon) - Portland, OR | Airfare  | Miles                                 | 2,247.0    | \$0.25        | 3                                   | \$1,693.17      |
| 2  | American Cider Association Annual Meeting                           | Meals  | Days                                  | 6.0        | \$74.00       | 3                                   | \$1,665.00      |
| 3  | Great Lakes Fruit and Vegetable Expo 2024                           | Mileage  | Miles                                 | 706.0      | \$0.65        | 3                                   | \$462.00        |
| 4  | Great Lakes Fruit and Vegetable Expo                                | Hotel  | Nights                                | 2.0        | \$114.00      | 3                                   | \$250.00        |
| 5  | Great Lakes Fruit and Vegetable Expo                                | Meals  | Days                                  | 3.0        | \$64.00       | 3                                   | \$480.00        |
| 6  | Indiana Small Farms Conference                                      | Mileage  | Miles                                 | 52.0       | \$0.65        | 3                                   | \$68.00         |
| 7  | US Apple  | Mileage  | Miles                                 | 480.0      | \$0.65        | 3                                   | \$319.20        |
| 8  | US Apple  | Hotel  | Nights                                | 3.0        | \$218.00      | 3                                   | \$654.00        |
| 9  | US Apple  | Meals  | Days                                  | 4.0        | \$79.00       | 3                                   | \$830.00        |
| 10 | Cornell University - Geneva, NY                                     | Mileage  | Miles                                 | 1,316.0    | \$0.66        | 1                                   | \$875.14        |
| 11 | American Cider Association Annual Meeting                           | Hotel  | Nights                                | 7.0        | \$182.00      | 3                                   | \$1,750.00      |

**Travel Subtotal: \$9,046.51**

## TRAVEL JUSTIFICATION

For each trip listed in the above table describe the purpose of this trip and how it will achieve the objectives and outcomes of the project. Be sure to include approximately when the trip will occur. Add more trips by copying and pasting the existing listing or delete trips that aren't necessary.

|                                       |  |
|---------------------------------------|--|
| Trip 1 (Approximate Date of Travel ): | Flights to the American Cider Association Annual Meeting (CiderCon) to present the findings at the largest collection of cider producers in North America. |
| Trip 2 (Approximate Date of Travel ): | Meals at CiderCon  |
| Trip 3 (Approximate Date of Travel ): | Mileage to Great Lakes Expo to present project deliverables.   |
| Trip 4 (Approximate Date of Travel ): | Hotel for Great Lakes Expo   |
| Trip 5 (Approximate Date of Travel ): | Meals for Great Lakes Expo   |
| Trip 6 (Approximate Date of Travel ): | Mileage to Indiana Small Farm Conference to present the project deliverables.  |
| Trip 7 (Approximate Date of Travel ): | Mileage to US Apple Annual Meeting.  |
| Trip 8 (Approximate Date of Travel ): | Hotel for US Apple Annual Meeting.   |

|  |  |
|--|--|
| Trip 9 (Approximate Date of Travel ):                  | Meals during US Apple annual meeting.  |
| Trip 10 (Approximate Date of Travel ):                 | Travel to Cider Institute of North America Sanitation Best Practices, Laboratory Best Practices, and Sensory Evaluation Courses. |
| Trip 11 (Approximate Date of Travel January 14, 2024): | Hotel for presenting the project deliverables at CiderCon.   |

## CONFORMING WITH YOUR TRAVEL POLICY

By checking the box to the right, I confirm that my organization's established travel policies will be adhered to when completing the above-mentioned trips in accordance with 2 CFR 200.474 or 48 CFR subpart 31.2 as applicable. ☒

## EQUIPMENT

*Describe any special purpose equipment to be purchased or rented under the grant. "Special purpose equipment" is tangible, nonexpendable, personal property having a useful life of more than one year and an acquisition cost that equals or exceeds \$5,000 per unit and is used only for research, medical, scientific, or other technical activities. See the Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Equipment - Special Purpose for further guidance*

*Rental of "general purpose equipment" must also be described in this section. Purchase of general purpose equipment is not allowable under this grant. See Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Equipment - General Purpose for definition, and Rental or Lease Costs of Buildings, Vehicles, Land and Equipment.*

| # | Item Description           | Rental or Purchase | Acquire When?   | Funds Requested |
|---|----------------------------|--------------------|-----------------|-----------------|
| 1 | Cider Specific Pasteurizer | Purchase           | October 1, 2023 | \$5,500.00      |

**Equipment Subtotal: \$5,500.00**

## EQUIPMENT JUSTIFICATION

*For each Equipment item listed in the above table describe how this equipment will be used to achieve the objectives and outcomes of the project. Add more equipment by copying and pasting the existing listing or delete equipment that isn't necessary.*

|              |   |
|--------------|---|
| Equipment 1: | Provide control of cider pathogen levels in ground harvest and tree harvest cider in order to provide a base level control. |
|--------------|---|

## SUPPLIES

*List the materials, supplies, and fabricated parts costing less than \$5,000 per unit and describe how they will support the purpose and goal of the proposal and enhance the competitiveness of specialty crops. See Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Supplies and Materials, Including Costs of Computing Devices for further information.*

| Item Description                             | Per-Unit Cost | # of Units/Pieces Purchased | Acquire When?   | Funds Requested |
|--|---------------|-----------------------------|-----------------|-----------------|
| Apples                                       | \$125.00      | 20.0                        | October 1, 2023 | \$2,500.00      |
| Cider Specific Impeller Pump                 | \$4,500.00    | 1.0                         | October 1, 2023 | \$4,500.00      |
| Cider Specific Impeller Pump - Ground Apples | \$4,500.00    | 1.0                         | October 1, 2023 | \$4,500.00      |

| Item Description                               | Per-Unit Cost | # of Units/Pieces Purchased | Acquire When?    | Funds Requested |
|--|---------------|-----------------------------|------------------|-----------------|
| Detergent                                      | \$50.00       | 10.0                        | October 1, 2023  | \$500.00        |
| Fall Field Day - Lunch/Coffee Break            | \$25.00       | 75.0                        | August 1, 2024   | \$1,875.00      |
| Fall Field Day - Marketing                     | \$500.00      | 1.0                         | June 1, 2024     | \$500.00        |
| Harvest Bins                                   | \$175.00      | 10.0                        | October 1, 2023  | \$1,750.00      |
| Hoses / Fittings - Ground Apples               | \$2,000.00    | 1.0                         | October 1, 2023  | \$3,000.00      |
| Hoses/Fittings                                 | \$3,000.00    | 20.0                        | October 1, 2023  | \$3,000.00      |
| IBC Totes                                      | \$277.40      | 20.0                        | October 1, 2023  | \$5,548.00      |
| Microbial Load Testing Supplies / Lab Supplies | \$10.00       | 400.0                       | October 1, 2023  | \$4,000.00      |
| Sanitizer                                      | \$100.00      | 10.0                        | October 1, 2023  | \$1,000.00      |
| Spring Field Day - Lunch/Coffee Break          | \$25.00       | 50.0                        | April 1, 2023    | \$1,250.00      |
| Spring Field Day - Marketing                   | \$500.00      | 1.0                         | February 1, 2024 | \$500.00        |

**Supplies Subtotal: \$34,423.00**

## SUPPLIES JUSTIFICATION

*Describe the purpose of each supply listed in the table above purchased and how it is necessary for the completion of the project's objective(s) and outcome(s).*

|   |
|---|
| Apples: Purchase of apples to be pressed into cider for HACCP Plan testing.   |
| Cider Specific Impeller Pump: Required for sanitary transfer of cider in the project.   |
| Cider Specific Impeller Pump - Ground Apples: Required for the sanitary transfer of cider and keeping ground apples and tree apples separate.   |
| Detergent: Required for equipment cleaning under the HACCP Plan.  |
| Fall Field Day - Lunch/Coffee Break: These funds will be used to provide a coffee break and boxed lunch to attendees of the field day. Attendees will be members of the apple and cider industry from around the state. All IN cideries and orchards will receive an invitation to the field day. |
| Fall Field Day - Marketing: These funds will be used to promote the project demonstration at the Spring Field Day. All IN orchards and cideries in the state will be contacted to inform them of the project and invite them to attend the field day.   |
| Harvest Bins: Required for the harvest of tree and ground apples and keeping them separate to test the HACCP Plan and demonstrate the process to stakeholders.  |
| Hoses / Fittings - Ground Apples: Required for the sanitary transfer of cider - keeping ground apples separate.   |
| Hoses/Fittings: Required for the sanitary transfer of cider during the project.   |

|   |
|---|
| IBC Totes: Required for the sanitary holding of cider during the project.   |
| Microbial Load Testing Supplies / Lab Supplies: Required to preform microbial load testing as a validation of the HACCP Plan.   |
| Sanitizer: Required for equipment sanitation under the proposed HACCP Plan.   |
| Spring Field Day - Lunch/Coffee Break: These funds will be used to provide a coffee break and boxed lunch to attendees of the field day. Attendees will be members of the apple and cider industry from around the state. All IN cideries and orchards will receive an invitation to the field day. |
| Spring Field Day - Marketing: These funds will be used to promote the project demonstration at the Spring Field Day. All IN orchards and cideries in the state will be contacted to inform them of the project and invite them to attend the field day.   |

## CONTRACTUAL/CONSULTANT

*Contractual/consultant costs are the expenses associated with purchasing goods and/or procuring services performed by an individual or organization other than the applicant in the form of a procurement relationship. If there is more than one contractor or consultant, each must be described separately. (Repeat this section for each contract/consultant.)*

### ITEMIZED CONTRACTOR(S)/CONSULTANT(S)

*Provide a list of contractors/consultants, detailing out the name, hourly/flat rate, and overall cost of the services performed. Please note that any statutory limitations on indirect costs also apply to contractors and consultants.*

| # | Name/Organization                               | Hourly Rate/Flat Rate | Funds Requested |
|---|---|-----------------------|-----------------|
| 1 | Cornell University Craft Beverage Analytics Lab | \$40.00               | \$3,500.00      |
| 2 | HACCP Plan External Review                      | \$75.00               | \$3,000.00      |
| 3 | Legal Analysis - External Review                | \$175.00              | \$7,000.00      |

**Contractual/Consultant Subtotal: \$13,500.00**

## CONTRACTUAL JUSTIFICATION

*Provide for each of your real or anticipated contractors listed above a description of the project activities each will accomplish to meet the objectives and outcomes of the project. Each section should also include a justification for why contractual/consultant services are to be used to meet the anticipated outcomes and objectives. Include timelines for each activity. If contractor employee and consultant hourly rates of pay exceed the salary of a GS-15 step 10 Federal employee in your area, provide a justification for the expenses. This limit does not include fringe benefits, travel, indirect costs, or other expenses. See Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Contractual and Consultant Costs for acceptable justifications.*

|                          |   |
|--------------------------|---|
| Contractor/Consultant 1: | Microbial load testing is required for the project. Tests are run on a per/test cost plus shipping. |
| Contractor/Consultant 2: | External review of HACCP Plan for validation.   |
| Contractor/Consultant 3: | External review of position paper for validation.   |

## CONFORMING WITH YOUR PROCUREMENT STANDARDS

By checking the box to the right, I confirm that my organization followed the same policies and procedures used for procurements from non-federal sources, which reflect applicable State and local laws and regulations and conform to the Federal laws and standards identified in 2 CFR Part 200.317 through.326, as applicable. If the contractor(s)/consultant(s) are not already selected, my organization will follow the same requirements. ☒

## OTHER

*Include any expenses not covered in any of the previous budget categories. Be sure to break down costs into cost/unit. Expenses in this section include, but are not limited to, meetings and conferences, communications, rental expenses, advertisements, publication costs, and data collection.*

*If you budget meal costs for reasons other than meals associated with travel per diem, provide an adequate justification to support that these costs are not entertainment costs. See Request for Applications section 4.7.2 Allowable and Unallowable Costs and Activities, Meals for further guidance.*

| Item Description   | Per-Unit Cost | Number of Units | Acquire When?    | Funds Requested |
|--|---------------|-----------------|------------------|-----------------|
| American Cider Association Annual Meeting Registration                   | \$425.00      | 3.0             | November 1, 2023 | \$1,275.00      |
| Cider Institute of North America Courses - Sanitation, Lab, & Evaluation | \$3,500.00    | 1.0             | October 1, 2023  | \$3,500.00      |
| Great Lakes Fruit and Vegetable Expo Registration                        | \$150.00      | 3.0             | November 1, 2023 | \$450.00        |
| Indiana Small Farms Conference Registration                              | \$145.00      | 3.0             | November 1, 2023 | \$435.00        |
| US Apple Annual Meeting Registration                                     | \$1,050.00    | 3.0             | November 1, 2023 | \$3,150.00      |

**Other Subtotal: \$8,810.00**

## OTHER JUSTIFICATION

*Describe the purpose of each item listed in the table above purchased and how it is necessary for the completion of the project's objective(s) and outcome(s).*

|  |
|--|
| American Cider Association Annual Meeting Registration: Attendance at the American Cider Association Annual Meeting to present the project.  |
| Cider Institute of North America Courses - Sanitation, Lab, & Evaluation: Provide additional training to the principal investigator on updated best practices in the areas of sanitation, laboratory evaluation, and sensory evaluation. |
| Great Lakes Fruit and Vegetable Expo Registration: Required to present the project at the Expo.  |
| Indiana Small Farms Conference Registration: Required to present the project at the Indiana Small Farms Conference.  |
| US Apple Annual Meeting Registration: Required to present the project at US Apple Annual Meeting.  |

## PROGRAM INCOME

*Program income is gross income—earned by a recipient or subrecipient under a grant—directly generated by the grant-supported activity or earned only because of the grant agreement during the grant period of performance. Program income includes, but is not limited to, income from fees for services performed; the sale of commodities or items fabricated under an award (this includes items sold at cost if the cost of producing the item was funded in whole or partially with grant funds); registration fees for conferences, etc.*

| Source/Nature of Program Income | Description of how you will reinvest the program income into the project to enhance the competitiveness of specialty crops   | Estimated Income |
|---------------------------------|--|------------------|
| Cider Sales                     | All cider sales from cider produced under this project will be reinvested into marketing and distribution of the project deliverables. Specifically, the funds will be used to present the deliverables at additional industry conferences and meetings. | \$2,700.00       |

**Program Income Total: \$2,700.00**

# Specialty Crop Grant Timeline – Slaughter Farms LLC Safe Harvest and Processing of Traditional and Ground Harvest Apples for Hard Cider

1. Fall 2023 (Q4)
  - a. Draft and Professional Review HACCP Plan
  - b. Procure Equipment
  - c. Pilot Project – harvest ground apples from our orchard – press into cider for fermentation – ferment cider – HACCP Testing for Validation
  - d. Apply to present the presentation at CiderCon (American Cider Association), Great Lakes Fruit and Vegetable Expo, and Indiana Small Farm Conference.
2. Winter 2023 (Late Q4 2023 – Q1 2024)
  - a. Review Findings – Adjust HACCP Plan and Protocol
  - b. Send project announcements and invitations to Spring & Fall Field Days to every orchard and cidery in Indiana.
  - c. Present Findings at the Great Lakes Fruit and Vegetable Expo in Grand Rapids, MI. (December)
  - d. Present Findings at the annual meeting of the American Cider Association (CiderCon) in Portland, OR. (January)
  - e. Present Findings at Indiana Small Farm Conference
  - f. Complete draft of position paper for internal and external legal and peer review
3. Spring 2024 (Q2)
  - a. Spring Field Day - In Orchard Demonstrations and Education Day
4. Summer 2024 (Q3)
  - a. Fall Field Day - In Orchard Demonstrations and Education Day
  - b. Orchard Demonstrations for individuals and groups requesting alternative days or private tours
5. Fall 2024 (Q4)
  - a. Publication of final findings
  - b. Publication of the final draft of the position paper





March 21, 2023

**TO:**

Indiana State Department of Agriculture  
One North Capitol Avenue, Suite 600  
Indianapolis, IN 46204

**FROM:**

John Behrens, Midwest Chair and Treasurer  
American Cider Association  
john@farmhauscider.com  
616.723.7087

**RE:**

Support of ISDA Specialty Crop Block Grant Proposal by Slaughter Orchard & Cidery

ISDA Grant Review,

The American Cider Association is the premier voice in advocating for cider producers in the U.S. We are always excited to support our members in our joint goal of growing a diverse and successful cider industry through providing information and resources to our members and the industry.

I enthusiastically endorse Slaughter Orchard & Cidery's proposal for the ISDA Specialty Crop Block Grant. The proposal would address a longstanding issue and fill multiple gaps for the cider community including:

1. Making more fully ripe apples safely available for hard cider production
2. Helping cideries make safe and legal choices about apple and cider production or purchase from under utilized or non-utilized sources (ground harvest)
3. Supporting cideries looking for additional volume and variety of apples for craft cider production

Cider producers around the world safely use ground harvested fruit to produce amazing ciders. This project would move Indiana, and hopefully U.S. cider makers into a position similar to producers in countries like England, Spain, and France.

One of the goals of the proposal is to convey the project deliverables to as many stakeholders as possible, and I understand that the applicants plan to submit their deliverables for a presentation at the 2024 Annual Meeting of the ACA, CiderCon 2024. Our selection process for presentations has not yet started, but this proposal will be given full consideration once it is submitted for presentation.

I am excited to see how this project will continue to support the robust growth in the cider industry over the next several years. Please feel free to reach out to me if you have any questions using my contact information above.

March 23, 2023

**TO:**

Indiana State Department of Agriculture  
One North Capitol Avenue, Suite 600  
Indianapolis, IN 46204

**RE:** Support of ISDA Specialty Crop Block Grant Proposal by Slaughter Orchard & Cidery

Dear Committee,

I am writing this letter in support of the ISDA proposal "*Safe Harvest and Processing of Traditional and Ground Harvest Apples for Hard Cider*" led by Clay Slaughter.

I am an Extension Associate with the Cornell High Pressure Processing Validation Center where I conduct the microbial challenge and validation study. I am also co-instructor for Juice HACCP with Dr. Randy Worobo. It is my understanding that the primary researchers will conduct this project to demonstrate the continued effectiveness of alcoholic fermentation in reducing pathogens. They also hope to demonstrate an updated HACCP Plan for implementation by orchards, cider mills, and cideries producing hard cider from ground harvested fruits.

For this project, my team and I will be conducting microbial tests and analyze the results. Experiments will be performed in triplicate. Final report will be generated, and the data will be used to update the HACCP plan.

I am looking forward to working with M. Slaughter on this project. Please don't hesitate to contact if you have any questions.



Ann Charles Vegdahl, PhD  
Extension Associate  
High Pressure Processing Validation Center  
Department of Food Science, Cornell AgriTech



Cider Institute of North America  
PO Box 2924  
Mount Vernon, WA 98273

March 23, 2023

Indiana State Department of Agriculture  
Specialty Crop Block Grant Program  
One North Capitol Avenue, Suite 600  
Indianapolis, IN 46204

To ISDA Specialty Crop Block Grant Reviewers:

This letter is a statement of support for Slaughter Farms LLC's ISDA Specialty Crop Block Grant proposal, *Safe Harvest and Processing of Traditional and Ground Harvest Apples for Hard Cider*. Safety around the harvesting and processing of ground fruit is an ongoing area of interest and confusion for cider makers and this grant would provide research valuable for producers in Indiana and across North America.

Hard cider is a quickly growing industry and yet there is a lack of research and development for orchardists and producers. The Cider Institute of North America (CINA) is the educational arm of the cider industry in North America and partners with universities, companies, farms, and individuals to provide current and relevant information for a quality-driven cider industry. We strongly support this grant proposal because it will help orchardists maximize their fruit production and usage and educate cider makers on the safe use of ground harvested apples.

The applicant for this grant, Clay Slaughter, has received his Certified Cider Maker qualification and recently graduated from CINA's advanced course, *GMPs, Safety, and Sanitation for Cidery Owners and Operators*, taught by instructors from Cornell University. The course provided training for developing a HACCP plan, which Mr. Slaughter will use for this grant.

The Cider Institute is pleased to endorse your application.

Sincerely,

Brigid O'Keane  
Executive Director  
[brigid@ciderinstitute.com](mailto:brigid@ciderinstitute.com)  
[www.ciderinstitute.com](http://www.ciderinstitute.com)



2022 Board of Supervisors: Justin Conard; Dallas Conder, 2nd Chair; Georgia Davis, Financial Auditor; Keith McConnell; Whitney Schlegel, Chair

March 24, 2023

TO:

Indiana State Department of Agriculture  
One North Capitol Avenue, Suite 600  
Indianapolis, IN 46204

FROM:

Martha Miller, District Manager  
Monroe County Soil & Water Conservation District  
martha-miller@iaswcd.org  
(812) 334-4323

RE:

Support of ISDA Specialty Crop Block Grant Proposal by Slaughter Farms / Slaughter Orchard & Cidery

ISDA Grant Review,

Monroe County Soil and Water Conservation District (MCSWCD) is always excited and willing to work with beginning farmers, and we are thrilled to have Slaughter Farms as a new farm in Monroe County. They are applying for your unique opportunity to improve their specialty crop growing and harvest processes, and it will prove to be valuable for both soil health and other producers.

The conservation efforts that these new farmers are putting forth to improve the soil to grow naturalized apples is incredible. Throughout this process, Monroe County Soil and Water Conservation District will be supportive of all efforts that they are working on toward creating a naturalized orchard, including the economic and conservation benefits of safely using dropped apples.

MCSWCD is in full support of Slaughter Farms receiving funding to pursue this endeavor. We look forward to supporting them as they demonstrate for other apple and cider producers around the state some of the great work going on here in Monroe County.

If I can be of any further service in helping you decide to provide funding for this project, please feel free to contact me.

Sincerely,

Martha Miller  
Monroe Co SWCD District Manager

March 24, 2023

**TO:**

Indiana State Department of Agriculture  
One North Capitol Avenue, Suite 600  
Indianapolis, IN 46204

**FROM:**

Edward Oehlman  
Extension Educator – Agriculture & Natural Resources  
eoehlman@purdue.edu  
(812) 349-2575

**RE:**

Support of ISDA Specialty Crop Block Grant Proposal by Slaughter Orchard & Cidery

ISDA Grant Review,

As the Purdue Agriculture & Natural Resources Extension Educator for Monroe County, I am always excited to see new and innovative projects coming from our Monroe County farms and producers. This project is exciting for one of our newer farms, Slaughter Orchard and Cidery. While my work is focused on Monroe County, I believe this project will benefit not only the orchards and cideries in our county, but around Indiana.

One of the project goals is to distribute the project deliverables as widely as possible within Indiana. I am happy to support this goal by adding the project field days to our publications. I have also connected the applicants with the Purdue Extension statewide commercial fruit production expert, Peter Hirst, who will hopefully be able to provide greater distribution throughout Indiana.

As an educator, I support this project's educational mission of teaching orchards and cideries how to safely harvest and process ground harvest apples for value add production into hard cider. Opportunities for economic growth through best practice education is a deep part of extension services.

Please feel free to reach out if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Oehlman', with a long horizontal flourish extending to the right.

Edward Oehlman  
Extension Educator Monroe County – Agriculture & Natural Resources