



University of Idaho

Innovative Agriculture and Marketing Partnership



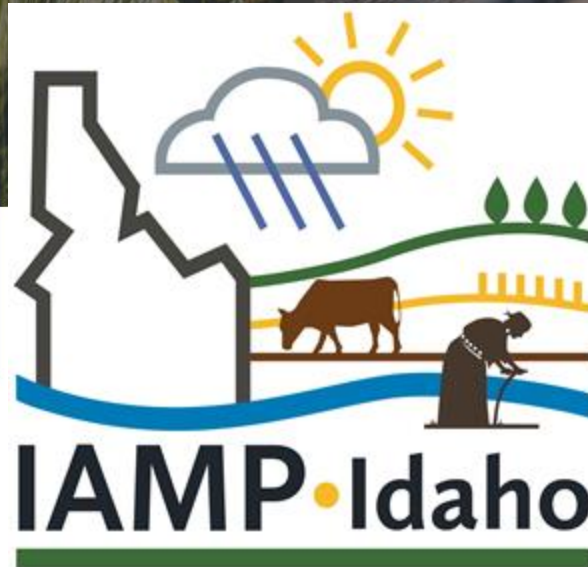
TNC



University of Idaho

Innovative Agriculture and Marketing Partnership

A Public, Private, Tribal Partnership building climate-smart markets and increasing the adoption of climate-smart practices in Idaho.



Participant Application

Student Application

Explore IAMP Practices



Project Leads:
Sanford Eigenbrode &
Erin Brooks

<https://iamp.uidaho.edu/>
Cultivating Success Webinar
3/12/2024

The Project

- \$55 million funding
- Focused on 7 major Idaho commodities
- Incentivizing “Climate Smart” agricultural practices on a large scale
 - Identify practices, Recruit and support producers, Reach early adopters, new adopters, the underserved
- MMRV: Measurement, Modeling, Reporting, Validating
 - GHG emissions, Soil carbon, COMET-Farm model; System performance
- Develop and expand markets for sustainably grown commodities
- Improve sustainable production of Idaho’s major commodities



The Opportunity for Idaho Agriculture

1. Address Declining Soil Health

- Soil pH, reduced organic matter, declining soil water retention, decreased soil infiltration
- Diversify cropping system: Explore Cover Cropping, Grazing of cover crops, Intercropping

2. Reduce reliance on synthetic fertilizers

- Increased reliance on soil organic sources (e.g. manure, compost, organic matter)
- Reduce vulnerability to volatile fertilizer prices

3. Increased number and diversity of commodity markets

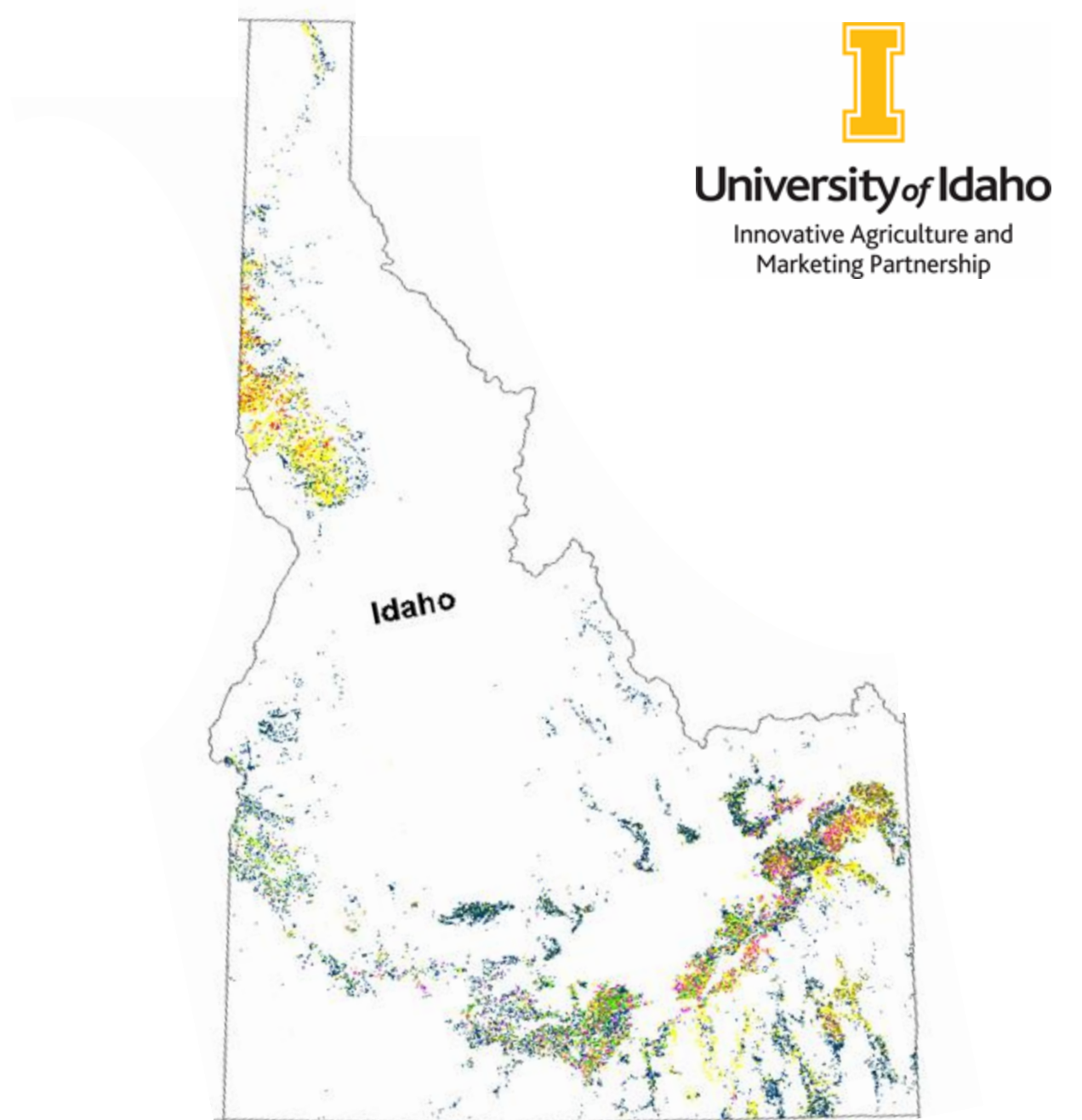
- More access to local and regional markets, increased communication

4. Sustain and Grow Idaho Agriculture for the Next Generation



The Commodities

- Barley ●
- Beef ●
- Chickpea ●
- Hops ●
- Potatoes ●
- Sugar Beets ●
- Wheat ●





NRCS Practices to be Implemented

- Conservation crop rotation 328
 - Soil health rotation
 - Interseeding
- Cover crop 340
- Prescribed grazing 528
- Reduced-till 345
- No-till 329
- Nutrient Management 590
 - 15% or more Reduction in Synthetic N
 - 15% or more Replacement of Synthetic with composted manure
- Soil Carbon amendment 808
 - Biochar

Working closely with Shawn Nield (State Soil Scientist), Travis Youngberg (State Agronomist), and Greg Becker/Ben Bonilla (State Resource Conservationist) on the development and implementation of these practices.



Producer Contracts

- Incentives: \$34-\$74/acre/year/practice
- Acres per farm: up to ~1,000
- Farms: > 200
- Contracts
 - Common: developed and administered by funded partners
 - Payments: tied to implementation and reporting
 - Minimum contract: 3 years
 - Support multiple practices with stacking within years and combinations across years
 - Cannot receive payment for a practice that is already funded on the same field.





IAMP Practices Summary Sheet



Innovative Agriculture and Marketing Partnership for Idaho (IAMP) is a public, private, tribal partnership that will increase adoption of agricultural practices that can reduce greenhouse gasses (GHG) and increase soil carbon in Idaho and build climate-smart markets for these commodities. Producers of seven commodities, barley, beef, chickpeas, hops, potatoes, sugar beets and wheat grown in Idaho can enroll with IAMP to receive incentives for eight agricultural practices. This table provides a summary of the practices with incentive payments and verification requirements. Links are provided to more detailed practice descriptions and, where applicable, associated NRCS practices. Producers can apply following the link on the project website (<https://iamp.uidaho.edu>).

| Practices | Incentives | Verification |
|---|---|---|
| <p>No Tillage from More Intensive Tillage Seeding directly into or through previous crop residue without any other mechanical soil preparation and managing residues on the soil surface year-round.</p> <p>Detailed IAMP practice description Associated NRCS Code 329</p> | <p>\$60/acre/year of implementation + \$ for required plant and soil testing.</p> | <ul style="list-style-type: none"> • Based on RUSLE2 model, a soil tillage intensity rating (STIR) value no greater than 20. • Soil erosion rates <u>less</u> than soil tolerance levels (T). • Positive trend in the soil conditioning index (SCI) and erosion rate. |
| <p>Reduced Tillage from Conventional Tillage Limiting soil-disturbance from tillage by modifying methods to those that limit inversion tillage operations such as replacing moldboard plowing and harrowing with chisel or similar implement.</p> <p>Detailed IAMP practice description Associated NRCS Code 345</p> | <p>\$40/acre/year of implementation + \$ for required plant and soil testing.</p> | <ul style="list-style-type: none"> • Increased soil cover from near zero at baseline to at least 30%. • STIR value equivalent no greater than 80. • Soil erosion rates are less than soil tolerance levels (T). |
| <p>Cover Cropping A seasonal/annual vegetative cover that is not harvested, baled, or sold as a specific commodity (other than grazing – see IAMP Prescribed Grazing Practice).</p> <p>Detailed IAMP practice description Associated NRCS Code 340</p> | <p>\$74/acre/year, for the years that the cover crop is planted.</p> | <ul style="list-style-type: none"> • Certificate from seed suppliers. • Evidence (as-applied seed map, photographs) that the cover crop was planted and harvested as planned in the IAMP contract. • Evidence that the cover crop was not burned. • Evidence or statement that the cover crop was not harvested for seed. • Confirmation of termination following NRCS guidelines • If grazed, cover crop mix complies with pesticide label rotational crop restrictions. |

Getting Involved

- Stay tuned to our web page for updates and news.
- Producer applications coming out soon

<https://iamp.uidaho.edu/>

Questions?

Innovative Agriculture and Marketing Partnership

A Public, Private, Tribal Partnership building climate-smart markets and increasing the adoption of climate-smart practices in Idaho.



SCAN ME

Climate-Smart Commodities for Idaho

A Public, Private, Tribal Partnership will build climate-smart markets and increase adoption of climate-smart practices on more than 200 farms in Idaho.



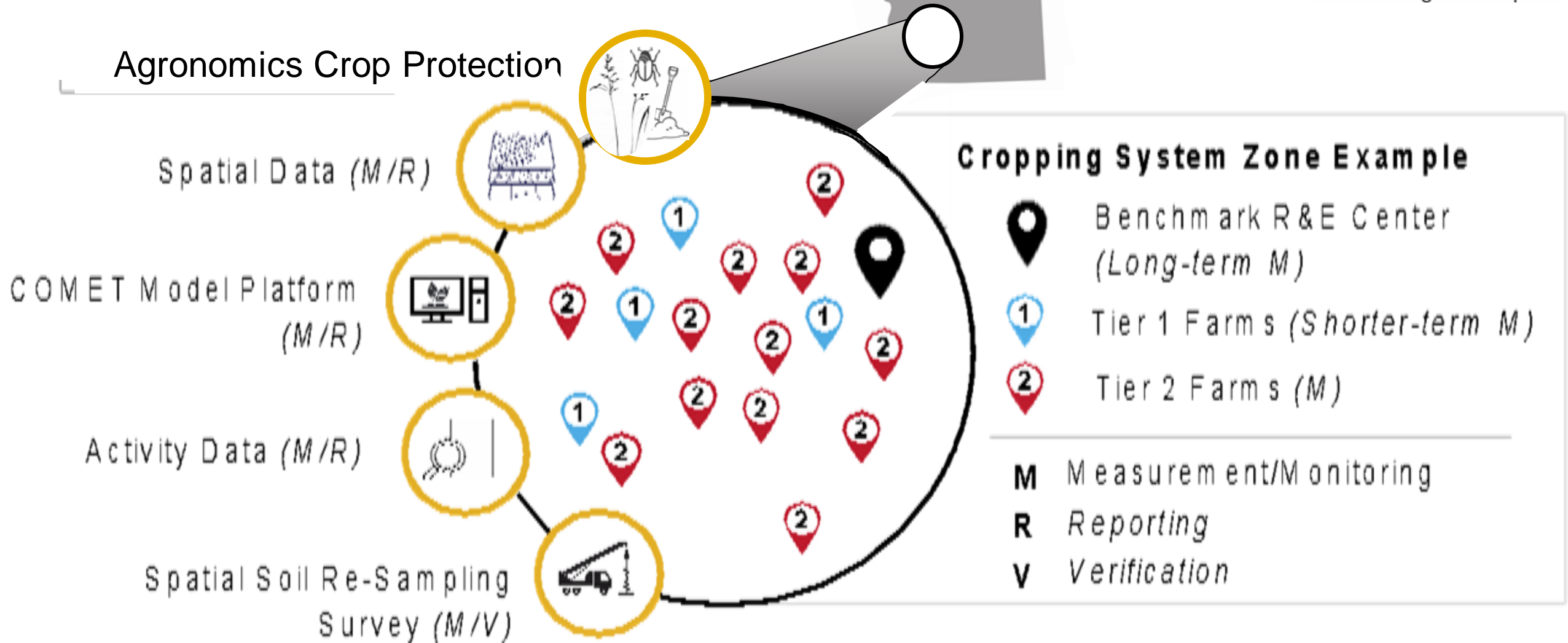
Support and Monitoring



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Agronomics Crop Protection



Supporting Partners

Commissions and Cooperatives

Idaho Barley Commission
Idaho Brewers United
Idaho Potato Commission
Idaho Wheat Commission
Montana Seed Potato Certification
Potato Sustainability Alliance
Potatoes USA

Federal

USDA-ARS (Pullman and Kimberly)
USDA-NRCS
USDA-Climate Hub

Industry

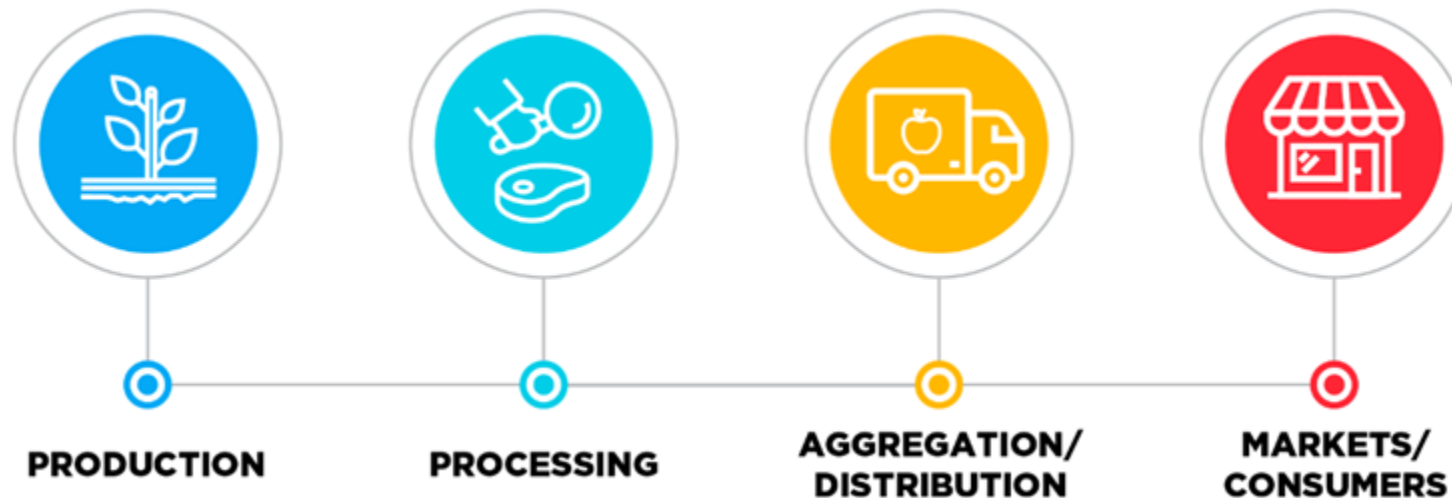
Amalgamated Sugar

Anheuser Busch
Hillside Grains
JR Simplot
Magic Valley Produce
Mart Produce
McCain Foods
Zacca Hummus



Supply Chains

- Facilitating market-based incentives for CS commodities
 - Research to delineate supply chains
 - Supporting development of CS certification for contracts
 - Assessing willingness-to-pay for CS products
 - Develop and extend CS supply chains
- Arrowleaf consulting, Salmon Safe, UI faculty, nonfunded industry partners



Marketing and Supply Chains Update



Arrowleaf Consulting

- Primarily wheat and also chickpeas. Partnering with Salmon-Safe, Wave Foundation, identifying other supply chain partners

Idaho Preferred at ISDA

- Connected to Director Laura Johnson, and Erica White about featuring enrollment of Idaho Preferred members

Anheuser Busch

- Interested in suppliers of CS barley and hops; aiming for company-wide net zero by 2040

Snacktivist and Viision

- Consultants interested in working with us to help with marketing aspects of IAMP across our commodities.

Potatoes

- Simplot, McCain Foods, and potentially individual potato producers are potential partners.

Chickpea

- Zacca Hummus – Idaho processor sourcing chickpea from Latah County – family business

Craft Beers

- Through Sheila Francis, Executive Director of Idaho Brewers United. Many brewers in IBU are interested in craft beers identified for environmental benefits, local sourcing, or both.

Business and Marketing at UI

- Consulting with Sanjay Sisodiya, Professor of Marketing at the University of Idaho.



IAMP Status Update

Grower Practices/Contracts Drafts Completed

- Univ. Idaho Legal Team reviewing contract language

Online Application Tool prototype finished

- Beta-testing with growers has been initiated

Online Application

- **Two Step application approach**
 - **Phase 1 (Grower Interest/Eligibility Form)**
 - **Phase 2 (Completed with guidance from an implementing partner)**
 - Online application form requiring baseline and planned cropping system
 - Typical Crop rotation, Tillage, N fertilizer, Grazing, Irrigation, Crop Yield, Residue management
 - COMET Farm model runs provided for baseline and planned cropping system
 - Grazing Plans
 - Developed with consultation with implementing partner
 - Implemented directly into COMET farm by implementing partner
 - Technical Support Teams
 - Provide advanced planning
 - RUSLE2
 - INTRA
 - Nutrient Management

Select Your Site



Upload Farm Boundaries: If you have kml file(s) of your field boundaries, upload them here No file chosen

Manually Selecting Farm Boundaries: If you don't have kml files with your field boundaries, follow these instructions to place a pin on the map. To select your site, start by finding your location on the map. The + - buttons in the top left corner of the map will allow you to zoom in and out. You can also click and drag the map to move around. Once you have found your location, you can drop a pin on the center of your land area by clicking the pin (📍) icon in the top right corner of the map. Once you have dropped a pin, you can delete it by performing the following steps: **1. click the trash (🗑️) icon, 2. click on the pin, 3. click the save button that appears next to the delete icon.** Once you are satisfied with your selection, click the 'Close' button and your location information should be populated in the form.



Application: Phase 1



Close

Baseline Rotation

Each number below represents a year in your typical rotation. Click a year button below to get started:

1

2

3



Rotation Year 1 :

Harvest Year 2015

Pre-Plant Tillage Events:

No Events

Add Event

| Month | Day | Type of Tillage | Tillage Implement | Action |
|--------------|------------|-----------------|-------------------|--------|
| Month Select | Day Select | Tillage Select | Implement Select | |

Notes:

Pre-Plant Fertilization Events:

No Events

Add Event

| Month | Day | Fertilizer Type | Applied Mass of Fertilizer (lb/ac) | Mass of N applied in the Fertilizer (lb/ac) | Action |
|--------------|------------|-------------------|------------------------------------|---|--------|
| Month Select | Day Select | Fertilizer Select | Applied Mass | Mass N Applied | |

Notes:

Application: Phase 2



IAMP Status Update

Online Application Roll-out Strategy

- **Multiple application sign up periods**
 - **Round 0 (ongoing)**
 - Beta testers, by invitation only, prioritizing spring enrollment
 - **Round 1**
 - 30 day open sign-up period (application phase 1) (coming soon!)
 - **Round 2 (later this summer)**
 - Targets commodities/regions that were under-represented in Round 1
 - Based on response rates a weighting Rubric will be established based on one or more of the following fixed criteria (not in any particular order)
 - Priority commodity
 - Priority region
 - Greatest GHG reduction per dollar
 - Under-served population
 - Supply chain marketing opportunities

FAQ



I heard about this project a year ago but nothing much since. Is the money already spent?

- No growers have been signed up yet. No contracts have been signed by growers. We will make every effort to notify through all available channels when the application process goes live. The official start date of the project was May 3rd 2023. Without NRCS involvement we have spent much of this time defining practices, developing geospatial online application tools and working on a legal contract that can be used with growers.

FAQ



If I have already implemented these practices on my farm, does this exclude me from receiving funding from this project?

- We are not allowed to pay for practices that have already been consistently followed on the same field that will be enrolled in this program. If you have tried a practice (such as a cover crop) on a field but this has not been consistently adopted as a part of your cropping rotation then you are still able to enroll this field.
- Growers who have consistently implemented practices on one field does not exclude them from enrolling a different field which hasn't not had these practices.

FAQ



Why should I apply for funding through IAMP rather than other NRCS programs (EQIP, CSP)?

- IAMP emphasizes more monitoring (pre- and post-harvest) to be able to understand why a practice is successful or unsuccessful.
- IAMP will provide all growers with a report documenting the reduction in GHG and increase in soil carbon using the COMET model
 - Potentially assists with future certification
- Participating with IAMP can provide access to growing marketing opportunities
- Most payments exceed current NRCS per acre rates and some practices have greater flexibility (e.g. Nutrient Management)

Potential Impacts of IAMP

1. Establishing and building partnerships with SWCD, Tribes, TNC, and Desert Mountain Grassfed Beef that will carry on beyond the end of the project.
2. Improve connection and visibility between University research and growers/ranchers.
3. Increase understanding of challenges and benefits of novel practices and how to perform on-farm experiments which increase knowledge
4. Increase understanding of the ability to quantify of GHG and soil carbon impacts to guide future policies
5. Increase marketing opportunities both regionally and internationally for Idaho Agriculture



Automatic GHG chamber
measurements at 4 benchmark sites
and 24 Tier 1 sites

Season soil carbon and nutrient
measurements from the top 2 ft



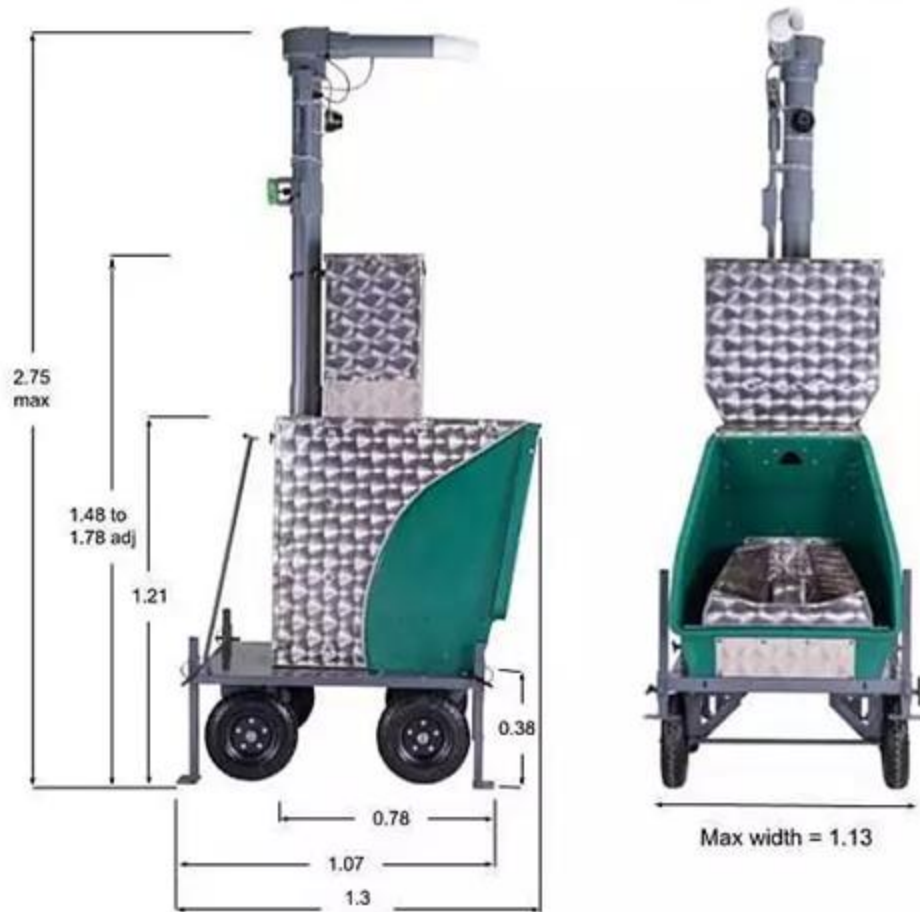
G2508 Gas Concentration Analyzer

Measures N₂O, CH₄, CO₂, NH₃, and H₂O

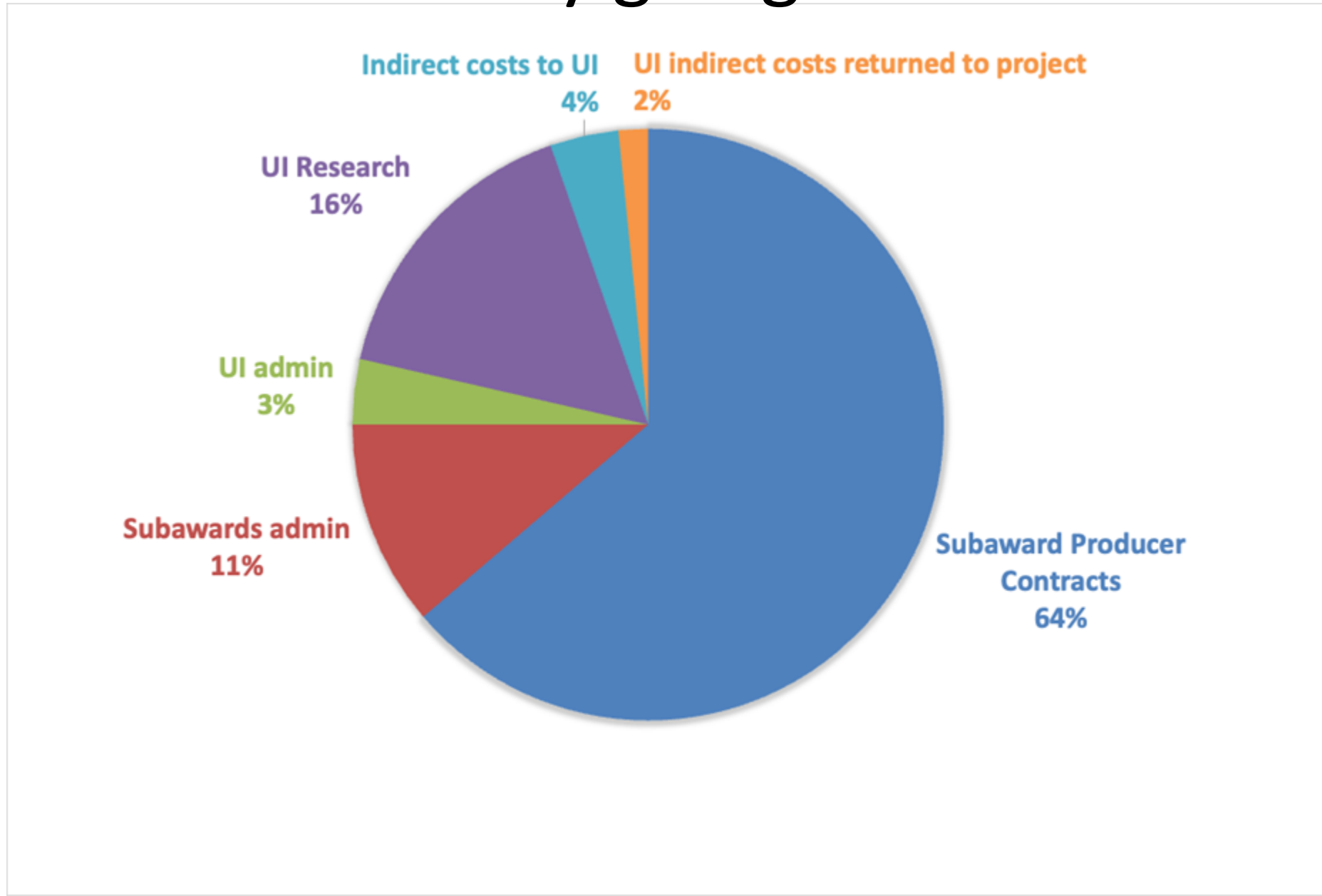


GreenFeed system for monitoring Enteric CH₄ and CO₂

GreenFeed mounted on free-stall cart. All dimensions are in meters.



Where is the money going?





U.S. DEPARTMENT OF AGRICULTURE

PARTNERSHIPS FOR CLIMATE-SMART COMMODITIES

BY THE NUMBERS



The U.S. Department of Agriculture is investing over **\$3.1 billion** in **141 selected** projects under the Partnerships for Climate-Smart Commodities.

PROJECTS BY COMMODITY



PROPOSAL INVESTMENTS

Proposals for the

141

tentatively selected projects include plans to match

→ 50%

An average of

of the federal investment with non-federal funds.

PROJECTS BY AWARD SIZE*

71

Under \$5M



| | |
|----|-----------|
| 22 | \$5-20M |
| 25 | \$25M-45M |
| 09 | \$50M-65M |
| 14 | \$70M-95M |

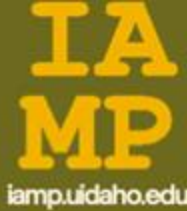
Projections

| Practice | Code | Expected GHG Reduction (tonnes CO ₂ eq/year) | | |
|---|------|---|-----------|---------------|
| | | Dryland | Irrigated | Total |
| Conservation Crop Rotation** | 328 | 1,592 | 3,206 | 4,798 |
| Cover Crop | 340 | 5,510 | 7,484 | 12,994 |
| Prescribed Grazing | 528 | 4,528 | 4,898 | 9,425 |
| Residue and Tillage Management, Reduced Till*** | 345 | 2,661 | 2,475 | 5,136 |
| Residue and Tillage Management, No Till*** | 329 | 2,602 | 4,072 | 6,674 |
| Nutrient Management | 590 | 8,430 | 1,892 | 10,322 |
| Soil Carbon Amendment | 808 | 2,513 | 6,513 | 9,026 |
| Biochar**** | 808 | 844 | 2,548 | 3,392 |
| Total annual GHG reductions expected | | | | 61,767 |

2-page flier

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About the I-AMP Idaho Project

I-AMP Idaho is a Public, Private, Tribal Partnership building climate-smart markets and increase adoption of climate-smart practices on more than 200 farms in Idaho through the provision of financial and technical assistance to producers, with a focus on **barley, beef, chickpeas, hops, potatoes, sugar beets and wheat.**

The U of I-led project will receive \$55 million from the U.S. Department of Agriculture to fund the five-year effort. More than half of the funding will be used to incentivize Idaho's voluntary farmers and ranchers to adopt agronomic practices intended to improve soil health and keep greenhouse gases from entering the atmosphere.

At least 30% of project participants will represent underserved communities. Funded partners include the Idaho Association of Soil Conservation Districts, the Nez Perce and Coeur d'Alene Tribes, The Nature Conservancy Agriculture Program in Idaho, Desert Mountain Grassfed Beef and Arrowleaf Consulting.

FAQs

What is Climate Smart Agriculture?

Climate smart agriculture "aims to enhance the capacity of the agricultural systems to support food security, incorporating the need for adaptation and the potential for mitigation into sustainable agriculture development strategies."

Who is Eligible To Participate?

Farmers and ranchers of Idaho's major commodities located anywhere in the state are eligible to apply.

How Can Farmers & Ranchers Get Involved?

The program aims to enroll 200 farmers and ranchers who may contact funded partners to enroll. Funded partners include the Idaho Association of Soil Conservation Districts, the Coeur d'Alene and Nez Perce tribes, the Nature Conservancy and Desert Mountain Beef.

What Resources Are Available To Help Me Implement These Practices?

Funded partners will provide technical expertise and site visits for participating producers. University of Idaho Extension will produce educational materials and bulletins. An online dashboard and portal will share research findings about climate smart practices through text, video, audio and interactive resources.

How Much Will The Program Pay Farmers & Ranchers?

Average program payments are estimated at \$60 an acre dependent on the crop and the practice involved. Some combinations of crops and practices will pay more, and some will pay less.

Which Practices Are Eligible For Compensation?

Covered practices will include cover cropping, cover cropping with livestock grazing, reduced or no-till, interseeding, precision fertilizer application, and partial nitrogen fertilizer replacement with biochar, among others. Growers will get to pick which practices they would like to try from the final approved list.

Can Farmers & Ranchers Already Using These Practices Still Enroll?

Yes — however, producers who are already receiving funding for the same practice on the same acreage through another program will not be eligible for duplicate practices.

Find more information at <https://iamp.uidaho.edu>



Benefits to Idaho's Farmers and Ranchers

- A win-win partnership — a win for the climate by reducing greenhouse gas emissions from our agriculture, and for growers by improving sustainability and profitability.
- Expanded markets and revenue streams for farmers and ranchers and commodities across the industry.
- Approximately 31,000-70,000 metric tons of carbon dioxide equivalents prevented from entering the atmosphere annually while replenishing organic matter in cropland soils.
- Generating data that will help inform future carbon credit trading for producers.
- Idaho's producers will be represented with all other funded projects nationwide through this program to inform policy for climate-smart agriculture and food systems.

Partners



Supporting Partners

Commissions and Cooperatives

- Idaho Barley Commission
- Idaho Brewers United
- Idaho Potato Commission
- Idaho Wheat Commission
- Montana Seed Potato Certification
- Potato Sustainability Alliance
- Potatoes USA

Federal

- USDA-ARS (Pullman, Wa and Kimberly, Id)
- USDA-NRCS
- USDA-Climate Hub

Processing and Marketing Industry

- Amalgamated Sugar
- Anheuser-Busch
- Hillside Grains
- Idaho Brewers United
- JR Simplot Company
- Magic Valley Produce
- Mart Produce
- McCain Foods
- Zacca Hummus

Others

- Salmon Safe
- Wave Foundation

This project is funded by the U.S. Department of Agriculture, through its Partnerships for Climate-Smart Commodities Program, award ID # NR233A750004G038

Find more information at <https://iamp.uidaho.edu>



Funded Partners

University of Idaho - Lead

Idaho Association of Soil Conservation Districts

Tribes (Coeur d'Alene, Nez Perce)

The Nature Conservancy, Agriculture Program, Boise

Desert Mountain Grass fed Beef

Arrowleaf Consulting



University
of Idaho

