

University of Idaho Combined Research and Extension Plan of Work 2022-2026

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I. Plan Overview

1. Executive Summary

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2022 University of Idaho Combined Research and Extension Plan of Work

a. Executive Summary

In 2020, the University of Idaho Extension began to implement the 2020-24 plan of work (POW) through 7 program teams called 'Priority Extension Themes' (PETs). In POW, PETs are listed as Critical Issues. The PETs emerged as a result of the 2017 statewide needs assessment. Each PET corresponds with one (or more) of the 9 Science Emphasis areas identified by NIFA as national priorities. The goals of PETs are to better align programs with stakeholder needs, deliver educational activities to meet customer preferences, and maximize statewide operational efficiency. The PET structure facilitates the opportunity to demonstrate Extension's public value to our stakeholders serving them with need-based educational programs as well as return on investment (ROI) to the communities. The terms Critical Issue and PETs are used interchangeably throughout the document.

The names of 7 PETs listed under the Critical Issue section of this POW are 1) Food Production Systems, 2) Horticulture and Small Farms, 3) Community Development, 4) Forest, Range, and other Natural Resources, 5) Health and Wellness, 6) Water, and 7) 4-H Community Youth Development

The PET plan of work was faculty-driven and included a) Extension specialists with joint extension and research appointments, b) research scientists with full research appointments, c) faculty with joint research and extension or teaching appointments, and d) county Extension educators with Extension appointments. Each year, the PET co-leaders meet to review the previous year's progress and provides new plans to address the changing community needs.

Agribusiness is the largest industry in Idaho. It contributes to the state's economy and, more importantly, affects rural communities through job creation, increasing value-added of products, and indirect effects on local economies. Most agricultural challenges faced by ranchers and farmers are production, market, and policy, and are environmentally driven. The Food Production PET will address these challenges by conducting relevant research in conjunction with Extension to achieve Idaho's farm productivity, economic profitability, and sustainability. Research-generated information and technology will be transferred to farmers and ranchers using various educational activities and partnerships with allied agencies.

In 2018, the U.S. Census Bureau announced that Idaho was the fastest-growing state in the nation. In communities across Idaho, rapid urbanization and demographics changes have created a critical need for landscaping, gardening, and home food-production information. The green industry, including nurseries, turf marketing and care, landscapers, and the commercial fruit industry, continues to rise with associated growth in educational needs. The purpose of the Horticulture and Small Farms PET is to focus on best practices that engage individuals and groups to improve social, environmental, and economic sustainability on intensively managed private and public lands. Focus areas include soil health, water conservation, selection and maintenance of appropriate plant materials, invasive species management, garden and on-farm food safety, sustainable small-scale crop and livestock systems, small-farm entrepreneurship, and related subjects.

Communities need social and political capital to update and reinvent themselves. These capitals are essential to constructive community dialogue that keeps residents working together toward common interests. The Community Development PET is committed to improving the economic well-being of Idaho rural residents. It focuses on matters that support the process of wealth creation in rural communities and in disseminating economic knowledge to community leaders to broaden their perspectives and sense of the possibilities.

Idaho residents' unfamiliarity with the natural resource-based enterprises upon which the regions' economies are built often leads to misunderstandings and friction regarding best management practices and natural resources. Some of the emerging issues in this area include climate change, wildfire, biodiversity conservation, and forest and rangeland health. The Forest, Rangelands, and Other Natural Resources PET will teach youth and adults to develop awareness and make connections between food and fiber production, health, and quality of life and help them to participate in public discussions of natural resource management.

Two-thirds of Idaho adults and 30% of youth are overweight or obese, increasing the risk for chronic disease. One in five children and 14% of Idahoans experience hunger or food insecurity due to a lack of money. They consume fruit less than once per day and vegetables less than once per day. An estimated one-sixth of Idahoans, especially the elderly, pregnant women, and young children, contract a foodborne illness caused by improper holding temperature, inadequate cooking, contaminated equipment, unsafe food source, and poor personal hygiene. A recent report showed that 49% of Americans feel, concerned, anxious, or fearful about their current financial well-being. Consumers are bombarded daily by an array of credit, investing, retirement, and purchasing options that did not exist in previous decades. In Idaho, 198,000 Idahoans owe an average of \$29,000 student debt. The Health and Wellness PET provides healthy living, food safety, and resource management programs, with projects and educational activities, developed and implemented to inspire wellness in Idaho.

To help manage uncertainty and adapt to increasing variability, the Water PET will improve social-ecological resilience and water system robustness. To increase Idahoans understanding of applying effective water management, it will develop programming in the areas of climate-change mitigation and adaptation related to water resources, balancing increasing demand for water-related to food supply with no increase in water availability, increasing food produced per unit of water and wise water use outreach and Extension education.

Leadership and citizenship are an integral part of 4-H Youth Development. By providing educational opportunities for youth to learn leadership skills and participate in community service learning, they can practice what they have learned to become more involved in their communities. There is a great concern by educators and decision-makers regarding the number of youths interested in sciences. Low standardized test scores for youth indicate they are not learning the skills they will need in the workplace. The 4-H Youth Development PET will take leadership to facilitate the faculty, staff, and volunteers to deliver educational programs in building the capacity of youth who become resilient, productive, and responsible individuals.

2020-24 Planned Programs and UI Extension Response to COVID-19 Pandemic

In response to the COVID-19 pandemic, UI Extension has been providing classes, resources, and information in a digital format to meet the needs of Idahoans. Hundreds of classes, workshops, and meetings were converted to a virtual environment. Videos were created to reach clients in their homes. Extension faculty-maintained contact with citizens via social media, phone calls, and emails. Despite the adjustments made to help reduce the risk and spread of COVID-19, UI Extension will continue to provide valuable research-based information and programs to help Idahoans in the future as per the planned programs included in the 2020-24 POW even if the COVID pandemic continues.

2. FTE Estimates

Year	1862 Extension	1862 Research
2022	93.8	72.0
2023	93.8	72.0
2024	93.8	72.0

2025	93.8	72.0
2026	93.8	72.0

II. Merit / Peer Review Process

II. Merit Review Process

a. Process employed in 5-yr cycle

- Internal University Panel
- External University Panel
- External Non-University Panel
- Combined External and Internal University Panel
- Expert Peer Review
- Other (administrative review)

b. Brief Explanation

Priority Extension Teams discuss priorities/programs and include those with research appointments. PETs submit grant applications per priorities/outcomes to address critical issues.

Faculty with research appointments have active research projects. Hatch projects are expected to address Idaho’s problems, have a regional/national scope and are reviewed by minimum of two colleagues within the same area of research, department heads and a minimum of two external experts in the area.

IAES research contributing to multistate projects are categorized as various types defined by State Agricultural Experiment Station System. Multi-state projects are reviewed by max of four outside peer reviewers and the overall regional multi-function committee. Multi-state Review Committee reviews initial proposals, makes recommendations and transmits the project to CSREES.

Faculty develop position descriptions outlining major programs. Merit and programs are reviewed through tenure and promotion by a panel at years 3, 5, 10 etc. Panels may conduct further review and include commodity interests, agency personnel and stakeholders.

III. Evaluation of Multis & Joint Activities

a. How planned programs address critical issues of strategic importance, including those identified by the stakeholders

Planned programs address issues through multidisciplinary education intended to change behavior. Research target areas overlap with those but will be covered by research activities/techniques.

b. How planned programs address needs of under-served/under-represented state populations

Policies for civil rights compliance/diversity inclusion outlines our process to reach underserved populations. We pursue their input; faculty monitor effectiveness to reach these audiences and when balanced participation is not achieved, take further steps.

We develop programs for Spanish-speakers, hire Spanish-speaking staff, and gather insights from Hispanic audiences. We employ three faculty members integrated in Extension and housed on reservations through the Federally Recognized Tribes Extension Program.

Research programs target Hispanic/Native American populations and influences issues affecting these populations.

c. How planned programs describe expected outcomes/impacts

PETs list expected outcomes, indicators to measure success, and types of evaluation studies needed to assess outcomes/impacts; they report outcomes in annual reports, impact statements and other appropriate publications.

Researchers report findings in referred journals, through participation in discipline-based regional/national conferences and report significant advances in development of new intellectual properties.

d. How planned programs result in improved program effectiveness

PETs identify common priorities; share workloads; and coordinate resources to reduce redundancy and achieve best impacts. IAES and Extension admin closely monitor progress/resource needs of each PET.

III. Stakeholder Input

1. Actions to Seek

IV. Stakeholder Input

a. Actions taken to seek stakeholder input that encourages their participation

Use of media to announce public meetings and listening sessions

Targeted invitation to traditional stakeholder groups

Targeted invitation to non-traditional stakeholder groups

Targeted invitation to traditional stakeholder individuals

Targeted invitation to non-traditional stakeholder individuals

Targeted invitation to selected individuals from the general public

Survey of traditional stakeholder individuals

Brief explanation.

The most effective approach is to involve stakeholders in the planning and delivery of research and Extension programs. To encourage participation by larger numbers of collaborators, we solicit assistance from stakeholder representatives and advocates to help us advertise and promote participation opportunities. While CALS has long included statements of inclusiveness on program announcements, recent mass media campaigns have helped expose large numbers of non-traditional stakeholders to this commitment.

In securing inputs from research and Extension stakeholders, we will encourage participation by both traditional and non-traditional stakeholders by providing venues that are convenient, economical, and efficient. This will be accomplished by making CALS off-campus video conferencing facilities available, as well as increased use other forms of electronic communications. Selection and eventual invitation of targeted individuals to serve on key stakeholder groups will be accomplished in the context of securing representation of Idaho's diverse population and stakeholder interests. Examples of such stakeholder groups include the Dean's Advisory Board, UI Extension Advisory Board, unit advisory boards, and UI Extension citizens' advisory groups.

2. Methods to Identify

b(i). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

Method to identify individuals and groups

Use Advisory Committees

Use Internal Focus Groups

Use External Focus Groups

Needs Assessments

Use Surveys

Research/Extension interactions

Industry-based interaction

Brief explanation.

Specific methods utilized to identify stakeholder individuals and groups:

The Dean's Advisory Board, comprised of stakeholder representatives from government, industry, and educational institutions in Idaho. Members are recruited by an invitation and selection process that encourages broad participation representative of Idaho's population diversity, including both traditional and non-traditional stakeholders.

The seven CALS academic departments have stakeholder advisory boards. Members are recruited by an invitation and selection process that encourages broad participation representative of Idaho's population diversity, including both traditional and non-traditional stakeholders.

UI Extension's Advisory Board consists of representatives from each of the four administrative districts geographically located through the state. The members represent and provide input on matters related to agriculture, family and consumer sciences, natural resources, community development, and youth development.

UI Extension has citizen advisory groups in 42 of Idaho's 44 counties which represent a broad mix of public interests from the county perspective.

Idaho's 17 agricultural commodity commissions and organizations are selected by industry representatives with approval

by state government officials.

Extension newsletters and other communication materials are sent to every household in some counties, and everyone is invited to provide input and to participate in programs.

When stakeholder groups can be narrowly defined, UI Extension often collaborates with state and local agencies and organizations whose missions overlap. For example, to reach more seniors, UI Extension has collaborated with AARP and the Agencies on Aging.

IAES researcher and Extension faculty conduct several major commodity schools and "field days" annually in the state. These events are highly advertised through numerous media outlets and attended by stakeholders from Idaho and the region.

3. Methods to Collect

b(ii). A brief statement of the process that will be used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

Methods for collecting Stakeholder Input

Meeting with traditional Stakeholder groups

Meeting with traditional Stakeholder individuals

Survey of traditional Stakeholder individuals

Meeting with the general public (open meeting advertised to all)

Survey of the general public

Meeting specifically with non-traditional individuals

Other (various)

Brief explanation.

Input from stakeholders is collected in person through advisory committee meetings, through surveys conducted at many Extension events and activities, and through direct conversations with interest groups and other organizations. Periodic surveys are conducted for specific topic areas using random sampling techniques as well as listening sessions are conducted around the states to identify broader needs (e.g., 2016 statewide listening session). Data are also collected through random sampling for statewide issues periodically, and individual programs are frequently concluded with an evaluation that includes an opportunity for stakeholders to provide recommendations for future programs.

4. How Considered

c. A statement of how the input will be considered

In the Budget Process to Allocate Funding

To Identify Emerging Issues

Redirect Extension Programs

To Determine Projects

To Set Priorities

In the Action Plans

To Develop Position Description and Hiring Staff

Brief explanation

Stakeholder inputs are used to formulate overall CALS research and Extension strategic goals, as well as the goals and directions of individual PET programs. After receiving input from stakeholders as described in sections b(i) and b(ii), the appropriate administrative group or PET will plan for short-term and long-term objectives and provide resources accordingly. Acquiring input is documented and formally considered by PETs as a part of the priority setting and planning processes for programs and must be included as a part of applications for critical issues Extension grants and other awards available through the state office. UI Extension has worked to increase the Spanish-language skills of staff, through both training and hiring to build capacity to reach underserved stakeholders.

A 2009 task force made 5 specific recommendations for Extension to consider, including conducting a process to re-prioritize our efforts. During 2010, Extension gathered input from two distinct groups of stakeholders to consider during the re-prioritization process. Those activities resulted in the elimination of two programs and in the integration of seven previously independent programs into three programs. The 2020-24 plan of work reflects the reorganization of 15 topic teams down to 7 PETs based on the statewide listening sessions held in 2016.

IV. Critical Issues

1 Food Production Systems

Description:

Idaho is the 4th largest agricultural economy in the U.S., with 25,000 farms and ranches, producing 185 commodities. Agricultural cash receipts are close to \$7.1 billion and agribusiness contributed \$20.6 billion in sales; 128,200 Idaho jobs; and \$3.7 billion in wages. As Idaho's population shifts from rural to urban, a general lack of understanding and knowledge about agriculture is threatening the food industry. Weather changes, such as drought, have affected producers' production capabilities. Markets for food products and food-related byproducts constantly changing. Adoption of new technologies and practices is affected by producer apathy, a general resistance to change, and producers' limited funds for investment. To address the current and emerging challenges of Idaho agriculture, Extension efforts will focus on scientific research and objective empirical evidence and will be made available for implementation by all pertinent Idaho agriculture stakeholders, including producers and affiliated agribusinesses, government support agencies, and allied industries. To achieve production efficiency, farm profitability, and sustainability, the educational programs that will be offered to farmers and ranchers include farm business and rangeland management, forage crop systems, nutrient management,

variety trials, crops/livestock quality assurance, cereals and pulses production, cover crops and soil health, drought assessment, alternative/specialty crops, pest management, livestock efficiency, economic evaluation of livestock & agricultural systems, beef schools, forage schools, range-in-school, and grazing academy.

Term: Long

Science Emphasis Areas

Sustainable Agricultural Production Systems

2 Horticulture and Small Farms

Description:

This critical issue addresses sustainable food and ornamental plant production and scale-appropriate residential land-use practices appropriate for both commercial and general public audiences, including youth. These diverse yet interconnected programs and activities are targeted to meet the needs of home and community gardeners, residential and small acreage landowners, urban, peri-urban and rural small-scale specialty crop and livestock producers, landscape and nursery industry professionals, and supporting industries and organizations. Audience needs will be met by the development and delivery of adaptive, wide-ranging, creative research, education and outreach solutions.

Term: Long

Science Emphasis Areas

Sustainable Agricultural Production Systems

3 Community Development

Description:

The community development critical issue focuses on creating sustainable social and economic systems in Idaho through human, social, cultural, and physical capital development. The most critical capital the rural communities hold is their people. People define the community's businesses, farms, organizations, and government, but—above all—their capacity to innovate. To provide learning opportunities that transform the lives of people and their communities, it will offer programs in the area of civic engagement, conflict management, and communication, community assessment, local/regional art, food & heritage development and promotion, community coaching for grass root actions, adult entrepreneurship training, business creation and expansion, and rural leadership development.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances

4 Forest, Range, and other Natural Resources

Description:

This PET will provide innovative, research-based, educational opportunities which engage diverse stakeholders and citizens to help them better steward Idaho's forests, rangelands, and other natural resources in the context of changing Idaho demographics and environment. We will improve participants' knowledge and actions, help landowners and managers apply sustainable management practices, and increase economic opportunity. We will also help Idaho adults and youth participate more effectively in natural-resource policy discussions.

Term: Long

Science Emphasis Areas

Bioeconomy, Bioenergy, and Bioproducts
Environmental Systems

5 Health and Wellness

Description:

This critical issue offers healthy living, food safety, and resource management programs targeting various dimensions of wellness, including physical, social, emotional, financial, intellectual, and occupational wellness. It will provide healthy living education through several initiatives across the state: 4-H healthy living programming and curricula, 4-H healthy living teen advocates, well-connected communities program, Eat Smart Idaho (SNAP-ED/EFNEP), and UI Family and Consumer Science programs. The University of Idaho Extension will provide food safety knowledge and information developing Master Food Safety Advisors to volunteer and extend their outreach. Educators and volunteers will meet community needs by delivering experiential food preservation and cooking classes, evidence-based Extension publications, digital web-based information, and providing “just in time” food safety information through answered phone calls. They will reach nearly 3,000 youths annually with effective and simplified hand-washing instruction. In addition, Ready Set Food Safe programming instructors will provide food safety certificates to more than 2,000 high school students from approximately 40 high schools to help teens get a job in the food industry.

Term: Long

Science Emphasis Areas

Family & Consumer Sciences
Food Safety
Human Nutrition

6 Water

Description:

Water security refers to the reliable availability of sufficient quality and quantity of water to sustain human health, livelihoods, and the environment. The water PET will focus on teaching and researching about managing uncertainty and about systems management for multiple benefits. An essential element is the development of watershed and systems thinking/modeling for reducing uncertainty and increasing resilience/robustness. The program offered to the public will focus on improving social-ecological resilience and water system robustness, protecting and improving water supply reliability, understanding and applying effective water demand management, and building the community's capacity to manage water, soil, and air resources/systems under conditions of increasing uncertainty and variability

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Environmental Systems
Sustainable Agricultural Production Systems

7 4-H Community Youth Development

Description:

4-H Youth Development is focused on strengthening youth and families across Idaho. 4-H will continue to create positive learning environments based on the 4-H Essential Elements of belonging, independence, generosity, and mastery. The 4-H Youth development team, composed of educators, staff, and volunteers will work on the following topics: 4-H Science, Healthy Living, Volunteer, and Adult Leadership Development, Youth Leadership and Citizenship, Reaching Underserved Audiences.

Term: Long

Science Emphasis Areas
Youth Development