

West Virginia University Combined Research and Extension Plan of Work 2021-2025

Status: Final
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I. Plan Overview

1. Executive Summary

This report represents the combined five-year plan of work for two entities: the West Virginia Agricultural and Forestry Experiment Station (WVAFES) and West Virginia University Extension (WVU-ES). In past years these two institutions submitted a combined Plan of Work in conjunction with our 1890 Land Grant partner West Virginia State University (including both their Experiment Station and Extension). We have worked to develop six statewide Critical Issues to address during the duration of our plan horizon in this Institutional Profile.

The WVAFES supports approximately 46 FTE research faculty positions distributed across the 110 individual scientist positions. The Station also supports approximately 20 clerical and farm/forest worker positions and 81 professional support positions (mostly graduate students). The Experiment Station operates seven farms and two forests which support faculty research. Four of the farms (Stewartstown Road Farm, Horticulture/Organic Farm, Agronomy Farm in Morgantown and JW Ruby Farm in Reedsville) and the University Forest are sufficiently close to the University campus to be used extensively to support academic programs in addition to research. Outlying farms include the Reymann Memorial Farm (beef, sheep, agronomic crops and bull testing station) and Kearneysville Tree Fruit Research Farm (primarily apples and peaches) in northeastern West Virginia; the Willow Bend Farm in the southeast (pasture raised and finished beef); and the Tygart Valley Forest (mostly oak regeneration and disease control research).

Three centers and one organizational unit exist all or in part within the College to help focus and direct our efforts on economic development, natural resources and the environment. They also contribute to our ability to leverage Hatch and McIntire-Stennis capacity funding by attracting external competitive grants and other external sources of funding. The three centers are the Natural Resource Analysis Center (NRAC), the Appalachian Hardwoods Center (AHC) and the Institute for Water Security and Science (IWSS). The organizational unit is the West Virginia Cooperative Fish and Wildlife Unit.

The regular WVU Extension workforce of 396 county agents, state specialists, and staff is augmented by an additional 1,200 seasonal employees who help deliver our large, statewide summer learning programs. More than 9,000 well-trained volunteers also help design, deliver, evaluate, and improve Extension programs each year. Employees of numerous longtime program partners, such as West Virginia Department of Agriculture, county school professionals, West Virginia Department of Health and Human Resources, and WVU Health Sciences, help in this regard as well. Many identify with WVU Extension through our educational programs. Some of the most recognized programs are 4-H, Dining with Diabetes, Extension Master Gardeners, Firefighter Training, Community Educational Outreach Service (CEOS), Family Nutrition Program, Energy Express, Soil Testing, Workplace Safety, Pesticide Recertification Training, Character Education, Beef Quality Assurance, Farm Management, Forest Stewardship, and Community Leadership Development. The University's strategic plan specifically mentions the work and contribution of the Extension Service, "Expand outreach efforts to connect the campuses to citizens and communities throughout the state. Provide resources and information to equip West Virginia University Extension agents, and other personnel engaged in outreach and care, for a broader role as ambassadors for the institution."

The West Virginia Agriculture and Forestry Experiment Station is part of the Davis College of Agriculture, Natural Resources and Design. While the West Virginia Cooperative Extension Service is a separate administrative unit and not part of the College, research and extension are integrated through joint appointments (14 of 110 faculty in the Davis College have partial extension appointments), through coordination of activities and planning at the deans, directors and associate-directors levels, through integrated research, extension and education projects and programs funded by Hatch, Smith-Lever and McIntire-Stennis formula funds and through competitive funding from NIFA and other sources.

As in the past, research programs of the WV Agricultural and Forestry Experiment Station are coordinated with and supported by educational and outreach programs of West Virginia University Extension. Recently we have held joint symposia between the WVU Agricultural and Forestry Experiment Station and the West Virginia University Extension Service to facilitate coordination, including internally funding coordinated seed grants.

This five-year Institutional Profile is focused on six Critical Issues:

- Food Access, Security and Safety/Sustainable Agriculture
- Climate Change and Natural Resources Management
- Health Disparities
- Community Revitalization
- Strengthening Youth and Families
- Nutrition and Obesity Prevention

2. FTE Estimates

Year	1862 Extension	1862 Research
2021	142.0	46.2
2022	142.0	46.2
2023	142.0	46.2
2024	142.0	46.2
2025	142.0	46.2

II. Merit / Peer Review Process

All WVUES specialists and county agents are appointed as faculty at West Virginia University. As such, they undergo the same faculty reviews as other university faculty and are recognized, rewarded and promoted under the same protocol. Each year, every Extension faculty member submits a Plan of Work to her/his program unit director for approval. The plans are evaluated based on how they address Extension priority programs, meet the needs of West Virginia citizens, and produce measurable outcomes. In December of each year, every Extension faculty member submits a faculty file which contains productivity charts, accomplishment narratives, and supporting documentation related to teaching, research, and service. Depending on years of service and whether the faculty member is applying for promotion, the files are evaluated by program unit peers, program unit director, an Extension-wide committee, Extension Dean and Director, and the WVU Provost (for decision years only).

The scientific peer review process at WVUES includes blind, external reviews of new educational materials such as curricula, white papers, fact sheets and bulletins. The process begins when an Extension faculty member creates a new educational document that is intended to be used across the state. The faculty member submits the document to the program unit director or designee who recruits external reviewers with subject-matter expertise who are willing to review the document(s) and provide feedback. The feedback goes to program director and the faculty member. Together they decide what if any revisions are necessary before the document is disseminated. We will continue with this process during the years covered by this plan of work. Journal articles and grant applications will continue to be reviewed using methods established by the publisher or the granting agency. This process will be improved during the years covered by this plan of work by extending it to new educational programs that we will develop.

III. Stakeholder Input

1. Actions to Seek

Stakeholder input is valued by WVUES and WVAFES; each organization includes communications professionals that coordinate a variety of promotional activities and social media posts to increase non-traditional stakeholder awareness and make university resources more available to the public. These activities will continue through the 2020-2024 plan of work. Promotional activities will include WVU Day at the Legislature, activities and the WVU Building at the State Fair of West Virginia and Kiddie Days at the Farm. Administrators, program directors and division directors will continue to meet with traditional stakeholder groups such as Farm Bureau, 4-H volunteers, Master Gardeners, the West Virginia Agriculture and Forestry Hall of Fame and other statewide organizations to listen to their concerns and their input into priority programming.

2. Methods to Identify

WVU Extension and WVU Research Programs will continue to work with state agencies, professional and volunteer associations such as Farm Bureau, Future Farmers of America, Cattleman's Association, and Poultry Association, and other organizations to identify stakeholders, assess needs of the state, and recruit partners that support the mission of Extension or DCANRD. Faculty will continue to attend professional seminars and conferences for networking opportunities and to identify potential stakeholders with shared interests.

3. Methods to Collect

WVU Extension and WVU Research Programs will continue to work with state agencies, professional and volunteer associations such as Farm Bureau, Future Farmers of America, Cattleman's Association, and Poultry Association, and other organizations to identify stakeholders, assess needs of the state, and recruit partners that support the mission of Extension or DCANRD. Faculty will continue to attend professional seminars and conferences for networking opportunities and to identify potential stakeholders with shared interests.

4. How Considered

Stakeholder input is vital to maintain the relevance of WVU Extension and Research Programs. Program directors, division directors and administrators receive stakeholder input at the programmatic level on a continual basis. Campus and field faculty will continue to use formal and informal methods to evaluate information and use it for program development. Information collected from these interactions will be used to develop plans to address the critical issues of the state and expand the knowledge of the scientific community. Emerging issues in a specific area may lead to redirection of program resources or eliminate the need for a specific project within the program. Input from stakeholders and data on health, well-being, and socioeconomic status across the state will be used to allocate resources to areas of greatest need or greatest impact.

IV. Critical Issues

1 Food Access, Security and Safety/Sustainable Agriculture

Description:

Both, in urban and rural areas in West Virginia, access to healthy and safe fresh food is a challenge for vulnerable populations. Increased sustainable production of food, proper processing/handling of food and food products, as well as improved access to food and food products are need to increase food security in West Virginia.

Term: Long

Science Emphasis Areas

Family & Consumer Sciences

Food Safety

Sustainable Agricultural Production Systems

2 Climate Change and Natural Resources Management

Description:

The Appalachian Region has unique threats and opportunities as it relates to environmental, water, energy and natural resources management. On-going activities of the extractive industries and legacy of point and nonpoint sources of pollution continue to be major environmental and ecological issues affecting West Virginia's natural resources and the wellbeing of our communities. Looking forward, West Virginia seeks to develop sustainable alternative energy sources, address legacy problems, and to deal with fallout from climate change. Protection and restoration of environmental quality and ecosystem services and the development of economically effective

and environmentally sound and sustainable resource management practices while effectively mitigating the effects of climate change is essential for the prosperity of the state.

Term: Long

Science Emphasis Areas

Agroclimate Science
Environmental Systems
Family & Consumer Sciences

3 Health Disparities

Description:

Many people living in both rural and urban communities in WV experience disparities related to physical and behavioral health and overall well-being. These disparities are often a result of poverty, lack of gainful employment, and lack of access to resources. The opioid epidemic compounds these issues further. In WV the diabetes mortality rate is 53% higher than the rest of the nation, the average adult feels mentally unhealthy 31% more often than the average American, and the years of potential life lost is 47% higher than the rest of the country.

Term: Long

Science Emphasis Areas

Family & Consumer Sciences
Human Nutrition
Youth Development

4 Community Revitalization

Description:

Many communities in WV suffer from economic hardship brought on by the exit of extractive (e.g. coal) and other industries. These communities lose a sense of purpose and identity making it difficult to attract new businesses to empty store fronts. Organization and revitalization efforts are needed to restore a sense of community to these locations and attract new businesses for a future of economic prosperity.

Term: Long

Science Emphasis Areas

Family & Consumer Sciences
Sustainable Agricultural Production Systems
Youth Development

5 Strengthening Youth and Families

Description:

Poverty and the opioid epidemic are two issues which are changing the dynamic of families in WV and negatively impacting the future of our youth. The changing family structure resulting in more non-parental relatives raising children in WV results in mental and financial stress for the for the individuals impacted. Youth living in low socioeconomic areas are academically disadvantaged and at increased risk of behavioral health issues. These issues are especially pronounced for youth impacted by the opioid (and other drugs) epidemic who tend to experience frequent traumatic events.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Family & Consumer Sciences
Human Nutrition
Youth Development

6 Nutrition and Obesity Prevention

Description:

In 2017, West Virginia led the nation in the rate of adult obesity (38%) and obesity-related chronic diseases such as diabetes (15%) and hypertension (44%). WVa. was lowest among the states for percentages of adults that met recommendations for servings of fruit (7.3%) and vegetables (5.8%) and among the highest for sugar-sweetened beverage consumption. These dietary patterns and lack of physical activity contribute to obesity and chronic disease which contributes to days of lost productivity and poor quality of life. Nutrition and obesity prevention are important for a healthy workforce and for the state's economic development.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Family & Consumer Sciences
Food Safety
Human Nutrition
Sustainable Agricultural Production Systems
Youth Development