SENATE AGRICULTURE
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Montana Agricultural Experiment Station Fact Sheet

Agriculture is the single largest industry in Montana at $3.8B in production value (2010).

Montana Agricultural Experiment Station (MAES) and College of Agriculture (COA)

Vision: To create environments where people excel through innovative learning, discovery and outreach programs in agriculture and natural resources.

Montana State University is a Land Grant University

- A Land Grant university is an institution designated by its state legislature and by Congress to receive the benefits (of land, now money) from the Morrill Acts of 1862 and 1890.
- Montana formed the Agricultural College of the State of Montana and the Montana Agricultural Experiment Station (MAES) in 1893 using the provisions of the Morrill Act (1862), Hatch Act (1887) and later the Extension Service (ES) with the Smith-Lever Act (1914).
- These three Acts taken together comprise the Land Grant system of education in the U.S., which has been copied and emulated globally. Each of the Land Grant institutions shares the same **tripartite mission of teaching, research and outreach**.

The Land Grant Mission

Teaching:

- 11 bachelor degrees (with 20 options/concentrations/programs); 6 minors; 9 master's degrees; 4 doctoral degrees
- Faculty to student ratio: 1:13.5
- 1,078 graduate and undergraduate students
- 70% of our students find career placement in their academic area with 70% employed in Montana.
- Curricula and courses of study in:
  - traditional agriculture: ag business, ag education, animal science, entomology, horticulture, plant science, range science
  - non-traditional agriculture: bioenergy, biotechnology, ecological sciences, economics, environmental sciences, equine science, landscape design, pre-vet, sustainable foods

MONTANA STATE UNIVERSITY
College of AGRICULTURE & MONTANA AGRICULTURAL EXPERIMENT STATION

Research:

- Programmatic and financial partnership with Montana and federal government (USDA)
- Grant Expenditures (3 year average): nearly $20M; State and Federal base budget: $14M
- Research is conducted on campus, at farms and ranches near Bozeman, at 7 research centers located across the state, and at farms and ranches of private individuals collaborating with MAES researchers
- Research programs themes:
  - traditional agriculture: biocontrol, cropping systems, livestock/wildlife management and interactions, pest management, small grain genetics, trade/policy analysis
  - non-traditional agriculture: bioenergy, biology of geothermal life, climate change, land rehabilitation, novel compounds, use and improvement of native plants, vaccine development, watershed, zoonotic diseases

Outreach/Service:

- Outreach is a key component of the land-grant model and part of the MAES mission.
- All COA/MAES faculty have a service/outreach component to their split appointments.

General MAES Information

Funding: MAES falls under the Montana "Research Agency" category and is a separate line item in HB 2 and the OCHE budget. The State General Fund allocation (84% of MAES' budget) serves as a required match to the federal formula funding (16% of MAES' budget) appropriated through USDA-National Institute for Food and Agriculture (NIFA). USDA-NIFA provides program funding and research program direction. MAES does not receive any funding from tuition, fees, or other sources, except for the infrequent sale of livestock or grain not used for research.

Constituency: The agricultural and natural resources communities in Montana are active and highly-involved through commodity association groups, advisory councils, or individually to provide input about the expectations and needs of producers, allied communities, and citizens. These communities provide substantial support to COA/MAES, while maintaining high expectations for resulting output from work in COA/MAES.

Personnel:

- 80% of faculty have split appointments between MAES, COA and, sometimes, the Extension Service.
- Through these split appointments, COA receives the benefit of faculty who conduct research on real-world challenges and who bring these experiences into the classroom.
- Off-campus faculty and staff are served by the Dean and Directors Office and MSU central services (Business Office, HR).

Facilities:

- MAES owns properties and operates facilities across the state, with 7 Research Centers (Conrad, Corvallis, Creston, Havre, Huntley, Moccasin, Sidney), 4 farms (BART, Fort Ellis, Lutz, Post), and 3 ranches (Red Bluff, Thackery, Hartman) totaling 39,000 acres.
- MAES receives funding through the State Long Range Building Program (LRBP) for facility maintenance, repair, renovation and new construction. Investments between 2004 and 2010 totalled $15.4 M from LRBP and $8.5 M from private donations.

MAES Integration with MSU

MAES faculty and staff are fully integrated with programs and activities at all levels of the Montana State University enterprise.

Academic Instruction: Faculty with MAES appointments teach courses essential for undergraduate and graduate students to complete their program of study, including Core 2.0 and required courses such as biology and economics.

Interdisciplinary Academic Programs: Ag Business, Biotechnology, Land Rehabilitation, Microbiology, Sustainable Foods and Bioenergy Systems.

Interdisciplinary Centers and Institutes: MAES faculty are integral to the success of a number of interdisciplinary centers and institutes at MSU, such as Centers of Biomedical Research Excellence (COBRE), Integrative Graduate Education and Research Traineeship (IGERT), Spatial Sciences Center (SSC), and Thermal Biology Institute (TBI). Additionally, MAES faculty are involved in a number of large grant awards with interdisciplinary foci such as NIH Institutional Development Award Networks of Biomedical Research Excellence (INBRE), and NSF's Experimental Program to Stimulate Competitive Research (EPSCoR).

MAES Facilities and Properties: MAES facilities and properties are used by faculty, programs, centers and institutes across the MSU system as a component of their research, teaching or outreach efforts. The management and operations of these statewide facilities is handled by MAES.