

STATEWIDE AGRICULTURAL BIOTECHNOLOGY AT THE UNIVERSITY OF IDAHO

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College of Agricultural & Life Sciences

September 29, 2005

Ag Research & Extension System Grants & Contracts

Record FY04 Total: \$19,297,331

- National Science Foundation
- National Institutes of Health
- USDA-National Research Initiative
- Idaho Commodity Commissions



UI College of Agricultural & Life Sciences

Sandpoint



Post Falls/Coeur d'Alene



Moscow

Salmon



Dubois*



Tetonia



Parma*



Caldwell



Boise*



Idaho Falls



Aberdeen*

Hagerman*



Twin Falls

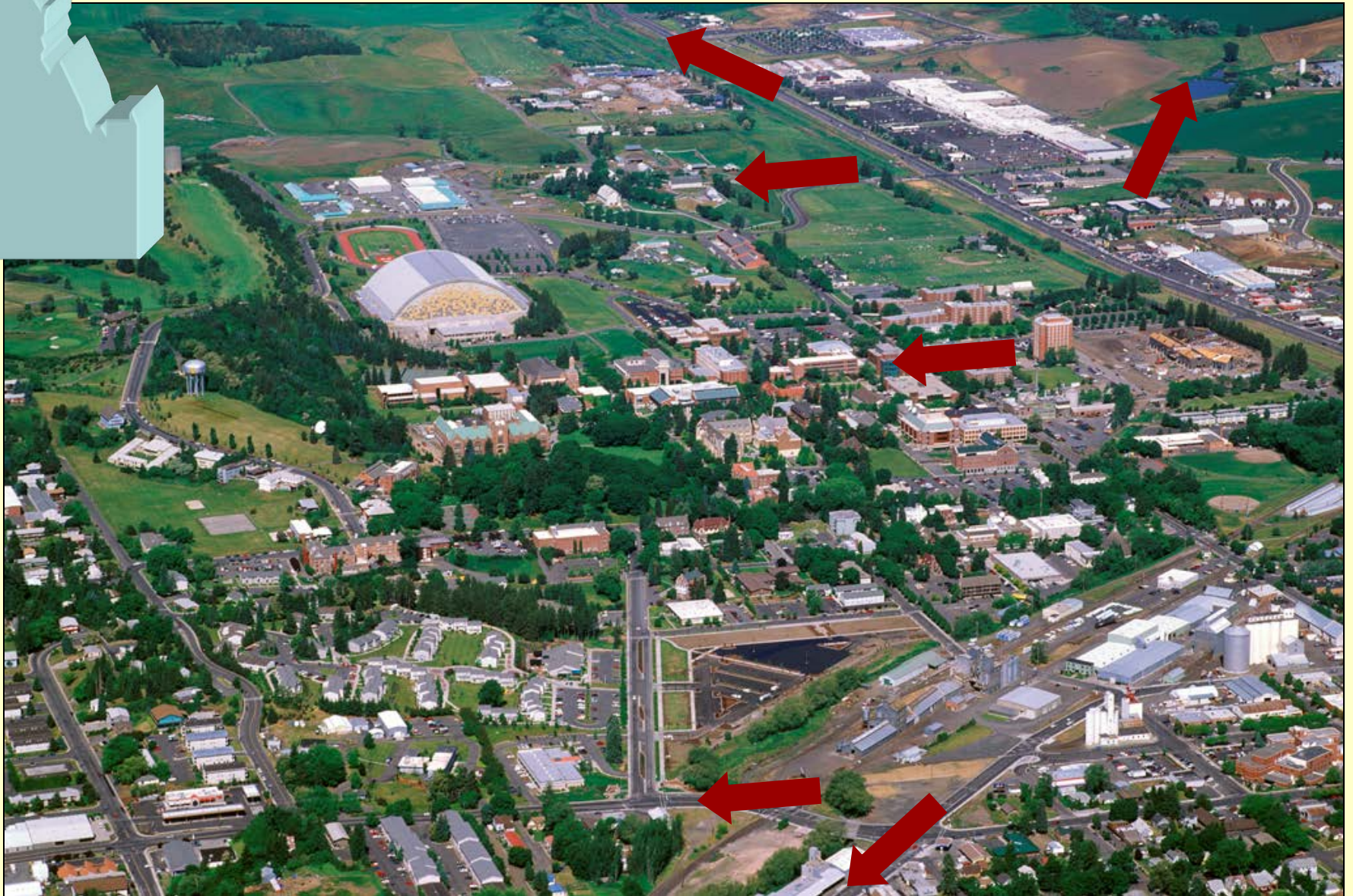


Kimberly*

Research and Extension
Facilities

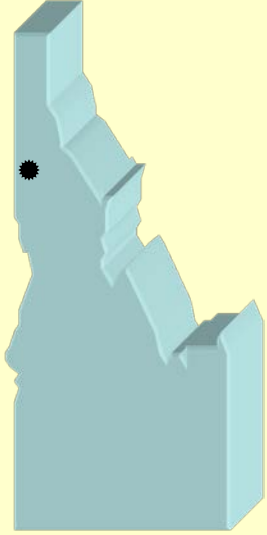
* federal partnership

MOSCOW CAMPUS



MOSCOW CAMPUS

Animal Science Research Facilities



Beef
Dairy
Equine
Sheep



Dairy Production

Rapid Bovine Pregnancy Test

- Identify non-pregnant (NP) cows 18 days after insemination
- Saves 22 days per NP cow detected compared to palpation method
- Potential savings to Idaho dairy industry – \$3+ million annually

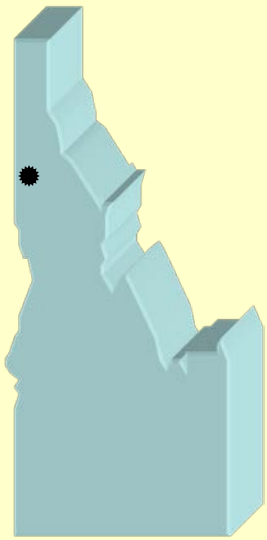


Cloning of First Equine Species

- Breakthrough in cellular biology
- Relevance to human health & medicine
- Preservation of genetic traits of species



Idaho Gem



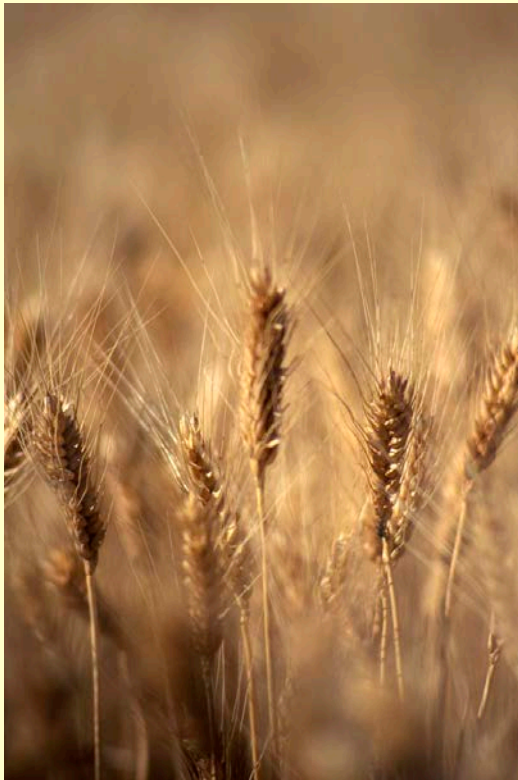
MOSCOW CAMPUS

Plant Science Research Facilities in Moscow and Genesee

Cereals

Oil Seed Crops

Legumes



Development of Wheat Varieties

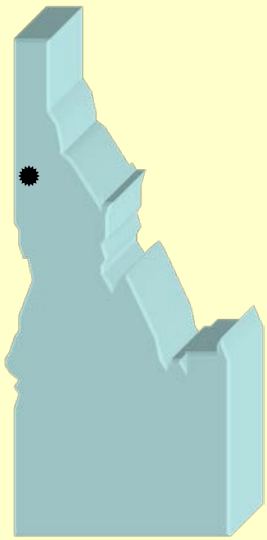
- Enhanced pest & disease resistance
- Improved end-use quality
- Greater yield potential



Canola, Rapeseed & Mustard Development

- Herbicide resistant varieties developed for Idaho
- Offer competitive advantages to Idaho producers
- Biofuels
- Pest Control – biocontrol





MOSCOW CAMPUS

Agriculture Biotechnology Building

-PSES

Growth chambers

-FST

Microscopy

-MMBB

Flow cytometry

-AVS

Genomics/Proteomics

BSL-3 laboratory



Bio-Defense Center for Emerging Diseases

- One of four Centers funded by the National Institutes of Health
- \$50 million award to UI & Univ. of Washington
- UI/CALS - experimental vaccines development
- UW – animal testing



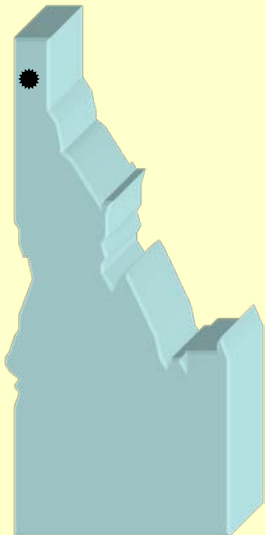
Animal Disease Prevention

- *Staphylococcus* vaccine
- Major cause of mastitis in dairy cows
- \$90 - 100 million impact on Idaho dairy industry annually

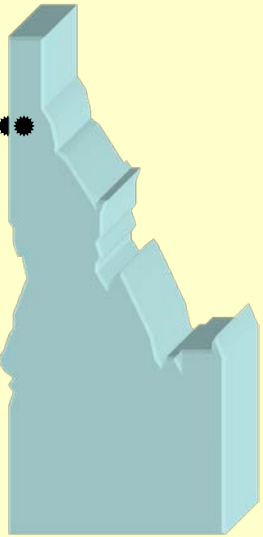


SANDPOINT R & E CENTER

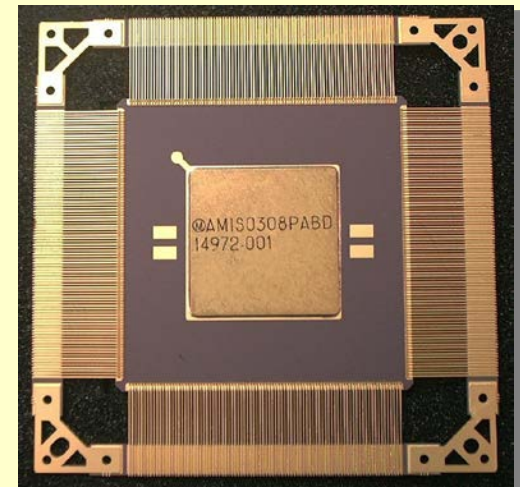
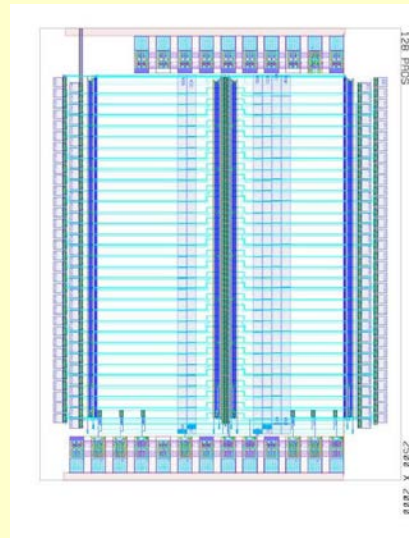
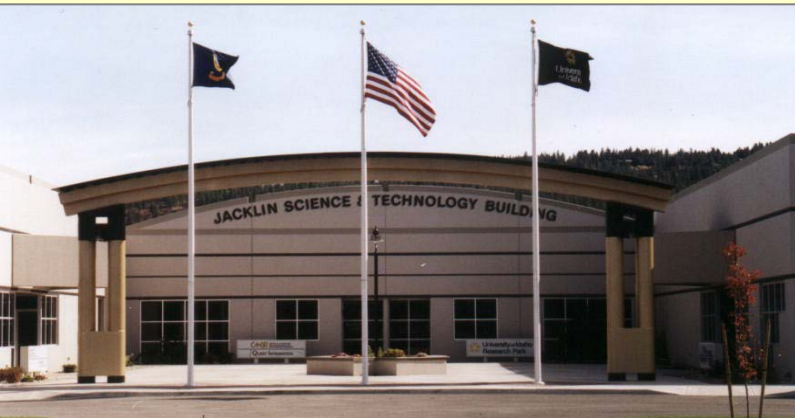
- Small and tree fruits
- Ornamental nursery stock
- Christmas trees
- Agroforestry



CAMBR (Center for Advanced Microelectronic and Biomolecular Research)- Post Falls

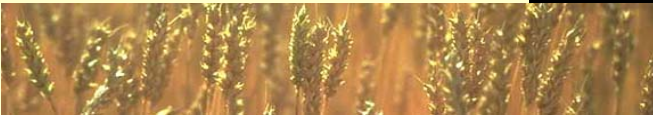
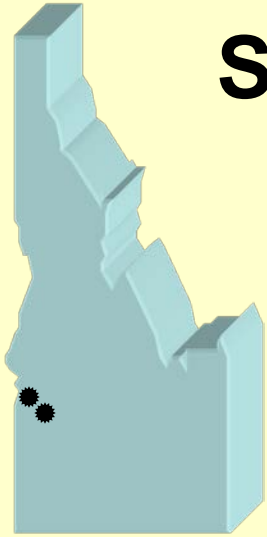


**Molecular Biology
Microbiology
Food and Health Science
Electronics
Microprocessors
Radiation Electronics
Solid State Physics**



SOUTHWEST IDAHO R & E CENTER

- Caldwell R & E Center
- Caine Veterinary Medical Center
- Food Innovation Laboratory
- Parma R & E Center



SOUTHWEST IDAHO R & E CENTER

Caine Veterinary Medical Center

Animal Health

Pasteurella pathogenesis

TSE/scrapie research



SOUTHWEST IDAHO R & E CENTER

Parma and Caldwell R & E Centers

Potatoes

Cereal grains

Hops

Onions

Corn

Pomology

Forage

Entomology

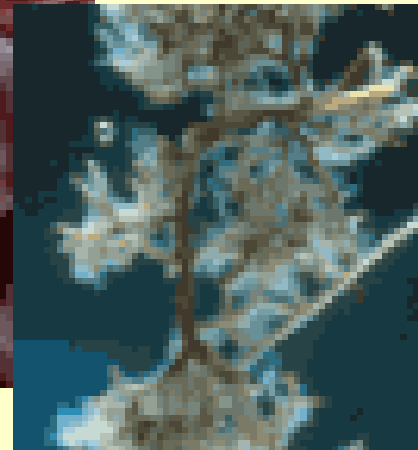
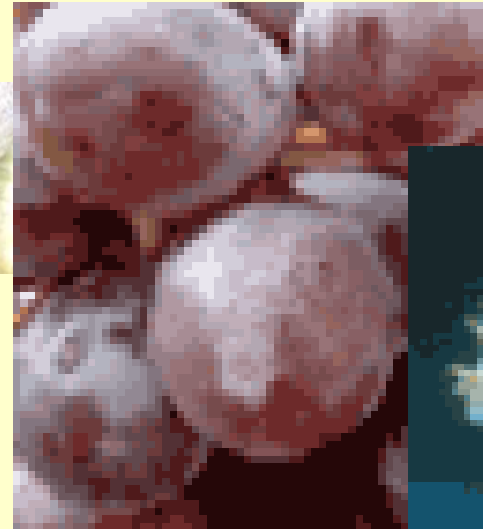
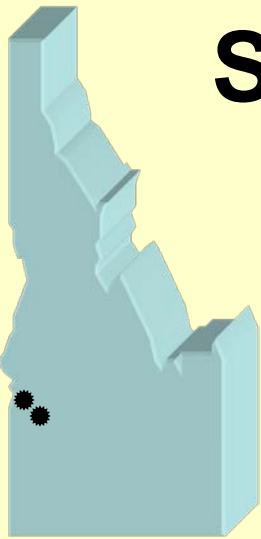
Soil sciences

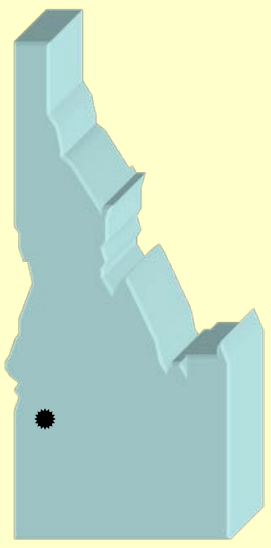
Range economics

Livestock production economics

Public land policy

ARS Viticulture and Enology





SOUTHWEST IDAHO R & E CENTER

Food Innovation Laboratory/Caldwell

Technical and business development

Small to mid-sized food companies

Food entrepreneurs

R&D, marketing, education and business strategy



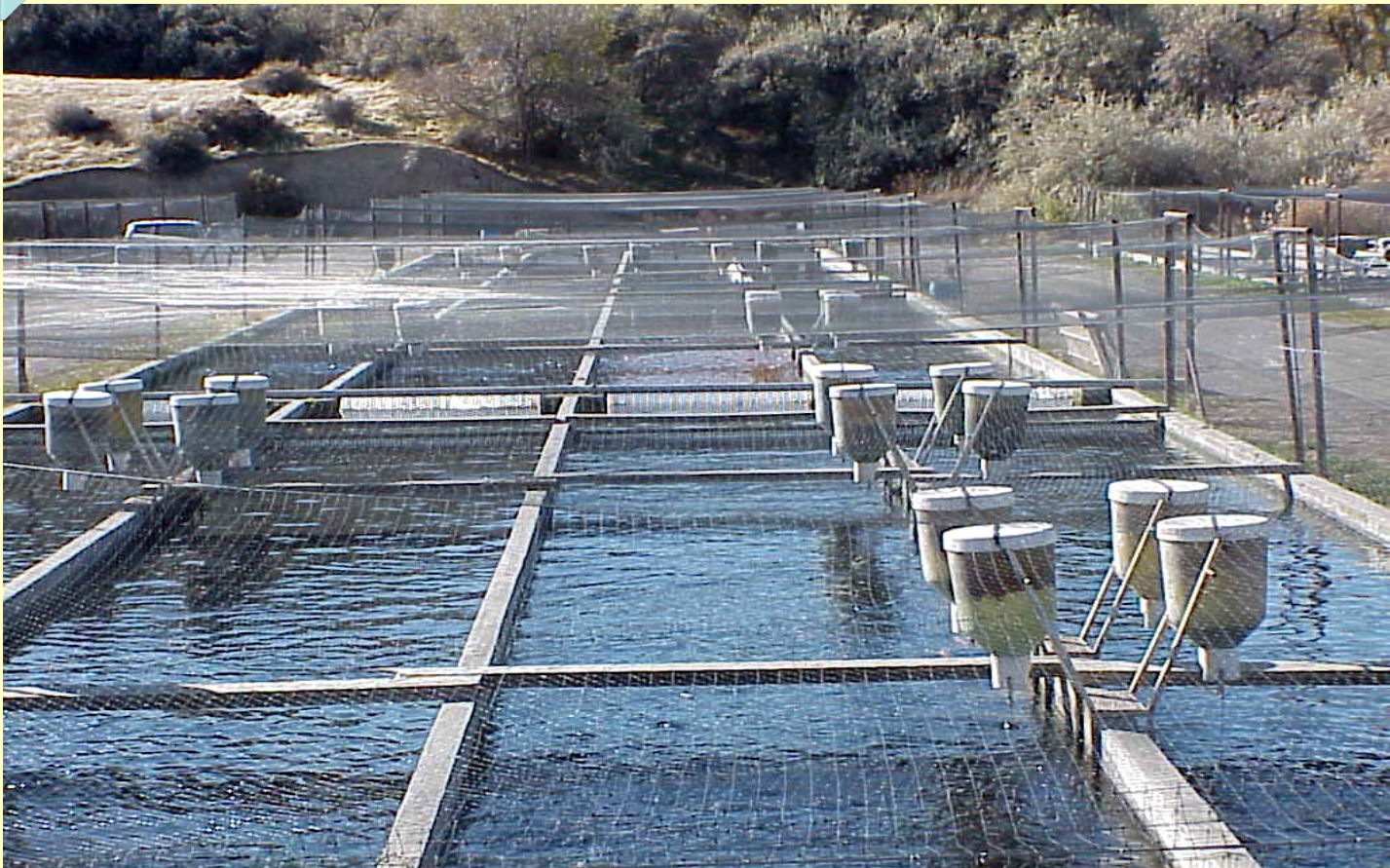
HAGERMAN R & E CENTER

CALS AND CNR COLLEGES

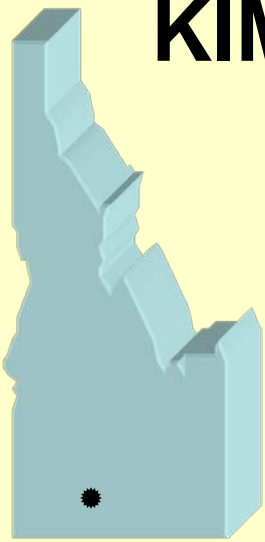
Aquaculture

Fish reproduction

Fish biology



KIMBERLY/TWIN FALLS R & E CENTERS



- Dry bean research facility
- Foundation Seed
- Potato storage research complex
- Sugarbeets
- Irrigation and water resources
- ARS Northwest Irrigation and Soils Research Lab and Sugarbeets



Agricultural Waste Management

- Pilot-scale anaerobic digester
- Full scale demonstration digester trials
- Economic analysis studies
- Odor intensity



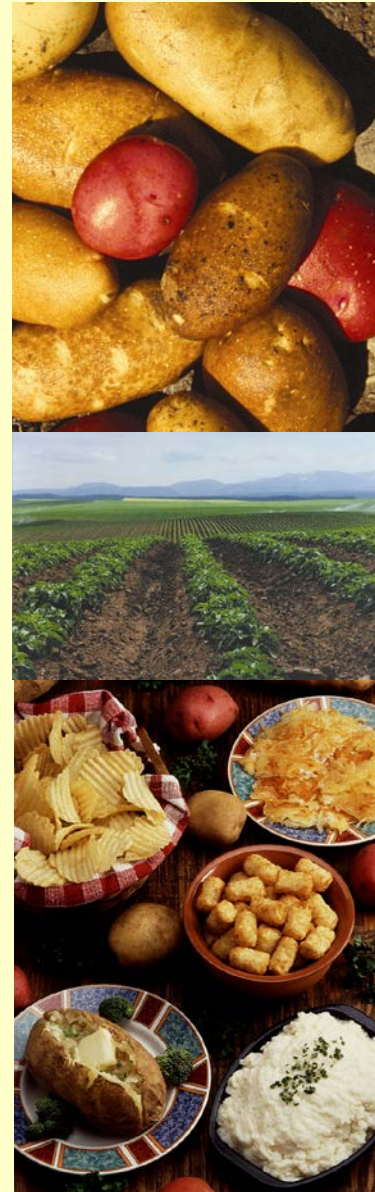
ABERDEEN R & E CENTER

**Breeding/Genetics/Production/Protection
Potatoes, Cereals, Sugarbeets, Alfalfa, Canola
National Small Grains Germplasm Research Facility
NRCS Plant Materials Center
ARS Research Collaboration**



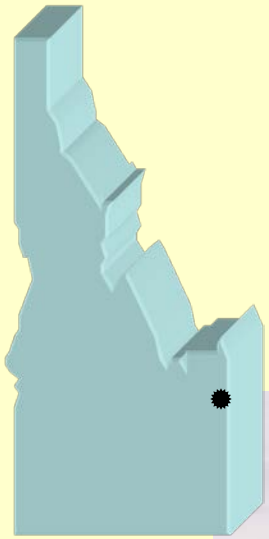
Potato Variety Development

- Late blight resistant
- Consistent quality in water-short years
- Long storing, resists defects and storage rot
- High yielding, high solids



TETONIA R & E CENTER

**Seed potatoes, Cereal grains
Foundation Seed**



DUBOIS SHEEP STATION

Reproductive physiology

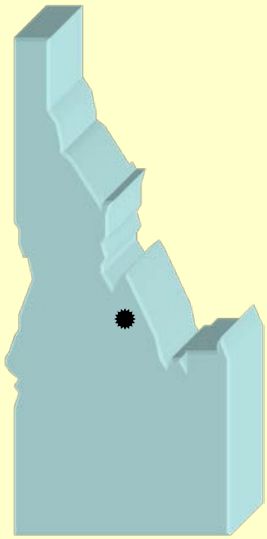
Ruminant health and colonization

ARS Collaboration



NANCY M. CUMMINGS CENTER

Cow-calf research
Forage production
Grazing management



CALS Priority Programs

- Sustainable crop & livestock systems
- Agricultural & food processing & product innovation
- Managing soil, air, water & biological resources
- Human health & food safety
- Animal, plant & human disease prevention
- Urban environment & small acreage agriculture
- Youth education & development
- Individual & family well-being
- Community and rural development