



University of Idaho

College of Agricultural
and Life Sciences



STATE OF THE COLLEGE

JANUARY 8, 2019

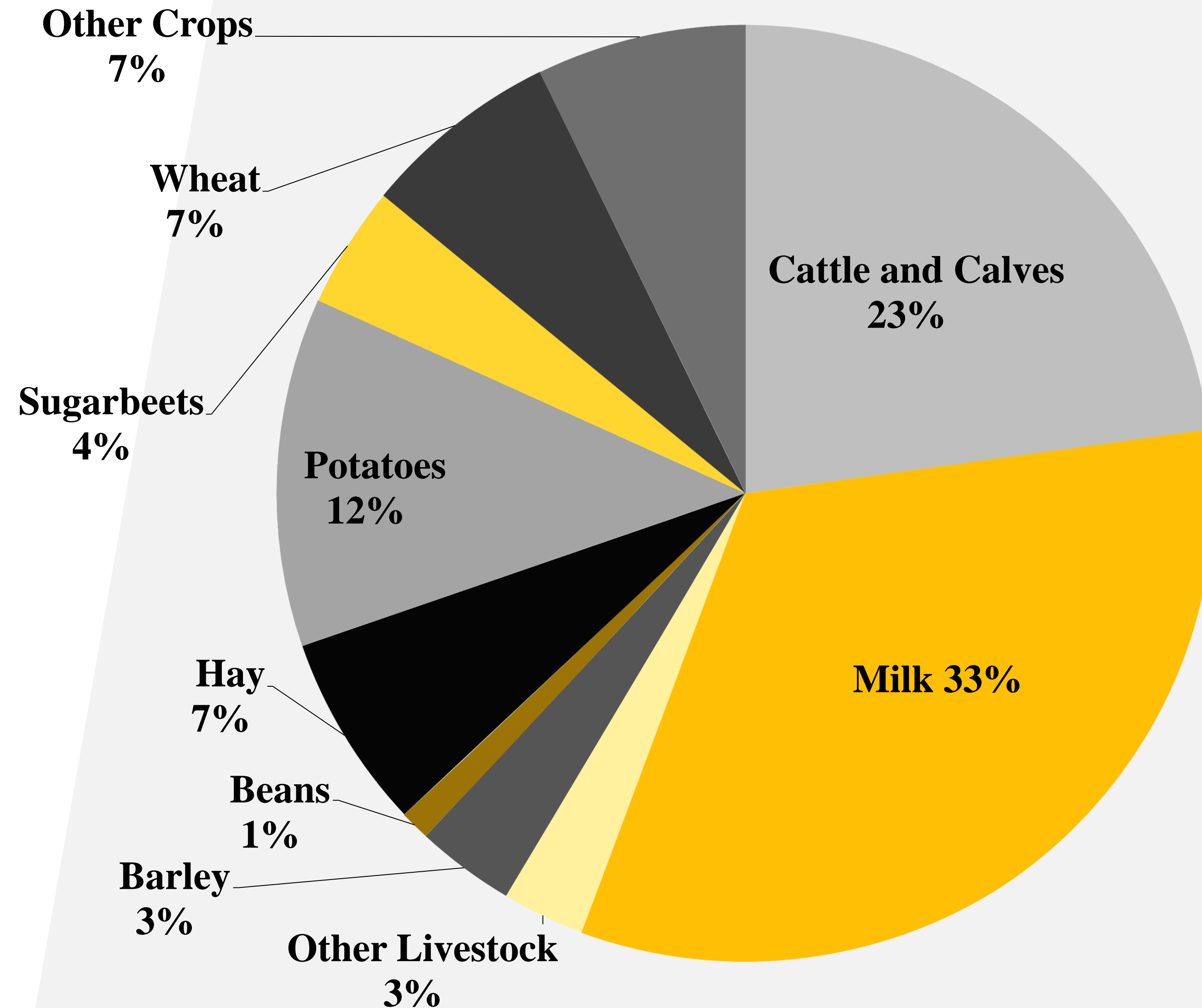
Michael P. Parrella
Dean & Professor of Entomology

2019 Idaho and Oregon Alfalfa
& Clover Seed Growers Association

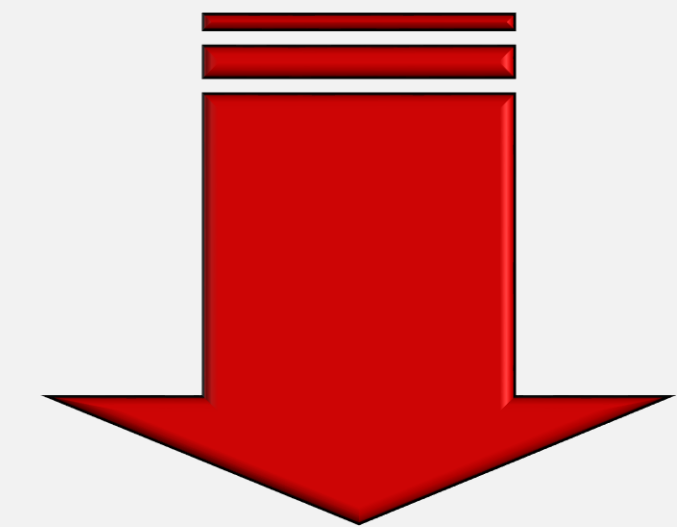
OUTLINE OF THE PRESENTATION

- I IDAHO AGRICULTURE (2018 REVIEW)**
- I OVERVIEW OF THE COLLEGE (CALS)**
- I CHANGES RELATED TO PLANT SCIENCE/SEEDS**
- I SEED PRODUCTION AND ALFALFA IN IDAHO**
- I FACILITIES: SANDPOINT, PARMA, CAFE**

2018 CASH RECEIPTS UNCHANGED



\$7.20 billion, 2017

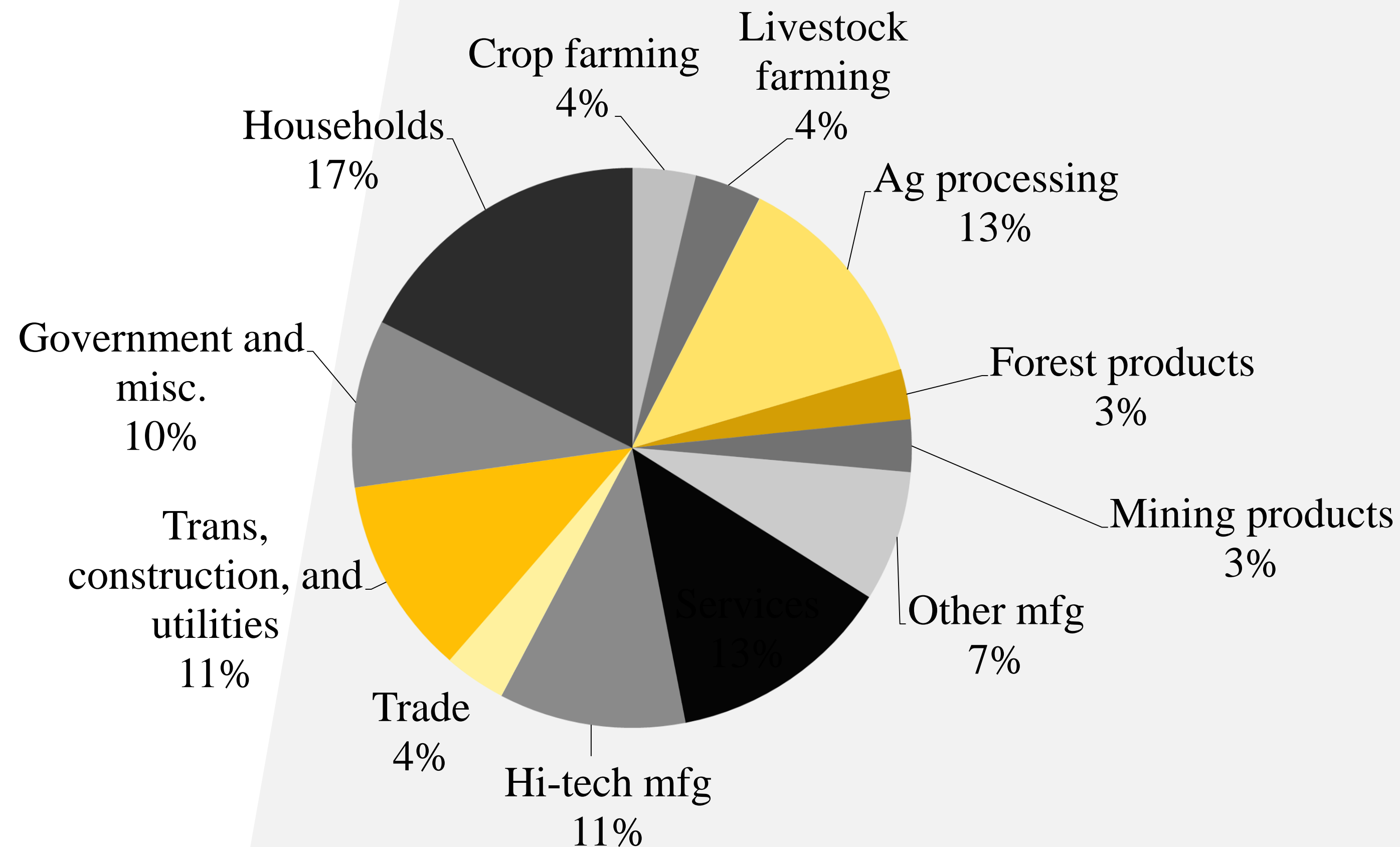


\$7.18 billion, 2018

MULTIPLIER EFFECTS

AGRIBUSINESS, IDAHO'S BIGGEST INDUSTRY

Idaho base output by sector of the Idaho economy, 2013



Ag Biz multiplier effects

- 20% of output
- 14% of jobs
- 16% of GDP

CASH RECEIPTS UPS & DOWNS

Crops \$2.9 billion, ↑5%

Potatoes: ↓4%

Barley: ↑3%

Wheat: ↑16%

Sugarbeets: ↑3%

Hay: ↑26%

Livestock \$4.3 billion, ↓4%

Cattle & Calves: ↓1%

Milk: ↓6%



UI CALS ON THE MAP



LAND GRANT MISSION

TEACHING, RESEARCH & OUTREACH

- 225 Faculty (half located off-campus)
- 725 Staff
- 9 Research and Extension Centers
 - 4,000 acres
- UI Extension offices in 42/44 counties
- 875 undergraduate students
- 180 graduate students
- 8 academic departments offering 30 majors
- Budget in excess of \$100M

College of Agricultural and Life Sciences, University of Idaho: JFAC Comments



- 41 graduate and undergraduate programs from eight academic departments including two schools; the Margaret Ritchie School of Family and Consumer Sciences and the UI/WSU School of Food Science.
- The only institution in Idaho that prepares agricultural teachers; 95 of Idaho's 113 school districts have agriculture programs – of those 95, nearly 90% of the teachers received a degree from CALS.
- Over \$1,000,000 awarded in scholarship support; more than any other college at U of I.
- Dynamic research programs conducted across Idaho by Moscow-based and Agricultural Research Center-based faculty and staff.
- Ten Research and Extension Centers addressing issues facing Idaho's agricultural industry in areas like variety and breeding line evaluation, beef cattle genetics and production, multi-species cropping systems, integrated pest management, and soil fertility research to name a few.
- Top college at U of I in terms of research expenditures, comprising nearly 20% of U of I sponsored project activity.
- UI Extension office locations in 42/44 counties with 81 educators and 49 specialists who made 405,739 direct face-to-face contacts in 2018.
- 4-H Youth Development programming that reaches over 70,000 Idaho youth each year in areas from learning how to cook or sew, to raising an animal, conservation and robotics.



ACADEMIC DEPARTMENTS

- Agricultural & Extension Education
- Agricultural Economics & Rural Sociology
- Animal & Veterinary Science
- Entomology, Plant Pathology & Nematology
- Margaret Ritchie School of Family & Consumer Sciences
- Plant Science
- Soil & Water Systems
- UI/WSU School of Food Science
- * UI Extension 4-H Youth Development





PLANT, SOIL & ENTOMOLOGICAL SCIENCES

DEPARTMENT FACULTY

Paul McDaniel, Dept. Head (Ag. Sci. Bldg. Room 242, 875 Perimeter Drive MS 2339, Moscow, ID 83844-2339; phone (208) 885-7012; paulm@uidaho.edu). Entomology Division: Division Chair, Edward J. Bechinski. James D. Barbour, Edward J. Bechinski, Nilsa A. Bosque-Perez, Steve Cook, Sanford D. Eigenbrode, Arash Rashed, Mark Schwarzlaender, and Erik Wenninger. Plant Science Division: Division Chairs, Michael Thornton (south) and Robert R. Tripepi (north). Jack Brown, Allan Caplan, Jianli Chen, Louise-Marie Dandurand, Esmaeil Fallahi, Saad L. Hafez, Zonglie Hong, Pamela J.S. Hutchinson, Alexander Karasev, Joseph C. Kuhl, Xi Liang, Stephen L. Love, Juliet Marshall, Don W. Morishita, Phillip Nolte, Nora L. Olsen, Timothy S. Prather, Christopher W. Rogers, Bahman Shafii, Glenn E. Shewmaker, Brenda Schroeder, Kurtis Schroeder, Shree P. Singh, Jeffrey C. Stark, Donald C. Thill, Michael Thornton, Robert R. Tripepi, Olga Walsh, Phillip S. Wharton, and Fangming Xiao. Soil and Land Resources Division: Division Chair, Jodi L. Johnson-Maynard. Leslie Baker, John Hammel, Robert Heinse, Jodi L. Johnson-Maynard, Guy R. Knudsen, Robert L. Mahler, Paul A. McDaniel, Amber Moore, Matthew J. Morra, and Daniel G. Strawn.

Introducing Three New Departments



Entomology, Plant Pathology and Nematology

Discovering safe and healthy ways to protect our food and resources from pests and disease while also protecting our natural ecosystems.

[LEARN MORE](#)



Plant Sciences

Working to advance research and address many local, regional and global challenges such as breeding plants to tolerate drought-stress, developing sustainable cropping practices and conserving plant species for future generations.

[LEARN MORE](#)



Soil and Water Systems

Addressing resource issues related to soil, water quality and quantity and sustainable food, energy and waste systems.

[LEARN MORE](#)

The College of Agricultural and Life Sciences has formed three new departments to replace the former Department of Plant, Soil and Entomological Sciences to better serve our students and the public who rely on CALS for teaching, research and extension. Please visit the new department websites for more information.

NEW DEPARTMENTS

- PSES met w/ Dean in early March '17 to discuss administrative and financial split of PSES
- Internal Search for the 3 new Chairs of Plant Science (PS), Entomology, Plant Pathology and Nematology (EPPN) and Soils and Water Systems

PS

- | | |
|-------------------------|----------------------|
| 1. Brown, Jack | 17. Shafii, Bahman |
| 2. Caplan, Allan | 18. Shewmaker, Glenn |
| 3. Chen, Jianli | 19. Singh, Shree |
| 4. Fallahi, Essie | 20. Stark, Jeffrey |
| 5. Fu, Daolin | 21. Thornton, Mike |
| 6. Hong, Zonglie | 22. Tripepi, Bob |
| 7. Hutchinson, Pam | 23. Walsh, Olga |
| 8. Kuhl, Joe | 24. Wang, Yi |
| 9. Liang, Xi | |
| 10. Love, Steve | |
| 11. Ma, Rong | |
| 12. Morishita, Don | |
| 13. Olsen, Nora | |
| 14. Prather, Tim | |
| 15. Rogers, Christopher | |
| 16. Schroeder, Kurtis | |

EPPN

1. Barbour, Jim
2. Bechinski, Ed
3. Bosque-Perez, Nilsa
4. Cook, Stephen
5. Dandurand, Louise-Marie
6. Eigenbrode, Sandford
7. Hafex, Saad
8. Karasev, Alex
9. Kinzer, Kasia
10. Lewis, Edwin
11. Marshall, Juliet
12. Rashed, Arash
13. Schroeder, Brenda
14. Schwarzlaender, Mark
15. Wenninger, Erik
16. Wharton, Phillip
17. Woodhall, James

SWS

1. Allen, Rick
2. Brooks, Erin
3. Chen, Lide
4. Heimgartner, Marvin
5. Heinse, Robert
6. Johnson-Maynard, Jodi
7. Mahler, Bob
8. McDaniel, Paul
9. Moore, Amber
10. Morra, Matt
11. Neibling, Howard
12. Ryu, Jae
13. Strawn, Dan
14. Vacant (Microbial Ecol)
15. Vacant (H2O Shed Mgmt)
16. Vacant (Karsky)

REPLACING PROF. JIM BARBOUR'S POSITION

Duties and Responsibilities:

- The successful candidate will have primary research and Extension responsibility for integrated management of arthropod pests of specialty and seed crops.
- Area cropping systems are diverse and dynamic including hops, alfalfa, beets, beans, corn and mint.
- The research goal is to further our understanding of insect biology and ecology and to contribute to the development and implementation of integrated approaches to insect management in these and other specialty crops.
- The candidate could also work on insect identification, oversight of the bee cocoon lab, insect pests of tree fruit crops or other crops as situations arise.
- The Extension goal is to provide leadership for the development, implementation, evaluation and reporting of Extension education programs relevant to integrated management of arthropod pests of specialty and seed crops.
- Position closed December 1. Approximately 30 applications are being screened.

CROPS GROWN IN IDAHO

SEED

Idaho seeds are ranked the best in the world, and are shipped to more than 120 countries and every continent except Antarctica. Idaho grows 70% of the hybrid temperate sweet corn seed produced in the world. We're a leading supplier of seeds for vegetables like carrot, onion, turnip, and lettuce, as well as for alfalfa and Kentucky bluegrass. Disease and insects are minimal here due to our high desert plains, cold winter temperatures, and stringent regulations. World-class seed companies operate in the Treasure Valley.

HAY

Idaho hay is known for its high-protein content, and is marketable for dairy and horse operations around the world. Idaho ranks first in the U.S. for production of certified organic hay, and is the second largest U.S. producer of alfalfa hay. Alfalfa constitutes more than 80% of Idaho's total hay production, with over four million tons harvested annually. Idaho's high elevations and arid climate create ideal drying conditions. Major alfalfa seed companies have facilities in Idaho and develop superior genetics tailored to Idaho's climate.



Farmers' fight against weevil led to Parma research center



The Idaho Free Press & The News Tribune,
Tuesday, February 24, 1976

THE FIRST RESEARCH was established at the Parma Research and Extension Center in this building. The shed at the rear was hauled from Twin Falls in 1922 by truck for use as Dr. Claud Wakeland's first laboratory. The edifice in the foreground was the entomology field station, funds for which

were raised from valley business firms and individuals by a group headed by R. H. Young, Sr., and F. Lee Johnson. The station has been in the business of solving farm problems of the area ever since.

(UPI Photo)

HISTORY OF PARMA

- F. Lee Johnson (Gov. Ross) and R. H. Young, Sr. (Gov. Bottolfsen)
- Alfalfa weevil out of control; impacted forage for livestock/dairy (1922)
- Contacted Dean Iddings who moved two Entomologists (Claude Wakefield & Don B. Whelan) to Parma
- Some success was achieved and effort to build an entomology field station was started: \$3,025 was raised in 1925:
 - Boise Payette Lumber Company - \$1000; Idaho Power Company - \$600;
 - Union Pacific Railroad - \$500; Idaho Horticultural Association - \$325
 - Parma Association of Commerce - \$305; Gem State Lumber Company - \$125
 - Idaho Wool Growers - \$125; Eastern Idaho Potato Growers - \$50



United States
Department of
Agriculture

National
Agricultural
Statistics
Service



Certified Organic Survey 2016 Summary

September 2017



Table 1. Farms, Land, and Value of Sales on Certified Organic Farms: 2016 (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
CERTIFIED ORGANIC FARMS						
Certified farms	166	205	420	732	86	100
CERTIFIED ORGANIC LAND						
Total certified organic acres operated farms	166	205	420	732	86	100
..... acres	178,567	39,153	43,219	103,136	54,208	10,255
Cropland farms	163	186	396	712	86	100
..... acres	119,866	35,441	30,604	89,585	49,773	6,424
Pastureland/rangeland farms	55	77	338	263	23	55
..... acres	58,701	3,712	12,615	13,551	4,435	3,831
Land owned farms	145	153	389	635	63	82
..... acres	117,746	15,537	29,913	65,297	29,157	7,080
Land rented from others farms	93	117	197	298	47	39
..... acres	(D)	23,903	13,572	40,098	25,816	3,194
Land rented to others farms	3	7	14	34	3	3
..... acres	(D)	287	266	2,259	765	19

SANDPOINT ORGANIC AGRICULTURE CENTER

- The **first** and **only** USDA certified organic center for the college
- **66 acre** property includes:
 - USDA certified organic orchard
 - Office space and conference facilities
 - Dormitories for students and visiting faculty
 - Cider house
- Producing **48** varieties of **heirloom apples**; **8** varieties of **pears** and **8 other fruits**
- Hands-on teaching and internship opportunities for students from U of I and North Idaho College
- Enhanced outreach from University of Idaho Extension in North Idaho





GERMPLASM SEED POTATO FACILITY

- New building on the Moscow campus that will triple production to better serve the Tri-State Partners
- Will better serve breeding programs
- Improve overall plant quality by creating plantlets and mini-tubers free from diseases that lead to the production of the best potatoes in the US



PARMA RESEARCH & EXTENSION CENTER

Invest in equipment and infrastructure to enhance research and outreach efforts while recruiting and retaining the best faculty and graduate students and attracting nationally competitive grant funding.

- Better connectivity to other R&E Centers
- Serve all of Idaho agriculture
- Develop a 'Center for Plant & Soil Health'
- Follow up from Parma Visioning Session (March '18)
- Preparation for 2019 Legislative Tour



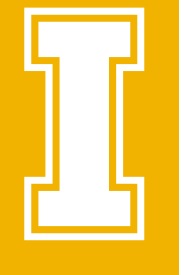
Plant Pathology



Current plant pathology research at the Parma Research and Extension Center includes:

- Plant disease diagnosis and management.
- Epidemiology and control of diseases of seed crops, onion, potato and fruit crops.

Contact James Woodhall for more information on plant science research projects at the Parma Research and Extension Center,
jwoodhall@uidaho.edu or 208-722-6701.



DEPARTMENT LEGEND

- AGRONOMY / CROPPING / WEED SCIENCE
- COMMON
- COMMON CORE
- ENTOMOLOGY
- MAIN CIRCULATION
- NEMATOLOGY
- PLANT PATHOLOGY
- POMOLOGY

Overview of Parma Expansion



University of Idaho

College of Agricultural
and Life Sciences

**THE IDAHO CENTER FOR AGRICULTURE,
FOOD AND THE ENVIRONMENT (CAFE)**

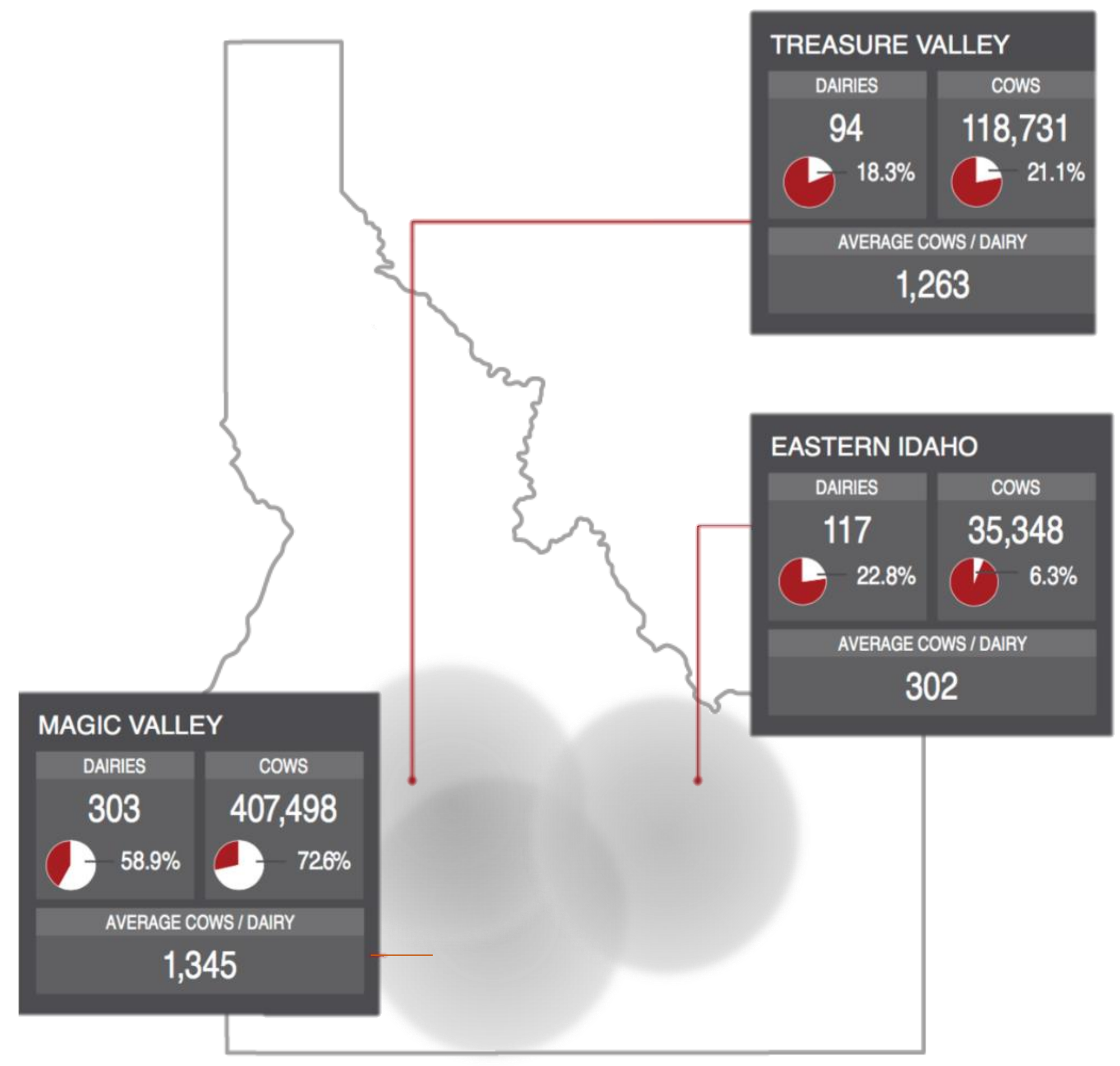
Building on the Magic Valley Miracle



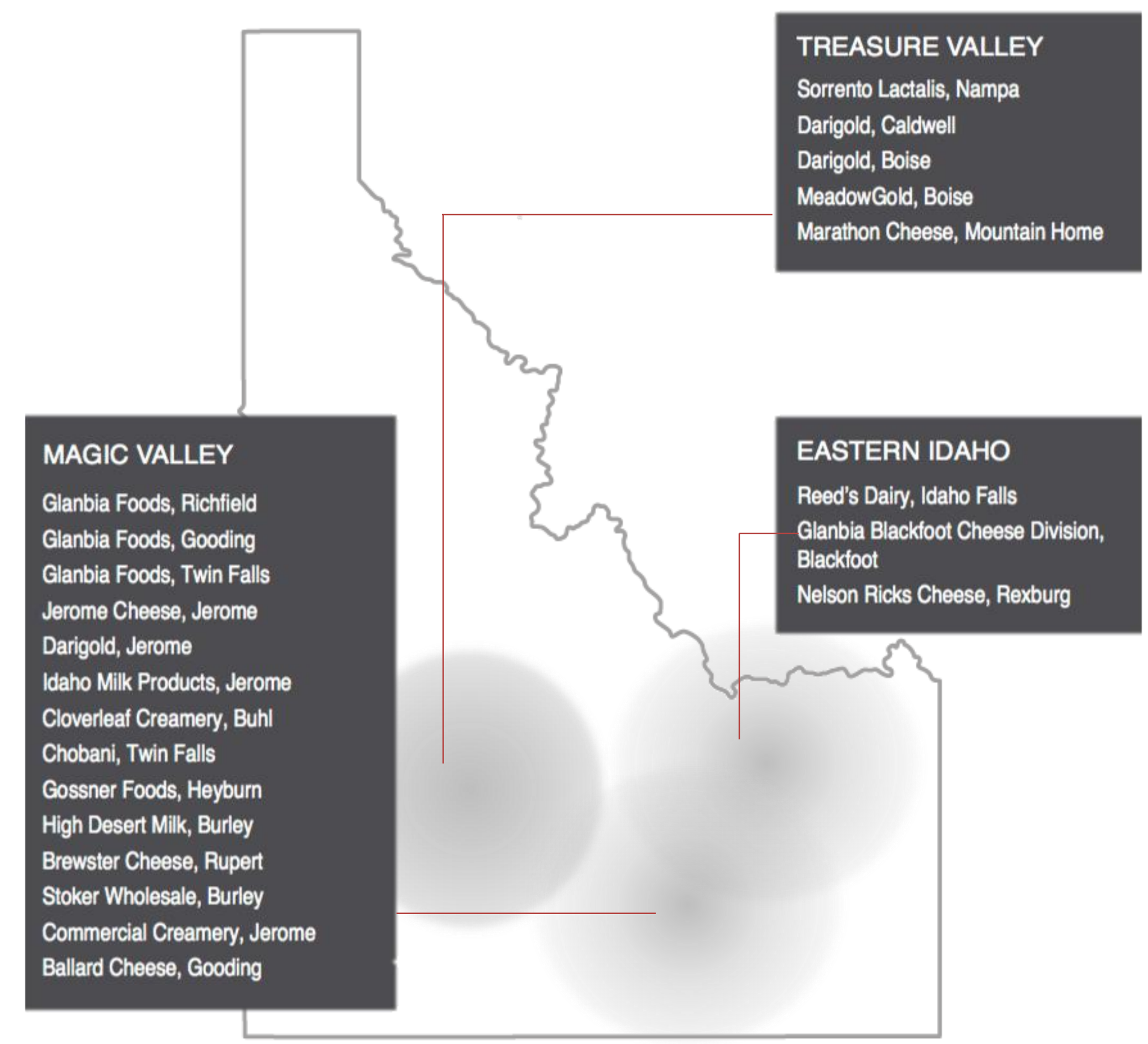
IDAHO CAFE

- It is our goal to build and operate the **largest integrated research facility** focused on **dairy** and **allied industry** in the United States.
- The project will include a **research dairy**, field plots and manure/nutrient handling/processing facility, **outreach/education center** and **food processing facility** to be located in the Magic Valley.
- CAFE will have both a physical presence and a national and international reputation that reflects the size, quality and importance of the industry it represents.

IDAHO'S DAIRY INDUSTRY

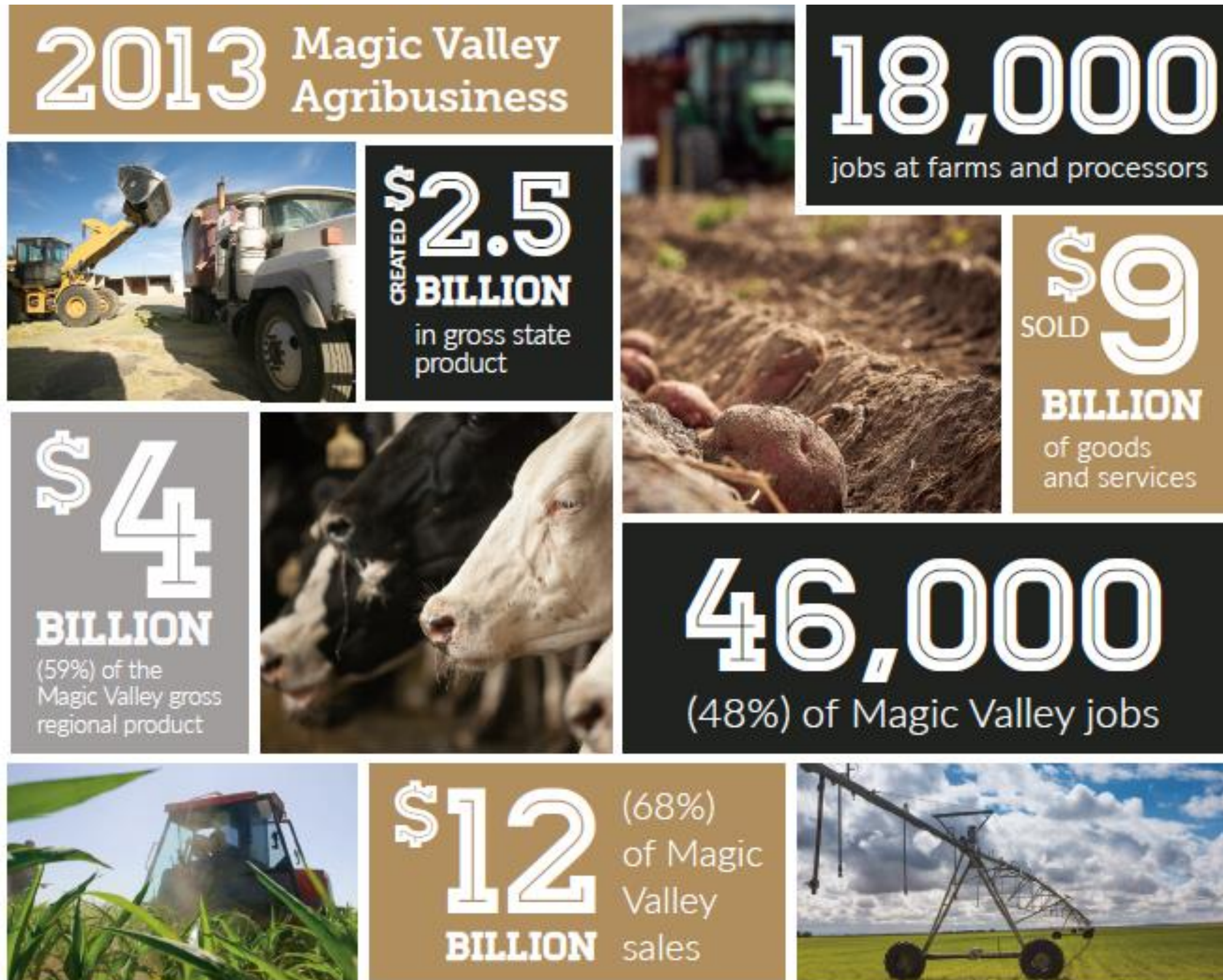


Dairy Production



Dairy Processing

AGRIBUSINESS IN THE MAGIC VALLEY





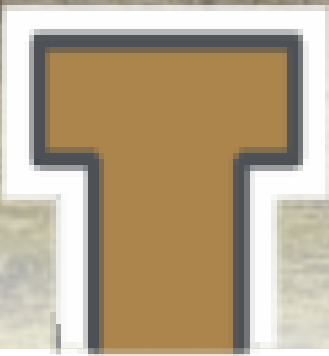
Agronomic crops in the magic valley

- 1,000,000 acres of irrigated farmland
- 520,000 acres in forage production
 - 200,000 acres of corn
 - 320,000 acres of alfalfa
- 85,000 acres of potatoes

The vision for CAFE: Satisfying critical needs

Forage research for livestock/dairy

- Alternative forages; evaluation of new alfalfa varieties
- Animal feed efficiency
- Nutrient management plans relative to soil health
- Water use efficiency/irrigation systems



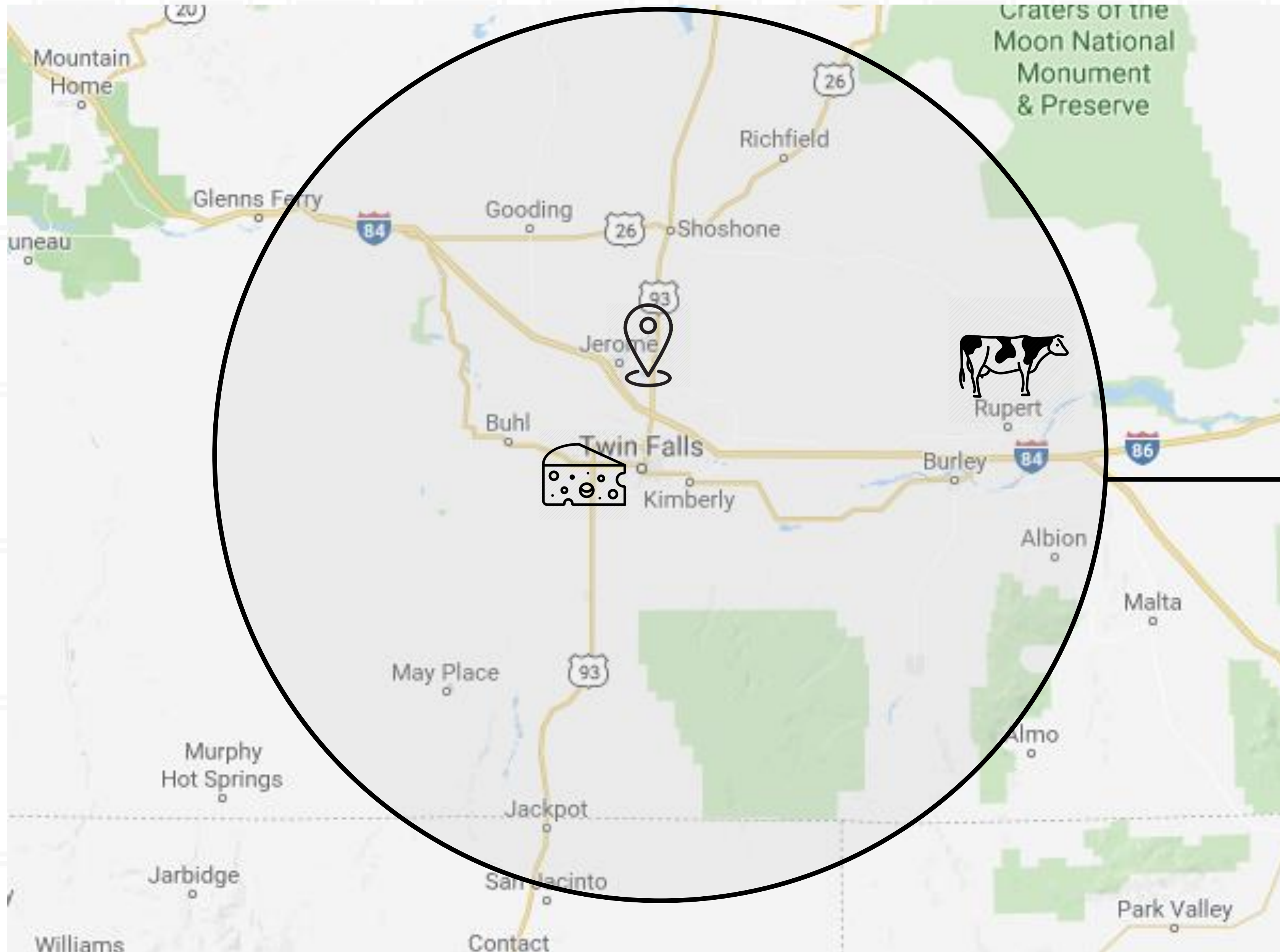
IDAHO CAFE

- The Idaho Center of Agriculture, Food and the Environment will:
 - Address issues affecting **sustainability** of the industry.
 - Enhance **workforce** capacity through education and training.
 - Develop programs to assist dairymen in the area of **commodity risk management**.
 - Increase **knowledge about the industry** to the general public.
- CAFE will reinforce the efforts of Jerome 20/20, the State Department of Commerce and the Southern Idaho Economic Development agency to bring new food processors to the Magic Valley.

PROGRESS UPDATE: IDAHO CAFE

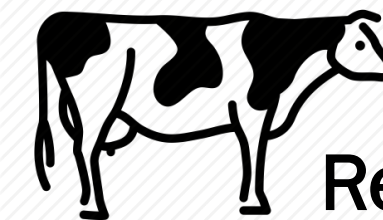
- Regional model developed
- Partnering with IDA to purchase the dairy site in Rupert
- Expected to accelerate fundraising and legislative support
- Expect to issue a challenge to ag commodities and related industries
- Understanding agricultural commodity risk management and training students in this area are important to dairy and feed producers, animal nutritionists and dairy processors
- Fully develop the outreach/education center at crossroads point

REGIONAL MODEL



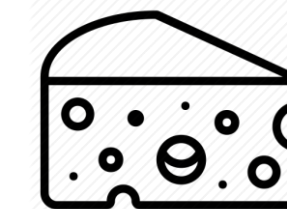
Outreach and Education Center

- Located at Crossroads Point in Jerome
- Intersection of Hwy 93 and I-84
- High visibility
- Research laboratories and housing
- Tells the story of Idaho agriculture



Research Dairy

- Located within 50mi of outreach center
- Off-site location will ensure biosecurity
- Build a new facility on permitted land
- 2,000 cows

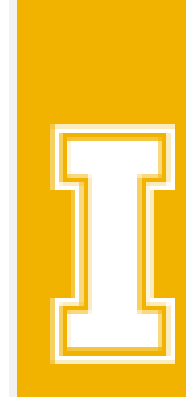


Food Processing Pilot Plant

- Located on the CSI campus adjacent to vocational training center
- Focus on expanding future workforce
- Food processing research conducted

OUTREACH AND EDUCATION

- Extension Specialists/Educators will be located at CAFE
- Extension will be showcased in leading CAFE
- Southern and Central Extension Districts in Idaho
- 4-H engagement
- Outreach will provide insight into “Where Your Food Comes From”
- View into the complete world of Dairy; farm to fork
- Forage production – Dairy – Food Processing



TILLAMOOK CREAMERY

TILLAMOOK, OREGON

Visitors can watch cheese being made and packaged, learn about dairy farming, try samples of Tillamook Cheese, and find all Tillamook products in one place. The Tillamook Creamery experience is free and self-guided.

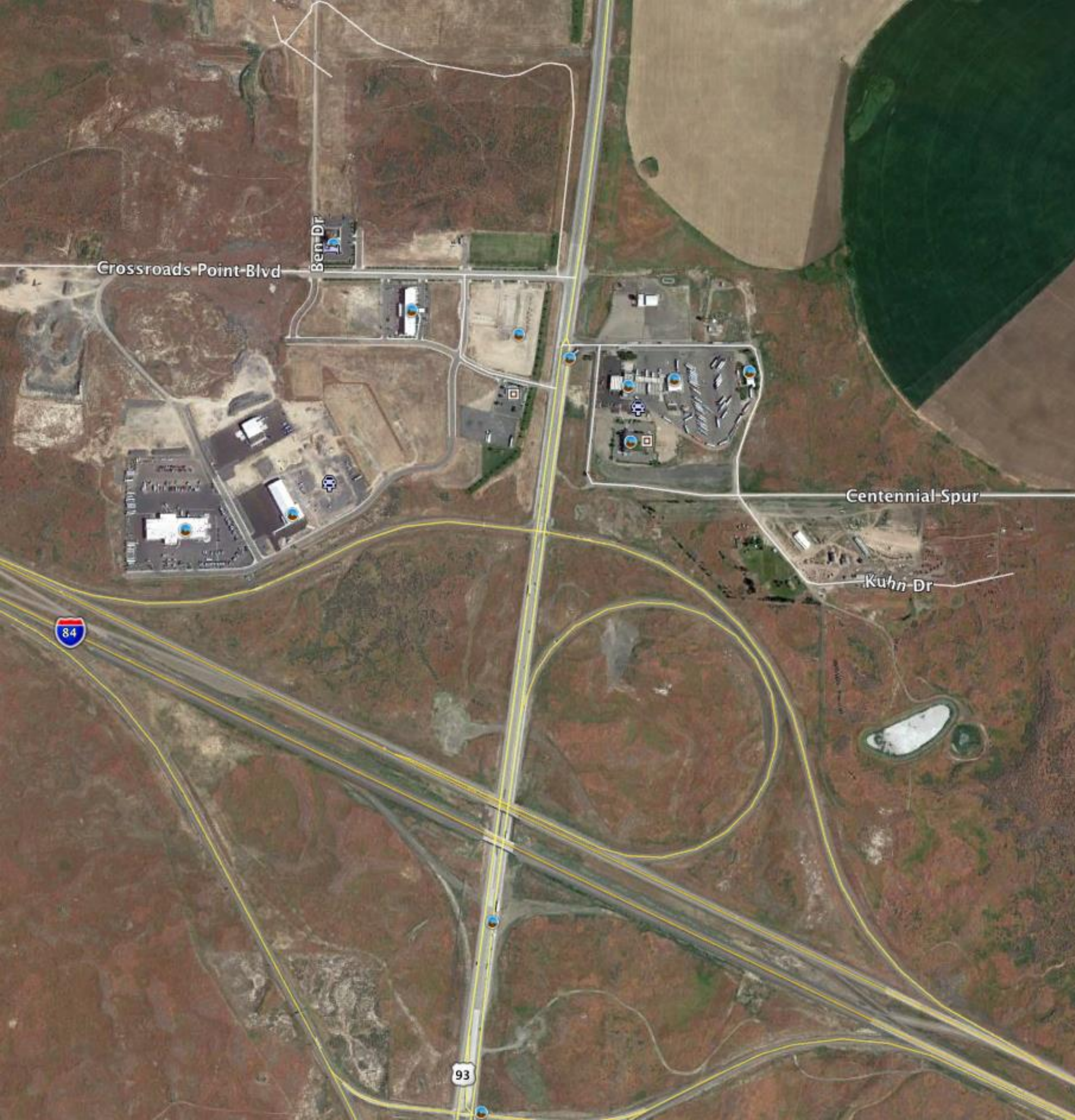


FAIR OAKS FARM

FAIR OAKS, INDIANA

Recognized as the #1 agritourism destination in the Midwest, Fair Oaks Farms is an escape to the country with acres of great fun, food and learning where you can explore modern working farms right in the corn belt of Northwest Indiana.





CROSSROADS POINT

- Outreach and education center
- Classrooms and dormitories located on-site
- Home of research laboratories
- Offices for research faculty



University of Idaho

College of Agricultural
and Life Sciences

THANK YOU

Michael P. Parrella

Dean

mpp@uidaho.edu