



DEPARTMENT OF
DAIRY SCIENCE
University of Wisconsin-Madison





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Why Wisconsin?



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Top Ranked University





University of Wisconsin-Madison: **In the rankings...**

#**1** Happiest College Students (2013 Unigo College Rankings)

#**3** Total research expenditures among U.S. public universities (2013 NSF)

#**1** Best College Football Town in America (2012 USA Today)

#**4** Top Producers of Fortune 500 CEO's (2013)

#**1** Producing Peace Corp Volunteers (2014)

#**8** Best value in public colleges (2014 Kiplingers), **Top 75** (2014 Princeton Review)

#**11** America's best public colleges (2014 Forbes), #**13** (2014 U.S. News)

#**1** Most popular Business School (2013 U.S. News)

#**25** Among all universities worldwide (2014 Center for World University Rankings)



Admissions are Competitive

Academics Matter Most

- High school rank (84th - 97th percentile*)
- ACT or SAT scores (27-31 ACT Composite*)
- GPA in core academic courses (Math, Science & English); no minimum (3.7-4.0 GPA*) **Target freshmen enrollment = 6,300 students**

*Middle half range for Fall 2012 freshmen

Goal: 75% in-state (WI & MN residents)

- Approximately 66% are WI residents

Campus diversity is considered.

CALS Production Ag Major Admission Initiative

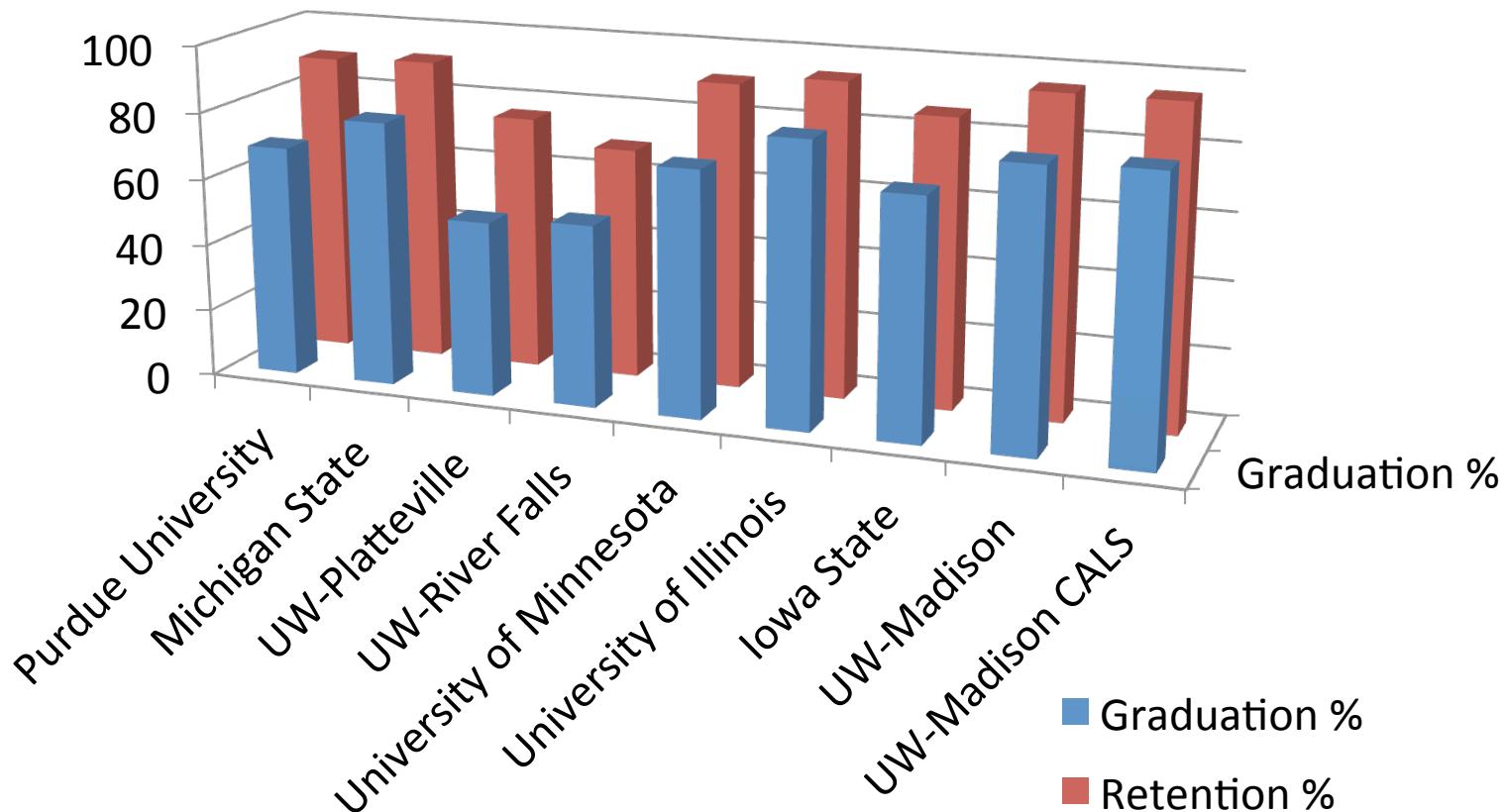
Admission Decisions:

admit, postpone, deny

APPLICATION DEADLINES		
	Deadline	Notification
First Fall Notification	November 3	By the end of January
Second Fall Notification	February 2	By the end of March
Spring Term	October 1	By the end of December



Comparing Retention and Graduation





Tuition, Fees, and Expenses for 2014-2015

	Wisconsin Resident	Minnesota Resident	Out-of-State/ International
Tuition & Fees	\$10,410	\$13,196	\$26,660
Room & Board	\$8,600	\$8,600	\$8,600
Books & Supplies	\$1,200	\$1,200	\$1,200
Total	\$20,210	\$22,996	\$36,460



Office of Student Financial Aid

Grants, loans, and student employment

Search

HOME

PROSPECTIVE UNDERGRADUATES

CURRENT UNDERGRADUATES

GRADUATE AND PROFESSIONAL

PARENTS

*61% of UW-Madison students receive some assistance
36% of enrolled freshmen received grant aid*

All Applicants: Complete the **Free Application for Federal Student Aid (FAFSA)**,

- available online at **www.fafsa.ed.gov** or from the UW Office of Student Financial Services as soon after **January 1** as possible

The [University of Wisconsin-Madison](#) is located about a mile away from the State's beautiful capitol.



Scholarships@UW-Madison

HOME SCHOLARSHIPS LIST SCHOLARSHIPS 101 FAQ OTHER RESOURCES CONTACT INFO

Over \$1,000,000 available in CALS

\$140,000 awarded by Dairy Science

Incoming Dairy Science freshmen who applied for Fall 2014-'15 scholarships ranged from **\$1,000** to **\$10,000**

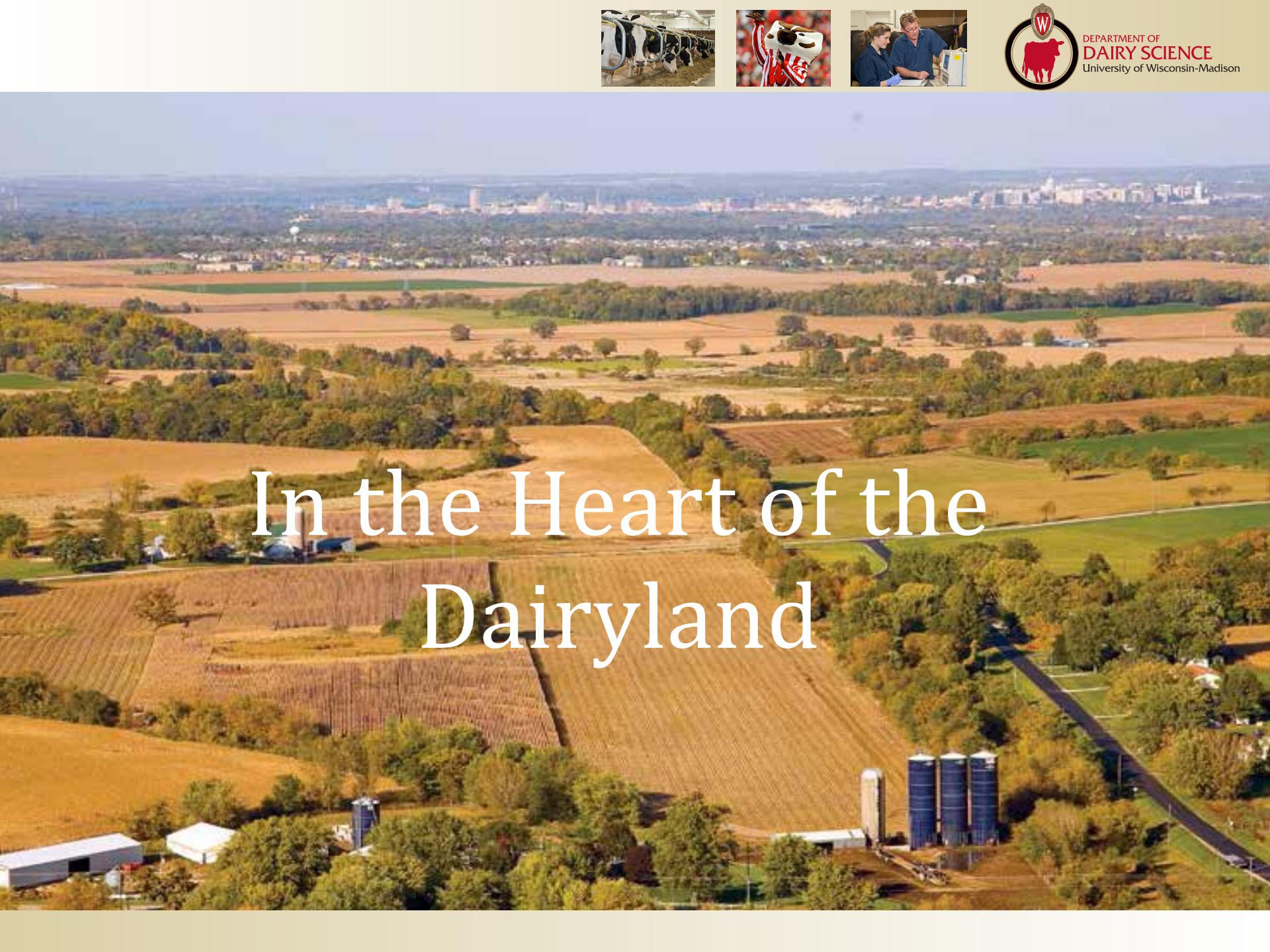
One common application found at **scholarships.wisc.edu**

APPLICATION DEADLINE:

February 3rd!



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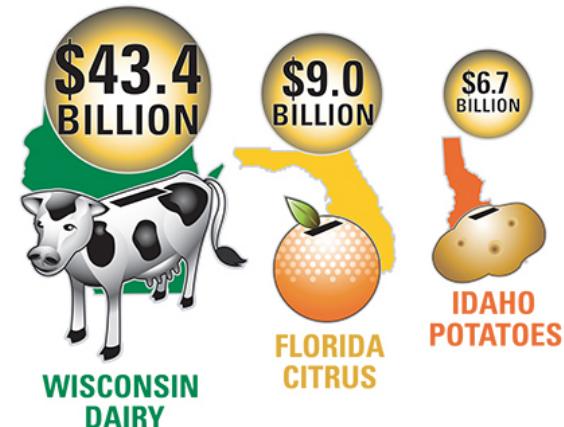
An aerial photograph of a rural landscape, showing rolling hills, green fields, and clusters of trees. In the far distance, a large city skyline is visible under a clear blue sky.

In the Heart of the
Dairyland



Employment Opportunities

- Wisconsin's dairy industry contributes \$43.4 billion to our economy each year and employs more than 78,900 people
- Each of Wisconsin's 1.27 million dairy cows generates \$34,000 in annual economic activity



Placement of Dairy Science BS grads ~100%

- Median starting salary = \$50,000
- Employment breakdown (roughly):
 - ✓ 30% graduate or professional school
 - ✓ 40% dairy industry (technical support, sales)
 - ✓ 30% farm management/ownership



What Fields Our Students Go Into

**Industry demand for dairy science grads
is greater than supply**

- Veterinary medicine
- Animal nutrition and consulting
- Livestock reproduction
- Dairy Genetics and breed associations
- Dairy Herd Management
- Laboratory research
- Information technology
- Agricultural Extension
- Sales, marketing and international business
- Agricultural Communications



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Dairy Science Lives Here!





Dairy Science Degree Program

Areas of specialization

- Pre-Vet or Research
- Agri-Business
- Dairy Operation Management





Dairy Science Degree Program

Requirements for Dairy Science Majors

All students take these core courses

- ✓ 101 Livestock Production
- ✓ 233 Dairy Herd Management I
- ✓ 234 Dairy Herd Management II
- ✓ 305 Lactation Physiology
- ✓ 311 Comparative Animal Nutrition
- ✓ 313 Animal Feeds and Diet Formulation
- ✓ 361 Introduction to Animal and Veterinary Genetics
- ✓ 362 Veterinary Genetics
or
✓ 363 Principles of Animal Breeding
- ✓ 373 Animal Physiology
- ✓ 414 Ruminant Nutrition
- ✓ 434 Reproductive Physiology
- ✓ 535 Dairy Farm Management Practicum
- ✓ 690 Proseminar



Dairy Science Degree Program

**All Dairy Science Majors Select 3 Credits
From This List of Elective Courses**

- ✓ 205 Dairy Cattle Selection
- ✓ 272 Pre-Capstone Seminar
- ✓ 299 Independent Study
- ✓ 320 Animal Health and Disease Management
- ✓ 370 Livestock Production and Health in Agricultural Development
- ✓ 375 Evaluation of Dairy Agro-Ecosystems
- ✓ 375 Ag in Emerging Economies: Dairying in Mexico
- ✓ 375 Mexico Study Tour & Seminar
- ✓ 375 Reproductive Management of Dairy Cattle
- ✓ 468 Managing the Environmental Impacts of Livestock Operations



Dairy Science Degree Program

Requirements for Dairy Science Major

Student and advisor pick from *list of recommended elective (advanced) courses in:*

- ✓ Biological sciences
- ✓ Business management
- ✓ Communication/marketing
- ✓ Environmental science
- ✓ Food science
- ✓ Foreign languages





Dairy Science Degree Program

- ✓ *Simple for student and advisor*
- ✓ *Tailor a set of courses to each student's needs and interests*
- ✓ *Change specialization without extending time to graduation*
- ✓ *Easy to double-major, even outside of CALS*



High Impact Practices

Capstone Learning

- Work with others
- Incorporate research
- Involve problem solving

Required Internships

- Gain “Real World” experiences
- Learn effective communication
- Network with future employers





High Impact Practices

Faculty Staff Advisors

- Academic and career planning
- Qualified to speak about dairy
- Future reference

International Experiences

- Think about your values & identity
- Gain a global perspective
- Exposure to different dairy systems





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World Class Faculty



Animal Nutrition



Lou Armentano
Professor



Michel Wattiaux
Professor



Randy Shaver
Professor



Dave Combs
Professor



Heather White
Asst Professor

• **Research**

- Fatty acids

- Feed efficiency

• **Instruction**

- 311 (animal nutrition)

- 690 (senior seminar)

• **Research**

- Dairy systems

- GHG emissions

• **Instruction**

- 375 (dairy Mexico)

- 468 (environment)

- 414 (nutrition)

• **Research**

- Corn silage

- Starch digestibility

- Nutrition-health interactions

• **Extension**

- Controlling feed costs

- Forage quality

• **Research**

- Pasture mgmt

- Fiber digestibility

• **Instruction**

- 101 (livestock production)

- 535 (capstone)

- FISC

• **Research**

- Energy and lipid metabolism

- Nutritional demands of transition cows

• **Instruction**

- 313 (animal nutrition)

- 875 (ruminant nutrition)



Animal Physiology



Milo Wiltbank
Professor



Paul Fricke
Professor



Pam Ruegg
Professor



Laura Hernandez
Asst Professor

• Research

- Follicle growth and ovulation
- Hormonal control of fertility

• Instruction

- 375 (repro)
- 535 (capstone)
- FISC
- 373 (physiology)

• Research

- Early pregnancy detection
- Hormonal synchronization of estrus

• Extension

- Reproductive mgmt programs
- Estrus detection systems

• Research

- Mastitis control and treatment
- Antimicrobial resistance

• Extension

- Milk quality
- Animal health
- Organic dairies

• Research

- Serotonin in the mammary gland
- Calcium mobilization and milk fever

• Instruction

- 305 (lactation)
- Biology 152
- 373 (physiology)



Animal Genetics & Management



Kent Weigel
Professor & Chair



Daniel Gianola
Professor



Victor Cabrera
Asst Professor



Amy Stanton
Asst Professor

• Research

- Genomic selection
- Low-density chips

• Instruction

- 690 (senior sem.)

- FISC

• Extension

- Genomics

- Selection for health and fertility

• Research

- Statistical genetics
- Genomic selection
- Machine learning algorithms

• Instruction

- Graduate level genetics courses

• Research

- Optimization and decision-support systems
- Risk management

• Extension

- Economic decision-making
- Management of feed resources and repro programs

• Research

- Animal health, behavior, and well-being

- Calf management

• Extension

- Animal care and welfare
- Calf rearing



Professional Academic Staff



Jerry Guenther
Research Program
Manager

- **Research**
 - Dairy Reproduction
- **Instruction**
 - FISC dairy reproduction
 - FISC dairy records
 - 375 (reproduction management)



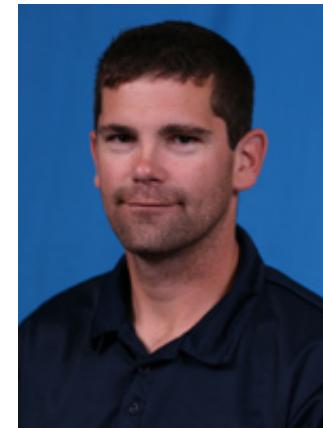
Ted Halbach
Dairy Management
Instructor

- **Instruction**
 - 233 & 234 (dairy herd management)
 - 205 (dairy selection)
 - FISC dairy evaluation)
 - Dairy Challenge
 - Dept. Marketing and Recruiting



Beth Heinze
Dairy Youth
Specialist

- **Extension**
 - Youth Programming



Mike Peters
Herd Manager

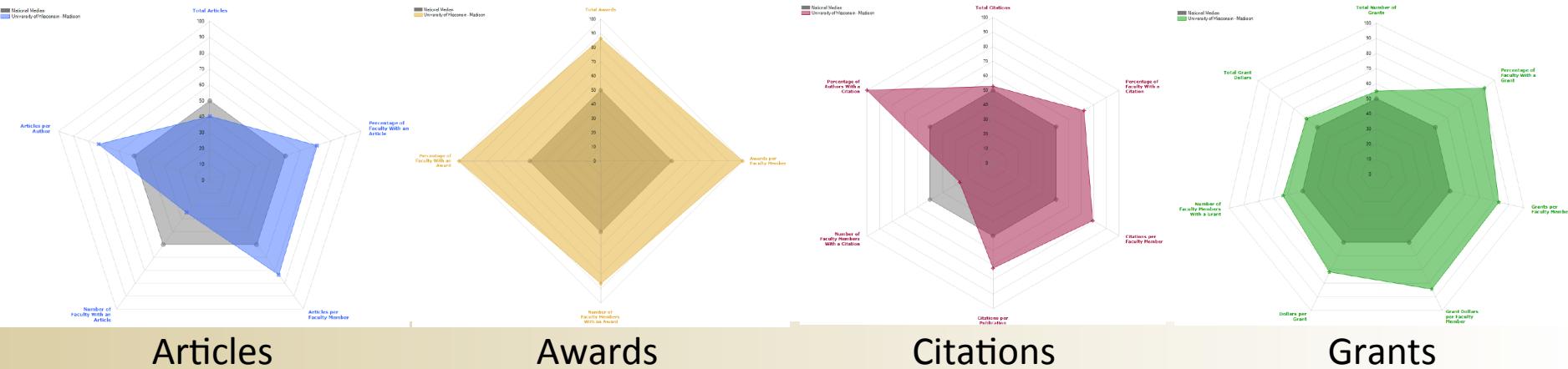
● Instruction

- 299 (Independent Study)



Faculty Productivity

- Among 63 animal sciences departments nationwide:
 - #13 in journal articles per faculty member
 - #2 in awards per faculty member
 - #8 in citations per faculty member
 - #12 in grants per faculty member
 - #4 in overall Faculty Scholarly Productivity Index (95th percentile)





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State of the Art Dairy Facilities





Campus Dairy Cattle Center

- Cattle areas (stalls, silos, parlor, arena) remodeled in March 2013
- Human areas (classroom/lab, locker rooms, learning center) to be remodeled in 2015
- Used heavily by CALS, Vet Med, and FISC

Arlington Blaine Dairy

- State-of-the-art research facility for 500 lactating cows

Marshfield Agricultural Research Station

- Unique research facility for 550 growing heifers
- Studying the impact of dairy on soil, air and water quality



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Campus Experience



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Living Community Opportunities

- Residence Halls
- Alpha Gamma Rho
- Association of Women in Agriculture
- Babcock House
- Delta Theta Sigma





Part Time Employment

Over 40 student positions are available in
Dairy Science

- **Dairy Herds**
- **Research Laboratories**
- **Administrative Offices**





Get Involved!

On-Campus Extracurricular Activities

- Intramural sports
- Attend UW Athletics
- Badger Dairy Club
- Collegiate FFA
- Horticulture Club
- Alpha Gamma Rho
- CALS Student Council
- Dairy Judging Team
- Dairy Challenge Team
- Campus Lectures
- Movies





Comments from our students...

Here is what some recent grads said about their experiences at UW-Madison majoring in Dairy Science:

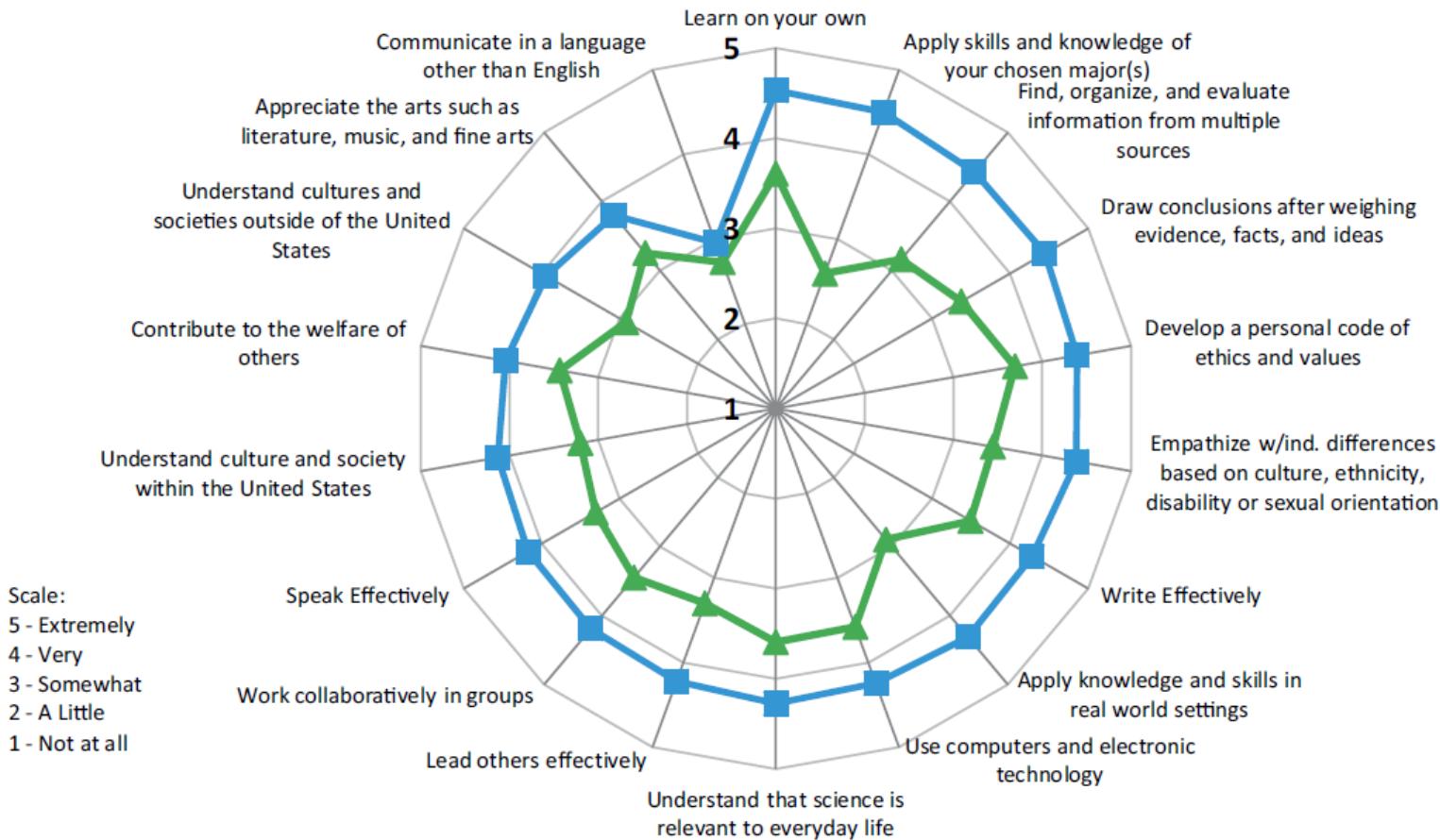
- “I’ve really enjoyed all the opportunities for travel throughout college whether that was through Badger Dairy Club, dairy judging, or for an internship.”
- “My most memorable college experience was being part of the National Dairy Challenge Team that won first place Platinum at Syracuse, New York.”
- “When it came down to a great dairy program and the Big Ten atmosphere, there was no other choice for me.”
- “I wouldn’t think twice about doing it again. It’s been a great experience.”



How You Will Grow...

Perceptions of Learning Gains, 2012-13 Bachelor's Graduates

"How able were/are you to ..." When Entering At Graduation





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Visit UW on the web at...

UW-Madison's homepage

<http://www.wisc.edu>

The College of Agricultural and Life Sciences

<http://www.cals.wisc.edu>

UW-Madison Dairy Science

<http://www.wisc.edu/dysci/>

A screenshot of the UW-Madison Dairy Science website. The header features the department's logo and navigation links for Home, About Us, Future Students, Current Students, Dairy Farmers & Industry, Alumni, Giving, and Tours. Below the header is a banner with a photo of a smiling woman and the text "World Class Faculty". The main content area includes sections for "IN THE NEWS" (with articles about Real World Smart, Tom Lyon receiving an honorary UW degree, and a cow talk on alternatives to corn), "EVENTS" (listing Spring Dairy Science Visit Day, Mendoza Room, Dodge Hall, Madison, Wisconsin on March 3rd), and "CAMPUS MAP" (link). The footer contains the College of Agricultural & Life Sciences 125th anniversary logo and social media links.



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Mooving Forward.
DAIRY SCIENCE AT WISCONSIN

Questions?