Stronger Together
Minnesota Dairy Growth Summit
February 9th, 2015

Trevor Ames DVM MS DACVIM
Professor and Dean
We do this through our graduates, research, outreach and service
College of Veterinary Medicine

DVM Training

400 DVM students (100/year)
15 DVM/MPH and 5 DVM/PhD combined degree students

Veterinary College

Pre-vet Requirements 3-4 years

Pre Clinical Curriculum yrs 1-3

Clinical Rotations yr 4

Veterinary practitioners who directly join the work force must be practice ready and bring value to employers!

Additional Training (~35% internships, residencies, grad school)
- Specialty Practice
- Veterinary Public Health
- Pharmaceutical and Biomedical Device Industry
- Government Agencies
- Higher Education
University of Minnesota Clinical Rotations

Many 4th year rotations to select from with 5 major tracks

- Food Animal *(dairy, swine, beef, poultry)*
- Equine
- Small Animal
- Mixed Animal
- Public Health, Research, Industry

Tracking produces practice ready graduates!

College of Veterinary Medicine
Topics Covered in depth in 4th Year Dairy Rotations at UMN

- Clinical skills in diagnosis, treatment and surgery
- Reproductive diseases, techniques and management
- Mastitis and milking system evaluation
- Animal housing systems and management
- Nutrition
- Record systems, epidemiology, herd investigation and evaluation
- Calf health and management
- Heifer health, reproduction, and management
- Animal stockmanship and welfare
- Transition cow management
- Lameness and hoof care
- Communication skills (including Spanish), personal development, and presentation skills

No other Veterinary College offers this in depth training in dairy for its veterinary students.
Dairy Veterinary Education Center

A private / public partnership
Faculty

Faculty positions in Dairy Health and Production

• Faculty devoted to dairy research, education, service and outreach at the CVM
  • Gerard Cramer DVM DVSc- lameness and animal welfare
  • John Fetrow VMD MBA, DAVBP - dairy production medicine and economics
  • Sandra Godden DVM DVSc- calf health and well being, milk quality and mastitis prevention, and Johnes's disease control
  • Tim Goldsmith DVM MPH, DACVPM- production systems, judicious antibiotic use, emergency preparedness
  • Erin Royster DVM MSc- mastitis, udder health laboratory and milking equipment
  • Jeremy Schefers DVM PhD- ruminant diseases and diagnostics
  • Riki Sorge DVM, Dr. med. vet, MSc, PhD, DACVPM- organic dairy production, stockmanship, animal welfare
  • Reproductive specialist TBD
  • Scott Wells DVM PhD, DACVPM- Control of infectious pathogens of cattle
  • Numerous other faculty in pathology(4), microbiology(5), food safety(3), large animal medicine(3) and large animal surgery(2) have some effort focusing on dairy
National Center of Excellence

- The Dairy Veterinary Education Center (DEC) was named the nation’s first “Center of Excellence in Dairy Veterinary Medical Education” based on USDA funding.
- Center of Excellence curriculum was developed with USDA funding and focused on dairy production medicine:
  - Knowledge, skills, and practical application needed by veterinarians working at a herd consulting / management team level.
  - Mix of classroom, wet lab sessions, hands-on work on the dairy, farm evaluation visits and field trip experiences.
  - Students taught by the top experts in the field from across the U.S.
  - Curriculum available to UMN students on ongoing basis.
Research

• External and internal funding mechanism support the research: including USDA, industry, Agriculture Experiment Station, Rapid Agriculture Response Funds and MnDrive Global Food Funds.

• The Dairy Education Center provides a fruitful site for applied and clinical research. (4,500 adult cows at the dairy, 10,000 calvings and 6,000 heifer calves born per year.)

  **Areas of research:**
  • Transition cow management and health
  • Mastitis
  • Reproduction
  • Calf rearing and health
  • Full listing of recent research topics on handout

• There are currently 5 graduate students and multiple summer scholars projects at the DEC.
Service

Minnesota Veterinary Diagnostic Laboratory:
• Mission is providing disease surveillance to the livestock industry and protecting the food system including dairy, egg and meat products
• In 2014 the VDL had the following work associated with bovine submissions (which are mostly dairy)
  – 5996 cases
  – 132,086 tests performed
  – 87,959 animals tested

Udder Health Lab:
• Performed 96,920 tests
Centers

Center for Animal Health and Food Safety

National Center for Food protection and Defense

Upper Midwest Safety and Health Center
Extension/Continuing Education

• With support from UMN Extension and other sponsors the following programs are offered:

• **Minnesota Dairy Conference** - annual dairy conference for dairy veterinarians and producers and industry professionals highlighting the latest developments in production science, health management and food quality

• **Continuing Dairy Veterinary and Dairy Profession Education at the DEC** - the Center is unique in the nation in its ability to host programs:
  • Providing housing, classroom, laboratory, and on-dairy experiences to audiences
  • 2009-2014 has hosted 63 courses totaling 110 days of continuing education for 1,118 participants
Opportunities for CVM and UMN to Support the Dairy Industry

Produce Graduates that:

• Provide service to dairies: clinical, routine service, regulatory services, management team member
• Serve as source of information and support in technology adoption
• Can advise on animal care and conduct welfare certification
• Develop treatment protocols and provide oversight of drug use, residue avoidance, “best practices” certification
• Are capable of assuming management of larger dairies
• Perform non-clinical service roles in the dairy industry and food industry
• Provide community service: 4H, FFA, other local service and volunteer participation
Opportunities for CVM and UMN to Support the Dairy Industry

• Provide state and regional level resources to deal with infectious diseases including:
  o Diagnostic service to dairy farms
  o Response to infectious disease out break including research, test development, vaccine development, and control strategy development (Veterinary Isolation Facility)
  o Support efforts for business continuity and convene industry government agency planning (Center for Animal Health and Food Safety)
  o Provide information to dairy industry

• Serve as spokespeople for dairy industry

• Help policy makers interpret science (Food Policy Research Center)

• Conduct research to support productivity, ensure health, define and promote welfare, enhance feed/food safety, utilize large data sets (epidemiology, genetics)

• Help industry certify supply chains (farm to table)
Thanks!