

***USDA Joint ARS and NIFA  
Animal Health Planning  
Workshop***

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Dairy Health

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# ***Overall Issues***

## ***Dairy***

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- Price of milk
- Volatility in Feed Prices
- Environmental Issues
  - Manure management
  - Air and Water regulations
  - Water access
- Right to farm

# ***Overall Issues Dairy***

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- Animal Welfare
  - Addressing societal concerns
  - Communications
  - Compliance with regulations
- Labor Issues – immigration
- Business Management
- Human Resource Management

# ***Animal Health Issues***

## ***Dairy***

# ***Bovine Tuberculosis***

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- Expanding problem in the United States
- MI and MN?: complicated by wildlife reservoirs
- Diagnostics: rapid and accurate
- Vaccine: wildlife and cattle
- Reevaluate control and eradication programs at the national level
- Policy and social dimensions of control and eradication programs

# ***Johne's Disease***

- Continues to be a significant disease
- CAP: Johne's Disease Integrated Program
- Diagnostics: improved test
- Vaccines: candidates being evaluated
- Control programs
- Human health connection
- JDIP

# ***Mastitis***

- Novel and innovative therapies
  - Reduce reliance on antibiotic therapy
  - Immunomodulators, anti-inflammatories
  - Nutritional immunomodulation
- Vaccines
  - Subunit vaccines
  - Adjuvants
  - Route of administration

# ***Mastitis***

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- Pathogens (ranked by importance)
  1. Environmental – Strep and coliforms
  2. Staph
  3. Mycoplasma

# ***Lameness***

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- Hairy Heel Warts
  - Some producers identify this as the number one health problem in their herd
  - Much remains unknown

# ***Bovine Viral Diarrhea Virus***

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- Effect on reproduction performance
- Improved diagnostics – herd surveillance
- Marker vaccines for eradication programs
- Defining genetic diversity of the virus and relating it to pathogenic differences
- Economic justification for control / eradication programs
- Food safety: immunosuppression: Food Safety Pathogens

# ***Bovine Respiratory Disease (BRD)***

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- Still recognized as a problem
- Herd expansion
- Role of BVDV
- Role of Mycoplasma
- Cross cutting issues with Beef

# ***Welfare Dairy***

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The welfare of dairy cattle---Key concepts  
and the role of science

Von Keyserlingk et. Al.

Journal of Dairy Science, 92: 4101-4111

# ***Welfare - Dairy***

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- Lameness – focal point of attention
- Transition Cow
- Calf nutrition and housing
- Bull calves
- High productivity and associated stress
- Longevity
- Tail Docking / Dehorning / Pain relief
- Pasture access

# ***Emerging Issues***

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- Emerging and re-emerging diseases
- Bovine Leukemia Virus
  - Increasing prevalence
  - Contributor to immunosuppression ???
- Salmonella
  - Emerging

# ***Other Outside of Animal Health Classification***

- Infertility
- Acidosis

# ***Cross Cutting Issues***

## ***“Not just Dairy”***

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- Animal ID and trace back systems for animal health issues
- Wildlife – Livestock disease interface
- Antimicrobial use / resistance