Prudent use of antimicrobial agents
Dairy Sector Initiatives

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INTERNATIONAL DAIRY FEDERATION

Our mission
To represent the dairy sector as a whole at international level, by providing the best global source of expertise and scientific knowledge in support of the development and promotion of quality milk and milk products, to offer consumers nutrition, health and well-being.

Scientific Excellence

Industry Applicability

Strategic Networking

Global Influence
IDF Activities

- 1200 experts
- 85% of world milk production
- 18 Standing Committees + Task Forces & Action Teams

- Animal Health & Welfare
- Dairy Science & Technology
- Nutrition & Health
- Methods of Analysis & Sampling
- Economics, Marketing & Policies
- Hygiene & Safety
- Environment
- Food Standards
- Farm Management

Responsible use of antimicrobial agents
SIGNIFICANCE FOR DAIRY INDUSTRY

- Dairy industry needs to use antimicrobials to treat certain infectious diseases (predominantly mastitis, also lameness and pneumonia).
- Use of antimicrobials is strictly controlled by regulation and commercial incentives.
- Dairy animals are treated as individuals and non-therapeutic measures are incorporated in disease control.
- When antimicrobial agents are used they are mostly administered locally for specific purposes.
- Industry conducts extensive monitoring of antimicrobial use including testing to ensure unacceptable residues are not present in milk.
- Heat treatment of milk provides an effective control measure to assist the management of foodborne antimicrobial resistance.
IDF DAIRY SECTOR INITIATIVES

- GLOBAL COLLABORATION
  Identification of critically important antimicrobial agents for dairy farmers (OIE)
  Guide to Good Dairy Farming Practice (IDF/FAO)
  Guidelines for Risk Analysis of Foodborne AMR (CODEX)
  Antimicrobial Residue Management (CODEX)

- SCIENTIFIC EXPERTISE
  Monitoring AMR in mastitis pathogens
  Microbiological risk assessment and risk management

- INDUSTRY APPLICATION AND NETWORKING
  IDF World Dairy Summit 2011 Food Safety Conference
    - Prudent use of antimicrobial agents
  Guide to prudent use of antimicrobial agents in dairy farming
IDF/OIE PRUDENT USE GUIDELINES

- **APPROACH**
  Generic framework to support responsible use of antimicrobial agents on dairy farms
  Builds on integrated supply chain management
  Positive action and cooperation of all participants

- **OBJECTIVES**
  To help prevent the transmission of antimicrobial resistance
  To maintain efficacy and ensure responsible use of antimicrobial agents to optimise efficacy and safety
  To protect the health and welfare of dairy cattle and ensure good food safety outcomes
  To prevent contamination of food with antimicrobial residues

- **PUBLICATION LAUNCH**
  Available free: [www.fil-idf.org](http://www.fil-idf.org) publications section
Dairy Prudent Use Guidelines

- Guiding principles
  - Milk and meat produced from healthy animals
  - Accepted agricultural conditions
  - Minimum and controlled use of antimicrobial agents
  - Developed in collaboration with OIE

- Presentation of the guidance
  - Framework of Good Agricultural Practice and recommended measures for each supply chain participant in Tables and Fact Sheets

- Integrated supply chain participants
  - Dairy Farmers
  - Veterinarians (authorised advisors)
  - Food Processing Companies (dairy and meat)
  - Pharmaceutical Companies
  - Competent Authorities
DAIRY PRUDENT USE GUIDELINES

**DAIRY FARMERS**

Responsible for health and welfare of livestock
Reduced need for use of antimicrobial agents

**GOOD AGRICULTURAL PRACTICES**

- Animal health
- Milking techniques and hygiene
- Nutrition
- Animal welfare and
- Environment
DAIRY PRUDENT USE GUIDELINES

- VETERINARIANS
  Assist farmers to apply Good Agricultural Practices

- SERVICES AND MEASURES
  - Disease control and prevention
  - Diagnostic services and advice on effective treatments
  - Appropriate supply and /or administration of antimicrobials
  - Advice on use and controls
DAIRY PRUDENT USE GUIDELINES

- FOOD (DAIRY AND MEAT) PROCESSING COMPANIES
  Support for dairy farmers

- SERVICES AND MEASURES
  - Establish product specifications
  - Guidance on control measures
  - Monitoring incoming supplies
  - Follow-up investigations and corrective actions if required
  - Applying control measures for microbiological hazards during processing
**DAIRY PRUDENT USE GUIDELINES**

- **PHARMACEUTICAL COMPANIES**
  Reduce risks from antimicrobial agents

- **RESPONSIBILITIES**
  - GMP in production of high quality products
  - Data for risk assessment and registration
  - Information for labels and data sheets
  - Appropriate packaging
Dairy Prudent Use Guidelines

- Competent Authorities
  Underpin the prudent use of antimicrobial agents on dairy farms

- Responsibilities and Actions
  - Assessing products and treatments available for supply and use
  - Transparent registration process
  - Approving dose rate and WHP for various classes of dairy animals
  - Approving labels and data sheets
  - Licensing of qualified persons (vets) to prescribe antimicrobials
  - Monitoring meat and milk for antimicrobial residues
  - Investigating adverse outcomes from use of antimicrobials
  - Ensuring compliance
MONITORING EMERGENCE OF ANTIMICROBIAL RESISTANCE

- **MASTITIS PATHOGENS**
  SCAH AT on Mastitis & National Mastitis Council  
  Review of literature  
  Scientific symposium  
  Conclusion: similar patterns of resistance today as those recorded over the last 30 years (Erskine et al 2004)

- **NATIONAL SURVEILLANCE STUDIES**
  Cattle isolates relatively low frequency of resistance  
  Differences between countries  
  Differences between isolates from cattle, pigs and poultry
CONCLUSIONS

- The dairy industry has continuing need for access to effective antimicrobial agents for animal health, animal welfare and food safety purposes

- The international dairy industry recognises the importance of responsible use of antimicrobial agents to manage risks associated with antimicrobial resistance

- Prudent use Guidelines for Antimicrobial Agents in Dairy Production have been endorsed by IDF Member Countries

- The dairy industry is committed to work actively to minimise antimicrobial resistance and to contribute to the development and implementation of international standards
Thank you for your attention