

Antimicrobial Resistance and Foodborne Diseases Associated with Livestock

Pogramme	Annual International Training Courses Thai International Cooperation Programme
Course Title	Antimicrobial Resistance and Foodborne Diseases Associated with Livestock: Standardization and Harmonization on Monitoring (in 2015) Antimicrobial Resistance and Foodborne Diseases Associated with Livestock: Risk Analysis and Responsible use (in 2016)
Duration	4 weeks (July-August, 2015) 4 weeks (July-August, 2016) } <i>to be confirmed</i>
Closing Date for Application	March 15, 2015 and March 15, 2016
Number of Participants	18-20
Eligible Countries	Asia: Afghanistan, Bangladesh, Georgia, Indonesia, Iran, Jordan, Kyrgyzstan, Malaysia, Maldives, Nepal, Oman, Pakistan, Palestine, Philippines, Sri Lanka, Tajikistan, Timor-Leste, Uzbekistan, Yemen, and Thailand Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Lesotho, Libya, Malawi, Mali, Mauritania, Mauritius, Morocco, Namibia, Rwanda, South Sudan, Sudan, Swaziland, Tunisia, Zambia, Zimbabwe Pacific: Cook Island, Fiji, Marshalls Island, Nauru, Palau, Papua New Guinea, Vanuatu, Solomon Island, Tonga, Tuvalu Member Countries; FEALAC, OAS and CARICOM

Objectives

The course aim to:

- To provide and promote knowledge on mechanisms, diagnosis and control of AMR and foodborne pathogens associated with food animals
- To review approaches to implement effective action plan for AMR control
- To enhance and expand international cooperations and research networks on AMR and foodborne diseases between Thailand and other countries

Qualifications

Applicant for this course should:

Veterinarian or public health professionals who have experience in the area of antimicrobial resistance, food microbiology and veterinary public health

Course Contents

1. Course Outline

- Introduction to AMR in food of animal origins
- AMR and one health concept
- Antimicrobial use in livestock
- Principles and application of food microbiology
- AMR in microorganisms associated with livestock
- Principles, mechanisms and dynamics of AMR
- Principles and application of molecular biology in AMR
- Principles and application of veterinary epidemiology in monitoring, surveillance, prevention and control of AMR
- Principles and application of antimicrobial-resistance risk assessment
- Principles and Approaches to responsible and prudent use of antimicrobial agents for livestock
- Roundtable discussion on action plan for AMR control system" and identify country-specific limitation
- Laboratory practice on standard antimicrobial susceptibility test
- Laboratory practice on standard antimicrobial susceptibility test
- Field trip to national /local AMR monitoring units

- Field trip to diagnostic laboratories
- Country report presentation
- Conclusion and discussion

2. Practice

Laboratory tests on "Antimicrobial susceptibility test followed CLSI standard". The techniques practice will include:

- Disk diffusion
- Agar dilution technique
- Broth microdilution technique

3. Field trips

- Two field trips to diagnostic laboratories and national /local AMR monitoring Units
- The participants will learn and practice on standard AMR susceptibility protocol and monitoring and control strategy plan of AMR

4. Advance Assignments

- Country report: Each participant is required to give a country report presentation related to antimicrobial use and antimicrobial resistance in livestock in the country.
- Reading Assignment: Each participant is required to prepare basic knowledge in microbiology.
- Project Assignment: The participants will be assigned to develop proposal for "Action plan for AMR control system" and identify country-specific limitation.
This will be discussed in "Round table discussion".

5. Expected Results

- The participants will gain knowledge on diagnostics, mechanisms and control strategies of AMR and foodborne pathogens associated livestock.
- The participants will be capable of sketching action plan for AMR control system.
- International cooperation network, particular in AMR associated with food animals, will be initiated among the participants and Faculty of Veterinary Science, Chulalongkorn University.

6. Evaluation

Participants must attend at least 80% training period to receive certificate.

Institution

The course will be conducted by:

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