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Agrodok-series No. 46
Zoonoses
Diseases transmitted from animals to humans
Agrodok 46

Zoonoses

Diseases transmitted from animals to humans

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Foreword

Zoonoses are infectious diseases – including parasitic infections – that can be transmitted from animals to humans. Zoonoses pose a significant threat to human health, especially when humans and animals live close together and when humans are in contact with animal products. Examples are: rabies, bovine tuberculosis and many diarrhoeal diseases.

This Agrodok has been written for people who live and work with animals or animal products, to arouse awareness among its readers of the significance of zoonoses to human health. It provides information about the prevention of these diseases in humans and in animals, explaining the causes, the transmission and how to protect against them. The focus is on developing countries and on rural and urban situations.

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Speaking for the others, we hope that the information of this publication will give a better understanding of zoonoses and what measures people can take.

Wageningen, July 2008

Mariska Leeflang
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1 Introduction

1.1 Healthy animals, healthy people!

A herd or flock will be of benefit to its owners if it is healthy, because healthy animals grow faster and produce more food and more draught power. Some animal diseases and parasites may not only make the animals ill, they can be a threat to humans as well. These diseases are called zoonotic diseases or zoonoses.

When animals fall ill, the owner has a problem because many owners depend on their animals for income. If a sick donkey cannot pull the cart to bring fruits to the market, there will be no income (for the family). If sick chickens stop laying eggs, there will be no eggs to sell. And without any money, how can sick animals be treated or replaced if they die?

Some animal diseases can spread to other animals making the problems even bigger. Worse still, the disease can also spread to humans.

In recent years, much publicity has been focused on mad cow disease (BSE) and avian influenza (AI). While these zoonoses are described as serious threats to human health, many other zoonoses cause more deaths among people (especially in developing countries) and get far less attention. Rabies, for example, kills around 55,000 people worldwide each year, while in comparison BSE killed (only) 139 people between 1996 and 2002. Human deaths due to avian influenza have amounted to no more than 200 worldwide (Source: WHO Fact Sheets, 2007). Many of these zoonoses can be entirely prevented (though not easily!).

Our information in this Agrodok is on Zoonoses, focusing on the prevention of zoonoses in humans (and not in animals). However, to prevent these diseases from occurring in humans, you will also – as far as possible – need to prevent them occurring in animals.