

# OPERATION PARATUBERCULOSIS



## THE DANISH CONTROL PROGRAMME FOR BOVINE PARATUBERCULOSIS

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### OBJECTIVES

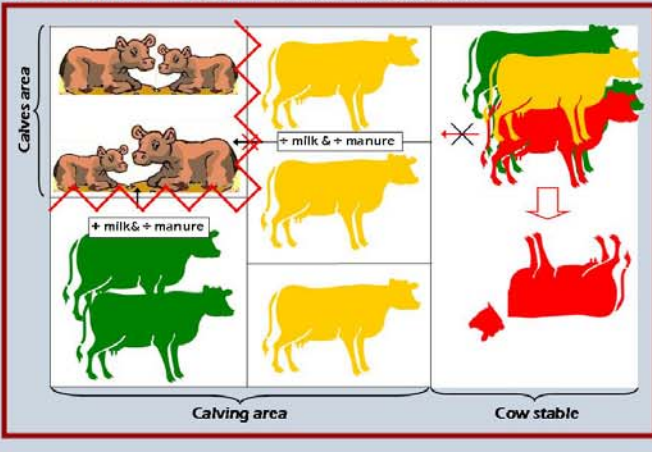
- To provide tools to aid Danish dairy farmers to control paratuberculosis
- To reduce the prevalence of paratuberculosis in Denmark

### PRINCIPLES

The programme is largely based on "the Bang Method", which was successfully implemented to eradicate bovine tuberculosis.

- Testing using a relatively sensitive but non-specific test-system
- Division of animals into risk groups (based on diagnostic information)
- Culling of animals most likely to be highly infectious
- Management of animals probably infected and potentially infectious

#### MANAGEMENT SCHEME – Principle "The Bang Method"

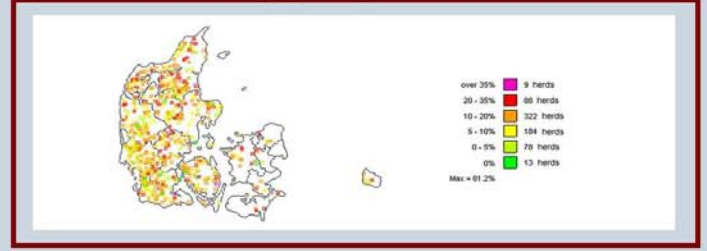


### PARTICIPATION

Operation Paratuberculosis was launched in Feb 2006.

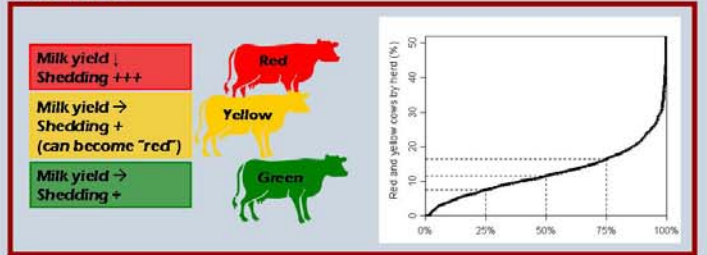
In Feb 2007 – 1059 farms participating (~21% of all dairy farmers)

#### OPERATION PARATUBERCULOSIS PREVALENCE MAP – Geographic distribution of animals in infection groups 2 & 9 by herd

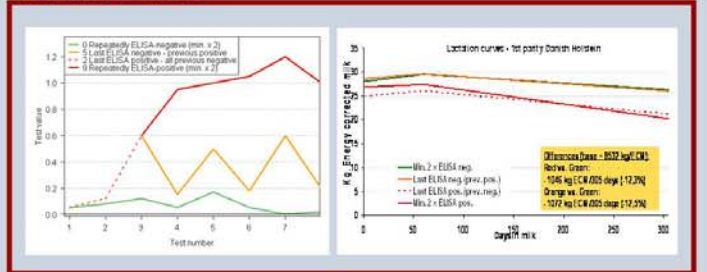


### TOOLS FOR MANAGEMENT – Definition of Cow types and infection groups based on repeated testing

#### COW TYPES



#### INFECTION GROUPS



## CONTENTS OF THE PROGRAMME

### COMMUNICATION

- Information campaigns
- Distribution of a manual to all farmers
- DVD (information about the infection and its management)
- Courses for advisors
- Website [www.pاراتuberkulose.dk](http://www.paratuberkulose.dk)

### MANUAL FOR ADVISORS

- Establish aims
- Perform risk assessment
- Establish a management plan
- Provide background information



### DIAGNOSTIC TESTING

- Four annual herd testing (to rapidly detect infectious animals)
- Results presented in management lists, which enables the management of high risk animals at milk feeding and at calving
- Overview of last six test results
- Culling list
- Estimated losses in milk production

### EXTRACT OF A MANAGEMENT LIST – Management of calving and milk feeding is based on milk antibody ELISA results (updated 4 times/year)

Dansk Kvæg		ParATB Milk feeding list				
Herd with 230 cows	Herd ID xxxxx Test date: 15.02.06	Printed 23.08.06 15.38	Page 1			
Based on milk antibody test   Herd xxxxx tested 15.02.06						
Risk = High: milk should not be used for feeding of heifer calves: High hygiene around calving						
Animal ID	ELISA (15.02.06)	Previous Clv.no (04.01.06)	Exp. calving	Milk yield drop	Inf-group	
-00929	0.9	0.1	6		2#	
-00940	0.3	0.7	4	09.10.06	Very likely	3#
-00941	1.0	1.2	5	28.09.06	Very likely	3#
-00950	0.5	1.0	5	10.03.07	Very likely	3#
-00965	0.7	0.0	5		Likely	2#
-00982	0.8	0.8	4	18.09.06	Very likely	3#
-00984	0.6	0.6	3	23.11.06	Very likely	3#
-00991	0.5 (04.01.06)	-	5	17.03.07	Likely	2#

### TOOL FOR MOTIVATION

#### MILK PRODUCTION LOSS ESTIMATION – Based on the potential production among cows of infection group 0 and infection groups 2 and 9

	1st Parity cows	2nd parity cows	>2nd parity cows	Total
Avg. kg ECM	8243	7488	5562	
No. of cows				
Inf.group				
0	39	19	18	76
2	1	14	11	26
9	2	11	39	52
Annual production loss	2968	20592	30591	54151
Percent cows	2#	7	57	74