

Eradication of bTB in Denmark

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Control and eradication of bovine tuberculosis – 1880-1959

- 1880s Introduction from imported cattle
- 1898 it was required by law that milk and cream should be pasturized
- 1900 Bang: Established guidelines for tuberculosis control based on tuberculin testing
- 1900-30 Between herd prevalence approx. 30-35 %
- 1932 The eradication program started
- 1940s Greatly intensified of the eradication program
- 1959 Eradicated
- 1959-1980 Surveillance program with tuberculin testing of herds every three year
- 1980- surveillance based on meat inspection



SEGES



Eradication of bovine tuberculosis

- officially eradicated from DK in 1959

A) chronic infection with multiple infection stages

- Insidious in many infected animals
 - But some became affected (diseased)
 - Diagnostic tests not perfect
 - Se between 0,4-0,8
 - Sp between 0,99-1

Bang described "The Bang Method" ~1890-1900

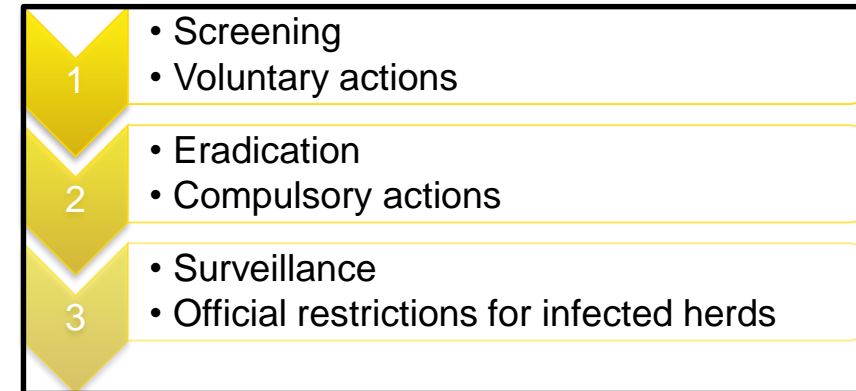
- **The object of this method is to replenish a tuberculous herd with as little loss as possible!**

- Repeated testing with skin-test
 - Test-positive and affected were culled
 - Test-positive non-affected "isolated"
 - Carefully watched, slaughtered when obviously symptoms of the disease develops
 - The offspring from the reacting cows are promptly removed from their dams and fed milk from non-reacting cows, or the pasteurized milk from reacting cows
 - Test-negative managed "normally"
- Management of test-positive a central element!!!

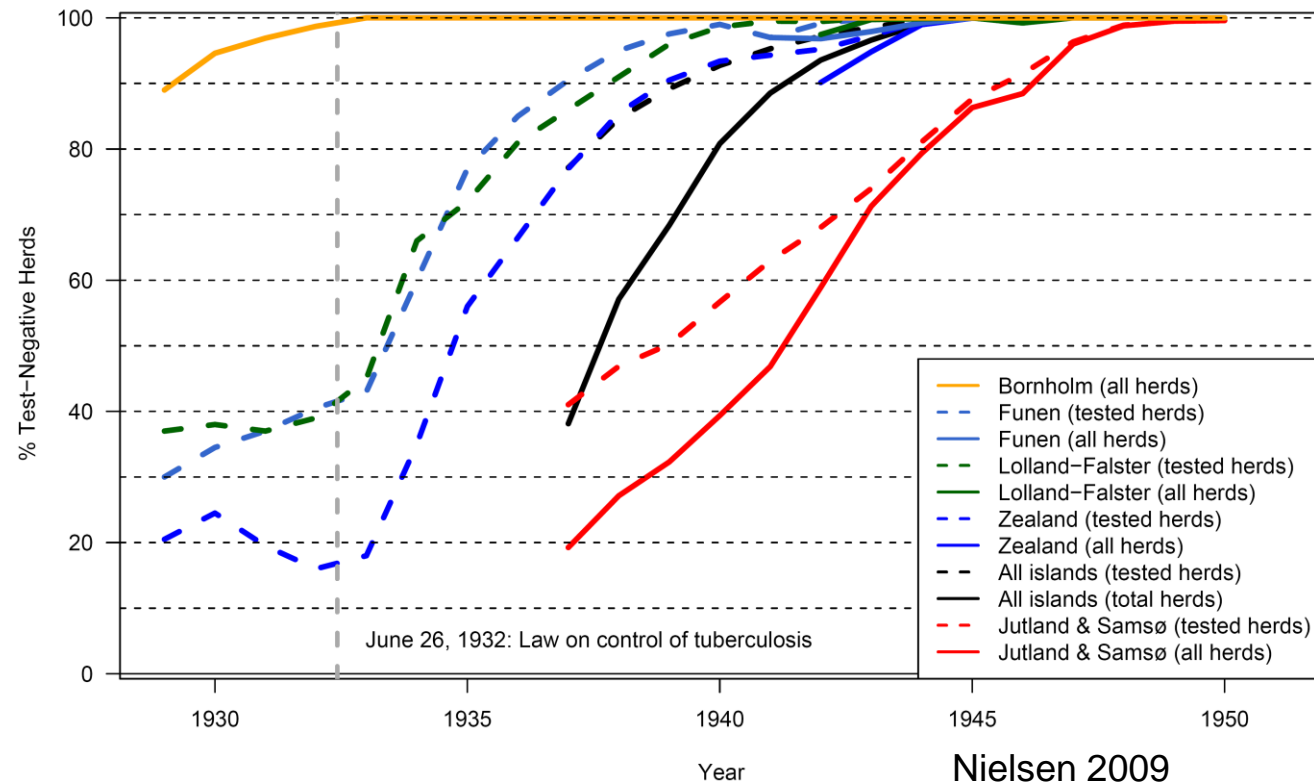


Eradication program, law

- Annual finances to spread information on the effect and transmission of *M. bovis* in cattle and swine
- Financial support for diagnostic testing on a voluntary basis, but with a requirement to separate test-positive animals and test-negative animals if testing was subsidised
- Recording of test-negative herds in official registres
- Options for establishing trade restrictions on live animals from areas with high test-prevalences if more than 90 % of an islands herds were free of infection
- Options for mandatory testing on an island if more than 90 % of the remaining herds were free of infection
- Subsidised culling of *M. bovis*-infected cattle with affected lungs



- The programme was in principle voluntary, except for culling of animals with open tuberculosis
- Dairies (farmer cooperatives) could decide on mandatory testing in late-stages of the control phase to achieve eradication from their region



Nielsen 2009