

# Ruminant brucellosis in the Nile Delta region, Egypt

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# Introduction

## > Brucellosis is an endemic disease among humans and animals in Egypt (WHO, 1998)

- > The Egyptian National brucellosis control and surveillance programme consists of applying test and slaughter policy every 6 months with voluntary vaccination of different ruminant species.
- ➤ There were neither reliable data on the actual situation of brucellosis among different ruminant species in the Nile Delta region of Egypt, nor baseline data on the ongoing disease control gains and/or limitations (Hosein, 2002).

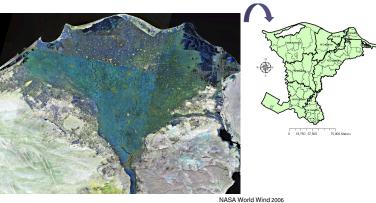


Figure 1: Map of Egypt showing the location of different governorates.

## Aim

Describe the current situation of brucellosis and brucellosis ongoing control and surveillance programme in a selected area of the Nile Delta region (Kafr El Sheikh governorate) by:

- 1- Describe the extent to which the testing frequency among different districts of the governorate was applied.
- 2- Explore the opinions of Expert on the actual situation of brucellosis in Nile Delta region.
- 3- Simulate effectiveness of different levels of test and slaughter every 6 months (each year, each 3 years and each 5 years) on brucellosis prevalence in small ruminants using mathematical modelling for a period of 20 years.

### Results

> The official control and surveillance measures is being applied on protracted intervals, for example the maximum periods without sampling During the 3 years from January 2000 to December 2002 showed that some districts of Kafr El Sheikh governorate did not do any sampling at all in any of the animal species (Figure 2).

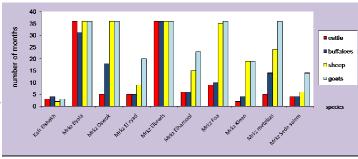


Figure 2:Maximum interval (in months) between successive submissions of serum samples for brucellosis testing among different livestock species in the 10 districts of Kafr El Sheikh governorate between January 2000 and December 2002.

- > Experts suggested that the flock/herd and individual brucellosis prevalence among different ruminant species in Nile delta region can reach up to 100%.
- > The yearly prevalence was predicted to stay endemic in the 3 different tested scenarios during the 20-year simulation period at different levels Figure 3.

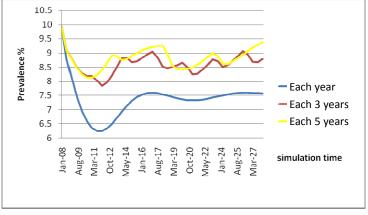


Figure 3:The estimated average prevalence of brucellosis over a 20-year time period with a test-and-slaughter programme applied every 6 months each year, each 3 years and each 5 years.

# Conclusion

>This study concluded that the applied control programme is not successful in controlling brucellosis and it may be appropriate to rethink about the control measures for brucellosis in the Nile Delta area.

#### Acknowledgement

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