

# Cluedo of *Salmonella* Dublin

## Serology reveals the calf killer



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### Methods

National bulk milk survey in 2013 including all 4700 Swedish Dairy herds. All samples were analyzed with:

1. **Dublin ELISA** (PrioCheck® Salmonella Ab bovine Dublin ELISA ) mainly detecting antibodies against S. Dublin.
2. **Mixed ELISA** (PrioCheck® Salmonella Ab bovine ELISA ) detecting antibodies against S. Dublin, S. Typhimurium and also other serotypes.

### Results

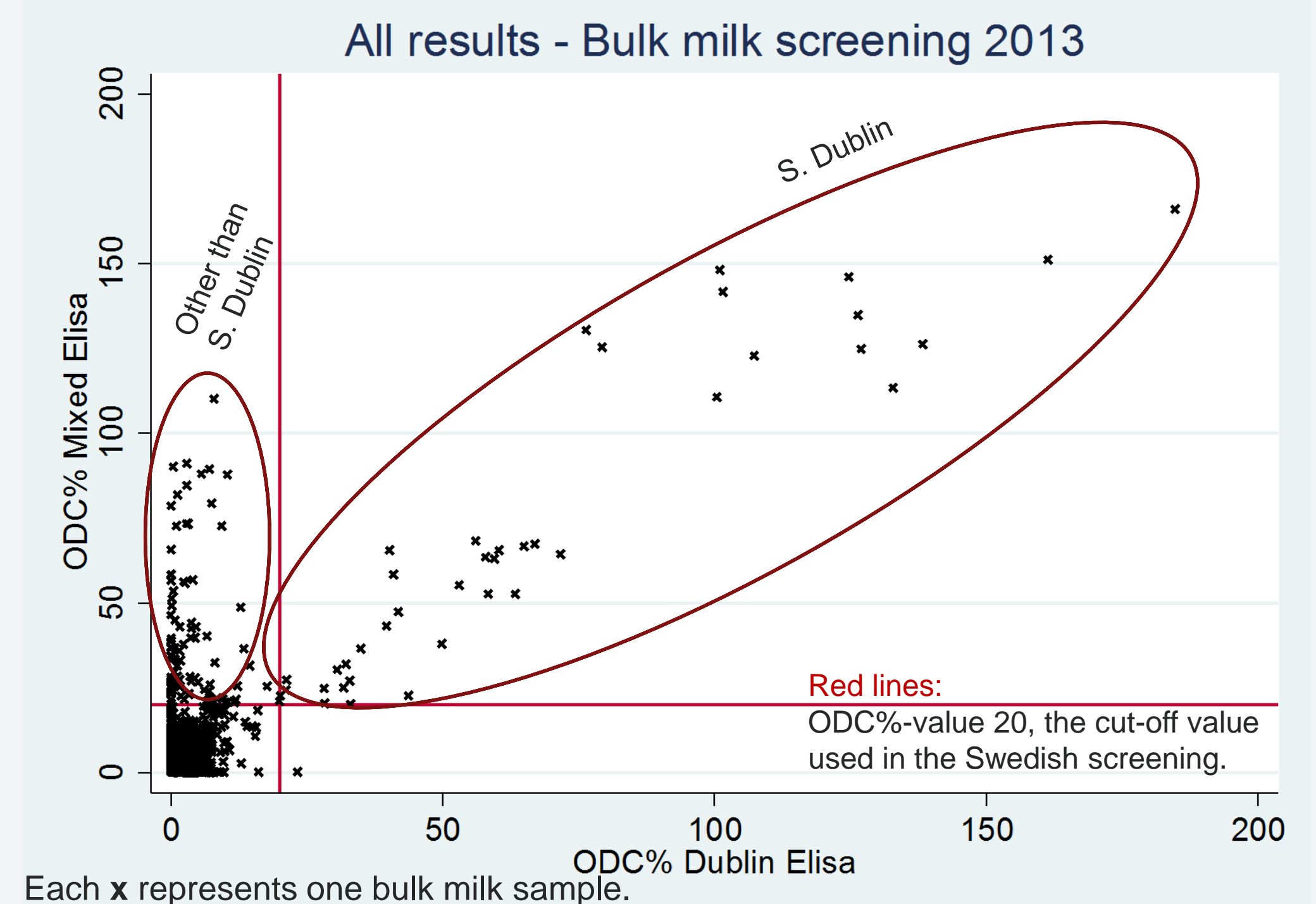
The Dublin ELISA differentiated herds with S. Dublin infection from herds with other salmonella serotypes.

This is supported by:

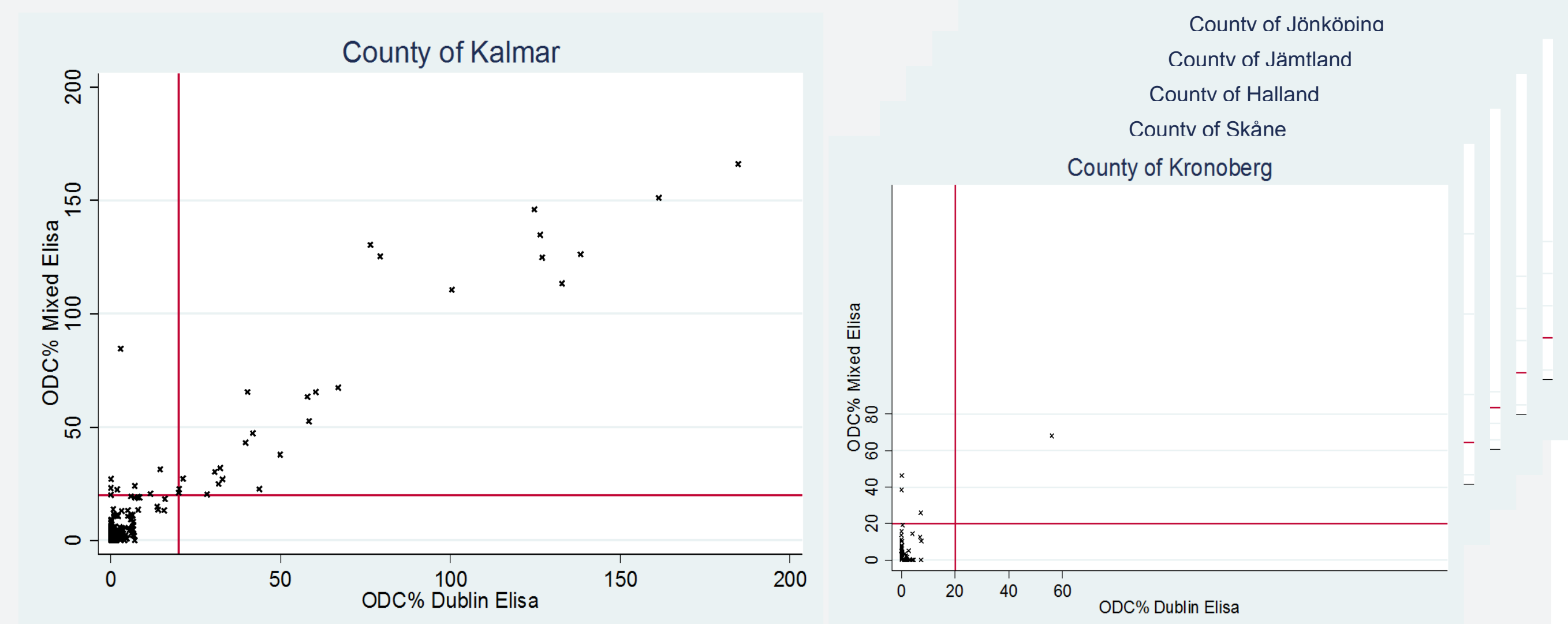
1. There were **two** clearly separated **groups** of positive herds.
2. The majority of the Dublin positive herds were found in the **same county** as the majority of culture positive S. Dublin herds where detected during 1999-2013.
3. In herds where salmonella was isolated 1999-2013 there is **agreement** between **serotype isolated** and **serological result** in the bulk milk screening.

### Conclusions

- A control program using the Dublin ELISA will **not** detect herds infected with other salmonella serotypes.
- The Dublin ELISA can be used as a second test on Mixed ELISA positive herds in order to **selectively identify** herds with Dublin infections.



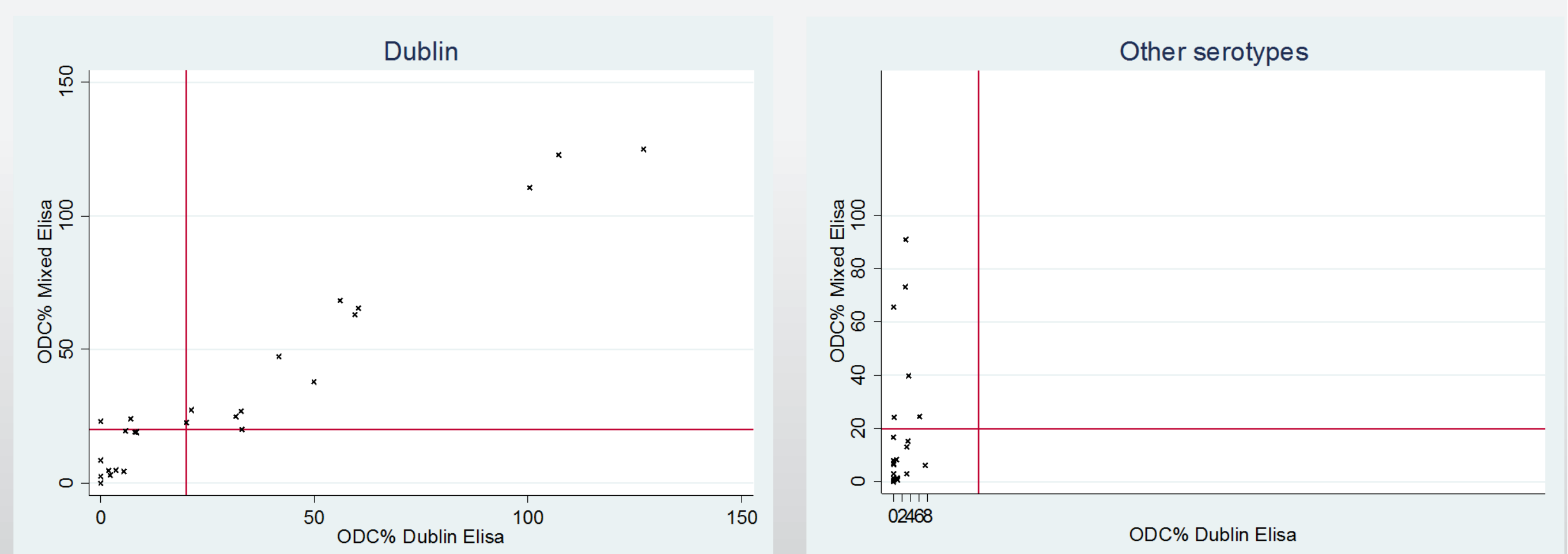
### Geographical distribution of Dublin positive herds



63 % (26/41) of the Dublin positive herds were detected in the **county of Kalmar**. This is in agreement with historical data (1999-2013) where 53 % (33/62) of the cattle herds detected with S. Dublin were located in the county of Kalmar.

In the remaining 20 counties only 0-5 Dublin positive herds were detected in each county.

### Culture positive herds



Results in the bulk milk screening 2013 only including herds where **S. Dublin** has been detected at least once by culture 1999-2013.

Results in the bulk milk screening 2013 only including herds where **other serotypes** than S. Dublin has been detected at least once by culture 1999-2013.



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