Description of data

RESEARCH PROJECT
In this cross-sectional study, we investigated the prevalence of *Mycoplasma bovis* in bulk tank milk (BTM) and herd characteristics associated with a positive antibody test result in Swedish dairy herds. BTM samples from all Swedish dairy herds (n=3,144) were collected and analyzed with ID Screen antibody ELISA and PCR. Information on herd characteristics was collected from the national Dairy Herd Improvement (DHI) database. To identify herd characteristics associated with the presence of antibodies in BTM, logistic regression was used in four different models.

STUDY POPULATION AND SAMPLING
Bulk tank milk (BTM) from 3,144 Swedish dairy herds were collected at the milk testing laboratory (Eurofins Steins Laboratory, Jönköping, Sweden) in November 2019, in conjunction to the routine milk quality analysis. There were in total 3,174 dairy herds in Sweden at this time, which implies that 99.1 % of all dairy herds were included. The samples were collected in 10-ml test tubes containing 1.5 mg of the preservative agent Bronopol (2-bromo-2-nitropropane-1,3-diol). The samples were stored at -20 ºC until analysis.

LABORATORY ANALYSIS
3069 samples were analyzed for antibodies to *M. bovis* with ID screen® indirect ELISA, (IDvet, Grabels, France) at the Department of Clinical Sciences, SLU, according to the manufacturer's instructions. The relative amount of antibodies in the samples was calculated as [sample optical density (OD) – negative control OD]/[positive control OD – negative control OD] X 100 (S/P %). The BTM samples were analyzed with the overnight incubation protocol and the cut-off was set to S/P% $\geq$ 30 % as recommended by the manufacturer. 3,144 samples were analyzed with PCR for M. bovis (PathoProof Mastitis4, Thermo Fischer). All samples were negative in the PCR, therefore not included in the dataset.

DATA RETRIEVAL
Herd level data on health parameters were retrieved from the Swedish Dairy Herd Improvement (DHI) database (Växa Sverige) for the period 1st of November 2018 to 31st of October 2019. Data on herd size was additionally retrieved from Växa Sverige. Out of the herds with both PCR and antibody analysis (3,069); 74 percent (2,258) were affiliated with the DHI programme and 98 percent (3,011) had data regarding herd size. Only herds in the 10 counties where there were any positive farms were included in our analysis, and thus included in the present dataset, n=2239. Some of these herds were not affiliated with the DHI program and therefore data are available for various parameters for 1655-2239 herds. Data on production, reproduction and bulk milk somatic cellcount in the DHI database were derived from the Swedish official milk recording system (SOMRS, Växa Sverige). Data on mortality in the DHI database were derived from records at the Swedish Board of Agriculture. Växa Sverige, the owner of the DHI data, only allow publication of data in categorized form, as they were used in the published paper.