



# Antimicrobial resistance in organic and conventional dairy herds in Sweden

## Objective

Investigate the prevalence and if the type of production have any influence on the antimicrobial resistance pattern

## Conclusion

Low prevalence from an international perspective.  
 No significant differences in antimicrobial resistance patterns found between organic and conventional dairy herds in Sweden.

## Background

- Due to the Swedish animal health and welfare laws both organic and conventional farmed animals have to be treated in accordance with science and proven experience when needed.

## Methods



- 30 Organic and 30 Conventional Dairy Herds in Sweden
- Faecal samples from 5-6 calves per herd, 0-4 weeks old (tot.293)
- Identification of patterns of AMR (Antimicrobial resistance) in *E. coli* in gut flora of calves, as indicator for AMR in herds



## Results

- AMR found against 10 out of 12 tested antibiotic agents
- AMR proportion ranged between 1-35 %
- No statistically significant difference between organic and conventional dairy herds



Antimicrobial	Organic (n=148) Resistance %	Conventional (n=145) Resistance %	Fisher's exact test, two-tailed P-value
Ampicillin	26.4	23.4	0.59
Cefotaxime	1.4	0	0.50
Ceftazidime	1.4	0.7	1
Chloramphenicol	8.8	3.4	0.09
Ciprofloxacin	6.1	6.2	1
Florfenicol	0	0	0
Gentamicin	0	0	0
Nalidixic acid	6.8	3.4	0.29
Streptomycin	27.7	30.3	0.70
Sulfamethoxazole	35.8	32.4	0.62
Tetracycline	28.4	24.8	0.51
Trimethoprim	8.1	9.7	0.69