

# Evaluation Of Animal Welfare Outcomes Of RDP-Measures For Dairy Cows

Angela Bergschmidt, Stefan Schwarze\*

Thünen Institute of Farm Economics, Braunschweig, Germany



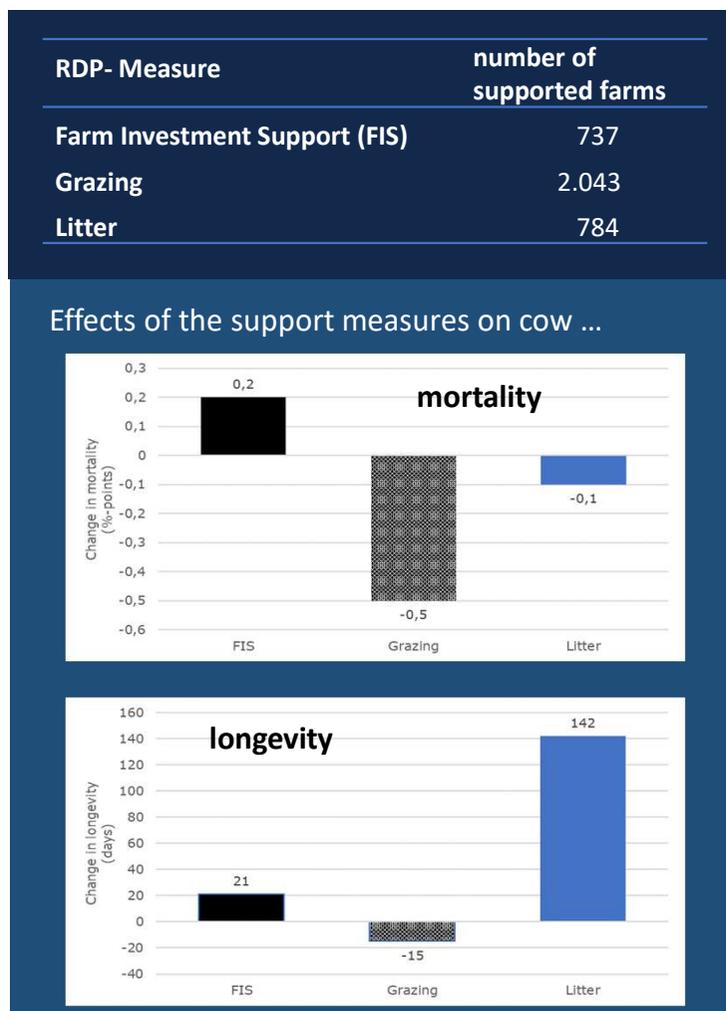
## Background & Objectives

The Rural Development Programmes (RDP) 2007-2013 of the CAP contained for the first time animal welfare measures and their effectiveness has not yet been empirically investigated.

Using cattle register data, we analyse the effect of farm investment support (FIS) and the measures Grazing and Litter in the federal state of North-Rhine Westphalia for the RDP-programming period 2007-2013.

## Material & Methods

- Cattle register data contains information on date of birth and death, sex, breed, calving status, date of entering and exiting the farm as well as the cause of death for every cattle in Germany.
- We calculated the animal welfare indicators mortality (The Welfare Quality Consortium® 2009) and longevity (European Food Safety Authority 2009).
- Treatment group: Farms participating in measures Grazing, Litter or Farm Investment Support (FIS)
- Control group: Farms not participating
- To establish causality between participation in animal welfare measures and changes in mortality and longevity, we applied a flexible conditional difference-in-differences approach (Dettmann et al. 2020).



## Results

- FIS: No substantial effects on the observed indicators
- Grazing: Reduction in mortality by 0.5 percentage points (-12 %)
- Litter: Increase in longevity by 142 days (+12 %).

## Conclusions

- FIS has low animal welfare requirements. It is not surprising that no effects were found.
- The effects of grazing on mortality have been documented in other studies (Burow et al. 2011)
- The positive effect of litter on longevity can be attributed to softer lying conditions, but more empirical evidence is needed.
- Cattle register data is in principle suitable to analyse mortality and longevity in dairy herds.  
But:
  - Data handling is time consuming and complex.
  - The data set only contains two indicators, which limits the analysis.

→ We will use data from milk recording schemes for the evaluation of the 2014-2022 programming period.

For a list of references see our extended abstract.