

# Performance and range use of organic broilers with access to different vegetation in outdoor areas

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## Background and aim

Outdoor range areas are an important part of the organic broiler production, so how can these areas be made attractive for the broilers?

The aim of the study was to investigate the influence of vegetation in outdoor range areas on performance, crop and gizzard content and range use of organic broilers.

## Material and method

The experiment was performed on an organic farm in the summers of 2015 and 2016 with two different outdoor ranges (56°10'N 9°.54'E). Three thousand two hundred slowly growing broilers were allocated to four mobile broiler houses.



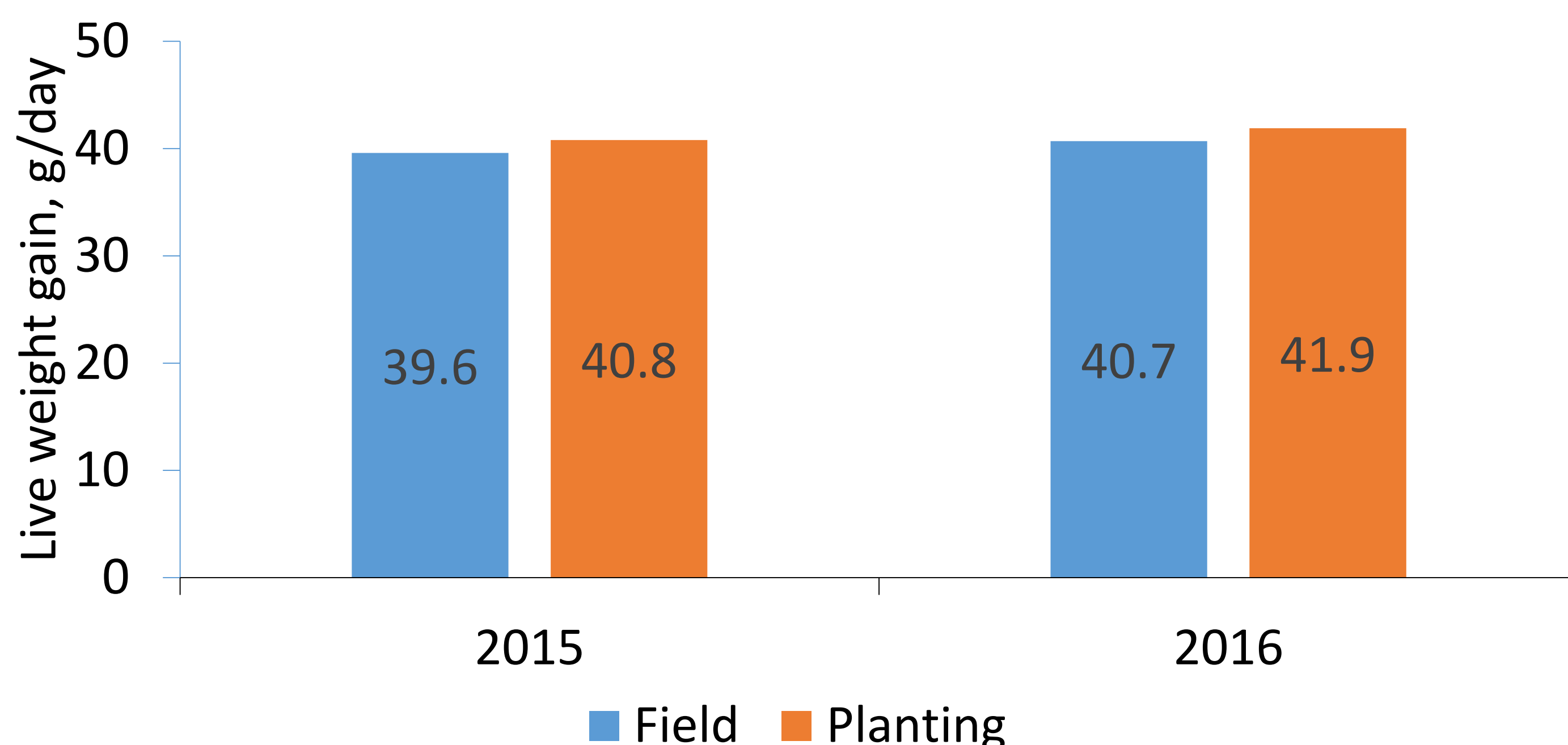
Two houses were placed in a field covered with grass and herbs. The picture shows both houses. An extra open hall was placed on each outdoor range (replicate) to create shade.



Two houses were placed in a field combined with planting. The planting was a mix of trees and bushes. The field was covered with grass and herbs. The planting is seen in the background behind the chicken house.

## Live weight gain

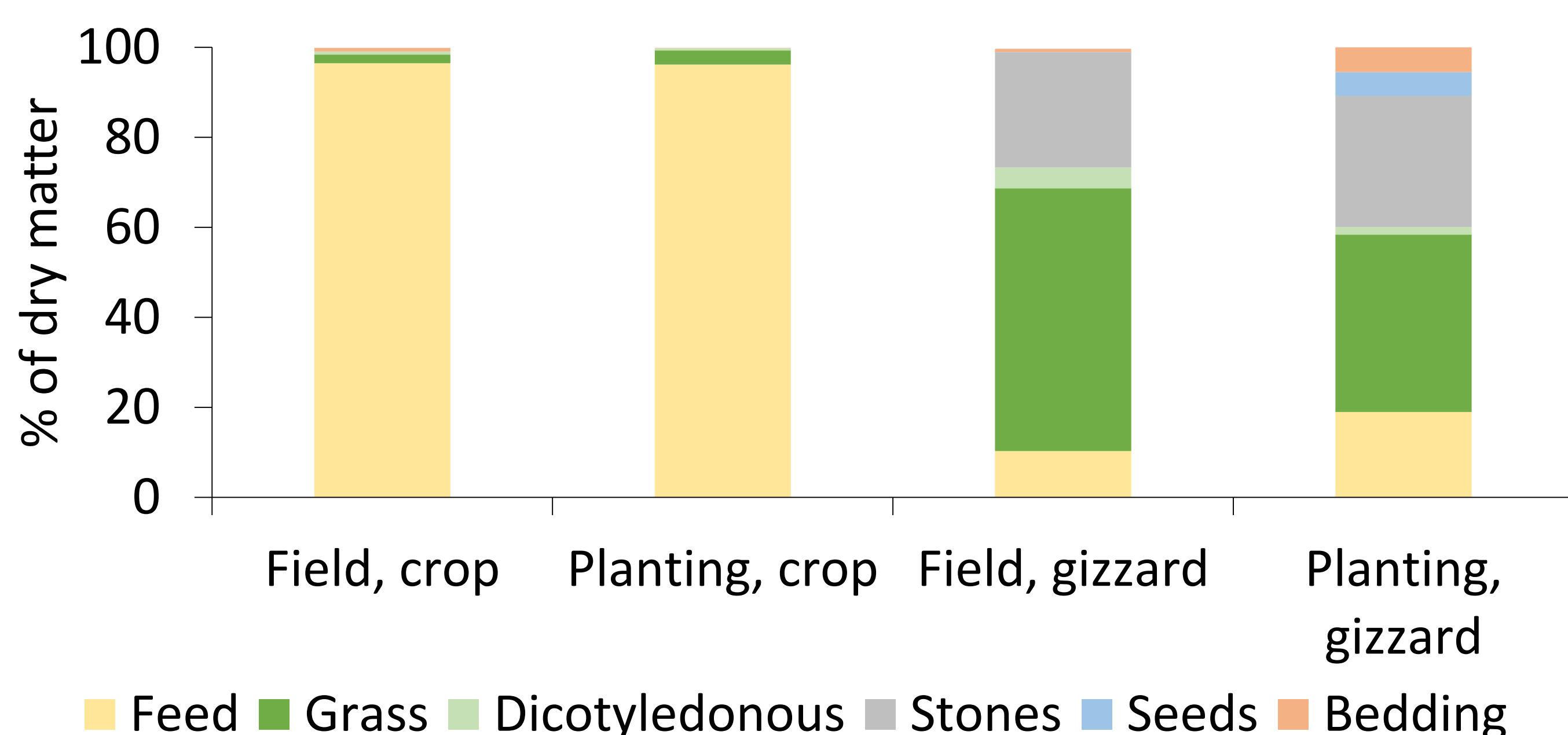
At hatching, 100 birds out of the 3200 were weighed. Eighty broilers per house were weighed when the experiment ended at 84 and 70 days of age in 2015 and 2016, respectively.



The different live weight gains were significant ( $P=0.04$ ) in 2015 but not 2016.

## Crop and gizzard content

In 2015, crop and gizzard compositions were investigated in 84 days old broilers. From each broiler house, two male and two female broilers were killed in the morning and in the afternoon, respectively.



The crop mainly contained feed and the gizzard mainly grass and stones.

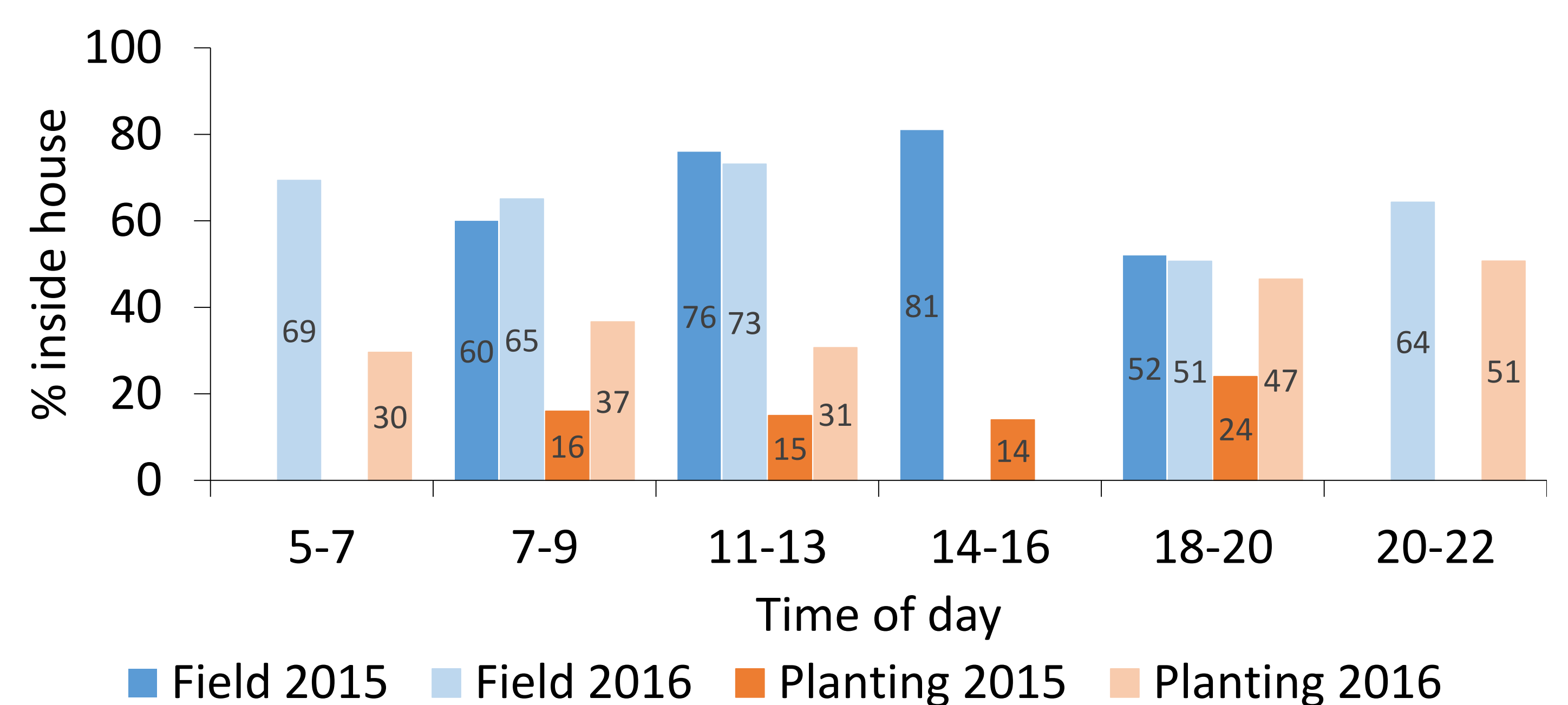
## Grants

The work was financed by the Danish research programme Organic RDD.

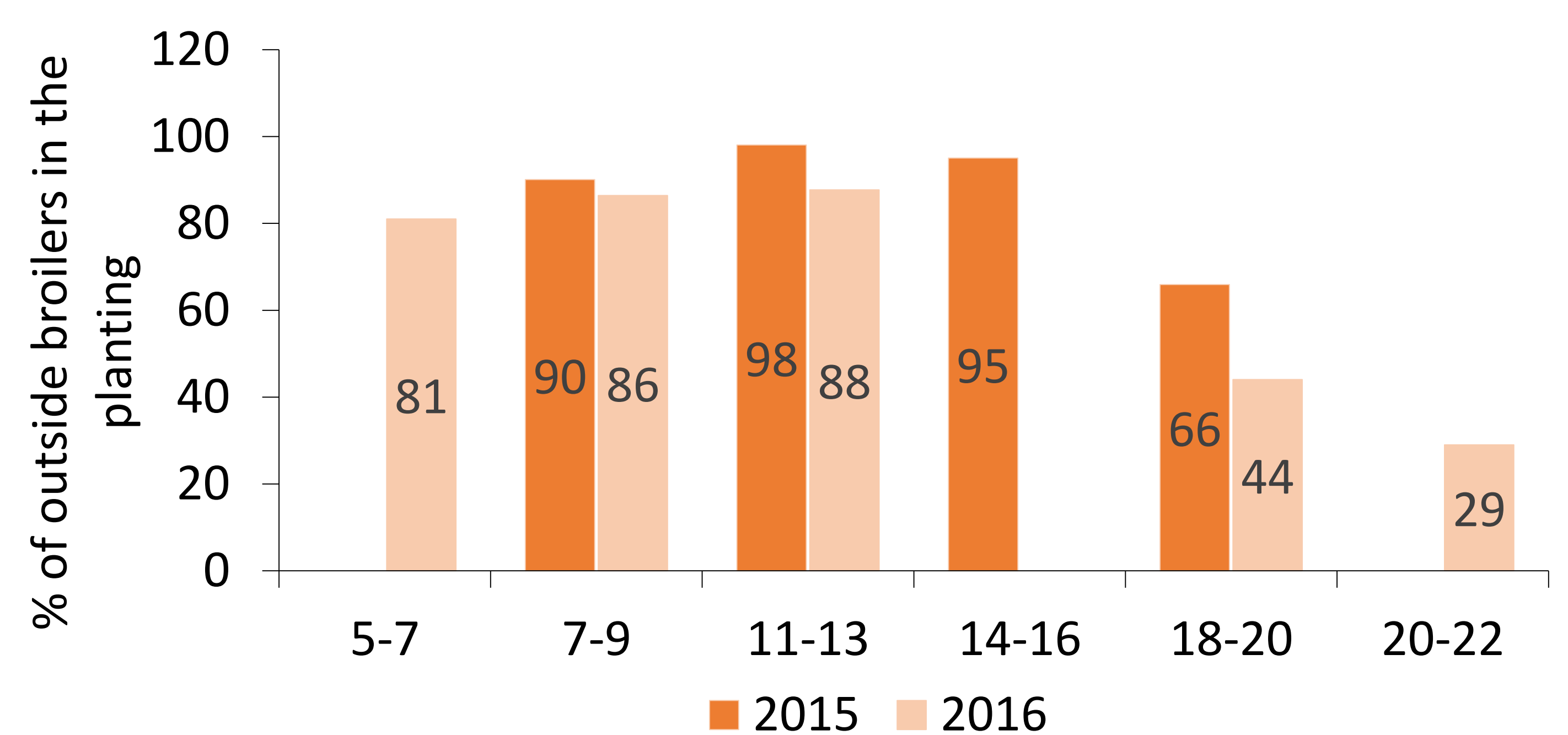


## Outdoor range use

In 2015, the outdoor range use was observed when the chickens were 42, 56 and 84 days of age four times during the day (at 7-9, 11-13, 14-16 and 18-20). In 2016, the outdoor range use was measured twice when the chickens were between 56 and 70 days five times during the day (at 5-7, 7-9, 11-13, 18-20, 20-22).



Fewer broilers were found inside the houses on replicates with access to a planting in both 2015 and 2016 except in connection with the evening observations.



Outside the houses, the main part of birds on the replicates with planting used the areas with trees and bushes except in the evenings. The picture shows chickens on the edge between field and planting.