

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

Hellwing, A.L.F.<sup>1</sup>, Petersen, J.S.<sup>2</sup> and Steinfeldt, S.<sup>1</sup>

<sup>1</sup> Department of Animal Science, post box 50, Aarhus University,

<sup>2</sup> Organic Innovation, SEGES, Agro Food Park 15, Aarhus



## Background and aim

Outdoor range areas are an important part of the organic broiler production, and how can these areas be made as attractive as possible 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 sSummer of 2015 and 2016 with two different outdoor ranges (56°10'N 9°.54'E). Three thousand two hundred (3200) slowly growing broilers were allocated to four mobile broiler houses.



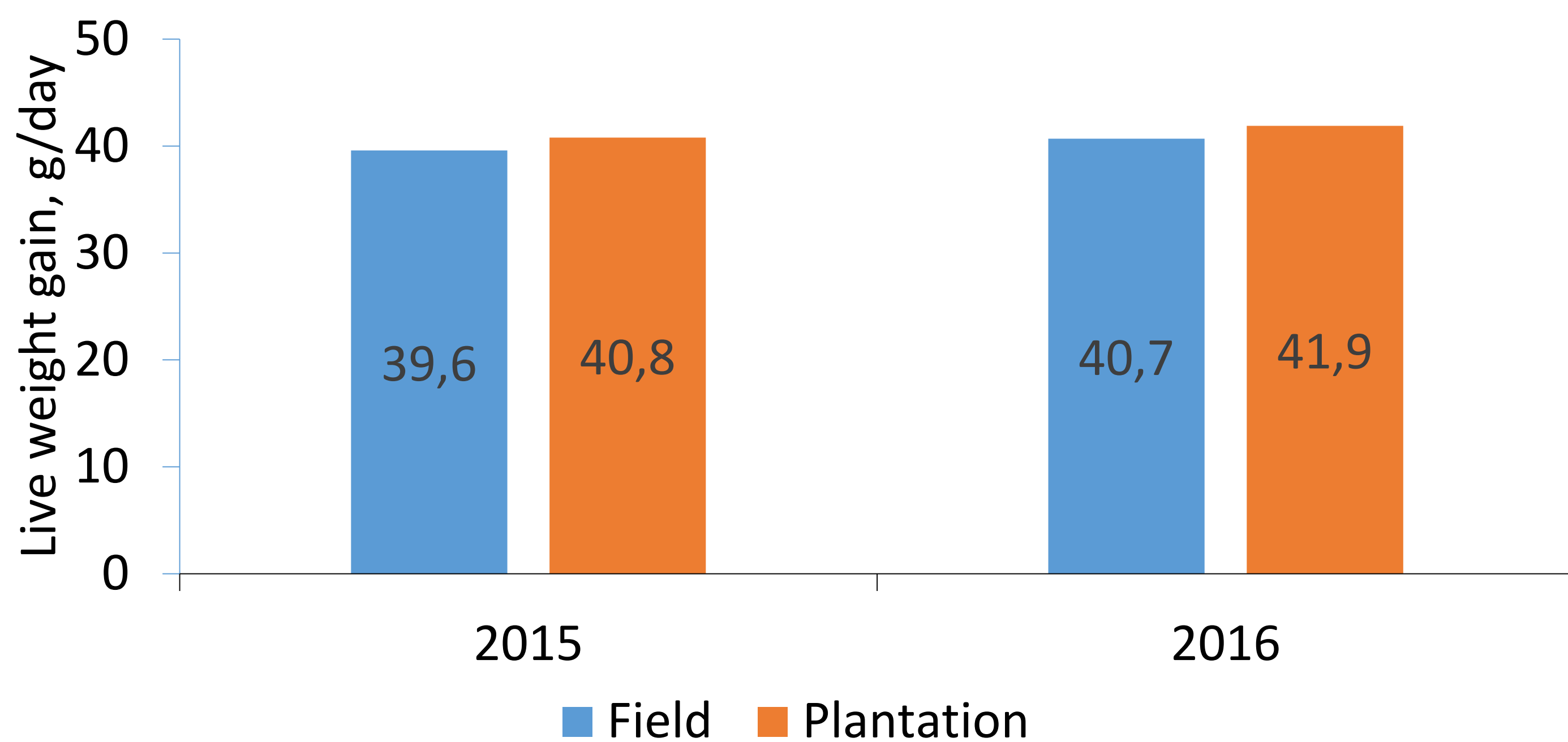
Two houses were placed on a field covered with grass and herbs. The picture shows both houses. An extra open hall was placed on each outdoor range (replicate) to give shadow.



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

## Live weight gain

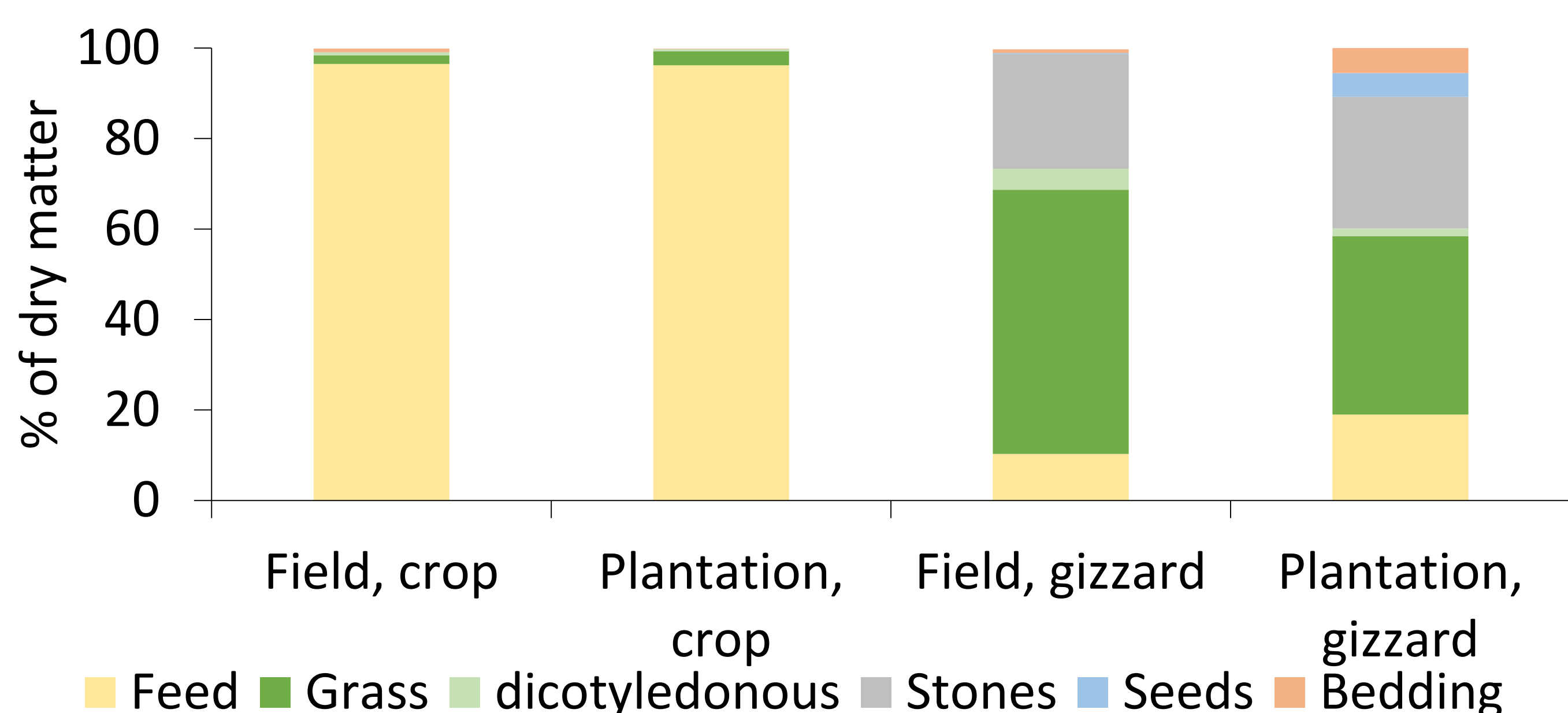
At hatching 100 out of 3200 birds were weighed (of 3200). Eighty broilers per house were weighed when the experiment ended at 84 and 70 days of age in 2015 and 2016, respectively.



The difference in live weight gain were significant (P=0.04) in 2015 but not 2016.

## Crop and gizzard content

Crop and gizzard composition were investigated in 84 days old broilers in 2015. From each broiler house, 2 males and 2 females broilers were killed in the morning and in the afternoon.



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

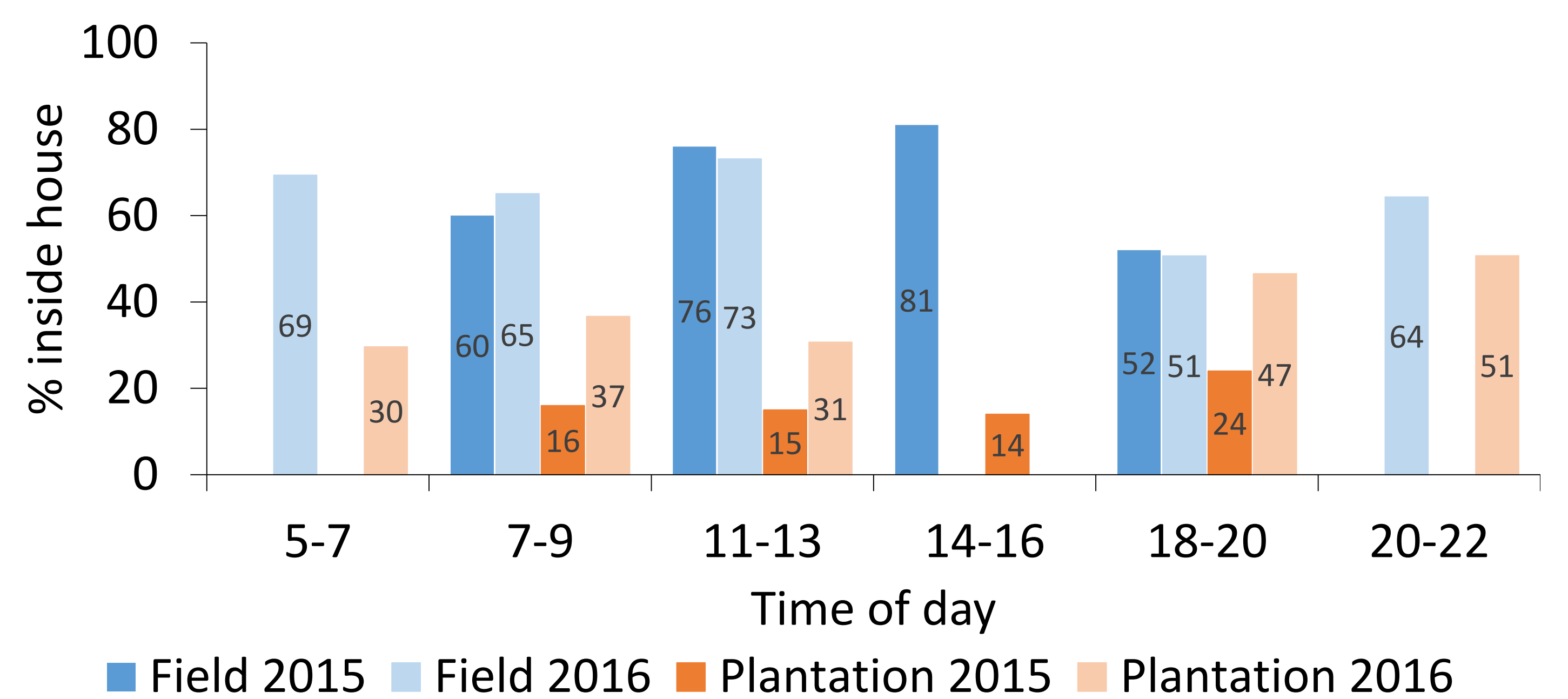
## Grants

The work was financed by the research program Organic RDD

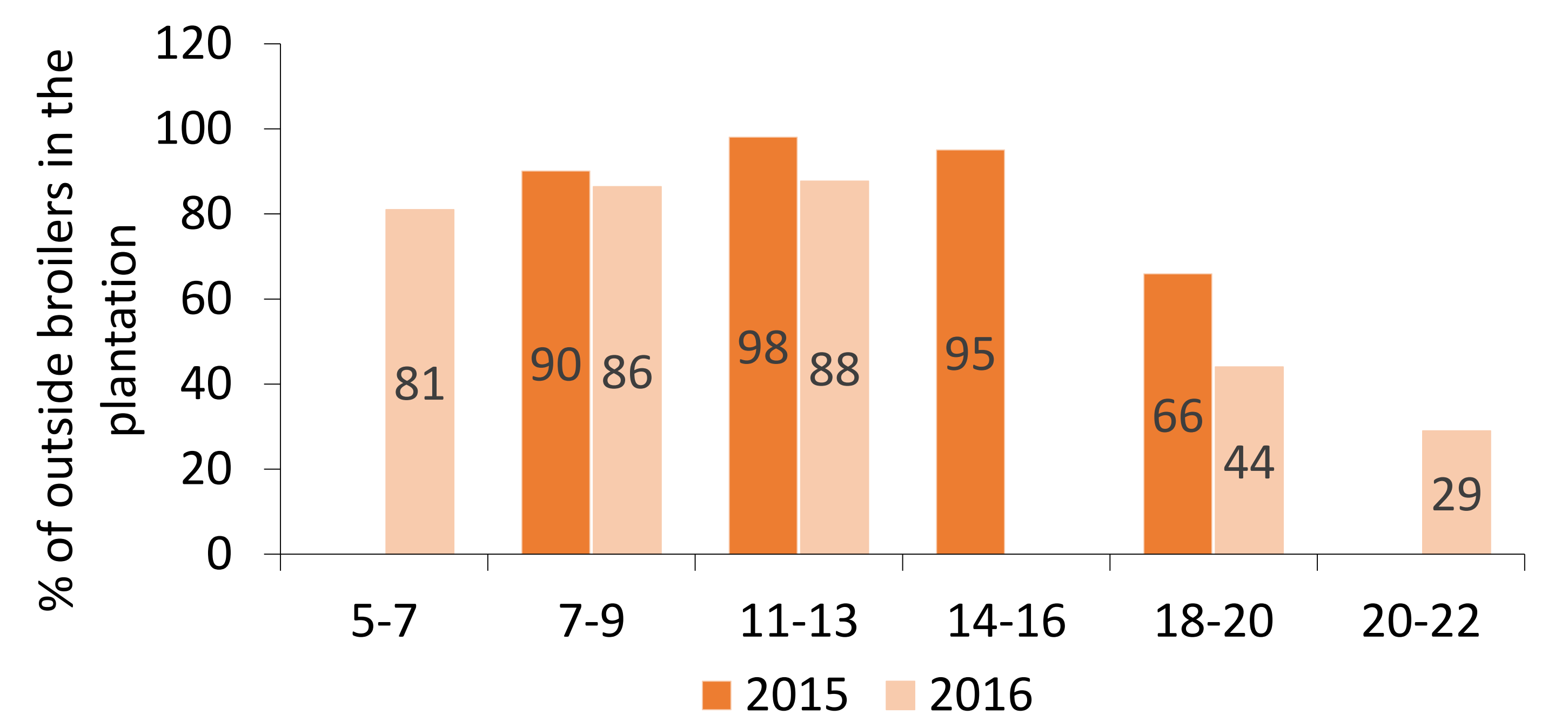


## Outdoor range use

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



Less broilers were found inside the house on replicates with access to an area with trees and bushes in both 2015 and 2016 except for the evening observations.



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