

# Foraging of broilers in outdoor areas

## Problem

Access to outdoor areas is mandatory in organic poultry production. Stimulating organic broilers to use outdoor areas can be a challenge if there is only sparse vegetation without trees and bushes outside the houses.

## Solution

Establishing attractive areas is necessary to increase the number of broilers going outside. A combination of smaller open areas with grass and herbs as well as areas with different bushes and trees, where the broilers can feel safe, will stimulate the chickens to use a larger part of the outdoor areas (see figure 1). Choice of geno-types can be important, as some genotypes are more active than others.

## Benefits

Having access to an attractive outdoor area will stimulate the broilers to be more active and forage, which contributes to a more natural behaviour. Active broilers are expected to have fewer food pad lesions, which is important for the birds' welfare. In addition to higher activity, grass, herbs and/or crops in the outdoor area can provide the birds with nutrients.

## Applicability box

### Theme

Animal health and welfare - Animal husbandry - Feed and nutrition - Production systems - Poultry - Ration planning

### Geographical coverage

Global

### Application time

Outdoor areas can be used all year round; however, in a colder climate, winter periods can be difficult and winter gardens are recommended.

### Required time

Planting outdoor areas takes time and new bushes and trees as well as grass/herbs have to be protected from birds for 1 to 2 years.

### Period of impact

The planting period is critical. Newly planted trees or bushes can be protected by fencing.

### Equipment

Equipment for planting trees and bushes, movable fences

### Best in

Slow-growing trees, e.g. fruit trees, can be sheltered by fast-growing nurse trees, e.g. willow or poplar. Planting time will depend on climate and weather conditions.

## Practical Recommendations

- Select plant species that are robust and adjusted to the climate such as caraway (*Carum carvi*), red clover (*Trifolium pratense*), chicory (*Cichorium intybus*), plantain (*Plantago major (broadleaf)/Plantago lanceolate (lancetleaf)*), ryegrass (*Lolium perenne*), selfheal (*Prunella vulgaris*), birdsfoot trefoil (*Lotus corniculatus*), lucerne/alfalfa (*Medicago sativa*).
- Fencing off part of the plants might be necessary until they have reached a size that makes them less vulnerable to birds eating leaves and smaller branches.

- Planting some trees in rows from the broiler houses will encourage the birds to leave the house and spread far into the outdoor areas (see figure 2).
- Combine trees and bushes with smaller open areas with grass/herbs or even crops that encourage foraging activity and other natural behaviour such as dustbathing, which is good for animal welfare.
- Choice of genotype is important. Very fast growing genotypes are not suitable for establishing a population with active animals.
- During cold winter periods, broilers are less motivated to go outside; a veranda system (winter garden), where silage can be provided, is recommended.



Figure 1: An protective environment encourages the birds to use the outside area. Photo: Sanna Steinfeldt, Aarhus University



Figure 2: Planting some trees in rows from the broiler houses will encourage the birds to leave the house and spread far into the outdoor areas. Photo: Sanna Steinfeldt, Aarhus University

## Further information

### Reading

- Steinfeldt, Sanna (2014) Chickens foraging in the woods. *DCA's monthly external newsletter*, June 2014, Available at <http://orgprints.org/28724/1/28724.pdf>
- Steinfeldt, Sanna Diversitet og integritet i økologisk slagtefjerkræproduktion- MultiChick, Aarhus Universitet. Available at [http://icofs.dk/fileadmin/icofs/Nyheder\\_PDF/MultiChick/MultiChick\\_folder\\_Final.pdf](http://icofs.dk/fileadmin/icofs/Nyheder_PDF/MultiChick/MultiChick_folder_Final.pdf)
- Almeida, G. et al. (2012) Feed intake and activity level of two broiler genotypes foraging different types of vegetation in the finishing period. *Poultry Science* 91(9):2105-13. DOI:10.3382/ps.2012-02187

### Weblinks

- Check the Organic Farm Knowledge platform for more [practical recommendations on animal husbandry](#).

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**Project website:** <https://ok-net-ecofeed.eu/>

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