

## Design and management of outdoor ranges for optimal use by layers



### Introduction

An outdoor range provides laying hens with the opportunity to perform natural behaviours in a diverse and stimulating environment. This has the potential to increase the welfare of the birds. However, to achieve this, the birds need to find the outdoor range attractive. Among the important factors for range attractiveness is natural vegetation which provides foraging opportunities and cover that increases the birds' sense of security and protects against predation and harsh weather conditions (e.g., strong wind, bright sun or precipitation).

### Natural vegetation in the outdoor range

Creating an attractive outdoor range for laying hens involves:

- Planting rows of trees and bushes perpendicular to the barn to create corridors leading away from the barn (Fig. 1).
- Planting grass in the corridors between rows of trees and bushes. Practical tip: Make sure that the corridors are wide enough for the machinery needed.

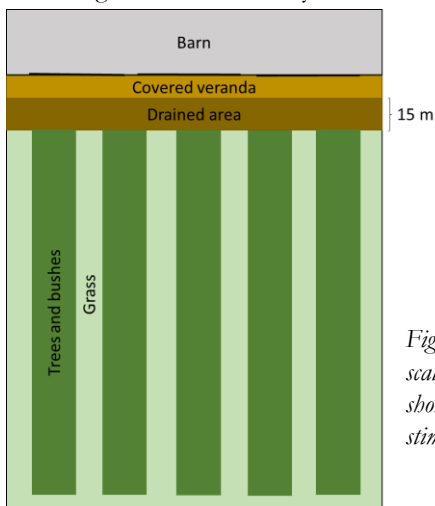


Fig. 1. Diagram (not to scale) of an outdoor range showing a design found to stimulate bird use.

- The distance from the barn/veranda to the rows of trees and bushes should not exceed 15-20 m.



- Trim the sides of trees and bushes if necessary to ensure visibility from one end of the corridor to the other. This allows hens to look out for predators and can increase their comfort on the range.



- If the birds are incapable of keeping the grass short, then mow paths in the grass cover to create "highways".



## Additional factors important for optimal use of outdoor ranges

### Protection against predators – safe haven

Tall vegetation gives the birds a sense of security. However, it is also important to ensure predators are kept out of the outdoor range. It is advised to:

- Inspect the fence daily. Not only does this ensure early detection of damage to the fence, but regular presence of humans likely also has a preventive effect.



- Place two electrical wires on the outside of the fence: one about 10 cm above ground level to deter ground predators and one about 1 m above ground level to deter deer from destroying the fence.
- The fence should be dug about 1 m under ground (horizontally on the outside) to prevent ground predators from digging under the fence.



### Access from an early age

While the design and management of the outdoor range are important for optimal range use, it is emphasised that this should be combined with providing birds outdoor access as early as possible during the rearing period. Depending on climatic conditions this may be as early as 4-5 weeks of age.



### Covered veranda – smooth transition

A covered veranda functions as a smooth transition between the dark and climate-stable indoor barn and the bright and climate-variable outdoor range, reducing the fear-provoking effect of venturing outdoors.

In addition, during outbreaks of avian influenza where access to the outdoor range is denied, birds are usually still allowed into the covered verandas, ensuring that they stay familiar with the outdoor climate, so they are prepared when access to the full outdoor range is again provided.

