

## Design and management initiatives ensuring optimal use of nest boxes

### Problem

The lack of suitable nests can lead to competition and frustration among hens. Eggs laid outside nest boxes are a major management problem and can increase the risk of cloaca pecking. Smothering in nests can cause mortality.

### Solution

Provide attractive, comfortable, easily accessible and clean laying nests to encourage hens to lay in the nests and to discourage smothering.

### Benefits

Fewer broken or dirty eggs. Less time collecting floor eggs. Decreased competition, frustration and scratches among hens. Lower mortality from smothering, stress and risk of secondary infections from injuries.

### Practical recommendations

Nests should be evenly distributed throughout the house and should be easily accessible. Platforms in front of nests in multitier systems can help improve access. Flaps or curtains should be provided on the nests to provide hens with a dark and secluded location to lay their eggs. The ventilation in the house should be adequate to prevent drafts, accumulation of hot air, or condensation within the nests. The lining of the nests should allow for scratching behavior while allowing dust to fall through (e.g. perforated AstroTurf). Rollaway nests help prevent broken or dirty eggs. If birds are relatively young when they arrive at the laying facility, it may be beneficial to prevent them from accessing the nests for a period to prevent hens from sleeping and soiling in the nests. Boxes should be opened at least 3 days prior to laying their first eggs to allow hens to learn to navigate in a new environment and to become accustomed to the nests. Similarly, closing nests at night can discourage birds from using nests for resting. If smothering in the nests is an issue, opening nest covers at corners of a row (making them unattractive) or blocking certain nests and corners can help. Further, increased walking of the house can reduce the fear of humans and thus the risk of panic leading to smothering.

### APPLICABILITY BOX

#### Theme

Animal husbandry, housing design

#### Keywords

Seclusion, platforms, smothering, competition, floor eggs

#### Context

Transition to and operating cage-free housing systems for laying hens

#### Application time

Throughout entire laying period

#### Period of impact

Entire laying period

#### Equipment

Rollaway nests with flaps or curtains (ideally)

#### Best in

All cage-free housing systems: barn, free-range and organic production

#### Target audience

Farmers, farm advisors



Figure 1: A system with platforms at the nests and strategically placed water lines. (Source: Thea van Niekerk, Wageningen University)



Figure 2: Rollaway nest with curtains. (Source: ILVO)

## On-farm application

### System approach

- Drinker lines in front of a row of nests can help stimulate hens to go to the nests.

### Evaluation

- Quantitative evaluation – successful design and management of nests can be assessed by counting the number of floor eggs laid.

## Further information

### Further reading

Humane Society International – Management guide for the care and housing of cage-free egg laying hens in

Vietnam: <https://www.hsi.org/wp-content/uploads/2020/10/Management-Guide-for-cage-free-hens.pdf>

## About this practice abstract and Best Practice Hens

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**Best Practice Hens:** To support egg production in non-cage systems and improve animal welfare, a consortium consisting of 7 partners will develop Best Practices for Non-cage Egg Production Systems as a European Commission, DG SANTE pilot project. These Best Practices will provide practical support to egg producers to encourage them to convert from cage to non-cage systems, including organic production.

**Project website:** [www.bestpracticehens.eu/](http://www.bestpracticehens.eu/)

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