

Research facilities Broiler breeders

Wageningen University & Research has the possibilities to carry out experiments with broiler breeders. There are possibilities for experiments between 0 and 60 weeks of age on different scale from 5 to 80 birds per pen. The flexible facilities are suitable for running experiments on diet composition, behavioural studies, different management factors (e.g. light, temperature), etc. Data will be collected per pen on laying rate, egg weight, mortality and amount of feed. Also fertility, hatchability and embryonic mortality of the hatching eggs can be carried out. Besides these data a wide range of measurements as behaviour, blood samples, body composition and feather cover quality per pen can be carried out.

Examples of experiments

- Effect of diet composition on (re)production performance of broiler breeders
- Effect of diet composition on production performance of progeny
- Effect of feeding strategies on behaviour and welfare of breeders
- Effect of male management on sexual behaviour of breeders
- Effect of diet composition on ammonia or dust emission
- Effect of age of light stimulation on (re)production of breeders

Accommodation and animals

Experiments can be carried out on a different scale:

- 5 to 10 females per pen with artificial insemination (if necessary):
 - 8 to 64 floor pens (1 x 2 m)
 - Each pen contains perches, feeding troughs, drinking nipples and laying nests.
 - Automatic mechanical ventilation and light system
- 30 females and 4 males per pen:
 - 8 to 32 floor pens (1.8 x 4 m)
 - Each pen contains a plastic slatted floor (1.8 x 1 m), feeding troughs (females), feeding pan (males), drinking nipples and laying nests.
 - Automatic mechanical ventilation and light system
- 70 females and 8 males per pen:
 - 16 to 32 floor pens (3 x 4.5 m)
 - Each pen contains a plastic slatted floor (1.2 x 2 m), 5 automatic feeding pans (females), one feeding pan (males), bel drinker, and laying nests.
 - Automatic mechanical ventilation and light system

Measurements

Standard observations: laying rate, egg weight, amount of feed and mortality.

Reproduction observations: fertility, hatchability and embryonic mortality.

Additional observations:

- Behaviour: general and/or sexual behaviour, eating time, etc.
- Blood samples: stress hormones, metabolites, etc.
- Body composition: dissection or chemical analysis
- Feather cover: visual scoring system
- Litter quality: visual scoring system and/or dry matter content

Small-scale accommodation



Semi-practical accommodation

