Effect of three open water resources on duck health: a commercial trial

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This study forms part of a wider project investigating the provision of open water sources for commercially farmed ducks. Previous stages of the project have shown that access to open water leads to health improvements when tested in small groups. But how will open water resources work in a commercial situation? The purpose of this trial was to test three open water resources: Narrow troughs measuring 150x15x7cm (length/width/depth), wide troughs 150x20x12cm and baths 100x50x8cm. 23 commercial barns, each housing between 3,500 and 5,000 ducks, were tested during three replications. Ducklings (Cherry Valley Pekin) were commercially reared under RSPCA Freedom Food standards until day 21 post-hatch, when treatments were introduced. Barns were built of concrete flooring with straw bedding. A raised slatted floor area, where water resources were allocated, ran along both sides of the barns and was accessible via a concrete ramp. Ducks were assessed three times during the production cycle, on days 21, 28 and 35. The health measures taken, from a sample of 30 birds per barn, were: weight, eye condition (score 0-3), nostril condition (0-2), foot condition (0-3), feather hygiene (0-3) and gait score (0-5). Data were analysed using PASWStatistics18 software and the effects of treatment and age were calculated. On average, all scores of poor health were low (range from 0.06±0.08 for nostril condition to 0.75±0.22 for foot condition). Treatment effect: Foot condition was worse when baths were used than when wide troughs were used (p<0.05), with narrow troughs being intermediate. Age effect: weight and gait scores increased with age (p<0.001), while feather hygiene was best at 28 days (p<0.001). Open water did not have a negative effect on the ducks' health at the commercial level, but it must be provided over a proper drainage area to avoid negative effects.