

Locomotion problems in broiler chickens

In the past 50 years poultry meat production has increased dramatically by way of selective breeding, directed towards higher higher growth rates in broiler chickens. The consequences of this policy have been investigated by three research institutes in the UK. The investigators showed that impaired locomotion and poor leg health are the primary risk factors associated with selection for higher growth rates in broiler chickens. Following is a summary of their observations.

The survey

During the survey, trained veterinarians examined broiler chickens for locomotion problems. Three days prior to slaughter the investigators assessed the walking ability of 51,000 animals, representing 4.8 million birds within 176 flocks. Walking ability was assessed using a standardised gait scoring method, resulting in a 'gait score' varying from 0 (completely normal) to 5 (unable to stand or walk). In addition, on each farm a farm representative was interviewed, to collect information about possible risk factors for development of locomotion problems associated with bird husbandry, for instance housing facilities, stocking density, feeding practices, growth rates, etc.

The results

Locomotion problems

The incidence of locomotion problems observed in the 176 flocks is presented in Table 1.

Table 1. The proportion of broiler chickens with locomotion problems; per category (0-5) the mean proportion of animals per flock and the minimum and maximum observed proportion are shown

	'Gait score'					
	0	1	2	3	4	5
Mean	2.2	26.2	43.5	24.3	3.1	0.2
Minimum	0.0	0.0	1.6	0.0	0.0	0.0
Maximum	34.7	82.7	74.6	83.7	45.9	3.2

The data show that the minimum and maximum proportion observed in each 'gait score' category varies considerably between flocks.

Risk factors

The primary risk factor for occurrence of locomotion problems is the growth rate. Other risk factors are race, the age at which the gait score was assessed, deficiency in hours in darkness, feed without wheat or antibiotics and feeding pelleted feed.

Conclusions

The investigators conclude that birds with a 'gait score' of 3 and above can be in pain, with detrimental effects on animal wellbeing. The primary risk factor for developing locomotion problems is a high growth rate, which in turn is the result of selection which focuses primarily on a high growth rate.

Source:

<http://www.plosone.org/article/info:doi%2F10.1371%2Fjournal.pone.0001545>