



# Food Animal Initiative

ENVIRONMENTS FIT FOR ANIMALS FIT FOR THEIR ENVIRONMENT

## *FAI Technical Datasheet - The practical and commercial ramifications of removing the need to restrict feed in broiler breeders - Po5*

The Farm Animal Welfare Council highlighted the issue of restrict feeding in broiler breeders as a welfare issue in their 1998 report.<sup>4</sup> Currently both male and female lines of all commonly used commercial breeds have to be restrict fed in order that the birds are fit to reproduce when they reach sexual maturity.

### **'the facts.....'**

When animals are selected for increased growth rate this creates problems in the parent lines as there is a negative correlation between growth rate and egg production in the female. If the male is allowed to get too large he cannot mate. Both lines would have increased risk of leg and cardiovascular problems if allowed to grow to their genetic potential. Typically females on feed restriction gain about a third as much weight as unrestricted birds and consume between a quarter and half as much feed.<sup>1</sup>

Under free range legislation birds have to be a minimum 56 days at slaughter whereas under organic legislation birds have to be a minimum 81 days at slaughter. This is significantly longer than commercial birds which reach slaughter weight at 42 days. All days quoted are for birds which are around 2kg liveweight at slaughter.

How much restrict feeding contributes to the poor welfare of birds is often questioned and the following science provides evidence to inform this debate:

- Feed restricted birds show behaviour characteristic of under nourishment in the form of hyperactivity and abnormal oral behaviour which can lead to over drinking.<sup>1</sup>
- Feed restricted birds show signs of physiological stress (cortisone and blood cell levels).<sup>1,2</sup>
- Birds fed ad lib on qualitatively restricted diets i.e. bulky, low protein diets have reduced abnormal behaviours but measures of physiological stress are the same as when restricted.<sup>1</sup>
- The motivation to feed for birds with free access is related to the time since their last feed. Restrict fed birds are always motivated to feed regardless of when they last fed.<sup>3</sup>

Welfare science is indicating that a slow growing bird must be one where parent lines have no restrict feeding.



### **'..... the FAI response!'**

FAI have purchased a small flock of 250 JA 57 females from Hubbard. These females are commonly used for free range and organic production and are slow growing (60% of the rate of commercial females) and do not have to be restrict fed to produce 240 eggs per year which is very viable in commercial terms.

The issue for the British market with current slow growing male lines (which are available and are used in relatively small quantities) is that they produce a broiler which is very narrow breasted and the consumer wishes to purchase a bird with a plump breast. Thus we have two options for improving bird welfare:

1. UK consumers buy narrow breasted birds.
2. Plump breasted broilers which do not have to be restrict fed at parent level (all other welfare issues must also be taken into account e.g. leg strength) are available for sale.

Currently FAI is working on option 2 as this would be the simplest solution. To address this we are trialling several types of male line. Results to date indicate that a compromise will be necessary in terms of breast 'plumpness' in order to produce a broiler that does not have restrict feeding as a necessary component of its breeding. Further results will be available later this year.

1. CJ Savory et al Animal Welfare 1996, 5: 105-127
2. IC Jong et al British Poultry Science 2002, 43:2, 157-168
3. CJ Savory et al Animal Welfare 1993, 2: 131-152
4. FAWC Report on Broiler Breeders Aug 1998 tel 02079046534 or e-mail [stephen.j.lyus@defra.gsi.gov.uk](mailto:stephen.j.lyus@defra.gsi.gov.uk)