

Why bulk weigh broiler breeders in rear?

Routine accurate estimates of average body weight in rear allows:

- Correct feed allocation to a population.
- Correct control of both male and female body weights which will optimize performance at every stage of life.
- Monitoring of brooding procedures.



The procedure for bulk weighing broiler breeders

Bird Handling

Birds must be handled in a calm and correct way by people who have been appropriately trained. Bird welfare must be a priority at all times.

Equipment

1. A good set of electronic or manual / mechanical dial scales with 10 g (0.02 lb) increments, an accuracy of +/- 20 g (0.04 lb) and a minimum capacity of 10 kg (22 lb).

Examples of different types of weighing scales (left to right) – Digital hanging scales setup for bulk weighing chicks in a bucket, floor pan scales for single or multiple box weights and manual dial scales.



2. A pen or pencil.
3. Weight recording charts.
4. Scientific calculator if weighing using manual / mechanical dial scales.

Note - All scales should be calibrated on a regular basis (at the beginning and end of every weighing) to ensure they are weighing accurately and correct body-weight management is maintained.

Procedure – Day 0 (Placement)

Weigh at least 3 boxes of chicks per pen placed.

- Step 1** Zero any scales to be used in the weighing operation and weigh an empty chick box with lid on – record the weight of the box.
- Step 2** Weigh a box with chicks inside and with lid on, to gain total weight of chicks and box – record weight.
- Step 3** Count out the number of chicks weighed in each box – record chick number.
- Step 4** Calculate average chick weight.
- Step 5** Plot average weight of all chicks weighed on a weight chart and compare to target.



Step 1



Step 2

Example Calculation:

$$\text{Average chick weight (g / lb)} = \frac{\text{Total weight of chicks weighed in box}}{\text{Number of chicks in box}}$$

$$\text{Average chick weight} = \frac{3200 \text{ g (7.05 lb)}}{80} = 40 \text{ g (0.09 lb)}$$

Procedure – Day 7 and 14

Step 1 Place an empty bulk weighing container, such as a box or bucket (big enough to hold 10-20 chicks at a time), on scales and 'zero' the scales with the container in place.



Step 1

Step 2 Using a catching pen, catch a sample of at least 2% or 50 birds (whichever is greater) per population. Samples should be taken from 2 different locations, towards the middle of the pen or house, away from doors or the sides of pens.

Step 3 Place 10-20 birds at a time into the weighing container and record the total weight of each full container and the number of chicks. Never put too many chicks in the container, they should not be placed on top of each other.



Step 3

Step 4 Empty the birds out of the container back into the main pen population and repeat the weighing process until **ALL** birds in the catching pen have been weighed. This will eliminate selective bias.

Step 5 Add together the weight of all samples weighed and divide by the total number of birds weighed.

Step 6 Plot average chick weight on a weight recording chart and compare to target.



Step 4

Interpreting results

If body weights are inconsistent with expected gains or there is a marked (+/- 50 g [0.11 lb]) deviation from the standard body-weight profile, reweigh the flock to check weighing accuracy using the same procedures as above.

A deviation in normal weekly body-weight gain (+/- 20 g [0.04 lb]) during the first 14 days that cannot be attributed to weighing error, generally indicates a need to revise farm brooding procedures.

Solutions

If early body-weight targets are not being achieved it is necessary to:

- Measure, monitor, and react to house brooding conditions:
 - Check houses are pre-warmed for 24 hours prior to chick arrival.
 - Check house air temperature at chick level is 30°C (86°F) at placement.
 - Check house relative humidity is 60-70% for the first 3-5 days.
 - Check house litter temperature is 28-30°C (82-86°F) at placement.
 - Check that chicks have no more than 1 m (3.3 ft) to travel to an adequate fresh water supply.
 - Check that at least 90% of the brooding area floor is covered with paper and / or trays (1 per 100 chicks), and a good quality sieved crumb or mini pellet is fed.
 - Check light intensity in the brooding area is 80-100 lux (8-10 foot candles).
 - Check crop fill.
- Remain on starter feed until target body weight is reached.
- Feed a higher nutrient quality starter feed.
- Provide a longer daylength up to 21 days (3 weeks) of age to help stimulate feed intake and improve body-weight gain.

More Information

- Management How To 01; How To... Assess Crop Fill.
- Parent Stock Management Handbook.