

Meat Chicken Assessment Protocol: instructions

- **Age:** Assessments must be carried out as close to slaughter age as possible and certainly within the flock's **last 7 days of life**. However, if this is not possible, assess the oldest birds.
- **System:** The assessment has been designed for use on indoor as well as free-range systems. For free-range systems, the assessment procedure followed will depend on whether the site being assessed has static or mobile houses, which are defined as follows:
 - Static houses: large, free-range static houses and larger mobile houses with a floor area exceeding 150m².
 - Mobile houses: are the typical free-range mobile houses with around 500 birds and larger houses with a floor area up to 150m².

➤ House selection:

- Indoor systems & free-range static house sites: Select **one house** that has the **oldest birds**. If there are multiple houses with birds of the same age then choose one house at random. **All parts of the assessment will take place in this one house.**

Note: When conducting free-range assessments, the majority of the birds need to be in the house. If the majority of birds are **not** in the house, another house should be selected at random where possible. If this is not possible, e.g. there is only one house, then conduct the assessment and make a note of the approximate proportion of the birds within the house.

- Mobile house sites: First **select a site: a 'site' is defined as a number of houses where the birds from those houses share the same range**. If there are a number of 'sites' on one farm, then select the site with the oldest birds or, if the birds are the same age, select a site at random. For the purposes of this assessment, all the birds on a 'site' are regarded as a flock.

➤ Assessment procedure

The assessment consists of four parts, which must take place in the following order:

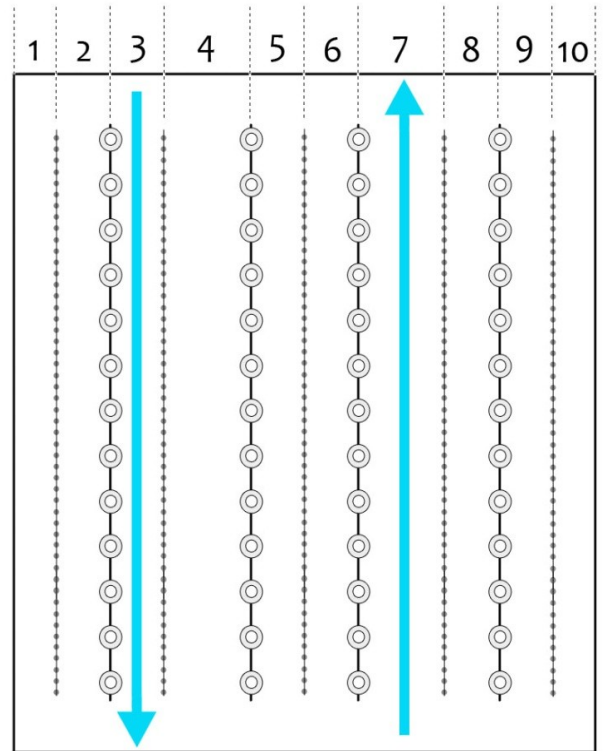
- A. **Whole flock assessment:** when you first enter the house, stand at the top of the house and initially assess the *whole flock* for 5 parameters (see Section A). *For mobile house sites, you must assess all these parameters in all the houses on the site.*
- B. **Defined walk:** after the whole flock assessment, conduct a defined walk around the house (described below) and observe *all birds within your path* for 5 parameters (see Section B). Also, examine litter condition. *For mobile house sites, only conduct this part of the assessment in the houses within your 20% sample.*
- C. **Individual measures:** after conducting the defined walk, select a group of 25 birds at random within the house and pen them to assess each bird for 2 parameters (see Section C). *For mobile house sites, just select one house for this assessment: this can be a house within your 20% sample or from any other house on the site being assessed.*
- D. **On-farm records:** finally, look at the house records to record data for 3 areas (see Section D). **Post – slaughter records for the current flock will need to be collected once data from the slaughter plant is ready.** *For mobile house sites, examine records for the site assessed, if site specific records are not available then record data for the whole farm.*

- **The defined walk:** The defined walk within the house must take place as described below. Your walking speed should be dictated by the speed of the bird's movement and how long it takes to observe the birds for the appropriate measures – don't rush. Allow additional time for the birds to clear the corners/ends of house without them becoming distressed or overly crowded.

Indoor systems & free-range static houses:

To identify the path you need to walk:

1. Use the feeder and drinker lines to divide the house into paths (e.g. 10 paths as in Fig. 1). NB if no feeder or drinker lines are present, then an arm span is approximately the width of a path, so divide the house according to the number of arm spans instead.
2. Calculate how many paths equal 20% of the total number of paths available (e.g. in Fig.1 $10 \times 0.2 = 2$ paths). If 20% is not a whole number, round up the number of paths to the next whole number. This is the number of paths that need to be walked for the assessment.
3. Select the paths to be walked at random.
4. Start walking the paths in alternate directions, (e.g. 7 & 3 in Fig.1), to observe all the birds in your path. Observe birds that were in your path but moved from the path under the feeders and drinkers on either side.



NB This scientifically validated method enables a large number of individual birds to be observed - sampling approximately 20% of the flock

Fig. 1. Path to walk for indoor systems / static houses

Mobile houses:

1. Select **20% of the houses** on that site that have the **oldest birds**, e.g. if there are 10 houses then select 2 of them. If all birds on the site are the same age then select the houses at random. Where 20% of houses is not a whole number, e.g. if there are 12 mobile houses ($20\% = 2.4$), then round up the number of houses to be assessed to the nearest whole number, i.e. 3 houses.
2. Start by walking the inside perimeter of the house, as shown in Fig. 2, and observe all the birds in your path that fall within your arm span. NB an arm span is approximately half the width of a typical mobile house. Birds that leave through the pop-holes during the defined walk will be sampled in step 3.
3. When you reach the point where you entered the house to start the walk then exit the house and walk the outside perimeter of the house to observe all the birds outside that can be adequately assessed.

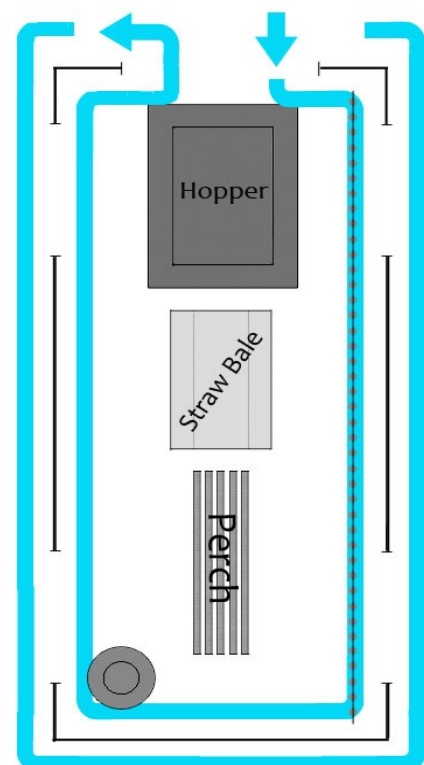


Fig. 2. Path to walk for mobile houses

This method should enable the majority of the birds within a house to be observed.

A. Whole flock assessment: parameters to assess on entry into the house

On immediate entry into the house, assess the **whole flock** for the following parameters from the top of the house, as described. *Note: For sites with mobile houses, you must assess all these parameters in all the houses on the site where those birds from those houses share a common range area.*

Bird Distribution

Part A

Score how the birds are distributed as follows:

- 0. Approximately **even** distribution across the house floor.
- 1. **Irregular** distribution across the house floor, no uniform density to the flock.
- 2. **Uneven** distribution across the house floor with empty areas, birds are grouped/huddled with spaces between.

If score 2: note the **location** of the birds, e.g. in the centre of the house, around the perimeter of the house, or in groups around the house; and what the possible **cause/s** could be. For example, possible causes could include patches of wet litter or bright sunlight, or draughty areas, or house too cold or too hot.

For mobile house sites: record the score for each house and then note the most common score, i.e. the score that was attained by most of the houses. If there is no most common score, i.e. the number of houses is the same for two or more of the scores, then note the higher score (0-2) attained.

Air Quality: ammonia & dust

Part A

Using sensory evaluation, assess and score the ammonia and dust levels as follows. **NB repeat this assessment during the defined walk and again just before leaving the house and record the highest score from the assessments.** If available, use a calibrated meter to assess ammonia and note the result.

- 0. **None/Weak:** Odour/dust not/hardly noticeable; easy to breathe / can breathe without effort.
- 1. **Moderate:** Odour/dust distinct; experience watery eyes and/or coughing.
- 2. **Strong:** Odour/dust irritating; experience stinging eyes and/or mouth, and/or excessive coughing/sneezing.

For mobile house sites: record the score for each house and then note the highest score attained (0-2) and the number of houses with that score.

Panting in house

Part A

- 0. **No panting** – panting is not observed > 10% of the flock
- 1. **Slow panting** – slow panting is observed in > 10% of the flock.
- 2. **Severe panting** – panting is observed in > 10% of the flock.

In indoor and static houses: review your score once you have conducted the defined walk and amend if necessary.

For mobile house sites: record the score for each house and then note the most common score, i.e. the score that was attained by most of the houses. If there is no most common score, i.e. the number of houses is the same for two or more of the scores, then note the higher score (0-2) attained.

Dirtiness

Part A

In indoor and static houses: record the score that's affecting the majority (>50%) of the birds within the house. Review your score once you have conducted the defined walk and amend if necessary.

For mobile house sites: record the score for each house and then note the most common score, i.e. the score that was attained by most of the houses. If there is no most common score, i.e. the number of houses is the same for two or more of the scores, then note the higher score (0-2) attained.

- 0. **None/Minor** – overall plumage is not significantly dirty, only feathers on breast are lightly stained/soiled, no clumping of feathers
- 1. **Mild** – overall plumage is mildly dirty, feathers on breast moderately stained/soiled, this can extend onto the wings, some clumping of feathers evident.
- 2. **Severe** – overall plumage is dirty, feathers heavily soiled/stained on breast and wings, and can also include dirty feathers on the belly/vent area, considerable clumping of feathers evident.

Enrichment

Part A

Record the level of engagement with the enrichment items provided. Observe the flock and score what the birds are doing in general:

Engaging with Enrichment:

- 0. **Yes** there is interaction: in general birds are observed interacting with the enrichment items provided.
- 1. **No / low** interaction: in general, there is no or limited interaction with the enrichment items provided.
- 2. **No** enrichment provided.

Observation Comments: In the comments box, note down the likely reasons for low/no engagement with the enrichment items provided, or, if there is a high level of interaction, then note down the enrichment items used. N.B. only record engagement with intended environmental enrichment items, e.g. straw bales, pecking objects, etc. and note that this does not include litter/substrate or items of furniture that serve another primary function, including painted down posts.

For mobile house sites, record the scores for each house assessed and give an overall score for all the houses based on the most frequent score.

B. Defined walk: parameters to assess during the walk

During the walk, observe all birds within your path for the following parameters as described. *For mobile house sites:* combine the scores for all houses within your 20% sample.

Walking ability

Part B

Watch the birds walk.

Record the number of birds with a **score 3** and the number of birds with a **score of 4 or 5**.

- 3. An obvious gait defect that affects the bird's ability to move: the bird may have a limp, jerky or unsteady strut, or splay one leg as it moves. Will prefer to squat, and will not run.
- 4/5. Severe gait defect, capable of walking but only with difficulty and will squat at first opportunity, or the bird is incapable of sustained walking.

Birds that do not rise should be encouraged to stand and walk so they can be assessed.

Video guides to help assess walking ability can be found here: www.assurewel.org/broilers/walkingability

Birds requiring culling

Part B

Record the number of **sick and injured** birds that should be culled.
If possible, record the reason why they should be culled.

Do not include severely lame birds as these will be recorded under the walking ability measure.

Runts and dead birds

Part B

Record the number of runts and the number of dead birds found.

Behaviour

Part B

On at least **two occasions** when walking **each full length** of the house, turn around, crouch and score the behaviour of the in the space behind you. Look no more than 3 metres behind you, for a duration of approximately 20 seconds on each occasion. From your scores, assign an overall score for the house, based on the most common score recorded. If no frequent score, record the highest score attained:

- 0. **More than half** the birds display active/interactive behaviour: for example running, sparring, wing flapping.
- 1. **Less than half** the birds display active/interactive behaviour: for example running, sparring, wing flapping.
- 2. **Limited space created** – birds mainly inactive, space created extends less than 3 metres and birds close the space only to predominately sit soon after being disturbed.

Further, note whether the flock could be best described as **calm, cautious** or **flighty**.

- 0. **Calm** - In general, the birds appear undisturbed by your presence or actively approach you
- 1. **Cautious** - In general, bird behaviour is disturbed by your presence but birds do not appear actively alarmed
- 2. **Flighty** - The birds appear actively alarmed by your presence

For mobile house sites: this assessment may be done after exiting the house rather than during the walk. Record the scores for each house assessed and then give an overall score for all houses based on the most frequent behaviours observed.

C. Individual measures: parameters to assess on individual birds

Select a group of 25 birds at random within the house and pen them to assess each bird for the following parameters as described. If you pen more than 25 birds then select 25 birds at random for assessment.

For mobile house sites: pen 25 birds from just one house selected at random: this could be a house from your 20% sample or another house on the site.

Hock burn

Part C

Assess the hocks of the birds and record the number of birds that fall within each score.

- 0. **None:** no lesion/s or very small and superficial (<1mm), slight discolouration in a limited area, mild hyperkeratosis (thickening of the skin).
- 1. **Mild:** area affected does not extend over hock, substantial discolouration, dark papillae, superficial lesion, no ulceration.
- 2. **Severe:** greater surface of hock affected. Deeper lesion/s with ulceration, sometimes haemorrhage, scabs of significant size, severely swollen area.

Pododermatitis

Part C

Assess the food pads of the birds and record the number of birds that fall within each score.

- 0. **None:** no lesion/s or very small superficial lesions (1-2mm), slight discolouration in a limited area, mild hyperkeratosis.
- 1. **Mild:** area affected does not extend over the entire plantar pad, substantial discolouration, dark papillae, superficial lesion, and no ulceration.
- 2. **Severe:** greater surface of plantar pad usually affected, sometimes with lesions on toes. Deeper lesion/s with ulceration, sometimes haemorrhage, scabs of significant size, severely swollen foot pad.

D. On-farm records: information to collect from house records

Look at the records for the house/s assessed to record the following data for the **current flock** as described: *For mobile house sites: for each measure, record values for the site assessed as a whole. If site specific information is not available then record data for the whole farm (tick the appropriate box on the form to indicate the source of the data).*

Antibiotic use

Part D

- AB used.
- The number of treatments used.
- Number of days use for each treatment.
- Predominant reason/s for use.

In-feed antibiotics should be included.

Mortality

Part D

- First week mortality, including culls (%).
- Mortality to date - dead birds only, i.e. not including culls (%).
- Culls to date, not including leg culls (%).
- Leg culls to date - leg culls only (%).

*Also record this information for the previous flock.
If possible, record predominant cause/s of mortality and culls.*

Post-slaughter information:

DOA's, rejects, breast blisters, wing and leg damage, Hock burn, and pododermatitis

Part D

After the assessment, contact the farm manager post-slaughter to record the following for the house/site that was assessed:

- Dead on arrivals (%)
- Total slaughter rejects (%)
- Total farm rejects (%)
- Breast blisters (%)
- Wing damage (%)
- Leg damage (%)
- Hock burn: the proportion of birds with each score (as for 'individual measures', above).
- Pododermatitis: the proportion of birds with each score (as for 'individual measures', above).

Note the name of the processing plant where the birds were slaughtered.
Also, note the number of birds sent to slaughter and the average slaughter weight of the birds.

And, record hock burn and pododermatitis for the previous flock.