ASSESSING THE WELFARE OF MEAT POULTRY

EBENE®

› Who is it for?

Poultry farmers, farm technicians and veterinarians working in meat poultry production.

› Which species?

Chickens, turkeys and quail.

› Which production systems?

With or without outdoor access.

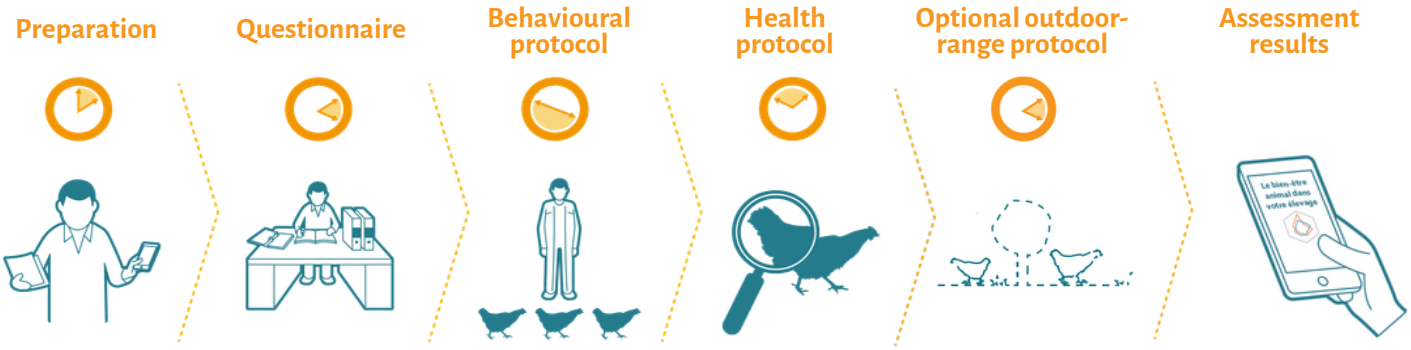
› When should the assessment be carried out?

At the end of the production cycle, during the week preceding slaughter.
For flocks with separate sexes, the assessment should be carried out either before or after the females are removed.



Three protocols in one

The indicators (measurements collected on the farm) are recorded at three stages: the questionnaire, the behavioural assessment protocol and the health assessment protocol.
Preparation time is required to gather the relevant documents and review the observation protocols.
If an outdoor area is available, an additional assessment can be carried out using the optional outdoor access protocol (see the information sheet Outdoor Access).



Implementation of the assessment protocol for chickens, turkeys and quail housed indoors.

Sampling

The sample must be representative of the entire flock, without requiring every bird to be observed. This keeps the time needed to complete the assessment within reasonable limits.
Numerous scientific studies have been used to validate the methods and sample sizes, ensuring that the results reflect the actual situation as closely as possible while reducing assessment time.
Sampling is a crucial stage and must be carried out rigorously and carefully.

Avoid unintentionally influencing the results

Sampling bias occurs when results are influenced in a non-random manner. Human psychology often plays a role: consciously or unconsciously, we may want to influence the results.
For example, it is important not to deliberately seek out injured birds or, conversely, birds that approach humans. Be vigilant!
Weather conditions, lighting and the time of day can also affect bird behaviour. Record all these factors in the comments.

10 min.



1. Assessment using a questionnaire

The questionnaire covers all resource-based indicators, which relate to the birds' environment. These include:

› **Feeder availability** (available feeder length per bird).
› **Drinker availability** (available drinker length per bird).
› **Perch availability** (available perch length or surface area per bird).
› **Space allowance** (available space per bird).
› **Mortality rate** (cumulative mortality rate, expressed as a percentage).
› **Killing method** (manual cervical dislocation, mechanical cervical dislocation using pliers, penetrating captive bolt device, etc.).
› **Other interventions** (beak trimming, toe trimming, etc.).
› **Environmental enrichment** (whether enrichment, such as music, is provided).
› **Stockperson practices** (measures taken before entering the poultry house, such as switching on the radio or knocking on the door).

› **Assessment of flocks with separate sexes**, two assessment options are available:

1. **Before the females are removed:** Observe bird behaviour in two male areas and one female area. Then carry out the transects throughout the entire poultry house.
2. **After the females are removed:** Specify in the questionnaire that only males will be assessed and enter data for males only. Remember to subtract the number of females from the initial flock size. Carry out the behavioural and health assessments as usual, without any changes to the protocols.

Resource-based indicators and animal-based indicators

In animal welfare assessment protocols, animal-based indicators are prioritised over resource-based indicators because they provide a more direct measure of the animals' welfare state.
Animal-based indicators can be assessed directly on the birds, for example by observing preening behaviour, or indirectly, for example by monitoring mortality rates.





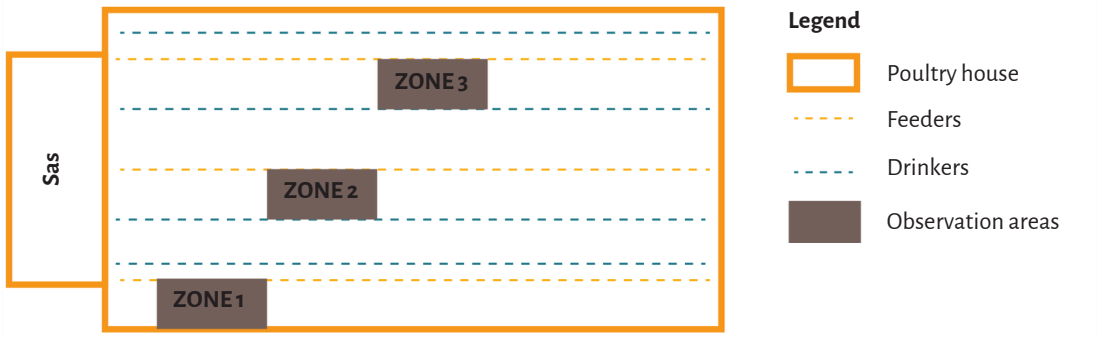
2. Assessment of Bird Behaviour

To assess poultry welfare, direct observation of the birds is essential. This is why behavioural measurements are so important.
By learning to observe behaviour according to a specific scientific protocol, the validity of the results is ensured.

How should sampling be carried out?

The observer remains stationary and observes, in turn, three predefined areas of approximately 4m² each, containing around 70 animals.
If enrichment materials designed to encourage exploration are available, observe no more than one area that contains them.

Adjust the number of birds according to the species concerned: for an area of the same size, a larger number of quail will be observed (100 to 150 quail), and a smaller number of turkeys.





A few precautions

Bird behaviour is affected by any event that deviates from their usual routine.
Wear clothing in colours similar to those normally worn by the stockperson and move through the poultry house in the same direction as they do.
Before starting the observations, feel free to adjust the size and location of your observation area so that you can comfortably observe all the birds without disturbing them.
Also ensure that lighting is sufficient during the assessment.
If a sudden event affects bird behaviour (thunder, an aircraft, etc.), stop the observations and resume them after a certain period of time, allowing the birds to return to normal activity.

Starting the assessment

To start the assessment, stand at the entrance to the poultry house, or in the entrance lobby if a window is present, and observe:

› **Bird distribution: this is either** (1.Homogeneous, meaning that there are no more than three small areas without birds; 2. Moderately homogeneous, with a few empty spaces, but these are small; 3.Heterogeneous, with one or more large areas without birds.

For each area, estimate the number of birds present.

Then, over a period of 5 minutes, record each occurrence of the following behaviours:



› **Dust bathing**
(The bird lies on the ground and moves the litter with its wings and claws to coat its feathers with dust.)



› **Environmental exploration**
(The bird pecks at the litter or another item, excluding feed, and/or scratches the litter with its claws.)



› **Preening**
(The bird cleans its own feathers with its beak.)



› **Leg/wing stretching or wing flapping**
(The bird calmly extends one or both wings while remaining in place, or stretches one leg and flaps its wings.)



› **Interaction with other birds**
(Mutual preening, non-aggressive pecking, sparring.)

› **Aggression towards other birds**
(Aggressive pecking directed at one or more other birds, particularly towards the head and neck.)

Once the 5 minutes have elapsed, count the number of birds present in the area again.

Then, for each area, record the percentage of birds that:

› **Are resting** (the bird is lying down and inactive: no movement, preening or exploration, but it may be panting).

› **Are panting** (breathing rapidly with the beak open).

Next, for each observation area, indicate whether enrichment items/perches are present and whether they were used by the birds during the 5-minute behavioural observation period.

Also record whether aggressive behaviours were observed specifically around feeders or drinkers.

At the end of the assessment of each area, assess:

› **The birds' response to human presence** (at approximately 1 m from the assessor, with or without physical contact with the assessor).

Bird handling *(optional)*

› **Handle 5 birds and record the number of chickens showing pododermatitis,** regardless of severity.

Warning: pododermatitis is considered present as soon as the scales on the plantar foot pads are elongated and brown in colour.

Be careful to distinguish aggressive pecking from interaction.
Sparring between birds does not necessarily indicate aggression.

30 min.

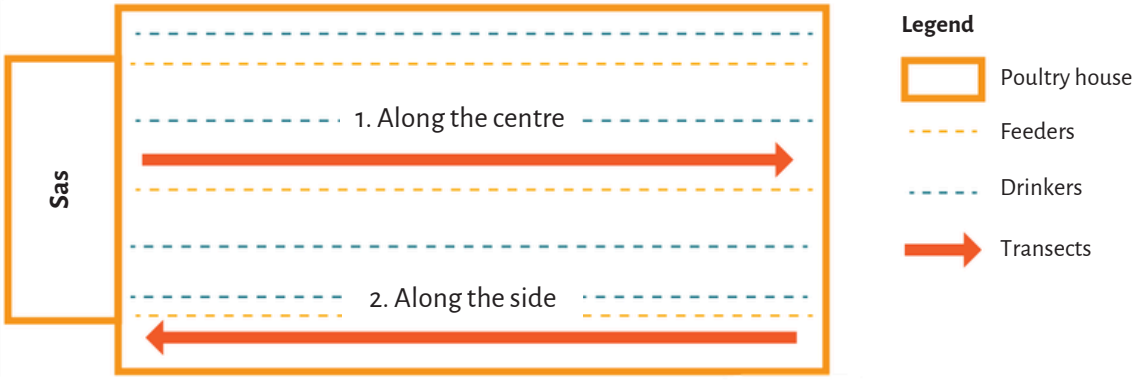


3. Mesures des informations sanitaires

Health information complements the behavioural observations of the birds in order to obtain the most comprehensive assessment of poultry welfare possible.

How should sampling be carried out?

The observer must walk back and forth through the poultry house, keeping within a maximum width of 2.5 metres (defined by the walls, nipple drinkers and feeders), as shown in the diagram below. The observer must walk calmly and at a steady pace.



On each transect

Record each occurrence of a bird displaying one of the following indicators:

› **Inactive**

(A bird that remains prostrate and does not move, even when the observer approaches to within less than 2 metres, after gentle stimulation or when other birds move away.)

⚠ Do not hesitate to gently stimulate a bird that appears inactive to confirm its status.

› **Other abnormality**

(A bird with feather loss, for example.)

› **Lame**

(A bird that moves away from the observer but stops to rest after two or three steps, showing one or two stiff, non-functional or misaligned limbs.)

› **Injured**

(A lesion at least 1 cm in size, healed or fresh, on the head, back or tail.)

› **Small**

(Approximately half the average size of the flock.)

⚠ Be careful not to overestimate the number of small birds: they must be half the size of the other birds on average.

› **Dead**

(A bird found dead inside the poultry house during the assessment.)

At the end of each transect, estimate:

› **The percentage of dirty birds:** the percentage of birds with very dark, clearly visible stains on the back, wings or tail feathers, covering at least 50% of the body surface.

› **Litter quality:** either dry and friable, friable but slightly damp, pasty, or completely caked.

At the end of the assessment, assess:

› **The occurrence of flock movement or panic during the assessment.**

› **The birds' level of nervousness** at the time of the assessment.

In a standard broiler house, if you have observed only around ten dirty birds, remember that you have observed them among approximately 2,000 other birds, meaning that they represent around 0.5% of the birds observed.

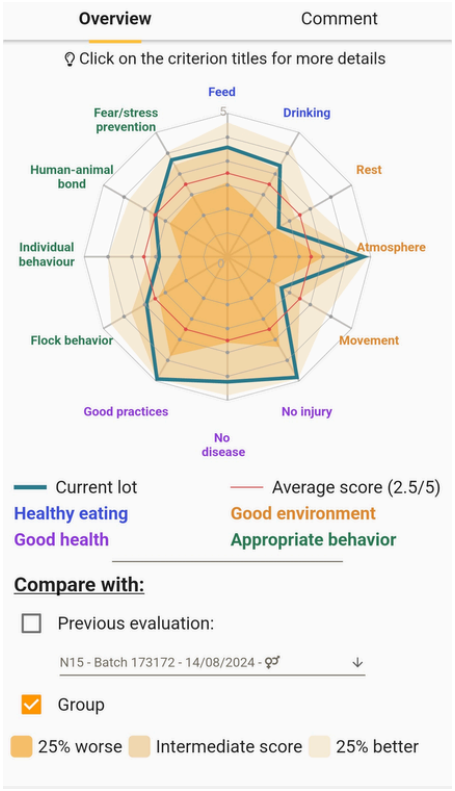
A few precautions

Ensure that you follow the recommended transect width.
Maintain a calm walking pace during the assessment, which allows better observation and helps keep the birds calm.

Assessment results



The results are available immediately after the assessment through the EBENE® application.
They are presented graphically and make it possible to identify strengths and areas for improvement.
The assessor can also consult the details of each indicator measured.



Presentation of animal welfare assessment results using the EBENE® method and the smartphone application.
Each colour represents the results for the group of farms for each farmer tertile (brown indicates the lowest results and the lighter colour the highest). The highest scores are represented at the outer edge of the chart, while the centre represents the lowest scores.

What next?

This tool supports the continuous improvement of animal welfare.
The results help identify strengths and areas for improvement.
Depending on the results, it is possible to:

› Discuss the results with the farm technician or veterinarian.
› Implement appropriate corrective measures.

A new assessment can then be carried out to measure the effectiveness of the actions implemented.

The smartphone application

The EBENE® application makes animal welfare assessment easier.
It allows users to:

› Collect data.
› Automatically analyse the data.
› Display the results.
› Access explanations to help understand the results.

Mini-tutorials and training courses are available to support users.

Do not litter – Photos: ITAVI, Françoise Foucher and AVIPOLE FORMATION.

Find out more about the approach

A tool for improving animal welfare in the poultry and rabbit production sectors.
EBENE® method: Animal Welfare Assessment.

For more information: https://www.itavi.asso.fr

Contact person: Laura Warin / Joanna Litt
Email: contact_EBENE@itavi.asso.fr

With thanks to our supporters:

FranceAgriMer – Établissement national des produits de l'agriculture et de la mer
CIDEF
CL!PP – Interprofession du Lapin
La Pintade
CIPC
Liberté • Égalité • Fraternité – République Française
Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt
cicar
CNPO
CIFOG – Comité interprofessionnel des palmipèdes à foie gras
SNA – Syndicat National des Accouveurs
Synalaf – Syndicat National des Labels Avicoles de France

