

# WELFARE ASSESSMENT OF BROILERS - TURKEYS - QUAILS

## › For whom?

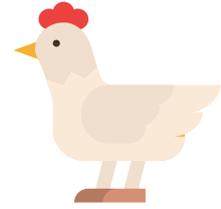
Farmer, technician, vet.

## › Which species?

Broilers, turkeys, quails.

## › Which type of breeding?

With or without free-range access



## › When?

The week before slaughtering. For sexed flocks, before or after the female's removal.

## Three-in-one protocol

The indicators (survey performed at farm) are collected in 3 stages: the questionnaire, the health protocol and the behavioural protocol. A preparation time is required to gather the different documents and follow the observation protocols.

When a range is available, one more step can be done following the range guidelines (cf « Free-range supplement »).

### Preparation



### Questionnaire



### Behavior protocol



### Health protocol



### Free-range course (optional)



### Evaluation of the results



*Implementation of the protocol for chickens, turkeys and quails in buildings.*

## Sampling

The sampling must be representative of the whole flock, without observing each animal. Therefore, the time required to do the evaluation becomes reasonable. Numerous scientific studies have verified the methods as well as the sampling sizes in order to obtain the optimal result, while reducing the required time of the evaluation. It represents a crucial step which must be done with rigor.

## Unintentional orientation of the results

Sampling bias is present when the results are modified in a non-random way. The human psychology is often responsible because consciously or unconsciously, we wish to orientate results. For example, it is important not to "search" for wounded animals or to the contrary those who come close to humans. Be vigilant! Weather conditions, light or time of the day can also impact the animal's behaviour: note all those elements as comments.



10 min.



# 1. Measures from a questionnaire

The questionnaire gathers indicators of means, related to the environment of the animal.

- › Availability of the feeders
- › Availability of the drinkers
- › Availability of the perches
- › Available space around the animals
- › Mortality percentage (accumulated)
- › Slaughter method at farm
- › Other interventions (beak trimming, pinioning of the wings, shortening of the claws, other)
- › Enrichment (presence or absence)
- › Farmer practices (to warn on his arrival: turn on the radio, knock on the door)
- › If sexing; two evaluation possibilities

1/ Before the females' removal: observe the behaviour in two zones with males, and one with females. Then perform the health protocol on the entire poultry building.

2/ After the females' removal: precise in the questionnaire that only the males will be evaluated, and input the data on males only (do not forget to subtract the females number from the initial total number). Carry out the behaviour and health assessments normally.

## Resource-based indicators, animal-based indicators

In the welfare assessment protocol, animal-based indicators are chosen over resource-based indicators since they measure the welfare status in a more direct way. They can be observed on the animal directly (grooming behaviour for example) or indirectly (by the mortality follow-up for example).





## 2. Animal behaviour assessment

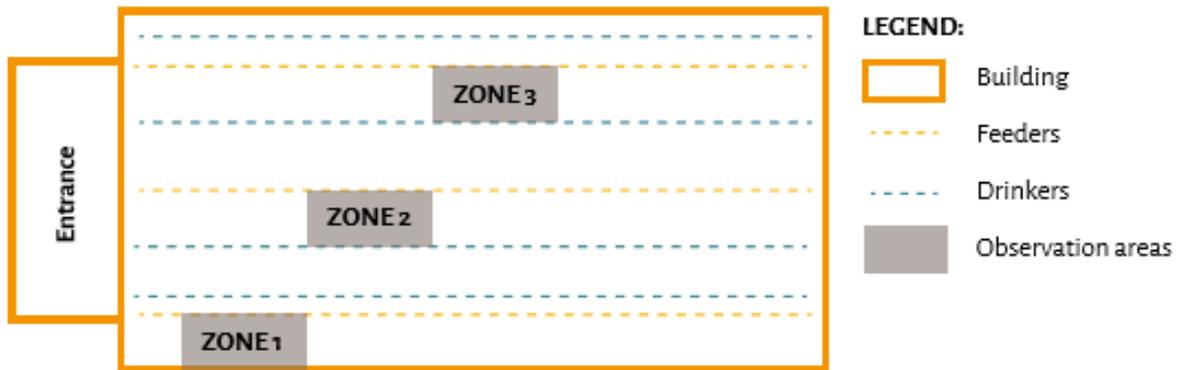
In order to evaluate the welfare of the birds, the direct observation of the animals is key; this is the reason why the behaviour measures are that important. By being trained in behavioural observation and following a specific scientist protocol, the validity of the results is ensured.

### How to sample?

The observer stays still and successively observes three predefined zones of around 4m<sup>2</sup> including approximately 70 birds. If some bird enrichments are available, observe at maximum one zone with it.



Adapt the number of birds: for zones of equal sizes, a much larger number of quails will be observed (100 to 150 quails), than turkeys.



### A few precautions

Wear similar colors to the ones used by the farmer and walk into the building the same way he usually does (for vet users only). Do not hesitate to adjust the size of the observation zone as well as its location, in order to comfortably observe the birds without disturbing them. Ensure that there is enough light to do the evaluation. In case of any sudden event impacting the behaviour or the birds (thunder, plane...), stop the assessment and start again a few minutes after in order to let them come back to a normal activity.

## Start the assessment

To start the assessment place yourself at the entrance of the building or in the entrance airlock if a window allows you to observe animals in the barn, and observe:

› **Bird distribution** (this can be 1. homogeneous, i.e. a maximum of 3 small zones without birds, 2.almost homogeneous, i.e. presence of some empty spaces but of small sizes, or 3. heterogeneous, i.e. one or several large zones without birds)

For each zone, count the number of birds present.

Then, note each occurrence of the following behaviours for 5 min:



› **Dust bathing** (lying on the ground, the animal shakes the litter with its wings and claws to coat its feathers with dust)

› **Foraging** (pecks the litter or another element – except the feed – and/or scrapes the litter with its claws)

› **Preening** (cleans its own feathers with its beak)

› **Wheel behaviour** (swells the wings and the tail)

› **Stretching of wings/ legs or wing flapping** (the bird deploys one or both wings calmly and on the spot- without locomotor activity- or extends one of its legs, flaps its wings)

› **Positive interaction toward other birds** (mutual grooming, non-aggressive pecking, duelling)

› **Aggressive behaviour toward other birds** (aggressive peaking directed to one or several birds, the head or the neck are often targeted). Note that duels are not indicative of aggressive behaviours



Be vigilant in distinguishing an aggressive pecking from an interaction. Indeed, duels between animals are not synonymous with aggressiveness.

When the 5min have elapsed, count again the number of birds present in the zone.

For each zone, note the percentage of birds' which are:

› **At rest** (birds lying without activity: not moving, grooming, exploring, but can pant)

› **Panting** (breath quickly, the beak is open)

Then, for each zone, indicate if enrichments/perches are present and in that case if they are used by the birds during the observation time. Also, note if aggressive behaviours have been observed particularly around feeders and drinkers.

At the end of the assessment of each zone, qualify:

› **Birds' reaction to human presence** (present around at more or less 1 meter from the assessor; with or without

Handling birds (optional)

› **Handle five birds** and note the number of birds with pododermatitis (regardless of severity)



Be vigilant, a pododermatitis is characterized by elongated and brown scales of the plantar pads



30 min.

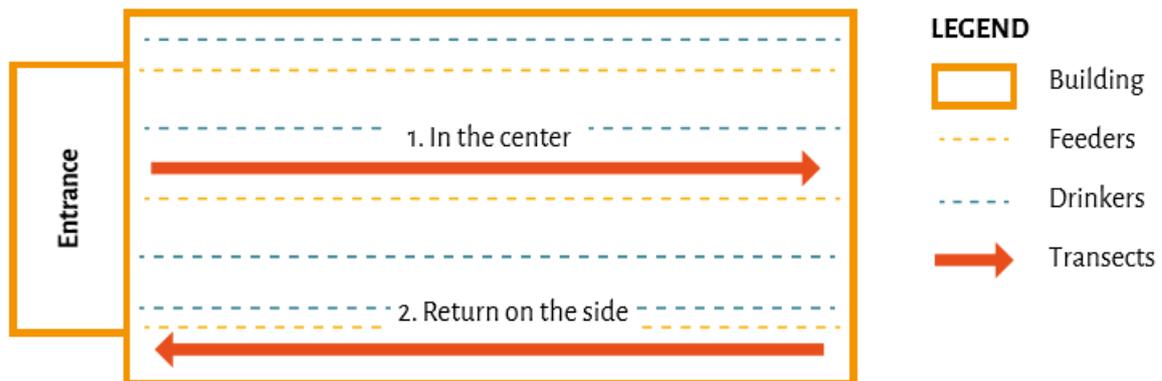


### 3. Assessment of health information

Health information, associated with behavioural measures, are necessary to ensure as complete an assessment as possible.

#### How to sample?

The observer must follow a route in the building by respecting a maximum width of 2 to 3 meters (between the walls, nipples, feeders) as per the following sketch. His walk must be calm and at constant rhythm.



#### On each transect

Note each time a bird is presenting one of the following indicators:

- › **Immobile:** Prostrated animal that does not move, even when the assessor « touches » it or approaches it (less than 2m) or when the other animals of the group walk way,
  - › **Small:** around half less than the average bird size,
  - › **Lame:** goes away from the observer but needs to stop after 2 to 3 steps, with tight legs, not functional or unbalanced,
  - › **Wound:** lesion of at least 1cm, healed or still fresh, on the head, the back or the rear,
  - › **Dead:** bird found dead inside the building during the assessment,
  - › **Other abnormality** (featherless...)
- ⚠ Do not hesitate to gently stimulate a bird which seems immobile
- ⚠ Be careful, do not overestimate the number of small birds

At the end of each sweep, estimate:

- › **The dirty birds percentage** (percentage of birds with dark marks easily visible on the back, the wings, or the rear feathers, covering at least 50% of the body surface).
- › **The litter quality** (either dry and crumbly, or crumbly but damp, or crumbly but crusted in areas, or totally crusted and wet).

At the end of the assessment, qualify:

- › **The presence of crowd movement/panic** of the birds during the assessment.
- › **The nervousness of the birds** during the assessment.



In a building with standard broilers, if you observe only around ten dirty birds, remember that you have seen them among around 2 000 other birds so that they are only representing around 0.5 per cent.

#### Few precautions:

A few precautions: Ensure that the advised width of the pass is respected. Ensure you keep a calm pace during the assessment (it gives a better result and ensures the birds to stay calm).

## Overall assessment

Thanks to the application, the assessment results are immediately visible.

The marks of each criterion are put onto a spider map which allows comparison of the results with other farms of the same poultry production.

The farmer can also receive the details of each indicator.

Some advice is provided in order to improve next results.

## What now ?

This tool has been built to improve animal welfare. The results representation allows you to visualize your strengths and weaknesses. To improve the criteria causing you problems, you can:

- exchange information with your technician or vet on the proposed action plan of the app. in order to improve the future results of your assessment
- to put in place actions or complementary measures You will then notice the effect of any changes by repeating the assessment.

## The application is available for smartphones

The application is an easy user-friendly tool. It allows facilitation of the welfare assessment: **collection and analysis of the data** through formula and integrated calculation as well as results on a **spider graph**. Depending upon the assessment results, some guidance is provided. A short tutorial explaining the employment of the application is available to the users. Training is done by ITAVI to ensure a good understanding of the method and a good utilisation of the application.

## For further details on the approach

Welfare improvement tool in the poultry industry (EBENE method; welfare assessment)

More information on [www.itavi.asso.fr](http://www.itavi.asso.fr)

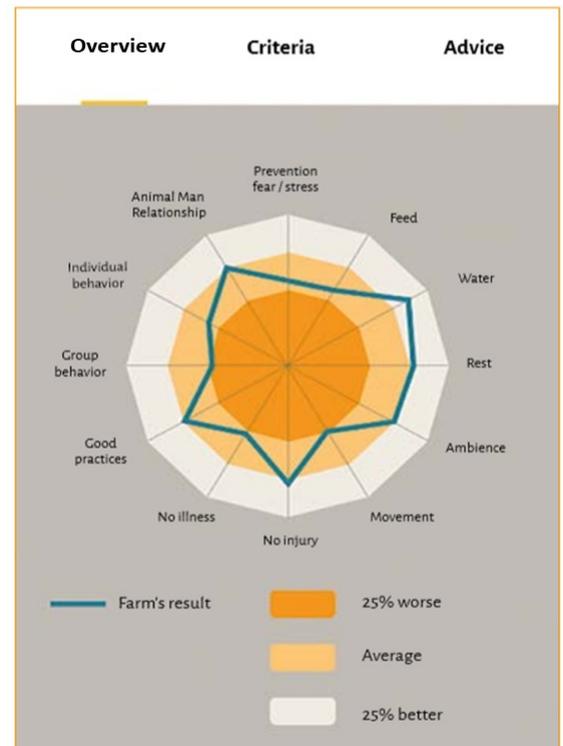
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Spider map of the assessment results through the EBENE method, on smartphone. Each color represents the result of the poultry production of the farmers (in brown shading, the weakest 25%, in light shading, the best). The best 25% of marks are represented in the edge of the spider, the center represents the lowest marks.

*Would you like to assess your **depopulation practices** as well? Go to the page <http://bea.itavi.asso.fr/RamassageEBENE.php> and fill a short questionnaire.*

