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## Part II

# Farmers' Experiences of the Farm Assessment: Interviews with Farmers

by

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## METHODOLOGY

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The participating farms in the Netherlands delivered to Flandrex, poultry processing plant in Ommel, in Italy to Amadori Group, poultry processing plant in San Vittore di Cesena, and in the UK to the Hook2Sisters production company in Devon, which is part of the 2 Sisters Food Group. The video imaging tool was installed at the slaughterhouses. The processing plant provided the farmers' addresses. They were contacted by the animal scientists who invited them to participate in the parallel studies.

In the Netherlands and Italy, regular indoor broiler production farms participated in the study. The UK research focused on farms producing free-range chickens. This allowed us to study the fitness of the monitoring tool for two different production types. Initially, we also wanted to check for the impact of information provided and therefore distinguished between three groups of producers:

1. producers who received information about the welfare assessment but without on-farm assessment, i.e. the control group;
2. producers who received on-farm assessment plus feedback on individual and benchmark results;
3. producers who received on-farm assessment plus feedback on individual and benchmark results and received individual advice.

The Dutch and Italian study kept to this plan. But due to unforeseen developments in the UK the plan had to be slightly adapted for what regards the UK study and the comparative analysis. The UK data-collection was delayed considerably because the slaughterhouse with which the initial agreement was carried out had to be closed and changed ownership, and as a result new arrangements had to be made. As time was running short, we had to decide to cut down the sample size in the UK. To minimize the loss of data, we decided to skip the control-group interviews and to focus on farms that participated in the sociological interviews as well as the technical assessment. We were therefore unable to include the comparison across control groups in this international analysis. The national analysis of Italian and Dutch data, however, reveals that there is little difference between the control and assessed groups with regard to their attitude towards animal welfare and the monitoring of it (see national reports).

In all three countries, the repeated assessments took much more time than foreseen. As a result, farmers had to wait longer for their results. In the Netherlands, the sociological interviews took place four to eight weeks after the assessment was done. In the UK, the project team decided to cut the interviews into two parts; the major part took place shortly

after the assessment and on the farm; the part regarding the appreciation of the results took place later and by telephone. In Italy, the sociological interviews took place three to eight weeks after pre-assessment was completed.

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## 6.1 FARMS

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In the Netherlands, most of the broiler farms were located in the eastern part of the province of Noord-Brabant. Farms differed in size from 30 000 up to 400 000 broilers, and in level of specialization – from highly specialized to mixed farms. In Italy, all farms are located in the province of Forlì-Cesena, in the eastern part of the region Emilia-Romagna, northern Italy. Farm size ranged from 30 000 to 550 000 places and the production system is traditional intensive. In the UK, the farms were located in south-west England, in the counties of Cornwall, Devon, and Somerset. The farms were free range, with flock sizes ranging from 11 500 to 46 000 birds (see Appendix 4).

The Dutch broiler producers were independent and private producers, although production was embedded in a web of contracts with chick sellers, feeding companies and the slaughterhouse. The Italian farmers are all highly specialized even if in some cases farmers have a second job outside the farms. The biggest farms belong to the Amadori Group, one of the main Italian companies in the production and poultry processing sector: in these cases interviewees were the farm keepers hired by the company. The others are agricultural entrepreneurs whose farms are vertically integrated to the same company through a contractual agreement. The processing company supplies feedstuffs, chickens and technical and veterinary assistance, while farmers provide bird house, equipment and labour force.

In the UK, production is aligned with the demands of a number of national supermarkets and with the Freedom Food assurance scheme, which is linked to the RSPCA. The production company provides the farmers with chicks, food, and technical support.

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## 6.2 SEMI-STRUCTURED QUESTIONNAIRE

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The interviews took place on the farm, and were held using a semi-structured questionnaire (see Appendix 5). The questions in the semi-structured questionnaire were ordered thematically:

- Part I general data on the farmer and his or her farm;
- Part II human–animal relations from producers’ perspective;
- Part III general information received beforehand;
- Part IV experiences with the implementation of the Assessment Scheme;
- Part V impressions of/opinions about the assessor;
- Part VI opinions on the results of the assessment and the advice;
- Part VII acceptance of and improvements for the Assessment Scheme;
- Part VIII reflections on future implementation of the Assessment Scheme;
- Part IX who farmers trust if it concerns animal welfare;
- Part X open space for expressing worries and hopes about the assessment.

# FARMERS' DEFINITIONS OF ANIMAL WELFARE

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We started the interviews by asking farmers about their definition of animal welfare.<sup>1</sup> As we will demonstrate in the following, most farmers considered health and productivity as the most important aspects of welfare as it allowed them to fulfil their major ambition – optimizing their technical results.

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## 7.1 PRODUCTIVITY

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When defining animal welfare, most farmers referred to those conditions and practices that in their view assured the animals' health, wellness and growth. This was important because the expectations towards 'good growth' were continuously rising. While chickens were expected to grow 50 grams per day some year ago, a farmer today needed to realize a growth of 60 grams per day in order to earn a living. Good growth was fast growth, and fast growth could only be realized with good health and good welfare. And, hence, good growth implied good welfare and good health.

'I've never seen good results when chicken are kept in bad conditions' (Italian farmer).

'We have a type of animal that is bred in order to grow fast. If growth is optimal, I assume that I created good conditions' (Dutch farmer).

'Stockmanship and husbandry are important, if they are good you won't be far away with your welfare; it's the whole job; if animals are growing well, your welfare and production will be good as well' (UK farmer).

For many farmers animal welfare was something very similar to or at least close to health. It meant assuring that the animals were in a good state. This entailed the following:

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<sup>1</sup> See Questionnaire Parts II and XI (Appendix 5).

ensuring good health conditions by keeping them at the right temperature, at the right humidity, on a dry litter, assuring access to feed and water; or, in short, making sure that the technical aspects of broiler production are optimal. The achievement of good economic results was the major driving force for animal welfare; assuring good welfare reduced the occurrences of sanitary problems and mortality, and increased the growth rate. Many farmers argued that if farmers looked well after their animals, the animals would return the favour and perform well for them economically.

‘If the chickens are healthy, they automatically have good welfare. If you talk about healthy chickens, you speak about low mortality rates, animals standing well on their legs, and having healthy intestines. One should get as many kilograms of meat out of as few kilograms of feed as possible’ (Dutch farmer).

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## 7.2 CONSUMER DEMAND

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Quick growth demands a lot of the chickens. The farmers agreed that quality of life would be better if chickens had one more week to grow and more space in the house. But as long as consumers did not buy this better life, farmers felt neither capable nor responsible to change the conditions of production.

‘It can all be arranged, but it is very costly. With fewer animals per square meter, all costs per chicken increase – for electricity and gas. The finances of the farm are calculated on the basis of 20–25 chickens per square meter. Changing that never pays back. It would not improve anything, because I would need to find the money for paying these costs in another way’ (Dutch farmer).

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## 7.3 SUPPLY OF GOOD MATERIAL, HOUSING AND MANAGEMENT

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Farmers considered technical improvements important to make sure that animals fared well and produced well. It was a delicate balance that required careful management in order to optimize both welfare and production.

‘It is about those conditions that allow chickens to live well: first of all good litter, than the right ventilation and good quality of feed’ (Italian farmer).

Many farmers mentioned that they could not fully control the chickens' welfare as they depended on the material supplied and veterinary schemes associated to certain flocks.

'It is also genetically determined. If a flock is not so good, welfare is less... Good schemes for vaccinations help to kill viruses in time. This increases the welfare of the flock. It will be never 100%, but mortality has to remain limited' (Dutch farmer).

When they could not control the starting conditions, they did not consider themselves fully responsible for the welfare of their animals either. In their view the animals' welfare was to a large degree determined by the suppliers of material – be it the chicks themselves, the feed or the litter. All these factors were interrelated. The quality of the feed influenced the intestines of the chickens, which affected the manure and the quality of the litter, which influenced the conditions in the animal house and, hence, the preconditions for welfare.

'Every round is different. It depends very much on the quality of the chickens. If the chicks that are delivered are of bad quality, you go from one disaster to the next' (Dutch farmer).

But it was also important to have modern and efficient equipment in order to control and optimize production conditions. The temperature, humidity and ventilation/air changes within the house should be controlled in accordance with external climate conditions by means of cooling/heating and ventilation system. Controlling these parameters made it possible to keep litter dry, reduce ammonia concentration and improve the quality of the air.

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#### 7.4 BALANCING COSTS AND BENEFITS

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Farmers perceived animal welfare as a function of productivity and economic performance, applied to intensive farms.

'Chickens must find the best conditions of life within the limits of an intensive breeding system' (Italian farmer).

They continuously balanced maximizing production with controlling costs. To give just one example: optimal animal welfare required a good climate. But a good climate also cost a lot of money and the margins were small.

'The optimization of one parameter influences the optimum of others. We are searching for the best welfare possible. The less problems, the better it is. For us the financial profit matters. The costs go before the benefits. Good technical results



bring welfare for the chickens and financial advantage. Therefore, management has to be optimized' (Dutch farmer).

The farmers controlled the temperature and humidity in the house, managed and adapted the heating/cooling and ventilation system, kept drinkers and feeders functioning properly, controlled litter conditions, and added litter when necessary. This was what they needed to do in their view to check for any kind of signals of disease outbreak and welfare loss.

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## 7.5 WELFARE, LOCAL KNOWLEDGE AND FARMING PRACTICE

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Broiler producers took their management decisions on the basis of computer measurements, but also from their own observations. They agreed that farmers could only assess and maintain welfare by 'walking' through their sheds regularly and by getting to know their flocks intimately. One needed to get close to the animals – checking the computer was never sufficient. Even in high-tech, fully automated sheds, where ventilation, heating, humidity, light, feed and drink were all controlled (which was the vast majority of sheds), farmers still claimed that there was no substitute for walking through the sheds.

Time and again, farmers explained to know 'by instinct' when things were going well – or when something was wrong:

'You just know, you just see them. They'll tell you, if there's something not right as soon as you go in the shed... They'll either be quiet or else be noisy, one or the other, and you just get a feel for it' (UK farmer).

Before entering the animal house, they controlled the ventilation but also the water and feed intake. Once in the animal house, they checked the litter quality but also observed the behaviour of animals. The chickens should feel safe and should express natural behaviour.

'You can see whether the animals do well; this is a matter of experience. You see whether they are lively, energetic, and whether the plumage is nice. If you enter the animal house and they jump everywhere, you know that they feel well. Computers cannot tell you; you have to see it with your own eyes. But you can create good conditions. What I just mentioned [water, feed, light, and ventilation] matters, as well as the temperature' (Dutch farmer).

Farmers also watched how the animals are spread throughout the house, whether they grouped together, or gathered all at the sides of the animal house.

'Internal conditions must be as comfortable for chickens as for men' (Italian farmer).

## 7.6 COMPLEXITY OF ANIMAL WELFARE

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Farmers pointed out that animal welfare as such was a complex issue and a delicate balance of many factors. Improving one aspect could easily result in the deterioration of another.

‘We can avoid foot pad dermatitis by limiting the water supply during the first week. But then chickens feel thirsty. It improves the parameter foot pad but has a negative effect on welfare as well. Welfare is complicated’ (Dutch farmer).

In addition, nature still had a large impact even if broiler production was highly industrial. The weather, for instance, affected humidity and, hence, the quality of the litter.

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## 7.7 CONCLUSIONS

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The vast majority of farmers considered animal welfare primarily in terms of health and productivity. Natural behaviour and well-being were important as precondition for health and growth. Farmers took pride in achieving good technical results, which was defined in terms of production optimization and cost reduction.

Farmers described broiler production as a complex production system in which the broiler farm was only one location and the farmer only one actor of many. But also the production on this one farm was complex. The equipment was often technologically advanced but observation, expertise and experience were still considered important by farmers. As the margins were small and the birds delicate, it was important for farmers to closely watch the animals, their health and their well-being. If anything was wrong, they had to be able to act in time. Farmers did not see the need for additional external control; if there were problems that they overlooked, the slaughterhouse would tell them and they would take it into account in the next round. In their opinion, this was sufficient for assuring animal welfare.

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# FARMERS' COMMENTS ON ASSESSMENT PARAMETERS

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Most farmers had difficulty discussing animal welfare as such and in theory.<sup>2</sup> It became more interesting to the farmers themselves once we discussed the parameters that were included in the monitoring tool. We asked the farmers which parameters they considered relevant.

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### 8.1 PANTING/HUDDLING OF BIRDS

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Almost all farmers in all three countries considered panting as an important indicator, as it revealed heat stress due to insufficient ventilation and too high temperature and humidity inside the house or, in the worse cases, respiratory disorders. Besides suffering, panting chickens used too much water, did not eat regularly, and moistened the litter. Measuring panting and huddling informed them about the climate conditions in the animal house, which were finally regulated by computer.

Most farmers saw huddling of birds as a signal of thermal stress or sanitary problems that could be due to low temperature inside the barn, symptoms of a disease, and/or bad conditions of the litter. When chickens huddled, the growth of the flock decreased because weaker chickens encountered difficulties in feeding regularly.

Some farmers underlined that it was important to check why animals huddled or panted as it did not always indicate a real problem. Huddling, for instance, was not considered as particularly worrying if displayed by adult chickens. Out of context, this parameters was not necessarily indicating bad welfare. For instance, when external temperature and humidity were high it was considered normal for chickens to pant. It could also be a temporary phenomenon, limited to the hotter hours of the summer days. Respiratory disorder might also be due to a congenital problem, already present at birth. It did not necessarily reveal bad conditions in the house.

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<sup>2</sup> See Questionnaire Part III.

## 8.2 BEHAVIOURAL CHARACTERISTICS

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Many Italian and Dutch farmers considered behavioural characteristics mainly as indicators of animal health: most of the farmers paid particular attention to chickens displaying laziness, listlessness, difficulties in moving and lack of reactions to external stimuli.

‘The eyes must be open and watchful’ (Italian farmer).

If they flutters and challenge each other, it means that they are able to express their normal behaviour’ (Italian farmer).

But behaviour also depended on genetics, the age of the chickens and feed intake, as well as the management of the farmer, his/her behaviour in the shed and the light intensity in the house.

‘Some genetic groups are more lively and reactive than others, showing completely different behaviour’ (Italian farmer).

‘Many factors influence behaviour. If it is warm, there will be less activity in the stable. Humidity influences the activity as well, but also the age of the chickens... With 42 days they are heavy and activity is very low. If they are just one week old, they run everywhere. If I want the chickens to be active I simply increase the intensity of the light’ (Dutch farmer).

‘I would not read too much into the welfare side of things, it could be the way farmers walk through the shed that scares them (the same doing the test). Some do it quickly, some slowly’ (UK farmer).

Some farmers considered only very extreme forms of behaviour as relevant indicators for welfare, although it was difficult to define that as well. When walking through their sheds, it could occur that something spooked one chicken for no apparent reason and set the whole flock off running around in a frenzy. One farmer suggested that the first time you saw this type of behaviour you might be worried, but that you just accepted it after a while. Various examples were given as to why birds reacted strangely for no apparent reason, the primary causes being an unusual routine. Some farmers argued that high levels of activity were actually a good sign of health in free range birds, and nothing to be concerned about:

‘The more active they are, the healthier they are, especially on ours anyway. The more active they are the better they’ll range, and this is what we’re after’ (UK farmer).

Some farmers were concerned about measuring emotions like boredom, and also of the way in which the emotions were measured:

‘Some of the things they were looking for sounded absolutely bizarre! How can you tell if a chick looks bored, interested, or whatever? And then they have to give a score for a flock as a whole, so even if there are differences in the flock... everything ends up being a middle score’ (UK farmer).

Most UK (free-range) farmers thought that it was a good thing to enhance the environment and provide the birds with entertainment. Some considered it slightly irrelevant on free-range systems where birds could go outside and seek their own entertainment.

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### 8.3 DIFFERENT TESTS OF FEAR

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All farmers considered it irrelevant and some even misleading to measure chickens' reactions to an unfamiliar person. In their view, it was normal and a sign of health if chickens sought to escape from the presence of unknown person. Only weaker and unhealthy chickens could be easily approachable in their opinion.

‘Chickens must run away when you approach them’ (Italian farmer).

In addition, it also depended on the particular of breed of chickens how they reacted to the presence of unfamiliar persons. Some farmers pointed even at the importance of the temperament of single animals, as it is for humans. According to some farmers it was difficult to measure fear in an objective way. Moreover, fear had little relevancy in the context of broiler production, i.e. the (cost) efficient production of meat.

‘Not really relevant, because in general they only see so many people and can get uneasy about different things/people. It's a closed system and they even get wary of me if I've been away for a few days’ (UK farmer).

Some farmers thought that the reaction to a novel object could be a relevant sign of welfare. In their view, chickens were curious by nature: being attracted by an unfamiliar object meant that they were able to display a natural behaviour.

‘I observe how the animals behave. If I am repairing something, they climb on top of my tool box and I try to touch them. I do not do this often, but if you would stand in the animal house for 10 minutes, you would see many things’ (Dutch farmer).

Other farmers, however, underlined that chickens were wary and slowly in acquainting themselves with an unknown object. Curiosity also depended on age in their view.

Generally speaking, fear in chickens was not seen as a good and objective indicator for welfare as many factors influenced the results of the tests, such as the age of the animals, the time elapsed since the last vaccination treatment, the feeding system, the chickens' breed but also the regular practice of individual farmers<sup>8</sup>

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#### 8.4 ABILITY TO WALK

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Many farmers considered the ability to walk as a relevant parameter. A moving animal was a healthy animal. It had sufficient space and as a result sufficient feed, farmers explained. Lacking ability to walk affected both animal welfare and farm productivity. They grew more slowly and chances of breast burns were higher. Serious difficulties in walking could indicate too high a stocking rate, sanitary problems (like arthritis, inflammations, enteric diseases), feed quality deficiencies, bad litter conditions, and too fast a growth of body mass compared to the bone structure.

'It gives you all sorts of information, to be perfectly honest with you. It gives you bone structure, muscle structure information. Feeding information, the amount of exercise they've had in the past, all sorts of information' (UK farmer).

Most of the farmers argued that an animal with disability to walk would suffer even more when gaining weight. Others argued that chickens had to walk very little in order to reach water and feed. They considered the parameter as irrelevant for animal welfare, or at least not an appropriate parameter for intensive farming systems.

'We are talking about animals that live indoors for no more than 50 days and that develop in few time a great body mass. Should we expect a man of 120 kg to walk well?' (Italian farmer).

'The ability to walk is not a parameter that affects the quality of their life, because they are not born to walk for long distance and they are not stimulated to do that as they would be in extensive farms' (Italian farmer).

Others pointed out that it also depends on the situation and the timing of the measurement whether or not not walking is a bad sign. Thus, it also depended on how and when the ability to walk was measured. A 'lazy' chicken, for instance, was not necessarily a sign of bad welfare at the end of the finishing period.

'It relates very much to animal welfare. But as it can be influenced, for example, by feeding, it is difficult to measure objectively: feeding continuously results in lazy chickens whereas a feeding schedule results in chickens walking more rapidly. Also if you increase the intensity of the light the chickens will run more rapidly. If the

chickens have an inflammation of the joints, or bad hips, this has a negative impact on welfare' (Dutch farmer).

Some UK farmers argued that leg problems were not really a major problem on free-range systems and breeds:

'It would for standard birds, but for free range it wouldn't make no difference because the breed of bird we've got, we've got the Hubbard we do not get leg problems. And it's a strong bird. When we had the Ross and Cob before the Hubbard came in, I would say yes it would be a good thing. But for the slow-growing Hubbard bird, legs are not a problem' (UK farmer).

Again, we also see that many farmers evaluated the appropriateness of the measurement of a certain symptom not against the significance of the symptom as such but in the light of their ability to control the occurrence of certain symptom and, hence, their moral responsibility. If something was out of their control and they were not to be considered responsible for it, the symptom and its measurement was not appropriate for monitoring animal welfare.

'It does not necessarily reflect the real situation at the moment of the assessment. It may be due to something happened in the past, out of the possibilities of farmers' control or that he could not prevent' (Italian farmer).

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## 8.5 FOOT PAD DERMATITIS, HOCK BURN, BREAST BURN AND PATHOLOGY

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The vast majority of farmers considered it relevant for welfare to check the presence of foot pad dermatitis, hock burn and breast burn. For some farmers, the occurrence of such problems was undoubtedly a good indication of welfare; others were less sure of their exact relevance taken individually.

'There does not seem to be any rhyme or reason to why you get high hock burns or foot pad marks. You can have terrible litter and get good results. Most people would look at a wet litter and think 'oh that's [crop] going to be terrible', but it's not always the case' (UK farmer).

While farmers recognized that it was commonly accepted to attribute such problems to poor litter, there was a feeling that these problems could just as easily be the result of the reactions of particular breeds or of poor quality feed. As another farmer suggested:

‘It’s an indication of something, people blame the litter but it’s often more to do with breed and feed. If you change the feed you might change the acidity’ (UK farmer).

‘It is certainly informative. If you are able to keep the shed dry, you won’t have this problem so easily. They will become lame less quickly, and have less hock burns. The foot pad is a more complicated issue. This also can originate in the first week without you recognizing it. You would not see it happening. Nevertheless, with the information you can take action’ (Dutch farmer).

‘Hock burn is a clearer indicator: they reveal the actual condition of the environment because that part of the leg is more resistant to high acidity levels of the litter’ (Italian farmer).

Also climate was stressed as an important factor and it was clear that the forces of nature had a real impact on farming practice on a daily basis. While hot air could help to keep litter dry in the summer, it was pointed out that cold air often kept litter damp in the winter. As a farmer noted:

‘This is something you have to keep your eye on because the causes are not that clear... Free-range birds run around in all types of weather, in mud or sun, some flocks have hock burns in some conditions, some don’t, so its not clear’ (UK farmer).

Some farmers raised the question whether or not animals suffered from it, whereas others were convinced that it caused suffering and bad welfare. Farmers also pointed at the problem that improving this parameter would negatively affect other parameters. Some considered this parameter as a good instrument to control animal welfare; others found its use exaggerated. They explained that hard skin was often confused with wounds. Anyhow, the damages had a direct economic impact on farms’ revenue since they might involve penalisations on the sale price.

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## 8.6 LITTER SCORE

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The relevance of litter state for measuring animal welfare was recognized by all interviewed farmers because it affected many other parameters, such as the ability to walk and to move, the development of foot pad dermatitis, hock burn and breast burn, the comfort of the resting area, healthiness of the environment and quality of the air in terms of ammonia concentration and humidity, and the development of pathologies. Farmers liked to have dry houses as it was also more comfortable for them to work in a dry house:



'They can forage and behave like chickens. If the litter is sticky, they cannot do that. The chicken will not be able to search, as it likes. All farmers like to have dry animal houses, also because it is more comfortable to work in. If I step with my slippery boots over a feeding pipe with a bucket of death chickens I don't like to fall. It also smells less' (Dutch farmer).

So litter quality was important but in the eyes of many farmers they did not need others to tell them. Moreover, measurement results always came too late to change anything for this flock. Some farmers proposed to measure this parameter during all the breeding period long, others thought measuring at the last day would indicate if the chickens had good conditions or not.

Many farmers pointed out that litter quality was important but a very complex issue. The assessment was useful when assessors could also establish the cause and distinguish between occasional/incidental factors or structural reasons.

'Litter condition may change within a few hours. You can find a very bad litter now, but this does not mean it was bad even before' (Italian farmer).

'It should not be too dry, but dry enough to have no burning spots. A lot can be read from the manure as well on how your chickens behave. If all is dry but the other day wet, something has been wrong with the feed–water balance. To have all this balanced is also important for the wallet' (Dutch farmer).

UK farmers pointed out that litter in free-range sheds was much more dependent on climate than in conventional sheds, primarily because these sheds had pop holes open and air coming through at all times of the year. For some, bad litter was thus not necessarily seen to be 'an indication of bad management'. The relevance of the measure was also seen to be dependent on whether the litter was tested is for dryness, acidity or alkalinity, and on the quality of feed and bedding materials being used. Again it was not clear that the measure was useful taken on its own and there was a feeling that it would be more useful when used alongside other measures. As one farmer stressed:

'All these things are linked, so litter's going to be critical in how much foot pad stuff, all these things, how it fits in with everything else' (UK farmer).

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## 8.7 ASPECTS OF THE HOUSE

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Farmers said that they checked the house daily as it directly related to the optimization of the farm production: the intensity of the light, the heating, and the provision of drinking water. Also in the UK free-range systems the underlying current was that you needed to

have all the aspects of housing correct if your birds were going to perform effectively, and that this was a useful measure. In case aspects of the house were changed, this affected the behaviour and the growth of chickens.

‘You don’t want to compromise them being able to eat and drink when they want to eat and drink, because if you compromise their eating and drinking it’s not in our interests... because they’re not going to grow to their optimum ability’ (UK farmer).

‘I have six drinking lines per house. In order to encourage the chickens to walk, I give only four lines, in the first period. I have to keep the chickens healthy. I also change the ones I take up. This is part of growing chickens. I need strong legs; the cocks can weight 3.5 kg’ (Dutch farmer).

All farmers used the housing data for optimizing the production but they differed in what they measured. Not all of them checked the concentration of dust and ammonia. Some measured CO<sub>2</sub> and the temperature of the floor. These data allowed them to check what happened, for example, six rounds ago. Most data were used to manage the actual situation in the houses, to make sure that animals were healthy and growing while keeping a close eye on the expenses.

Discussing the aspects of the house implied also discussing the delicate balance between costs and benefits. To control the humidity was most difficult, as humidity could only be controlled by heating the house, which was very costly. Sometimes higher values of ammonia, for example, needed to be accepted in case improvement cost too much.

‘You can adjust, it can be improved. During the winter you have more ammonia. This is a result of keeping the ventilation flaps closed in order to limit the need of heating. If we were paid better we could open them more often’ (Dutch farmer).

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## 8.8 MORTALITY

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Farmers tried to avoid mortality. According to some farmers, a low mortality rate indicated good management and good health; others doubted the relevance of mortality as objective indicator of animal welfare.

‘In the first two weeks, the mortality can be either really good or bad and there doesn’t seem to be a lot you can do about it. After that if your mortality creeps up, then that’s an indication and you need to do something before it gets too high’ (UK farmer).

Some factors increased mortality without indicating bad welfare or lack of care. Such factors were, among others, bad quality of the chicks and outbreak of diseases that were not linked to housing conditions. Following the farmers, high mortality as such did not prove lack of animal welfare, and without specifying the cause it would not provide relevant information. In the farmers' view, it depended on when mortality occurred (in the first or last weeks), and whether it was incidentally or structurally high.

'If the chicks are weak or have some problems from birth, it is impossible to avoid high mortality' (Italian farmer).

'Pathologies may occur even in presence of good farmer's management and good general conditions of the environment where animals live' (Italian farmer).

A high mortality rate in the first week caused by the delivery of bad material by the breeding company forced the farmer to take the weak animals out in order to protect the rest of the flock. This was good management but resulted in high mortality rates. At the end of the round, animals often died from overheating, diseases or because they grew too fast. This was a sign of bad animal welfare and unwise treatment by the farmer.

'This is a point for discussion. It depends on the material provided. It also differs from season to season. It is telling something though. If you have a high mortality rate, you have very bad chickens. The health is not good. But the way in which they die is more important than how many die. It is all about how they lay down. When you have many animals that grew to death, and lay down backwards, you can adapt something in your management. In that case you, the farmer, are responsible. If they are sick there is not much you can do' (Dutch farmer).

All farmers kept mortality data in their administration and were able supply these data. Information on mortality was considered as self-evidently relevant to Dutch, Italian and British farmers as dead animals brought no money.

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## 8.9 CONCLUSIONS

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Across countries, farmers appointed similar parameters as the most relevant parameters for animal welfare. Among them were foot pad dermatitis, hock burn, breast burn and pathology, litter score, and housing. In all three countries, fearfulness was seen as the least relevant parameter. There was more difference of opinion on the relevance and usefulness of individual measurements.

Many farmers worried about the reliability and validity of the results: the representativeness of the sample, the subjectivity of the assessment and evaluation, the

frequency of assessments, and the integration of factors such as climate and management and timing of the assessment.

They also underlined time and again the interrelation between many of the parameters and measurements. For improvement, it was necessary to take this interrelation into account. Improvement of just one of the parameters could easily result in the deterioration of another, and consequently harm welfare. In order to grasp the complexity of the production, farmers thought that the different parameters should be measured at the same time and judged in combination.

Broiler farmers monitored the production process continuously, by way of direct observation of animals and by way of various technical equipments. Hence, monitoring animal welfare was not strange to them. Farmers evaluated the monitoring tool by assessing the practical relevance of measurements and their potential role in production management. For them, it made sense to assess those principles and criteria that affected production and that could be manipulated by a farmer. Most of the farmers did not see the use of measuring something that was out of their control or that had no impact on health or growth and, hence, production.

Often farmers had difficulty to recognize the usefulness of measurements done by outsiders. Outsiders were unable to see the 'full picture' of the farm and how welfare was built up by many different interrelated factors. All had to be seen in the context of the specific farm, at that specific moment, and given this specific flock. They also underlined that the assessors' findings did not supply new information as farmers walked daily through the flock and therefore knew for sure if animals were able to walk or not.

## FARMERS' EXPERIENCES OF THE ON-FARM ASSESSMENT

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One goal of the study was to learn from farmers how they experienced the assessment and to check if the practical implementation of the monitoring tool on the farm could be improved. We asked farmers how they perceived the timing of the assessment, the behaviour of the assessor, the disturbance caused by the assessment and the usefulness of the results. Besides, we wanted to know how they thought about the implementation of the monitoring tool.

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### 9.1 ASPECTS, PROCESS / TIME FRAME, ASSESSOR<sup>3</sup>

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All farmers received information before the actual assessment. Most but not all farmers had read the information. Several farmers had taken the decision to join on the basis of the information provided by telephone. Some commented that the information had not been clear.

In the Netherlands, the decision to join the research was not only based on the information on Welfare Quality<sup>®</sup>. Many Dutch farmers decided to join the project because they wanted to respond to the growing social concern on animal welfare and critique towards intensive husbandry. Besides, they worried about the objectives of the WQ Assessment Tool and its potential impact on legislation. Participating in the research was a way to regain some control. Some farmers explained that they planned their participation in a strategic way by offering a specific bird house as sample. Some offered a particular good house in order to get good results and contribute to a good image of the sector. Others offered the worst house to lower the results and in this way delimit expectations and future norms.

The Italian farms were selected by CRPA in collaboration with the Responsible of the Quality Insurance of the Slaughterhouse. The farmers had been contacted by phone and asked if they were willing to participate in the project. At each farm, only one (and the

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<sup>3</sup> See Questionnaire Parts III, IV and V.

same) house was visited in pre- and post assessment and measurements were carried out for the birds inside the house and later at the slaughter plant.

In the UK, it was difficult to recruit farmers because the production company had changed owners and all agreements had to be renewed. UK farmers were asked by the production company to join. We have no information about the motivation of Italian farmers to participate. In the Italian interviews, the experience of the assessment itself was not discussed in detail, therefore it is mainly the Dutch and British experience on which we report in more detail.

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## 9.2 THE ASSESSMENT

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### 9.2.1 ASSESSMENT ON THE FARM

The on-farm assessment took place during the last week of the fattening process, in order to minimize the effect of potential disturbance, also in agreement with farmers. In general, the farmers spoke positively about how the assessors had carried out the work. There were some comments on the long duration of the assessment or some minor disturbance. But most of the farmers were satisfied.

‘The most beneficial part of the day was just talking to them about it all, what they thought of it... their opinion... that’s useful’ (UK farmer).

‘We have the door open, researchers carry out their work. We don’t have to keep an eye on them. We have nothing to hide... It was at the very end of the round, the day before the chickens went to the slaughterhouse if I remember well. At that moment, the chickens can’t get ill anymore. The risk is not very high. Hygienically, it should all be well organized. She had her own equipment, disinfected them, and again when she left. It has been fine for me’ (Dutch farmer).

In all three countries, only few farmers joined the assessors in the house. Some of the farmers who witnessed the assessment, complained about particular measurements. Some Dutch farmers disliked especially the tests on fear – not because they had affected production negatively, but because they doubted the correct and objective interpretation of the results.

‘I did not like some of the methods – for instance, to test if a chicken is curious and nervous and then to deduce fearfulness. Is it fear, I wonder? I did like the test on foot pad dermatitis, yes’ (Dutch farmer).

Farmers pointed also again at the contextuality of measurements and the need to know the practice in order to design sensible tests. In addition, the assessor needed to take the particularities of each farm into account in order to interpret measurements correctly.

But in general, the Dutch, Italian and UK farmers were satisfied with the assessment, including the pre-assessment information, the way the tests were carried out, and the behaviour of the researcher. It is important, however, to take into account that the farmers experienced the on-farm assessment as part of scientific research and, hence, something extraordinary. It made sense and was not disturbing when looked upon as scientific research. They never looked at it as something that could be regular practice. All farmers considered it unrealistic to organize such assessment as part of regular broiler production practice. They understood the need for carrying out such an in-depth research and were happy to oblige. But they would certainly not like to be visited more frequently. They also doubted that such tests were promising for future applications.

#### 9.2.2 FINANCIAL INCENTIVES FOR PARTICIPATION IN ASSESSMENTS

We asked farmers if good assessment results should be financially rewarded and if this would be an incentive to participate. Farmers had different opinions on this issue. Most of the farmers pointed out that their participation in the research had not been influenced by the financial compensation offered. They decided on the basis of their professional interest in animal welfare research and regulation. In addition, the on-farm assessment did not require much of their time. In Italy, the possibility of a financial incentive for joining the assessment was not discussed.

‘It did not cost me extra work to participate in this project. It is always nice if you are rewarded financially. But I find it important to improve animal welfare without financial impact. The point is that consumers won’t pay for animal welfare’ (Dutch farmer).

‘Not necessarily, if we get some useful feedback I don’t mind giving up some time’ (UK farmer).

‘It would be silly to say no, because it is taking up our time, we have to do so many things’ (UK farmer).

When it comes to regular assessment the situation might be different. But payment seems not to be of crucial importance. Farmers worried much more about having yet another control and about the negative impact that scores could have on their financial results.

### 9.3 ADVICE<sup>4</sup>

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Half of the assessed farms received not only the results of their own and other farms, but also personal feedback on their results. For several reason, this did not work out as well as we had intended. First of all, it took much more time than anticipated to calculate all the results and to feed them back to the farmers. In addition, it proved to be impossible to give real advice without having good knowledge of the particular farms. We therefore decided to phone the farmers in order to personally discuss the findings with an animal scientist who could give some advice on where to find more information. In the UK, the advice was not prescriptive, and it was framed more as a way of generating advice by comparing scores with other Freedom Food farms.

All farmers appreciated the personal attention that was given by calling them back in person. But they did not consider it particularly useful as advice. Most farmers said that they were familiar with the conditions that would guarantee or improve animal welfare. The suggestions of the researchers did not add anything to what they already knew. They also pointed out that some problems occurred for reasons that they did not have under control; again, they referred, among others, to the characteristics of the chicks and quality of the feed, but also at financial constraints – some improvement would be to costly. Some of the farmers said that the animal scientist just lacked the knowledge of their particular farm in order to explain the causes of the diagnosed problems. They also disliked that they spoke to another person than the one who had assessed the farm.

‘I would say the talk did not bring anything for me. If I had been able to discuss with the researcher who had carried out the tests, I would have benefited more. Together we had managed perhaps to better understand the background of the findings’ (Dutch farmer).

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### 9.4 WIDER IMPLEMENTATION OF THE ASSESSMENT TOOL<sup>5</sup>

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We also discussed with the farmers how they perceived the implementation of such an animal-welfare monitoring tool more generally, and if they thought it would make sense to inform consumers about the animal welfare by way of farm scores.

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<sup>4</sup> See Questionnaire Part VII.

<sup>5</sup> See Questionnaire Part VIII.



#### 9.4.1 MONITORING ANIMAL WELFARE

Most Dutch and Italian farmers thought that an integrated score on animal welfare (including welfare at slaughter and during transport) would be a good idea. The Italian farmers considered an integrated score as a good tool for assessing compliance to animal-welfare standards for a particular flock but not a farm. Others disagreed. In their view, they were responsible for the faults of others if an integrated score would be calculated.

‘Once the catchers come, that’s outside our control; we often make suggestions, but they aren’t always taken on board’ (UK farmer).

‘Which conclusion should we draw from such a comparison: is it me not being capable to assure animal welfare in my farm? Or is the result due to other factors that do not depend on my management?’ (Italian farmer).

Many farmers liked the idea of exchanging opinions and technical information with experts; they liked to learn more about animal-welfare management on the farm and saw advantages of being evaluated by external and independent parties/assessors. They also wanted to obtain confirmation that their practice was okay, and looked forward to receiving suggestions and stimuli for improving the farm management.

Many farmers were also interested to see how they score in comparison to others. They wanted to know the scores for every parameter and criteria in order to improve their production in terms of animal welfare but also economically.

‘I want to know how I perform in comparison to others. I try to do it better than the others. If you want to earn money, you have to belong to the top of the producers’ (Dutch farmer).

‘Yes, because I like to consider myself a good stockman, and if I make mistakes I want to put things right. I do my best’ (UK farmer).

But farmers also opted for some in their view important changes in the monitoring tool.

- They wanted the scores to be completed with a more detailed analysis, explaining the causes of the results.
- They preferred a stepwise assessment – starting with some parameters and including others only when the first were well controlled and improved.
- They considered it not right to include scores for those factors that they could not control and that did not measure the animal friendliness of the farm. Again they referred to genetics and characteristics of the chicks.
- They wanted to be sure that the judgement would be fair and objective. Therefore, all the contextual factors that influenced the assessment and results needed to be taken in to account: the moment when the assessment is done, feeding system,

different characteristics of the house, previous sanitary problems that had been already solved at the moment of the assessment.

#### 9.4.2 LABELLING ANIMAL WELFARE

Most farmers considered animal welfare as a niche market, similar to organic production. But some farmers worried whether consumers were really interested in just animal welfare. They thought that consumers were interested in the origin of animals and in food safety, rather than the way animals were raised.

‘We already produce a special product, making use of as little medicine as possible. I am of the opinion that we do already well regarding animal welfare’ (Dutch farmer).

Many farmers pointed time and again at the need for financial compensation for extra quality in terms of animal welfare and they worried about consumers’ willingness to pay more for animal-friendly products. The UK farmers expressed that some current assurance schemes – Freedom Food, for example – did not really tell the public much about what they were doing and that a scheme that did explain things more effectively would be invaluable. As free-range producers, most farmers thought that they were producing high-end welfare-friendly products already. As one farmer pointed out, ‘We are all bloody doing it’. Another suggested that WQ was ‘about extending this niche market further’. Others argued that such a label would be good if it explained more about the good things farmers do.

Most Italian farmers considered a label attractive for consumers. It would help to create a market segment for consumers interested in quality. They also considered certification as an innovative marketing approach for increasing sales. And finally, promotional actions aimed at giving consumers more information might encourage consumption and increase trust in poultry production, which in the past had been disrupted frequently by international food scandals and sanitary crises. A label could increase perception of intrinsic quality of the product too.

#### 9.4.3 EUROPEAN IMPLEMENTATION

Most of the Dutch and UK farmers thought that the Assessment Scheme should be implemented Europe-wide in order to allow for fair competition. Many foresaw, however, problems for equal implementation and organization – for instance, because of different control schemes. Some also wondered if the same regulations should be applied when production conditions differed, among others, because of climatic differences. On a global

level, the problems were even bigger. Farmers felt unfairly treated through the import of products that were produced under lighter regulations and hence more cheaply.

‘Oh God, definitely! In this country, we seem to be adhering to all these standards when our continental brethren aren’t’ (UK farmer).

Others expressed more sanguine views that ‘it would be interesting’ to see how such schemes would work, given the many variables that would have to be considered. Italian farmers did not provide specific data on the need or (dis)advantages of a European label.

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## 9.5 CONCLUSIONS

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In general the farmers spoke positively about how the assessors had carried out the work. There were some comments on the long duration of the assessment or some minor disturbance. But most of the farmers were satisfied.

It is important to take into account that the farmers experienced the on-farm assessment as part of scientific research. All farmers considered it unrealistic to organize such assessment as part of regular broiler production practice.

Payment seems not to be of crucial importance. Farmers worried much more about having yet another control and about the negative impact that scores could have on their financial results.

In general, farmers were interested in receiving the assessment results and wanted to know how they compared with other farmers, although there was also widespread disappointment that the advice was not more detailed and useful.

Many farmers liked to learn more about animal-welfare management on the farm and saw advantages of being externally evaluated and compared with others farms. But farmers also opted for some, in their view, important changes in the monitoring tool. In short, they wanted more information on the causes of low scores, more attention given to the interrelations between parameters and the judgement of animal welfare within the specific context of their farm at that particular moment in time. This should also include the acknowledgement that they did not have full control of all factors of animal welfare.

## FARMERS' REACTIONS TO THE ASSESSMENT RESULTS

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Many farmers received their results later than initially planned. For some of the farmers, it was therefore difficult to remember the precise circumstances of the assessment. In the Netherlands, this was especially true for those farmers who were also called by phone in order to discuss the results (group with advice). In these cases, the farmers often expressed not to remember the details of the assessment (tests and assessor) nor their results. In the UK, the individual results and advice were sent out when all the assessments had been completed. Then farmers had to be called again to discuss the results. This caused also considerable delay.

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### 10.1 INTERPRETATION AND ACCEPTANCE OF THE RESULTS<sup>6</sup>

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Overall the farmers were very interested in the results and especially in how they performed in comparison to others (the benchmarking). But many Dutch and British farmers were disappointed about their results – they had expected to do better, based on other assessments on related issues (e.g. from the slaughterhouse). Many farmers said that the slaughterhouse had never complained about their incidence of foot pad dermatitis.

Farmers had also difficulty accepting the results because they did not know how to interpret them, to understand the severity of problems or their causes and the ways to prevent them. The results were not plausible to them and the results alone were providing too little information to accept the implicit critique as relevant and significant. Farmers personally contacted by phone in order to discuss the results were more ready to accept the assessment results as relevant and useful in order to improve the production.

‘At first you blame yourself. Second, you realize it is not like it is written: How should you perceive the report? How serious should you take it?... The report refers to your daily practice, to what you do but not always consciously. You see and feel

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<sup>6</sup> See Questionnaire Parts III, VI and IX.

what it is about, but expressed in numbers it hurts your feelings. You don't see your effort back in the report... According to the report, there is not one healthy chicken in the animal house. And that is not true. They judge whether the chickens approach you but not the use of medicines' (Dutch farmer).

In the UK, quite a few farmers were surprised by their results, some because they had done better than expected. Some indicated that they were sent snippets of information (on hock marks, etc.) from the slaughterhouse, but that they did not get this level of information from anyone else. Others felt that it was good to get a second opinion and to have confirmation of what they thought they were doing well anyway, while some claimed that the assessment provided a good reference point. Not many had considered changing their practice as a result of their results.

Most Italian farmers were not surprised by the results of the assessments. In their view, the situation depicted in the report corresponded well to their expectations about the flock assessed, also when the results were negative. Many Italian farmers did not agree on some parameters, especially foot pad dermatitis, mortality, cleanness of plumage, ability to walk and ammonia concentration. They disagreed with the low measurements or the interpretation of the results. Some farmers believed that the criteria (adopted for the assessment) were too severe, and more detailed explanations should accompany the judgement.

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## 10.2 RELEVANCE OF THE RESULTS

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Farmers explained time and again that they aimed at maximizing production volume in order to earn their living. They found the importance attached to animal welfare and the significance given to the assessment results exaggerated. They also pointed out that the results of the assessment did not add information nor provided specific suggestions on how to improve animal welfare on their farm: the assessment on the whole gave a picture of what they already knew about the flock assessed. Negative results of some parameters were told to be dependent on occasional causes that could not be prevented, and, excluding few cases, they were already expected. In order to be useful and relevant a lot more information needed to be added:

- more details on the 'history' of the flock: weight of the birds, provenance of the chicks, sanitary problems occurred in the past, type of the equipments, etc.;
- more information about the farm context: the timing of the assessment, genetic type and sex of birds, the type of the ventilation system, and the type of litter.

Repeatedly, farmers pointed out that others were at least partially responsible for animal welfare. Feed was mentioned most often, followed by the 'materials' delivered to the farm.

Some of them were aware that they could make up for these drawbacks but only against high costs, which they generally could not afford. Many of the farmers also indicated that they were unable to control the most determining factors influencing animal welfare on their farm. They were interested in the assessment of parameters that they could influence and use for optimizing their production system.

‘You do not control everything. Feed quality, for example, you cannot control. Once it is delivered, you have to work with it until it is finished. And if the weather is wet, for a week, the animal houses will be wetter. You cannot dry humid air’ (Dutch farmer).

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### 10.3 RECOGNIZED WELFARE EXPERTISE

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Most farmers had to think for quite a long time before they could indicate whose knowledge and expertise on animal welfare they valued most. In their view, outsiders had generally little understanding of what was going on on their farms. Generally, farmers relied on people who visited their farm on a regular basis, such as technicians of feed suppliers and veterinarians. They understood that they had vested interests but these people had at least a realistic idea of the farmer’s way of life. In addition, they made use of information provided by professional magazines and by students who did their practical periods at the farm.

Farmers generally mistrusted civil servants, political activists, and ‘society as a whole’. Although they valued their critique as keeping them ‘sharp’, they did not expect to learn much from them. Most farmers considered themselves the best experts of animal welfare but also valued the knowledge of scientists. In their view, it would be a good idea if farmers and scientists co-operated in the development of animal-welfare standards. Animal welfare should be driven by science and certainly not by politics.

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### 10.4 CONCLUSIONS

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Farmers were very interested in the results but often also surprised about the results. They had expected to do better or worse. The assessment results did not match their own evaluation or feedback from the slaughterhouse.

Many farmers considered the results useful but wished that the assessment had looked in more detail at the particularities of their farm and stock at that time in order to better understand which problems were incidental or structural in nature. It was easier for them to accept the results after personal feedback when they better understood the severity of problems and their causes.

Most farmers recognized especially the expertise of technicians of feed suppliers and veterinarians as they visited their farm on a regular basis and had inside knowledge.

# DIFFERENCES BETWEEN FARMERS WITH THE BEST AND WORST WELFARE SCORES

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In Part I, we reported on the assessment results and animal welfare scores. As a follow-up to the technical assessment, we planned to analyse the interrelation between welfare scores and farm characteristics such as farm size and management as well as the farmer's definition of and attitude towards animal welfare. In practice this proved to be complicated: the differences between farms and farmers were quite small and it was difficult to decide which welfare scores to use for the categorization of farms. We finally decided to use severe foot pad dermatitis, severe hock burn and gait (severe walking deficiency) as the basis of comparison and used the average scores during pre- and post assessment for the definition of best and worst performing farms. Moreover, we decided to compare two of the best scoring farms with two of the worst scoring farms. We did that in the Netherlands and in Italy and present the results below. This analysis has, however, to be regarded as an experiment that illustrates the possibility to better understand the background of good and bad welfare performance. The results should be interpreted with caution and considered as indicative findings.

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## 11.1 NETHERLANDS

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Dutch farms performed on average very similar. It was therefore difficult to select farms performing best or worst. Often farms performed bad for one parameter (e.g. foot pad dermatitis), but quite good for another one (e.g. hock burns, see Farm B for example). We selected farms based on their scores for foot pad lesions, hock burns and gaits; we argued that farms should score best or worst for at least two of these parameters. In Table 11.1, we present Farms A and B as worst scoring farms and Farms C and D as best scoring farms. There were farms having higher scores for e.g. severe foot pad lesions as compared to Farms A and B; however, these farms performed well or average for the other two parameters included and were therefore not classified as worst performing.



Table 11.2 Scores for severe foot pad dermatitis, severe hock burn and gait (severe walking deficiency) in pre- and post-assessment, and the average value, for farms performing best and worst (including farm details, Netherlands).

		Worst scoring farms		Best scoring farms	
		Farm A	Farm B	Farm C	Farm D
Foot pad dermatitis, % scores >2	Pre	86	96	13	20
	Post	58	60	37	34
	Average	72	78	25	27
Hock burns, % scores >3	Pre	34	11	5	1
	Post	11	11	13	35
	Average	22	11	9	18
Gait score, % birds scoring >2	Pre	23	61	14	9
	Post	48	65	7	21
	Average	35	63	10	15
Farmer's age		36	43	55	46
Farm size	Ha	50			30
	No. of chickens	160 000	160 000	400 000	32 500
Farm type		Broiler + dairy	Broiler	Broiler	Broiler + dairy
Technology				Under floor heating; climate control, new water and fodder lines	Old stables, postpones new rounds (7 weeks) because of licence
Animal welfare behaviour	Special attention for	Climate, litter	Climate, fodder	Climate, fodder, light intensity and duration	Dry litter, fodder, prevention of food pad lesions
AW definition	Main criterion	Ability to walk	Health, ability to walk	Ability to walk	Health, ability to walk
Management objective		Max. growth	Max. growth	Max growth	Max growth
Reaction to results		Worse than expected	Worse than expected	Not surprised	Satisfied, not surprised
Explanation of results		Guilt of deliverant of bad 'material'	Guilt of deliverant of bad 'material'	As owner of a big farm ability to negotiate delivery of good 'material' (chicks, fodder)	Good fodder

We compared Farms A and B with Farms C and D for what regards farm size and type, farm management and farmer's attitude towards and definition of animal welfare. As Table 11.1 demonstrates, there are no clear-cut differences between the worst and best scoring farms. There are small and big, old and modern farms among all four of them. All of the farms aim at maximum production and want their chickens to grow as much and as quickly as possible. The best scoring farmers seem to be a bit more focused on the early detection of food pad lesions through close observation of the animals and early intervention through good fodder or extra litter and climate control. They also seem to be more aware than the other two farmers how important especially these animal welfare parameters are. There also is some difference in the recognition and acceptance of responsibility for welfare and intervention. Whereas the worst scoring farmers underline that an important cause of bad scores lies with the deliverer of bad chicks and bad food and is not their fault, the other two farmers express their ability and readiness to negotiate good material.

But as said before, these are possible explanations that need much more research to be confirmed. It is clear, however, that good welfare scores are not just a matter of farm size or farm technology. The farmer's interest and attention for animal welfare and readiness to quickly intervene when welfare is at stake are of utmost importance.

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## 11.2 ITALY

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Table 11.2 presents the mean values of food pad, hock and breast lesions for the nine Italian farms that received advice. Although no significant differences were found between pre- and post-assessed broilers' lesions, the trends of 'best' and 'worst' farms seemed to be different. In fact, Farms 6 and 7, which scored the worse for FPD in pre-assessment compared with the sample mean, had much better results in post-assessment, as the FPD scored considerably less. On the contrary, Farms 1 and 18, which scored best for FPD in pre-assessment resulted in worsening the birds' welfare in post-assessment.

Such trends may be caused by management as well as by external factors that the Italian broiler farmers participating in integrated chains are not able and allowed to control. This could be the quality and health of chicks (i.e. genetics, parents' age, vaccinations) and the quality of feed supplied by the Amadori Group.

Looking back at the interviews, we tried to find out if differences in opinion could explain good or bad lesions scores.

All four farmers perceived animal welfare in a similar way: the birds should be kept in good environmental conditions, with enough space and good litter. Following Farm 1 (best), Farm 6 (worst) and Farm 18 (best), special attention should be given to microclimate, efficient ventilation, litter quality, and hygiene; following Farm 7 (worst), it was most important to visit the flock houses 2–3 times per day in order to check for

TABLE 11.2 Scores of food pad dermatitis, hock burn and breast burn in pre- and post-assessment rounds.

Farm no.	Foot Pad Dermatitis			Hock Burn			Breast Burn		
	Pre	Post	Mean	Pre	Post	Mean	Pre	Post	Mean
1 best	0.35	0.51	0.43	0.07	0.42	0.25	0	3	1.5
5	1.74	1.58	1.66	0.10	0.75	0.43	1	2	1.5
6 worst	3.57	1.85	2.71	0.85	0.84	0.85	0	3	1.5
7 worst	3.34	1.34	2.34	2.73	0.67	1.70	47	4	25.5
11	2.06	2.27	2.17	0.56	0.32	0.44	2	3	2.5
14	2.35	2.10	2.23	0.43	0.75	0.59	1	8	4.5
16	1.93	1.88	1.91	0.74	0.29	0.52	0	9	4.5
17	1.85	1.35	1.60	0.52	0.64	0.58	1	0	0.5
18 best	0.64	1.69	1.17	0.93	1.00	0.97	0	2	1
Mean	1.98	1.62	1.80	0.77	0.63	0.70	5.78	3.78	4.78

optimal conditions. Animal welfare could be improved, Following Farm 7 (worst), by installing a more efficient ventilation system.

In the farmers' view, the most relevant measurements were litter quality (Farms 6, 7 and 18) and microclimate (Farm 1); as least relevant measurements Farm 18 mentioned mortality, because the health of chickens could not be checked or chosen by the farmer. Farms 1, 6, and 7 appointed the birds' reactivity to human approach as the least relevant welfare indicator.

All four farmers considered the birds' lesions as relevant for animal welfare even though Farm 7 (worst) underlined the importance of causes, such as enteric diseases and seasonal variations of the climate, which cannot be controlled.

In many occasions, the farmers reasserted that, as they are involved in an integrated food chain, they had to accept the chicks and the feed the contracted company provided them with no possibility of control. In their view, the health of chicks and the quality of feed were crucial factors for animal welfare. As they could not control them, they felt unable to improve the broilers' welfare without the help and the collaboration of the contracted company.

## CONCLUSIONS TO PART II

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### 12.1 DEFINITION OF ANIMAL WELFARE AND THE ACCEPTANCE OF THE WELFARE PARAMETERS AND CRITERIA

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- Most farmers thought that animal welfare was about providing animals with the things they needed for a good life.
- Farmers recognized the need to carry out scientific assessments, but they also stressed the merits and importance of local knowledge and practice.
- Most farmers considered health as the most important aspect of welfare. For them, welfare was important as long as it influenced growth and productivity. Welfare aspects that had little influence on growth were generally considered as irrelevant.
- On average, farmers agreed with all the parameters and criteria included in the assessment and monitoring tool. The parameters related to health and/or growth mattered clearly more to them than others. The ability to walk, which the farmers related to behaviour, was generally considered of less relevance, and others such as behaviour, human-animal relation and fearfulness were not relevant to them at all.
- The different tests of fear were the least relevant measure for all farmers, primarily because it was difficult to pinpoint why birds reacted as they did, and also because it was seen to be good for active, free-range birds to be a little fearful of humans.
- Farmers recognized the value of most of the measures in the assessment in some way, but questioned how useful most of them were taken individually, preferring to view them as a holistic system that mirrored farming practice.
- In their view, many parameters were difficult to understand for outsiders. Inside knowledge of the context and the interrelation of many factors were important to judge animal welfare and to imagine possible and necessary improvements.
- When receiving the results, the farmers had often difficulty to understand the significance of parameters. A personal discussion with the scientists supported farmers' understanding and acceptance of the results. The explanation of the practical relevance of the findings played an important role in this.

## 12.2 THE EXPERIENCE OF THE ON-FARM ASSESSMENT

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- In general, farmers were satisfied with the way the assessment took place their farms.
- The assessment had no untoward effects on the birds or on production.
- As only few farmers observed the full assessment, it did not cause any significant disturbance or loss of time. Still some farmers raised questions about the long duration of the assessment.
- Some farmers raised the possibility of personality clashes and subjective interpretations of measures as possible causes of problems during the assessment.
- Questions were raised about the time in the cycle the assessment took place.
- Most farmers perceived the assessment as a scientific experiment, which they were happy to support. They considered it unrealistic to implement such an assessment as a regular on farm check on animal welfare.
- They were also of the opinion that certain measurements, such as foot pad lesions, could better be done at the slaughterhouse.

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## 12.3 VALIDITY OF THE RESULTS

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- Many farmers worried about the quality of the assessment and the reliability and validity of the results. They then referred to the representativeness of the sample, the subjectivity of the assessment and evaluation, the frequency of assessments and integration of factors such as climate and management and timing of the assessment.
- In their view, something sensible about animal welfare could only be said when the parameters were looked upon in their interrelation (not separately). Time and again they also underlined that improving one parameter would easily result in the deterioration of another. The assessment had to consider the measures holistically.
- In addition, they pointed out that animal welfare had to be understood within the context of this particular farm at this particular moment in time. They had difficulty to understand how these interrelations were taken into account in the way the scores at different levels were calculated.
- It was also important for them to point out that they did not have full control of animal welfare as they were part of a network of production and depended on the delivery of good material by others. Assessing animal welfare on their farm implicated in their view that they were also blamed for the faults of others and had finally to pay the price for it.
- In the UK, farmers mentioned the influence of the weather on free-range systems and the difficulties of getting reliable results on different farms under different climatic conditions.

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## 12.4 RELEVANCE OF THE RESULTS

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- The farmers were interested in the results and their relative performance compared to others, because they wanted to do well. They evaluated the relevance of the results, however, mostly on the basis of their practical applicability and the information they offered for solving problems and improving production.
- They indicated that they did not get such detailed feedback from anyone else.
- Most farmers were disappointed that the results provided little explanation on the causality of low scores and their prevention in the future. The telephone conversations with animal scientists gave some more insight, but they still missed the practical advice.
- Farmers would have liked their feedback sooner. They were used to getting regular and continuous feedback by their own equipment as well as the slaughterhouse. Now the results came often four weeks after the assessment and, hence, towards the end of the following round and new flock.
- Overall, the farmers concluded that the WQ Assessment Tool was fine as a scientific tool but not very useful on a real farm. Most important for this evaluation was first of all the separation of singular measurements, which in the farmers' view resulted in overlooking the interrelation of all these factors. A second worry concerns the standardization of the instruments, which in their view denied the particularity of each farm and the importance of a time and place specific context of production; the latter included factors such as weather and feed quality, but also the management style of a specific farmer.

## RECOMMENDATIONS: LESSONS TO BE LEARNED FOR WELFARE QUALITY

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The welfare quality assessment tool aims at assessing animal welfare across farms, species, sectors and countries. In order to do so, it has to use a standardized approach. For farmers, this is difficult to accept as they perceive their farm as special and different to any other farm. They want to be understood within the context of their farm. They also want to be able to use the results within their farm. Many were not convinced that the assessment measures were valuable if used individually and out of context; to be more acceptable the results need to have more relevance to farmers' everyday practice.

For the acceptance among farmers it is therefore important:

1. to elucidate the practical applicability of the results and how farmers could use the results in order to improve animal welfare as well as production;
2. to explain how the tool incorporates the interrelation of different parameters and criteria when calculating scores;
3. to explain how the contextuality of animal welfare is taken into account during the measurements – this includes the possibility of a reassessment in case of exceptional conditions, such as bad weather;
4. to explain that assessing animal welfare at the farm does not implicate that only farmers are considered responsible and is not meant to blame farmers.

In the UK, farmers mentioned that climatic factors needed to be taken into account on free-range systems, as measurements taken during or in the aftermath of extreme weather conditions often influenced scores in ways that farmers have little control over. Remarkably, conventional farmers in the Netherlands and Italy argued similarly.

In addition, it is important, especially among farmers working in an agro-industrial sector such as broiler production, to provide more information about the importance and added value of animal welfare. Farmers saw the importance of health and many of them were aware of the importance of natural behaviour, but some other aspects were new and strange to them. Farmers underlined several times that they were ambitious to further develop their professional skills, organizing specific study groups on the linkages between animal welfare and production seems a promising way to support the acceptance and prepare the implementation of the WQ Assessment Scheme.