Report No. 4: Animal-Based Measures
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1. Introduction
This report deals with perceptions and acceptance toward animal-based measures (ABM) in farm animal welfare in Sweden. It presents the preliminary results of semi-structured interviews with experts in animal welfare and related fields from Sweden and the EU. Additionally, it reviews current ABM literature, particularly the Welfare Quality publications on public and farmer juries reviewing the Welfare Quality Assessment System, a control system developed by the Welfare Quality project which is based on ABM.

From the very beginning it is important to note that this report presents perceptions of and attitudes toward ABM. As such, some of the information stated by the juries or experts may be factually incorrect; however, this report is about how people think about ABM, not how they should think. Thus in the spirit of representing the width of the discourse, even opinions that are factually incorrect are discussed, although an effort was made to note major factual errors.

This report begins by briefly presenting the methodology used in data collection. Section 2 gives a basic overview of control systems in Sweden in order to put the ABM discussion into its Swedish structural context. The next section, describes the competing definitions of ABM encountered in the interviews. Then section 4 presents the levels of implementation of ABM as perceived by the interviewed experts. This leads into opinions on the advantages and disadvantages of ABM and the level of acceptance of ABM presented in section 5; this part is based on the expert interviews as well as on public and farmer jury results from the Welfare Quality Project. Section 7 compares ABM to other control regimes using the example of building a barn and of the McDonalds’ control system. The conclusions of the report are presented in the final section.

This Report No. 4 presents the work undertaken as part of the ENCAW Project Task 3C.

1.1 Interview Methodology
The interviewees were chosen in order to assess the range of opinions from a variety of actors. Therefore, the interviews should not be seen as representative but rather as a picture of the breadth of opinion on animal based measures from sectors relating to animal welfare. Government authorities, civil society organizations, private companies, academic researchers,¹ and a farmer-led scheme were included. A total of 14 interviews were conducted with 15 experts with representatives from these organizations in February of 2011. For a full list of expert institutions involved see Appendix 1. The interviews themselves were semi-structured, lasted between half an hour and forty-five minutes, and were conducted in English or Swedish.

2. Control of Animal Welfare
The structure of animal welfare control in Sweden is complex. While the government has a control system, there are also control systems within producer schemes, slaughterhouse schemes, and some private companies have also developed their own additional internal controls.

¹ Involvement of animal scientists was limited due to their high levels of involvement in ENCAW and the project level decision not to interview others actively involved within the current project.
2.1 Governmental control
The Swedish government’s animal welfare control system was recently restructured. In 2004 a new Animal Welfare Agency (Djurskyddsmyndigheten) was established, but it was then quickly disbanded by the new Swedish government in 2006. In the last two years, the animal welfare control structure was restructured when responsibilities for animal welfare control were taken from the municipality level (Kommun) and placed at a regional County Administrative Board level (Länsstyrelse).

Currently, animal welfare policy directions are broadly defined by the Swedish Ministry of Rural Affairs (Landsbygdsdepartementet), then developed into concrete policies by the Swedish National Board of Agriculture (Jordbruksverket). This is the same organization that is responsible for implementation and integration of EU rural development initiatives and the Swedish government’s expert on agricultural issues and handling of animal welfare questions. County Administrative Boards (Länsstyrelser), which are regional actors, are now the main government implementer of farm animal welfare and protection. They have animal-protection inspectors who control animal welfare at the farms and employ veterinarians (county veterinarian officers) that are responsible for veterinary public health.

It is also important to note that Swedish animal welfare standards are framed by EU regulations in that Swedish standards must meet the minimum requirements demanded by the EU, but are allowed to have stricter standards. Thus, Swedish farm animal welfare legislation does meet and in some areas exceed EU minimum levels. Council Directive 98/58/EC gives general rules for the protection of farm animals based on the rights of animals to be free from hunger, thirst, discomfort, pain, injury, disease, fear, distress, and free to express normal behavior. This directive has since been amended and further legislation has been passed for both general and species specific animal welfare regulations.

2.2 Scheme-based control
In addition to government controls, institutions that manage schemes in Sweden have controls for quality assurance, animal health and animal welfare. Controls at this level are extremely complicated because many farmers participate in multiple schemes and schemes vary greatly in terms of how they are controlled and monitored. Each individual scheme differs in terms of focus on animal welfare and in terms of characteristics of the scheme itself, for example whether it is voluntary or obligatory, general or sector specific. This is not an exhaustive list of scheme controls, only a brief summary of a few examples of control systems in major Swedish schemes.

MHS (Sveriges Bönders Miljöhusensyn) is animal protection scheme with wide participation. According to LRF, half of Swedish farmers participate in MHS, representing 90% of all food produced in Sweden. Participation in MHS is required for membership in KRAV and SvDhv, additionally it is always demanded for pigs and sometimes demanded for cattle by slaughterhouses. In terms of animal welfare, MHS requires only legal compliance with current laws and makes no additional

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2 EUROPA (2011)
4 For further information on scheme control systems see Bruckmeier & Prutzer (2007).
demands on the farmer. Furthermore, MHS is self-controlled and there is no institution that controls how the farmers carry out the MHS self-control.

By contrast, SvDhv (Svenska Djurhälsovården) offers farmers the service of control with an external consultant. Although SvDhv has some animal welfare components to ensure compliance with Swedish legislation, it is primarily a health program. The organic scheme KRAV visit farms twice a year and are perceived as controllers.

2.3 Company control
Although controls are not usually run directly by grocery store chains or restaurants, many of them – take ICA for example- nonetheless have standards required of products sold in their stores and there are some companies that involve themselves in control more directly, like McDonalds. Additionally, since not all animal products sold in Sweden are produced inside the country, each company has its own internal standards for what products it will import. Using ICA as an example, ICA has high internal standards required for Swedish producer products, then there is a stated preference within ICA for imports that reach Swedish standards in animal production, but local stores also acquire goods of their own choice which may or may not reach Swedish standards of production, although it is encouraged. McDonalds in Europe has taken an active stance in production controls by setting their own European wide standard and hiring their supply companies as controllers on farms. This will be discussed in more depth later in the report.

3. What are Animal-Based Measures
The definition of animal-based measures was not provided by the interviewers unless requested, instead the definitions provided by the interviewees themselves were gathered. This approach was chosen in order to give an overview of the discourse surrounding ABMs. There are two general approaches to defining ABM: as a framework for animal welfare policy and as policy measurement tools in themselves.

ABMs as a conceptual framework put the animal itself at the center of animal welfare. Rather than looking indirectly at the environment around the animal, it directly investigates the health and behavior of the animal itself because what ultimately matters is how the animal experiences its environment and the effects of legislation. Therefore, in this new framework the focus of control regulations is on the animals primarily and directly. Another way in which this was expressed by experts was in terms of measuring animal welfare as a result. Thus, animal-based measurements show the resulting impact of management, resources, and environment.

ABMs also refer to specific tests and measurements used in a control assessment which directly measure the animals themselves. Examples of ABMs used in control assessments would be the approachability of animals, hoof health, or the occurrence of lameness.¹ There is some discrepancy as to whether any measure of an animal qualifies as a ABM or if the definition should be more restricted; for example, whether or not animal production measurements, such as how much milk a cow produces, should be considered ABMs or not.

4. Level of Implementation
Assessment of degree of implementation of ABMs varied, depending in part on how the interviewee defined it.

¹ For further information on ABMs see the Welfare Quality Assessment Protocols for Cattle, Pigs, and Poultry.
The county veterinarian officer claimed not to use ABMs in current assessments, although he was excited about the idea. The Swedish control assessments do use some measurement tools that could be considered animal-based; however, current control systems have not been developed using the underlying framework of focusing the controls on the animal as the end result.

Many interviewees referred to ongoing research with ABMs. One expert claimed that ABMs are still at an entirely research level have not even entered the policy dialogue yet.

Conversely, several examples of ABM implementation were given. When there are deviations on a farm, of for example too many dirty animals, the ‘Ask the Cow’ method is used by some schemes for a more in-depth study but in particular Svensk Mjölk. This method includes fifteen calibrated animal based measures, according to industry expert. Furthermore, Svensk Mjölk’s Health Package Milk brand systematically includes ABMs of cows and calves. ICA uses ABMs in their controls both for themselves and for certification companies that they employ. McDonalds has implemented ABMs to a more extensive degree and will be discussed below.

In addition, according to academic experts organic labels in both Sweden and the UK are considering requiring farmers to pass an animal based assessment in order to qualify for scheme membership.

5. Acceptance & Efficiency
The concept of focusing on the animals themselves in order to assess animal welfare as an end in itself, rather than the environment around the animals, is broadly supported and there’s excitement about the concept. The veterinarians looked forward to ABMs as the ‘future’ of animal welfare controls. No expert disagreed with the conceptual framework of animal welfare itself being the purpose of animal welfare controls, but there were disagreements about how to implement this on a policy level.

5.1 Advantages of ABM
The focus on animal welfare as the end result of controls as seen by looking at the animal itself is a broadly popular idea. According to an animal rights expert, ABMs sound good and the idea is easy to communicate to consumers, a hypothesis supported by the findings of the Welfare Quality Citizen Juries. An academic expert caught the mood of the ABM policy discussions when stating “ABM are useful tools, but with limits.”

Several experts pointed out the need for animal welfare to be expressed positively or for positive things to be communicated rather than just the bad. Instead of saying animal welfare is absence of hunger, going further to state that animal welfare is about the health and positive emotions of the animal. The veterinarian identified ABMs as a new way of thinking by focusing on positive ideas.

There was a critique from multiple actors of the detail-focus of Swedish control system. Several experts asserted that EU requirements are even more detail focused than Swedish standards, particularly in terms of centimeter space requirements. ABMs were seen as a tool to correct this through various means. One academic expert pointed out that ABMs themselves are more flexible and therefore better reflect reality than other types of control systems. The county veterinarian officer saw ABMs as tools for developing a more holistic overview assessment of farms. He together with academic and industry experts highlighted the potential of ABM in risk based controls. This idea

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6 Miele (2009) p. 78
varies from a restructuring of welfare control systems entirely, to a supplemental spot test or in-depth study when a problem arises.

There seems to be agreement that the animal focused (ABM) framework should form the basis of control systems, but whether an entirely new system needs to be developed, if the current system simply needs to be adapted, or if special ABM assessments would complement existing systems is debated.

5.2 Disadvantages of ABM

Despite the excitement for ABMs, there were several critiques of ABMs offered.

The downside of the flexibility of ABM is the feeling of insecurity among farmers, according to the industry expert. The same expert went on to add that ABMs are often perceived as difficult to measure by farmers and therefore seen as riskier. This fits with the findings of the Welfare Quality’s Farmer Juries which concluded that although farmers liked ABMs in principle, they perceived several specific ABMs as subjective or unreliable and worried that the timing of the measurement might influence the results.7

Calibration of measurement scores is a problem with ABM, according to the industry expert. She believed controllers will rank farms the same (in that good farms will have higher scores than bad farms in any given region), but that scores lie on different levels (meaning a farm scoring an 8 in southern and northern Sweden would represent different levels of animal welfare even though they received the same score). Thus, application of ABM assessment would require the assumption that the number of farms that are good and bad in southern and northern Sweden is the same; an assumption this expert believes is violated even within Sweden. Presumably, an EU level assessment would violate this assumption to a greater degree.

Animal rights groups feared that ABM are not always objective and could be too easily influenced by the industry. The expert did not believe that high production from an animal is necessarily a good measure of animal welfare (whether production qualified as an ABM depends on the source). Oftentimes the experience of the animal may not be measurable, for instance measuring fear. A similar point was brought up by the control authorities, in terms of questioning what kind of measurements from animals are applicable to assessing an animal’s welfare.

As control measurements ABMs were seen by some experts as underdeveloped – still in need of refinement and research. The need for further research on animal based measures was highlighted by academic experts. One of these experts believed that in their current form, ABM are too time consuming for practical application. Further research on measures for appropriate behaviors, particularly for positive emotional states, was called for.

Despite general support of the idea of ABMs, many experts see a need for ABMs in conjunction with resource and management control systems, not as a replacement for the other systems.

7 Bock (2009) p. 74
6. Alternate Control Regimes

6.1 As framework for animal welfare control
Interviewed experts were generally excited about the concept of animal-based measures and agreed with the notion that the well-being of the animal itself is the ultimate goal of animal welfare legislation. Despite this, reactions toward using ABMs as the sole basis for animal welfare control systems were not largely positive. Instead, many experts suggested a complementary use of animal-based and resource-based measurements in a mixed control system.

6.2 Example of barn building
In order to illustrate the practical needs of farmers in terms of control systems take the example of a farmer building a new barn for dairy cows.

According to the industry expert, Swedish farmers’ floor plans for new barns are often provided by the manufacturer of equipment used by the farmer and then approved by the government. Currently, farmers receive very little support or input on deciding on animal friendly building plans.

Thus industry and veterinarian experts claimed that resource based measures are needed in floor plan design. ABMs are difficult to apply to floor plans, as it is not obvious what floor plan characteristics lead to healthier cows. This does not mean that ABM are unimportant to barn design, but it is far easier to have a resource based measure setting specific centimeter requirements than it is to design a barn with specification on the health of the animal. It is also easier for controllers to measure centimeter requirements. Simplicity of resource measurements is a major advantage as ABM are a bit more complicated and would require more knowledge from the controller, according to control expert.

Resource based measurements do not replace ABMs. After all, resource “details are only a means to get good animal welfare, but the animal itself is more or less the result of it all” (industry expert). As previously discussed, control inspectors can get caught in the details of resource based measures rather than looking holistically at the situation of the animals, which is the main point. According to the industry expert, ABMs recognize that good management is able to buffer bad things in the environment, while bad management can lead to poor welfare even in a good environment.

An animal rights expert disagreed, pointing out that a hen not afraid of people is an improvement to the welfare of a hen that is terrified of people, but this does not compensate for the fact the hen is in a cage.

6.3 McDonalds example
McDonalds is an example of internally and actively restructuring a private company’s control systems on an EU level around the idea of animal based measures. All McDonalds products sold within the EU are subject to the same McDonald’s standard. In order to ensure delivery of safe products of equal quality in all restaurants, McDonalds has established strict controls over the supply of products all the way back to the farm level. Thus, McDonalds employs its supplier companies as control authorities as well. That means that McDonalds itself does not regularly do animal welfare inspections, but rather the supplier company is required to run controls to ensure that individual farms meet McDonald’s standard.
This standard is based on EU regulations combined with local regulations - largely from northern European countries. It was developed by veterinarians, nutritionists, subject matter experts and technical advisors. Since implementation in 2003, the McDonald’s standard has been based on “key welfare indicators” which are animal based.

McDonalds chose to focus on animal based measures because the style and environment of farming varies greatly within Europe. Additionally, they perceived a problem between governmental standards and actual implementation. The example given was of Sweden, where animal welfare legislation is strict on paper, but is not always followed through on individual farms.

Therefore, the ABMs allow McDonalds to focus directly on the ultimate goal of animal welfare regulations: the welfare of the animal itself. Even though the management styles and environment surrounding the animals differ; it is still possible to objectively measure and compare the animals’ welfare throughout Europe. Based on years of experience with this model, the McDonald’s representative believed that ABMs are a better way to measure animal welfare (than resource or management based). Furthermore, the expert believed that ABMs are a better measure for the EU level, as it gives a “clearer picture.”

When first implementing the system, the intention was for ABMs to completely replace a resource based measures. However, now ABMs are considered a complement to other measures rather than a control system by itself.

7. Conclusions

This report offered a general overview of the perception and acceptance of animal-based measures in farm animal welfare. Within Sweden, there are different understandings of ABMs with different advantages and critiques applied to each.

The idea of ABMs as a frame of thinking about animal welfare is broadly supported. This was generally expressed in two ways: focusing on the animal itself and the animal as the end result. These frameworks are easily understood and communicated and seen as the future in animal welfare. It is seen as an inherently better way of approaching animal welfare since the goal or result of regulations should be positive experience for the animals themselves.

What precisely is included within animal-based measurements is an ongoing discussion. The Welfare Quality project developed an assessment system based on a selection of animal-based measures, but the concept of animal-based is not solely defined by them. Animal welfare organizations feared that animal-based measurements would be influenced by the industry to include measures of production. They pointed out that chickens producing more eggs would not be a legitimate measurement of animal welfare. Whereas, industry experts cited recent research linking good animal welfare with high production measurements and considered animal body mass measurements to be ABMs. McDonald’s explicitly cited production measurements they used, but did not include them in the category of ABMs. Therefore, what types of measurements of animals that will be defined as animal-based remains a discussion.
There was controversy in the practical implementation of these frameworks. The question of how to integrate ABMs with existing largely resource-based control systems was contentious. An industry expert expressed interest in a control system with concessions in which high animal welfare as defined by ABMs would allow for concessions in resource-based requirements. After all, if ABMs are the end result of management and resources, then why not give flexibility to farmers with high animal welfare standards. Animal rights organizations definitively disagreed stating that less fearful animal experience (an animal-based measurement) would not make up for the fact the animal is in a cage (a resource-based measure). In so doing, they assert the idea that ABMs cannot replace resource-based, but they nonetheless agree that the ABM is an improvement to the current system. Similarly, McDonalds experience with ABM demonstrated the usefulness of ABMs as a compliment to already existing resource-based control systems.

Other uses for ABMs in quick overview and in-depth assessments were also presented. Some ABMs, like cleanliness, were identified as effective tools for doing quick overview assessments of farms. This would lead into a risk-based control system in which farms with potential problems would be checked more frequently and with greater depth than farms with low risk factors. This highlights the holistic advantage of ABMs. Another way in which ABMs is already used -and experts expressed the desire to increase its use- is in in-depth assessments. When a problem or potential problem is identified, ABMs are seen as a better way of doing deep assessments. This is in part because they focus on the net result and thus incorporate the complexity of context more readily than other types of measurements. They are also perceived as focusing more directly on the ultimate goal of regulations.

All of these uses of ABM show the advantages of such a system through a more holistic approach as opposed to one overly focused on details and it is seen as a great advantage that ABMs can be positive. Not all ABMs are positive, such as lack of certain diseases, but many of them are and positive measurements are something that is noticeably lacking in current control systems.

However, there are disadvantages to ABMs. No experts predicted nor desired a purely ABMs control system. Farmers perceived such a system as too subjective, compared to resource-based measurements. Additionally, many experts noted the entrenched detail/resource-based focus of the EU and to a lesser degree Swedish regulations. Both are perceived as overly detail focused, although the Swedish system is thought to be more open to change than that of the EU. Furthermore, ABM controls require more technical expertise and time from controllers.

In sum, experts have a generally positive view of ABMs and identified a wide variety of uses for them. However, there are difficulties in both defining and implementing ABMs. Ultimately, ABMs are a desired new way of thinking about animal welfare.

Bibliography
Bock, Bettina (2009) 'Farmers’ Perspectives’ p 74.


Interviews with 15 experts within different fields relating to animal welfare and the food chain (See Appendix 1).