**Supplementary material S1**

The present supplementary material provides a detailed description of the material and methods used for the themes that have not been published at the time of printing (Animal welfare, Animal Health, Meat safety and Working conditions).

**Material and Methods for Animal Welfare**

A questionnaire was developed to encompass the different aspects of welfare considered to be of most importance in relation to the Five Freedoms (FAWC, 1993). A limited number of questions were possible in order to allow completion in the short period available within the overall farm visit time for assessment of many different sustainability indicators.

The section on freedom from hunger and thirst included questions on food formulation and method of food and water provision (Table 1). The section on freedom from pain and disease included questions on health management, disease incidence and treatment of sick animals. The section on freedom to express natural behaviour included questions on environmental enrichment and lighting. The section on freedom from discomfort included questions on provision of shelter, environmental control, space and flooring. The final section on freedom from fear and distress included questions on pig handling and stockperson training.

From the raw data, a number of summary scores were calculated for each farm. A score for each of the five freedoms was calculated by summing the number of answers in that section defined as being positive for welfare, in accordance with scientific information defining good practice, and dividing this by the total number of answers in that section that were relevant to the farming system.

**Material and Methods for Animal Health**

Because farm visits by veterinarians result in extra costs and additional risks, a questionnaire suitable for administration by non-specialist was developed. Out of the known checklists, the elaborate questionnaire developed by Berns (1996), van der Wolf et al. (2004) and Mack (2007) was chosen, modified and translated. The questionnaire (Tables 2, 3 and 4) was administered by experienced and trained animal scientists in each of the five countries, using data supplied by recent audits, data from the management system and face-to-face interview with the farmer. The questionnaire consisted of a wide range of questions grouped into the following four dimensions: Preventive health management, Disease and vaccination status, Parasites (endo and ecto parasites) and Health situation.

Answers have not been weighted and all qualitative questions answered by ‘yes’, ‘no’ or ‘don’t know’ were scored on a scale from 0 to 1.The most favourable answer was scored 1 and the most unfavourable was scored 0. ‘Don’t know’ answers were scored differently depending on the likely consequences estimated by the authors. Table 4 presents the scores used for presence and vaccination of parasites and diseases. ‘Present/Yes’ for diseases was interpreted partly positive as some effect will be there.

Preventive health management consisted of sub-dimensions ‘Monitoring’, ‘Procedures designed with a veterinarian’, ‘Disease control and prevention’ and ‘Pest control’. For each stage of the production chain (farrowing, mating, gestation, integration, rearing and finishing) the examination method, application of ‘all-in all-out’ and ‘routine antibiosis’ were evaluated. Examination method could be answered by ‘Veterinary investigations’, ‘Observation by caretakers’ and ‘Both’ and was included in the ‘Monitoring’. ‘Antibiosis as a routine’ was considered to be negative, an average value over different stages of production was calculated for each farm, and included in ‘Procedures with a veterinarian’.

Disease and vaccination status was questioned regarding presence and vaccination therapy for the following diseases: Parvovirus, Red murrain, Influenza, Porcine Reproductive & Respiratory Syndrome (PRRS), Mycoplasma, Escherichia coli (E. coli), Actinobacillus Pleuropneumonia (App), Clostridium, AR, Streptococcus, Lawsonia, Salmonella, Staphylococcus, Haemophilus Parssuis. Each disease was checked for Presence (Present/Absent/Don’t know), Vaccination (Yes/No) and clinical symptoms. It turned out that the information on clinical symptoms could not be included in the analyses. 'Present" was scored 0.2 when associated with vaccination and 0 where no vaccination was performed (Table 2). ‘Absent’ was always scored 1. ‘Don’t know’ was perceived close to absence and scored 1 when associated with vaccination and 0.8 where no vaccination was performed.

The occurrence of endo- and ecto-parasites was questioned separately for the different stages of production ‘young breeding sows’, ‘sows and boars’, piglets’’ and ‘finishers’. Each stage was analysed as a sub dimension. Present was scored 0 and absent was scored 1. ‘Don’t know’ was scored 0.5 in combination with ‘Yes’ for therapy and 0 where no therapy was performed. Because helminthes survive in the pig environment (Joachim et al., 2001) validation on presence will be negative, although) treated animals can be temporally free of helminthes.

Health status was questioned separately on specific diseases or disorders, and analysed as sub dimensions, in the farrowing, mating, weaning and finishing units. Answers were rated 0 for undesired and 1 for desired, and the average value was calculated for each stage of production. For each farm an average value was calculated as an average of all units. In the farrowing unit litter uniformity, sow metritis, and mastitis, as well as piglet diarrhoea, locomotion, acute respiration problems and growth were rated. In the mating unit body condition, mastitis, metritis and mating behaviour were rated. Weaning and finishing units were rated for diarrhoea, locomotion, skin diseases, acute respiratory problems, as well as uniformity and growth rate. Finally, on overall health score (Health) was calculated as the average of the four dimensions.

**Material and Methods for Meat Safety**

To limit possible costs and avoid making the tool an additional risk at farm level by extra farm visits, a questionnaire suitable for administration by non-specialist was developed. Several available tools (Tuominen *et al.* 2003; Siekinnen *et al.* 2006; Hautekiet *et al.* 2008; Pinillos and Jukes 2008; Howell and Hutchison 2009; Jacxsens *et al.* 2010; Baert *et al.* 2011) for the assessment of meat safety risks were combined to design the questionnaire, covering important aspects of meat safety assessment in primary production and suitable to be administered by experienced people that are not specialist on this theme. The questionnaire was developed following the ideas of quality management (Stretch, 2005), where hazards are addressed as aspects of food safety management on the stage of food preparation. The six dimensions of the questionnaire were designed following earlier reports by others (von Borell *et al.*, 2001; Fosse *et al.*, 2011; Doyle and Erickson, 2012; Jenson and Sumner, 2012). The meat safety tool covered six dimensions, each being addressed with a different set of questions (Tables 5 and 6) regarding a meat safety aspect. Each of the 60 questions represented one meat safety aspect and could be answered with ‘Yes’, ‘No’, ‘Don’t know’ or ‘Not applicable’, where in all cases a ‘Yes’ answer indicates a conformity with a desired situation (Tables 1 and 2). For subsequent analysis, answers were replaced by scores: 'Yes' and 'Not Applicable' answers were scored 1.0; 'No' was scored 0.5.

The scores vary between 0.2 and 1.0. A score of 0.0 was avoided, as there are measures available to prevent biological hazards which were not addressed in the questionnaire. The answer ‘Not applicable’ was given a score of 1 in order to avoid penalizing the farms where this question did not apply. It has been given e.g. for questions dealing with specific management methods which could not be applied because an activity was not present of due to the special requirements of a farming system (for instance hygiene sluice in free-range farming). The lowest score 0.2 was given for the answer ‘Don’t know’. Knowing that only responsible employees or the owners of the farms were interviewed, ‘don’t know’ implies a lack of interest for the meat safety aspect. This is worse than the decision not to take specific measures to improve the meat safety situation, due to a special farm situation (e.g. location of the farm, market demands or farming system). The following formulae were applied to calculate the conformity with requested aspects of meat safety on the dimensional level (Formula 1) and also to calculate the overall level of conformity (Formula 2) of single farms:

**Formula 1** *Level of conformity of meat safety aspects within single dimensions*

$$L\_{j}=10×\frac{1}{n\_{j}}\sum\_{i=1}^{n\_{j}}x\_{ij}$$

*Lj* = Level of conformity of dimension j (1-6);
*nj* = Number of questions for dimension j (1-6);
*xij = Score for* answer to question i within dimension j

**Formula 2** *Overall level of conformity of dimensions of meat safety aspects*

$$Safety= \frac{1}{n\_{d}}\sum\_{j=1}^{n\_{d}}L\_{j}$$

*Safety* = Overall conformity for Meat Safety;
*Lj*= Level of conformity of dimension j (1-6);
*nd* = Number of dimensions (6)

**Material and Methods for Working Conditions**

A questionnaire was developed to encompass the different aspects of working conditions considered to be of relevance for stock-people on pig farms. This included sections on the degree of automation, working conditions, job satisfaction and occupational health issues. The majority of questions were closed, with possible answers being either yes/no for factual questions or on a 5 point scale for opinions. A brief summary of the content of each section is given below, and the full questionnaire is presented in Tables 7 and 8.

The section on the degree of automation contained questions on the tasks of feeding, watering, ventilation, manure handling and data recording for animals of each production stage present on the farm. The response classified each task as fully- automated, semi-automated or carried out manually. The section on working conditions asked about perceptions of the physical demands of the job, the degree of job security, the adequacy of equipment and staff facilities, the working hours, remuneration schemes and provision of training. Job satisfaction was assessed through questions on the rating of the workplace, management communication and overall job satisfaction. Industrial health questions covered the occurrence of injuries, respiratory health and hearing impairment and the availability of protective equipment.

From the raw data, a number of summary scores were calculated for each farm. An Automation Score (0-3) was derived by denoting hand labour as 1, a semi-automatic system as 2 and fully automatic system as 3, and then taking a mean value of all operations relevant on that farm. A Facilities Score (0-3) was derived by summing the number of “yes” answers regarding the provision of protective clothing, and adequate facilities for washing and mealtimes on site. A Work Time Score (4-17) was derived by coding the answer to each question on working hours, weekend working and holiday allowances in ascending order of time at work, and adding together the resulting scores. A Training Score (0-3) was derived by scoring 1 for the receipt of any on-farm training and 2 for any off-farm training.

Respondents’ ratings for a number of aspects of their job were derived. The physicality of their job was scored on a 1-5 scale of decreasing hardness, their job security was scored on a 1-5 scale of increasing security, and their perception of the adequacy of the equipment they used was scored on a 1-5 scale of increasing adequacy. The respondents’ ratings of their workplace and their overall job satisfaction were scored on a 1-5 scale in increasing order of pleasantness.

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**Table 1** *Questionnaire used for assessing welfare of growing finishing pigs*

**1. Freedom from hunger and thirst**

1.1. Do animals have access to water 24 hours per day? *(Yes/No)*

1.2. Do animals have access to food 24 hours per day? *(Yes/No)*

1.3. Please indicate the number of pigs per pen and the number of feeding/drinking spaces
*(N pigs, N feeding spaces, N drinking spaces)*

1.4. What is the flow rate from drinkers? *(litres/minute)*

1.5. How often are header tanks emptied and cleaned?

1.6. Are diets formulated by a professional nutritionist? *(Yes/No)*

1.7. When diets are changed, how is this done? *(Abrupt change/gradual change)*

**2. Freedom from pain and disease**

2.1. Does the unit have a herd health plan? *(Yes/No)*

2.2. When was this last reviewed?

2.3. How often does your vet carry out routine visits?

2.4. What is the % mortality of finishing pigs on your unit? *(%)*

2.5. Within the last 3 months how many pigs have received antibiotic treatment? *(N pigs)*

2.6. Of pigs slaughtered within the last three months how many carcasses have been condemned? *(N pigs)*

2.7. Please state the reasons for any condemnations below

2.8. Have your stock-people received training in the selection and administration of veterinary medicines? *(Yes/No)*

2.9. Does the unit have a hospital pen for sick animals? *(Yes/No)*

2.10. Is it washed and disinfected after use? *(Yes/No)*

2.11. Do buildings follow an all in- all out policy *(Yes/No)*

2.12. Following emptying are pens pressure washed using an approved disinfectant *(Yes/No)*

2.13. How are pig euthanized? *(Humane Killer/Other….)*

**3. Freedom to express natural behaviours**

3.1. Do all animals have access to environmental enrichment? *(Yes/No)*

3.2. In what form is this provided?

*Floor based manipulable non-edible (e.g. ball, wood, wellies)*

*Hanging manipulable non edible (e.g. chains)*

*Rooting substrate non floor based*

*Shallow straw on floor*

*Deep straw on floor*

3.3. Does the lighting regime allow pigs to have a period of continuous darkness ? *(Yes/No)*How long is this

**4. Freedom from discomfort**

4.1. Outdoor pigs only: are pigs provided with a shelter that

a. is wind/rain/weather proof *(Yes/No)*

b. allows then all to lie down comfortably at the same time? *(Yes/No)*

4.2. Outdoor pigs only: are pigs provided with a means to reduce the risk of sunburn and heat stress? *(Yes/No)*Is this in the form of:

*a) Mud Wallows (Yes/No)*

*b) Cool, ventilated shaded areas where all pigs can lie down simultaneously (Yes/No)*

*c) Showers/Sprinklers (Yes/No)*

**5. Freedom from fear and distress**

5.1. Have your stock-people received training in the care of animals? *(Yes/No)*

5.2. Are groups of animals ever mixed after weaning? *(Yes/No)*

5.3. When moving animals do you use a

*Pig Board (Yes/No) / Goad (Yes/No) / Other ………..*

**Table 2** *Questionnaire used for assessing animal health: Preventive Health Management and Disease and Vaccination Status*

|  |  |
| --- | --- |
| **1. Preventive Health Management** |  |
| 1.1 Herd health is monitored by |  |
| * Observations a
 | * Production records a
 |
| * Testing a
 | * Way of Examination c
 |
| 1.2 Following procedures are designed in consultation with a veterinarian |
| * Disease control/prevention programs a
 | * Medication protocols a
 |
| * De-worming a
* Antibiosis as a routine b
 | * Vaccination a
 |
| 1.3 Disease control/prevention |  |
| * Sick animals are immediately treated and/or removed from groups to treatment areas a
 |
| * Any unusual illness is immediately brought to the attention of veterinarian a
 |
| * All inn, all out e
 |  |
| 1.4 Pest control |  |
| * Professional pest control services are used to prevent rodent and insect infestations a
 |
| * Access to feed by rodents is minimized by storage in rodent-proof containers and the prompt clean-up of spills a
 |
| * Building design and maintenance discourage the entry and harbourage of pests a
 |
| **2. Disease and Vaccination Status** d |  |
| * Parvovirus
 | * Clostridium
 |
| * Erysipelothrix rhusiopathiae (Red murrain)
 | * Atrophic Rhinitis (AR)
 |
| * Influenza
 | * Streptococcus
 |
| * Porcine Reproductive & Respiratory Syndrome (PRRS)
 | * Lawsonia intracellularis (Lawsonia, Ileïtis, PIA)
 |
| * Mycoplasma hyopneumoniae
 | * Salmonella
 |
| * Escherichia coli (E. coli)
 | * Staphylococcus hyicus
 |
| * Actinobacillus Pleuropneumonia (APP)
 | * Haemophilus Parssuis
 |

a Possible answers were 'Yes' (scored 1) or 'No' (scored 0).

b Possible answers were 'Yes' (scored 0) or 'No' (scored 1).

c Possible answers were 'Caretaker', 'Veterinarian' (both scored 0.6) or 'Both' (scored 1).

d See Table 3 for possible answers and associated scoring.

e Possible answers were 'Don't know' (scored 0.5), 'Yes' (scored 1) or 'No' (scored 0).

**Table 3** *Questionnaire used for assessing animal health: Parasites and Health status in production units*

|  |
| --- |
| **3. Parasites (8)** a,b |
| **4. Health Status in the production units** |  |
| 4.1 Farrowing unit (7) |  |
| * Metritis (Sows) c
 | * Acute respiratory (Piglets) c
 |
| * Uniformity litter d
 | * Locomotion problems (Piglets) c
 |
| * Mastitis problem (Sows) c
 | * Appropriate Growth rate (Piglets) d
 |
| * Diarrhea problems (Piglets) c
 |  |
| 4.2 Mating unit (4) |  |
| * Defluxion/metritis c
 | * Mastitis/ Udder inflammation c
 |
| * Body condition too low c
 | * Satisfactory Mating behaviour d
 |
| 4.3. Weaning unit and 4.4. Finishing unit (6) |  |
| * Diarrheal disease c
 | * Skin disease c
 |
| * Acute respiratory c
 | * Uniformity group d
 |
| * Locomotion problems c
 | * Appropriate Growth rate d
 |

a See Table 4 for possible answers and associated scoring.

b Presence and therapy of endo-parasites and ecto-parasites were questioned separately in units for young breeding sows, sows and boars, piglets and finishers.

c Possible answers were 'Don't know' (scored 0.5), 'Yes' (scored 0) or 'No' (scored 1).

d Possible answers were 'Don't know' (scored 0.5), 'Yes' (scored 1) or 'No' (scored 0).

**Table 4** *Possible answers and scoring for Parasites and Disease and their Vaccination status*

|  |  |  |
| --- | --- | --- |
| Answers | Presence of parasites / Therapy | Presence of diseases / Vaccination |
| Present / Yes | 0 | 0.2 |
| Present / No | 0 | 0 |
| Absent / Yes | 1 | 1 |
| Absent / No | 1 | 1 |
| Don't know / Yes | 0.5 | 1 |
| Don't know / No | 0 | 0.8 |

**Table 5** *Questionnaire used for assessing meat safety: General, Contact with outside environment and personal hygiene*

**General**

***Instructions (persons responsible)***

Do you follow requirements of guidelines like “Good Hygiene Practice” etc.?

Do you produce under a quality system? (Ex. QS, IKB, QSG, Certus; if yes please comment the name)

Do you attend to a meat brand programme? (if yes, please comment)

**Contact with outside environment**

***Instructions (persons responsible)***

Do you demand cleaning and disinfection of the vehicles, loading ramp, drivers etc. (time and manner)?

Do you instruct how long the last contact (of vehicle and driver) with a pig farm has to date back, to enter your farm?

Do you have determined a special routing, that each supplier/customer has to follow with his vehicle/by foot on the farm-site?

Is it obvious to anyone that it is forbidden to get into contact with the animals?

***Monitoring***

Do you make visual inspection if the transport vehicles etc. have been cleaned? (cleaning grade depending on the transport goods)

Do you make sure that the haulier uses the required ways on the farm-site?

Do you make sure that only your employees and your equipment is used inside the stable?

**Personal hygiene**

***Instructions (persons responsible)***

Do you have a documentation of all persons entering the stable?

Do you have a hygiene sluice for each stable? (If only for the farm on the whole, please comment)

 + Is the room divided into a black and a white area? (for example with a bench)

 + Is there a shower? (esp. for breeding, multiplying farms)

 + Is a wash-basin with disinfection for the hands installed?

 + Is there in your hygiene-sluice a disinfection-bowl for the boots?

 + Are there fresh work clothes for everyone entering the stable/farm in your hygiene sluice?

While entering the stable/farm by the hygiene sluice, does everyone…

 + change boots and clothes?

 + clean and disinfect the whole body/ hands using the shower/ wash-basin?

 + disinfect the boots when leaving the stable by using the disinfection-bowl?

 + use all materials (buckets, force-boards etc.) only inside or outside the stable/ in one stable section?

 + disinfect the boots between the sections?

Are the hygiene sluice, the work clothes and the boots cleaned and disinfected every week?

***Monitoring***

Do you make sure that the hygiene sluice is clean?

Do you make sure that there are enough clean clothes and boots available for everyone entering the stable/farm?

Do you document when visitors enter the stable/farm?

Do you make sure that all entering persons use the hygiene sluice?

Do you document when the hygiene-sluice is cleaned and disinfected?

Do you make sure by this list that the hygiene sluice is cleaned regularly?

**Table 6** *Questionnaire used for assessing meat safety: Cleaning and disinfection, Vaccination management and Verification*

**Cleaning and disinfection**

***Instructions (persons responsible)***

Do you apply the all-in/all-out-method? (discharging the whole stable-section, cleaning and disinfection of the empty-section)

Do you clean the stable-section, the corridors and all used equipment after the pigs left the stable? (force-boards, buckets etc.)

Do you use an adequate disinfectant? (if yes, please comment in regard to the efficacy against pathogens)

Do you follow the manufacturer’s instructions of the cleaning agent regarding the use and maintenance of equipment and use of chemicals for cleaning and disinfection?

Proceeding of the cleaning and disinfection:

 + Is an automatic system to soak the dirt used on your farm?

 + Do you remove the coarse dirt and feed remains with a high pressure cleaner?

 + Do you always clean the section from the ceiling down to the floor?

 + Do you clean the used equipment (buckets, boards etc.)?

 + Do you drain the liquid-manure channels?

 + Do you wait until all planes and surfaces are completely dry before new pigs enter the section?

 + Do you disinfect all planes and surfaces?

 + Do you always adhere the affecting period of the used cleaning agent?

 + Do you change the active ingredients of the disinfectants sometimes to avert resistances?

***Monitoring***

Do you make sure that the stable is completely dry before disinfection?

Do you inspect the stable as well as the equipment after cleaning?

**Vaccination management**

***Instructions (persons responsible)***

Do you instruct your personnel about the legal requirements to handle and use vaccines?

Do you have a vaccination-plan designed from you and the veterinarian?

 + Do you document with which pathogens/diseases the pigs have contact?

 + Have you determined against which pathogens a vaccination is suggestive?

 + Have you defined which vaccination methods should be used?

Implementation of the defined vaccinations:

 + Knows everyone, accomplishing the vaccinations, about the vaccination plan and what do they have to pay attention to while injecting the pigs?

 + Do you make sure that the vaccination is done according to the vaccination plan?

***Monitoring***

Do you keep a list of personnel that are trained to carry out vaccinations?

Do you make sure that all involved persons are familiar with the necessary requirements?

Do you keep a document with the conducted vaccinations, the group of pigs, the used serum and the date?

Do you make sure on the basis of this document that the vaccination plan is complied with?

Do you weekly check if the adequate amount of the required serums and equipment is available?

Do you weekly check together with the veterinarian, if the vaccination plan is still current?

Do you make sure that the waiting times after vaccination are kept?

**Verification**

***Instructions (persons responsible)***

Do you and your employees record all monitoring activities and corrective actions you perform?

Is this documentation kept on your farm for a determined period of time?

**Table 7** *Questionnaire on degree of automation*

**Degree of automation**

Feeding: *By Hand / Semi Automated / Fully automated*

Provision of water: *By Hand / Fully automated*

Ventilation of Housing: *By Hand / Fully automated / NA*

Slurry/Manure Handling: *By Hand / Semi Automated / Fully automated*

Information Recording*: Paper based / Computer based*

**Table 8** *Questionnaire on the workplace and work perception by employees*

**About You**

Your age: *under 20 / 21-30 / 31-40 / 41-50 / 51-60 / 60+*

Are you: *Male / Female*

Your Role on Unit: *Stockperson / Technician / Section Head / Manager / Owner*

Highest Level of Education: *None (no formal qualifications) / High School Exams / University Degree / Postgraduate Qualification / Vocational Qualification / Other ………*

How long have you worked on the unit: *Less than 6 months / 6 months to 1 year / 1-2 Years / 2-3 years / 3-4 years / More than 4 years*

Do you work: *Full Time / Part Time / Weekends Only / Casual staff*

**About the Unit**

Type of Unit: *Farrowing Unit Only / Finishing Unit Only / Farrow to Finish*

Number of Sows: *Less than 50 / 51-100 / 101-200 / 201-300 / 301-400 / 401-500 / More than 500*

Number Finishing Pig Places:

**Your workplace**

How physically hard is your job?: *Very hard / Hard / Neither hard nor easy / Easy / Very easy*

How secure is your job?:
*Very secure / Secure / Neither secure nor insecure / Insecure / Very insecure*

How adequate is the equipment/machinery you use in your job?:
*Very adequate / Adequate / Neither adequate nor inadequate / Inadequate / Very Inadequate*

Does your employer provide you with protective clothing?: *Yes / No*

Are facilities provided for you to wash your hands?: *Yes / No*

Is there a place for you to take your breaks/eat lunch?: *Yes / No*

On average how many hours a day do you work Mon-Fri (not including breaks and lunch times)?:
*Less than 8 / 8-10 / More than 10*

How many weekends a month do you work on average?:
*Less than one / One / Two / Three / Four or more*

When working at the weekend, how many hours on average do you work per day (not including breaks/lunchtimes)?:
*Less than two / Two to four / Four to six / Six to eight / Eight to ten / More than ten*

How many days holiday are you entitled to each year?:
*20 days or less / 21-25 days / 26-30 days / 31-35 days / 35 days or more / Don’t know*

How does your workplace rate as a place to work?: *Very pleasant / Pleasant / Neither pleasant nor unpleasant / Unpleasant / Very unpleasant*

**Bonus/Incentive Scheme**

Does your employer provide a bonus/incentive scheme?: *Yes / No*

If yes, do you feel that the scheme offered is fair?: *Yes / No*

How important is the provision of a bonus scheme to you?:
*Very important / Important / Neither important nor unimportant / Unimportant / Very unimportant*

**Provision of training**

Have you, in the past twelve months attended any training courses on farm?: *Yes / No*

If yes how many days? …………………………

Have you, in the past 12 months, attended any training courses off farm?: *Yes / No*

If yes, how many days? ………………………..

How important to your overall level of job satisfaction do you rate the opportunity to participate in training courses?: *Very important / Important / Neither important nor unimportant / Unimportant / Very unimportant*

**Communication**

How do you rate the communication between management and employees on your unit?
*Very good / Good / Neither good nor poor / Poor / Very Poor*

**Overall level of satisfaction**

Overall, how would you rate your job satisfaction?
*Very satisfied / Satisfied / Neither satisfied nor dissatisfied / Dissatisfied / Very dissatisfied*

**Injuries at Work**

In the last twelve months how many days have you taken off work due to illness or physical injury?

How many of those days were due to injuries/illness sustained at work?

If the injury/illness was work related was it
*Respiratory / Back Problems / Broken/Dislocated Bone or Joint / Stress Related / Other*

If other please specify: ………………………

**Health Surveillance**

Do you wear a dust mask when

Mixing Feed: *Yes / No / N/A*

Mucking Out animals: *Yes / No / N/A*

General Husbandry Tasks in Animal Buildings (e.g. feeding, checking stock): *Yes / No / N/A*

Chopping/Blowing Straw: *Yes / No / N/A*

Do you suffer from any of the following (tick all that apply)

Recurring sore/watery eyes: *Yes / No*

Recurring blocked nose: *Yes / No*

Bouts of coughing: *Yes / No*

Chest Tightness: *Yes / No*

Wheezing: *Yes / No*

Persistent chest problems: *Yes / No*

If you ticked any of the responses in the question above, do the symptoms improve during:
*Weekends / Holidays*

Have you ever had your hearing tested during your adult life?: *Yes / No*

If yes, did the test reveal any hearing impairment?: *Yes / No*

If yes, please specify: ………………

Do you wear ear defenders when feeding animals?: *Yes / No / N/A*

Do you wear ear defenders when operating machinery?: *Yes / No / N/A*

Do you wear ear defenders when carrying out birth routines/castrating piglets: *Yes / No / N/A*

If you do not wear ear defenders, is it because:
*Not provided / Provided but choose not to / Didn’t realise that I should*