RIBMINS WG 1
Scope and targets of meat safety assurance

Presentation CPH Nov 7, 2019

Grant period goals WG 1 Year 1

- **To collect information for existing MSAS (e.g., structure, type of animals and size of abattoirs per country) and conduct case study analysis (poultry, red meat) on MSAS focus and impact along the production chain - the outcome will exemplify different approaches to and different contexts of MSAS.**
- *To define what are the current MSAS and future MSAS objectives and deliverables in terms of food/meat safety, animal welfare, environmental protection, food/meat quality, ethical and sustainable food production, and monitoring and surveillance*
- *To consider and draft outline the competency profiles of the future "risk managers".*

Outline of work 2020

- **Outline for work on the skeleton report –**
  - **Do we foresee a MSAS aligned on other food control work or to continue with the individual animal inspection (AM/PM)**
  - **need to settle the issue of scoping of MSAS,**
  - **collect and analyze ongoing schemes for meat safety and/or quality as templates for future MSAS,**
  - **looking at the competencies of the risk manager.**

Objectives WG 1

1. Mapping existing meat safety and quality assurance schemes;
2. Identification of the scopes/aims of the current and the future meat inspection and meat safety assurance system and the interface of public health with animal health and welfare assurance;
3. Identification of the roles and responsibilities within the current and the future risk based meat safety assurance system (all informed by outputs from WG2, WG3 and WG4);
4. Mapping the roles of the risk manager in the future meat safety assurance system;
5. Prioritisation of the hazards (risk-ranking, periodic re-ranking and regional rankings of hazards for public health and animal health and welfare) and investigation of approaches for setting risk-related targets in the meat chain.

New Zealand expert – Steve Hathaway's comments

- *Meat Safety Assurance Systems" obviously cover expected outcomes that are additional to food safety;*
- *in fact in modern meat hygiene systems we seem to spend more scientific and regulatory effort on non-food safety outcomes e.g. authenticity, labelling and composition, consumer expectations (such as welfare, halal, organic, country of origin, health claims).*
- *Beyond regulation, government is also expected to increasingly consider policy settings on sustainability and food security when designing a MSAS. Thus we have an important scoping question (with supporting narrative) to resolve.*

Steve's comment on outcomes

- **Primary outcomes from meat hygiene programmes are safety, suitability / wholesomeness, quality, authenticity, animal welfare (food defence) – suggest focus on these**
- Secondary outcomes from meat hygiene programmes are: cost-effectiveness, efficiency, innovation and equivalence, occupational safety
- Tertiary (perhaps policy) outcomes from meat hygiene programmes are: sustainability of agriculture systems (and environment), technological innovation, food security.

Scoping - in a complex context

- Scope only food safety – or all the other tasks, policy too?

- Considerations included beyond food safety could include
  - Food policy aims i.e., sustainability,
  - Food quality,
  - *authenticity, labelling and composition,*
  - monitoring and surveillance of animal health and welfare,
  - baseline studies of food safety hazards both biological and chemical
  - Monitoring animal health hazards incl., state and progress of disease control programs
  - environmental monitoring,
  - feed back to farmers on quality,
  - *consumer expectations (such as welfare, halal, organic, country of origin, health claims).*
  - origin of the meat as well as of the feed.

Scoping vs Food policy - aims

- Sustainable
  - Environmental/climate change (CO_2, methane, water, land)
  - Economical (profitability, risk,)
  - Social (welfare, AMR,
- Security – enough healthy food
  - **Safety, defence, fraud and quality**
- Nutrition – metabolic syndrome
  - Too much sugar, fats,
  - Too little fiber
- Novel foods – food waste
  - Insects as meat

Scoping vs Food Policy Challenges – EU

• Safety -

- Campylobacter & ESBL in poultry
- AMR in e.g., imported seafood from Asia
- Listeria in cold stored RTE foods

• Fraud – defence

- Horsemeat instead of beef in lasagne
- Pork filet sold as filet Mignon
- Fraudulent relabelling of foodstuffs with regard to e.g., origin, ecological, best before dates
    - Minced meat

• Quality

Quality issues winter 2017 – food recalls

- Allergens – minced meat - cross contaminated foods from nuts, milk or egg proteins, seafood
- Abnormal smell and taste
- Misleading tables of contents
- Transport and packaging failures

• Waste footprint

- Between 30-50% of food wasted
- Ecological footprint (water, CO2, land use)
- Climate change – Paris agreement
- Sustainable production of meat (beef, pork, poultry) (AMR, protein and energy efficiency)

Scoping MSAS vs food security matrix

Consequence				
	Gain	Economic	Food quality – consumer acceptance	Food fraud – Cheating
	Harm	Public health, economic, terror	Food safety – Prevent food borne illness	Food defence – protection against intentional harm
		Intention	No intention	Intentional

Parallell activities – with MSAS implications

- Parallel activities –
  - meat inspection (AM, FCAI, PM)
  - meat grading (fat, quality),
  - Animal disease and welfare monitoring and surveillance both official and private.
  - Sampling for baseline studies – what is entering the food chain chemical & biological hazards
  - Quality assurance systems (origin, ecological/organic)
  - Feedback to farmers
  - Feedback on slaughterhouse operations
  - Auditing of the slaughter house
  - Food defence and fraud issues

- Q1 – how to deal with all the other aims of meat inspection?
- Q2 – how to manage multiple and varying hazards to achieve acceptable risk?
- What does this mean for the risk managers competency profile?
- MSAS implemented in a context of multiple stakeholders, multiple objectives.
- Whom should own the MSAS?

What should be the scope of the future MSAS?

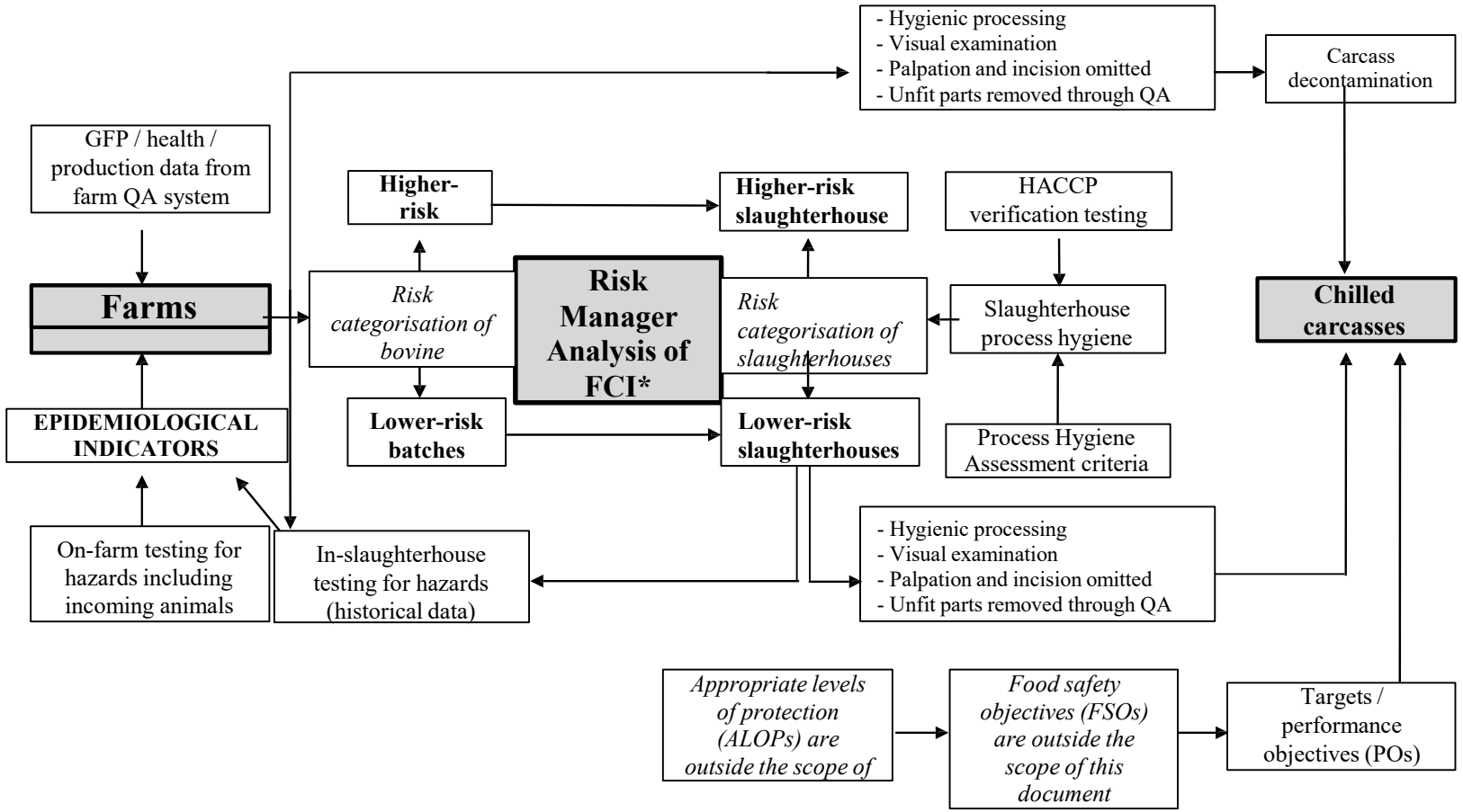
- Should a MSAS be comprehensive multiscoping exercises or only focusing on food safety
  - If the MSAS are the FBOs responsibility they may wish to include meat quality, welfare, origin etc.
  - If the MSAS are official only focus on food safety.
- Operating parallell meat quality & safety assurance schemes?
- Challenge of risk based meat inspection
  - That is the MSAS has to be adaptable to changing risks, different geographical risks
- Role of risk manager – what should be the narrative?

Further thoughts

- Principal question

1. ***Do we think the future meat inspection and MSAS should be aligned with normal food control - FBO model? or***
2. ***Do we want to modernize the official meat inspection of live animals and carcasses?***

- ***Look at strength and weaknesses and basic requirements for each questions***



*This is an example of alternatives that the risk manager may select

Figure 2: Main elements of a generic example of bovine meat (carcass) safety assurance system with respect to *Salmonella* spp. and pathogenic VTEC.

WG 1 tasks

1. Workshop on meat inspection and meat safety assurance scopes – to be done at CPH meeting November 2019?
2. Workshop on the roles and responsibilities in the future risk based meat safety assurance system; June/july 2020
3. Training School on risk-ranking tools and methods and setting of risk-related targets in the meat chain. Autumn 2021

Role and competencies of the risk manager

- Basic requirements
- Employed by the FBO? Or by competent authority
- Interaction risk manager and competent authority.
- Will follow from the narratives chosen and scopes of the MSAS
- Need fit for purpose, flexible

    - If chosing FBO model – able to a ongoing exercise assess risks from the different hazards, impact of risk mitigation options

Deliverables

1. Preliminary report on scope of meat safety assurance system and competences and roles of risk manager; (autumn/end of year 2020)
2. Final report on scope of meat safety assurance system and competences and roles of risk manager (autumn 2022)

Some

- All control on food items apart from meat inspection is done by the food business operator and supervised/audited/verified by the official control.
  - Meat inspection only official control of individual food items (live animals and carcasses)
- A future MSAS has to be risk based – achieve acceptable levels of (food safety risks).
- A future MSAS will be integrated some way with other quality assurance schemes

Items to be highlighted if possible.

- Outline on what is available on ALOP, FSO,
- Cost effectiveness of the mitigation options
- Focus on pre-harvest, harvest, post-harvest (until chilling)
- FCI – AI (how to introduce techniques).
- Wait to until Copenhagen, to settle long term objectives
- MSAS - Safety, shelf life-quality, animal welfare,

#ChooseAssured
UK Farm Assurance Schemes Infographic

Below is a reference grid that sets out BVA priorities for farm animal* welfare against what is addressed in the standards of different UK farm assurance schemes. Products may be assured by more than one of these schemes or an assurance scheme not addressed in this graphic. Please check the label of food products carefully.

As part of the #ChooseAssured campaign, BVA is encouraging the veterinary profession and the wider public to #ChooseAssured by purchasing UK animal-derived products that are farm assured. Through the campaign we're raising awareness of the great work of the UK's farm assurance schemes and the crucial work of vets within the schemes to safeguard high animal health and welfare.

*including farmed fish

Please note that this list of the BVA's welfare priorities is not exhaustive and these priorities will be addressed and assessed differently across the different schemes. The level of welfare achieved across the different schemes may vary. For more detailed information about the different standards and requirements used by farm assurance schemes please visit their respective websites.	Farm Assured Welsh Livestock	Lion Eggs Code of Practice	Northern Ireland Beef and Lamb Farm Quality Assurance Scheme	Quality Meat Scotland	Red Tractor	RSPCA Assured	Soil Association
Animals are stunned before slaughter	Assurance does not cover slaughter	Assurance does not cover slaughter	Assurance does not cover slaughter	✓	✓	✓	✓
Veterinary involvement Veterinary professionals are involved in livestock health planning and review	✓	✓	✓	✓	✓	✓	✓
Prohibit environments that substantially reduce behavioural opportunity Enriched cages for laying hens Farrowing crates for sows (pre-birth until weaning)	N/A – Scheme only applies to beef and lamb	Permits enriched cages for laying hens	N/A – Scheme only applies to beef and lamb	Permits farrowing crates for sows (pre-birth until weaning)	Permits farrowing crates for sows (pre-birth until weaning)	✓	✓
Support responsible use of antimicrobials	✓	✓	✓	✓	✓	✓	✓
Animal health and biosecurity Measures to protect animal health and prevent the spread of disease	✓	✓	✓	✓	✓	✓	✓
Lifetime assurance Animals spend their whole lives on an assured farm, livestock transport is assured ie. standards assure the management of health and welfare during transportation and scheme has standards to ensure welfare at slaughter**	Assurance does not cover slaughter	Assurance does not cover slaughter	Assurance does not cover slaughter	✓	Pigs and meat poultry only	All species except dairy – dairy calves can be sourced from non-assured farms	Assurance does not cover transport
Measures to protect the environment ie. guidance on preventing environmental contamination, pollution and minimising waste	✓	✓	✓	✓	✓	Farmed salmon and trout only	✓

Approach WG 1

- All members of the WG contribute one case study of MSAS from their own countries.
  - Already suggested Parma ham
  - Preferable different animal production systems poultry
  - The focus is on what is been done pre-harvest, harvest and post harvest until carcases are chilled.
  - How does the described MSAS control the risks

From the application- successful MSAS

- Define precisely the objectives and to divide roles and responsibilities of the Food Business Operators & the Competent Authority
- How should risk managers in the future MSAS operate & collaborate with the FBOs and CA to optimise the overall MSAS effectiveness, as well as to assess this on an ongoing basis.
- prioritisation of hazards by risk-ranking, and periodic re-ranking and regional rankings of hazards that are real targets of MSAS.

Research coordination objectives

1. To create a network to coordinate research on the risk-based meat inspection and the whole meat safety assurance system in Europe.
2. To establish strong, dynamic and effective links between science, official authorities and meat industry (including primary meat production) in this field.
3. To develop a crude roadmap that will identify current status, multiple objectives and desired goals of meat inspection and meat safety assurance, including all in between steps, resources and responsibilities needed to achieve these goals.
4. To identify knowledge gaps and establish a consensus roadmap to foster excellence and innovative scientific research.
10. To promote European risk-based meat inspection and meat safety assurance system to other world regions, especially to overseas countries with the most intensive meat trade with Europe.

Capacity building objectives

1. To create a collaborative network of experts who will drive scientific progress in veterinary public health focused on meat safety.
2. To foster connection and collaboration of different actors involved in the new meat safety systems.
4. To identify the competency profile of food risk managers and suggest suitable training.