



**Comparison report of International  
Beef and Lamb Standards**

*Part 2*

England, Germany, Poland,  
Republic of Ireland, France and Netherlands

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# Executive summary

This report, produced by the team at Birnie Consultancy and scrutinised by a team of independent experts outlines a forensic comparison of sheep and beef standards in England (Red Tractor, RT) to a range of other assurance schemes used in Europe. These include: Quality Scheme (QS) from Germany; Quality Meat Poland (QMP) Sustainable Beef and Lamb Assurance Scheme (SBLAS) from the Republic of Ireland; Label Rouge (LR) from France; and Beter Leven (BL) 1, 2 and 3 from the Netherlands. Unlike RT, some schemes (QS, QMP and Beter Leven 1, 2 and 3) only cover beef production, however this is accounted for in the comparison.

The report also includes a high-level outline of the legislative framework in each region in which the assurance schemes operate. The report is part two of a series, the first was released in April 2024, and two further reports are due to be released during 2024 which will draw comparisons with standards in other parts of the world. The analysis of the assurance schemes uses the RT scheme as the baseline for comparison, and, where a consumer perspective was required, this was taken from the viewpoint of the English consumer. However, we have tried to account for the range of production conditions in different countries through the application of weightings, which reflect the importance of a specific practice or assurance category in each country.

It is important to note that this report is not commenting on whether a scheme is classified as adequate or inadequate. Instead, it is a detailed comparison of the content of each scheme across a range of assurance categories, allowing the reader to understand performance in the areas which are important to them. The intention of this report is not to demonstrate that any one scheme is superior or inferior to other schemes. Rather, it is intended to evidence the current position of standards, enabling informed discussion regarding the future of regulatory and voluntary schemes/initiatives.

## Analysis

To enable the analysis, and as a direct result of each assurance scheme containing its own modules and categories which did not facilitate straight comparison, a series of fourteen categories were devised, and each of the schemes were scrutinised to understand and report their performance in each of these categories:

1. Traceability, Documentation and Assurance
2. Personnel
3. Food Safety
4. Housing and Shelter
5. Feed and Water
6. Husbandry Procedures
7. Youngstock Management
8. Animal Health and Welfare
9. Animal Medicines
10. Biosecurity and Disease Control
11. Livestock Transport
12. Vermin Control
13. Fallen Stock
14. Environmental Protection

Scores were awarded to each scheme on the basis of how well it addressed the questions in each category (Appendix 1), and the question scores were then weighted within each category. The total section score was then weighted between the categories, and between the different countries in the study.

## Country weightings

There are many common agricultural practices between each of the countries in the study, but there are slightly different contexts in which they are applied. Weightings were applied to reflect the importance of the practice in the different countries relative to England, where the RT scheme was always weighted at 100.

Within this specific report (Lot 2), the only country weighting which differed from RT and SBLAS was in the livestock transport category, where, due to the potentially increased frequency of longer journey distances, control of transport on the European mainland was deemed to be more important than in England or Ireland because of the potentially greater distances over which animals could be transported within Europe.

### Category weightings

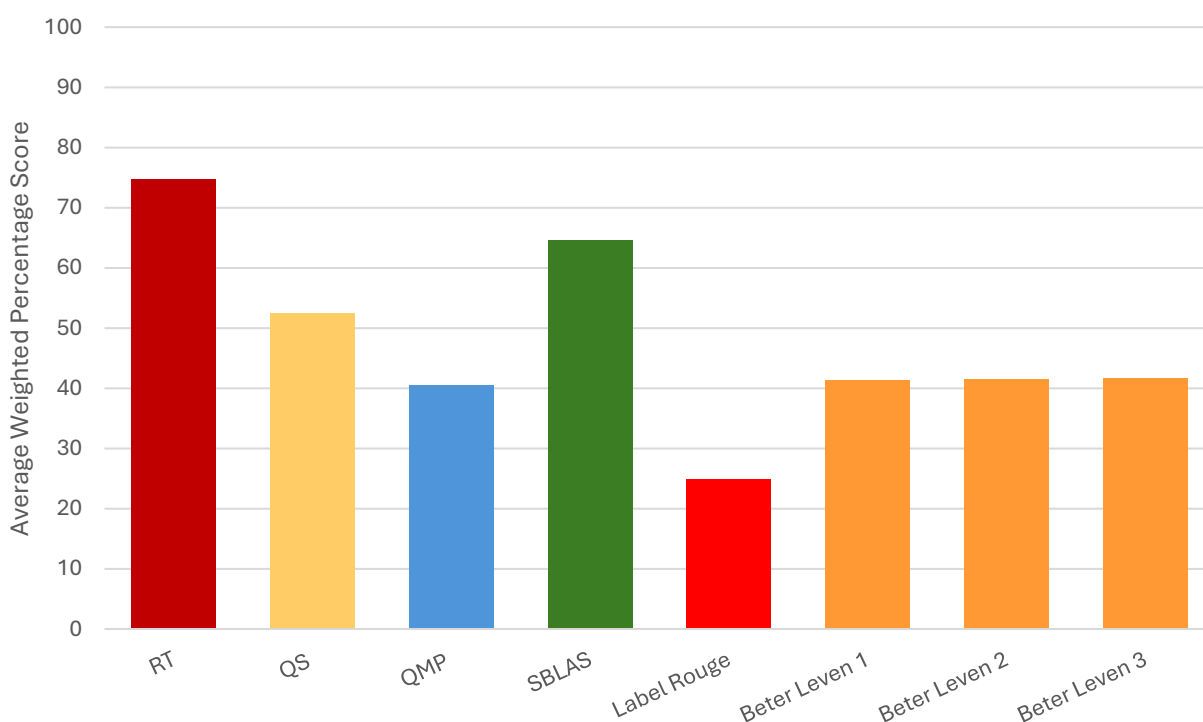
Each of the fourteen analysis categories were also awarded a weighting which reflected their relative importance to the other categories within the scheme. These weightings are shown at the end of the report.

### Question weightings

Within each category some questions were recognised as more important than others, and weightings were applied to reflect the relative importance of each. The weightings are shown at the end of the report.

## Summary of findings

**Figure 1: Weighted percentage score for each scheme**



**The X-axis shows schemes analysed within this report: Red Tractor (RT), Quality System (QS), Quality Meat Poland (QMP), Sustainable Beef and Lamb Assurance Scheme (SBLAS), Label Rouge, Beter Leven 1, 2, 3**

The overall findings from this study show that, when directly compared, RT achieves higher scores than the majority of the other schemes across most areas. However, because the focus of schemes was different, this is not unexpected, and there are specific areas where individual schemes score more highly than or take a different approach to RT, meaning that there are areas where learnings can be taken from those schemes and applied.

Within this report, although a scheme’s overall weighted score may be lower than another one, this does not indicate that the scheme is sub-standard. Scheme foci differ and, as a result, assurance requirements within the schemes will also differ. For example, Beter Leven has a welfare focus, whereas Label Rouge is intended to maximise end-product quality through effective animal management.

Although each of the schemes is designed with its country's unique farming systems and food chains in mind (which were taken into account during the weighting for this study), RT was consistently found to be more prescriptive, containing more detail than the other schemes.

All of the schemes provide some degree of customer reassurance, but this varies according to the scheme and the specific category of study. Audit frequency, and type of audit were used as one indicator of the effectiveness of the scheme. Beter Leven and QMP audit annually. RT and SBLAS audits are conducted in-person every 18 months, whereas QS Germany offers a risk-based approach to audit frequency, with higher risk/poorer performing farms being audited as frequently as every six months and lower risk farms being audited every two years.

## Summary of legislation

The legislative framework in each country was researched as part of this project. This was not a forensic analysis, but was designed to uncover the broad base legislation against which farms operate and which will inevitably form some of the requirements within assurance schemes. Broadly, all countries in this report operate against European Union legislation, but some (i.e. the Netherlands, UK and Ireland), add requirements over and above the European standard.

Legislation is useful, but by itself is rarely inspected. Farm assurance schemes provide a degree of assurance around adherence to legislation because this usually forms part of the inspection process.

## Conclusions

RT achieved a higher total score than any of the other schemes in this report. All of the schemes provide some degree of customer reassurance, but this varies according to the scheme and the specific category of study.

# Introduction

The following report outlines a forensic comparison of English Beef and Lamb standards using Red Tractor (RT), and assurance schemes from Germany (Quality Scheme, QS), Poland (Quality Meat Poland, QMP), Republic of Ireland (Sustainable Beef and Lamb Assurance Scheme, SBLAS), France (Label Rouge, LR) and Netherlands (Beter Leven, BL), as well as a high-level outline of the legislative framework in each country in which the assurance schemes operate. The analysis of the assurance schemes uses the RT scheme as the baseline for comparison, and, where a consumer perspective was required, this was taken from the viewpoint of the English consumer. Scores were awarded out of 10 for each question, and the score awarded was in relation to what would be the 'ideal' answer to each question from a UK consumer perspective.

It is important to note that this report is not commenting on whether a scheme is classified as adequate or inadequate. Instead, it is a detailed comparison of the content of each scheme across a range of assurance categories, allowing the reader to understand performance in the areas which are important to them. The intention of this report is to evidence the current position of standards, enabling informed discussion regarding the future of regulatory and voluntary schemes.

The report has been produced in response to requests to AHDB from industry partners to commission a study into standards of domestic production in comparison to key international competitors, identifying strengths and weaknesses in different global standards. This is the second of a series of studies which will be completed throughout 2024:

- Part One – Released April 2024 – Australia and New Zealand (beef and lamb)
- Part Two – Germany, Poland, Republic of Ireland, France<sup>1</sup>, and Netherlands (beef and lamb)
- Part Three – US and Canada (beef only)
- Part Four – Brazil, Argentina, Uruguay (beef only)

## Agricultural context within each study region

Assurance schemes are voluntary standards which establish production standards covering (but not being restricted to) food safety, animal welfare and environmental protection. Each of the countries in this comparison operate within different frameworks and have different foci. As independent standards, they have the ability to go above and beyond what legislation requires and can help to promote farming to the general public. Although there are a number of farm assurance schemes in England, relatively few have been found across Europe, which has made selection more straightforward.

### England

Farm assurance in England commenced with a basic series of standards which were designed to enable the scheme to be accessible to consumers while still raising standards. Over the years different schemes have developed, adding new requirements as consumer expectations change and issues of concern arise. There is still considerable push-back on occasion as new standards are introduced to meet emerging demand, sometimes from farmers and sometimes from processors due to the difficulties associated with meeting some expectations. Several different farm assurance schemes operate in England, but almost all of these operate alongside Red Tractor. English farm assurance schemes include:

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<sup>1</sup> Author's Note: This report was originally intended to analyse a Spanish farm assurance scheme. As no adequate scheme could be found for analysis, a French scheme was selected instead.



### *Red Tractor*

Very well established in England, Red Tractor was created to revive consumer confidence in British food. It was set up in 2000 and has been operating for over 20 years and is the most well-known and accepted scheme in England, sought after and respected by processors, retailers and consumers.

### *LEAF Marque*

A global assurance system that recognises sustainable food production, LEAF Marque is underpinned by integrated farm management, which is a site-specific, whole farm approach to farming.

### *RSPCA Assured*

Developed by the Royal Society for the Prevention of Cruelty to Animals (RSPCA), this standard covers every aspect of the animals' lives, including feed and water provision, the environment they live in, how they are managed, health care, transport and humane slaughter/killing.

RT was chosen as it is the most common assurance scheme applied on English farms.

## Germany

### *Quality System (QS)*

The QS Germany quality scheme for food is the leading standard for food safety in Germany and stands for quality assurance from farm to shop. Since 2001 QS has been working to ensure that all food safety standards are reliably implemented by all partners within the network.

QS Germany, in places, takes a slightly different approach to the delivery of assurance, particularly through its risk-based approach to audit.

We were unable to find any other beef and lamb assurance schemes with wide coverage in Germany.

## Poland

### *Quality Meat Poland (QMP)*

Quality Meat Poland is a voluntary, open, sustainable system for production of livestock and beef developed and managed by the Polish farmers' organisation.

QMP provides certification providing access to animal welfare subsidies. We were unable to find any other beef and lamb assurance schemes with wide coverage in Poland.

## Ireland

### *Sustainable Beef and Lamb Assurance Scheme (SBLAS)*

The SBLAS is administered by Bord Bia and was developed in response to the demands of the marketplace in reaction to an increasing demand from purchasers of Irish meat products. There was a need for proof that the meat is produced sustainably on farms that are certified members of an accredited Quality Assurance Scheme which is based on sustainability principles incorporating environmental, social and economic aspects.

SBLAS was chosen for study because it is so widely used in Ireland, with 95% of beef being assured via the scheme. There are no other beef or lamb assurance schemes that are common in Ireland. It should be noted that the SBLAS standard is currently under revision and the updated scheme is likely to be implemented from 2025.

We were unable to find any other beef and lamb assurance schemes with wide coverage in Ireland.

## France

### *Label Rouge (LR)*

Label Rouge is a French quality assurance scheme that applies to various agricultural products, including beef and lamb. It prioritizes traditional production methods and ensures a higher quality standard compared to conventional farming. The key aspects of Label Rouge are animal welfare, slower growth, and feed restrictions.

Label Rouge was chosen for study because we were unable to find other comparable beef or lamb assurance schemes within France, Italy or Spain.

## Netherlands

### *Beter Leven (BL)*

The Better Leven quality mark helps provide consumers insight into how well animals have been cared for, what the living conditions were like for the animal. Beter Leven has three tiers or “stars”, the higher the tier, the more animal-friendly and therefore the better the living conditions.

Beter Leven was chosen because it is recognised as a scheme which is gaining uptake in the Netherlands, is welfare focused and could potentially provide learnings for Red Tractor. For many other animal types, including calves, pigs, chickens and eggs, the Beter Leven standard requires compliance with the mainstream assurance standard in Netherlands (IKB, etc.) and is therefore able to rely on these standards for the more general assurance requirements, allowing Beter Leven to focus on welfare. This is not the case for beef.

### *Global Gap (GP)*

Global Gap is an assurance scheme for agriculture, aquaculture and floriculture production operating in over 130 countries worldwide with over 195,000 producers<sup>2</sup>.

Global Gap operates in the Netherlands, but the beef and sheep components of this standard are being discontinued, with current certificates valid until the end of 2024. As from January 1st 2024, the standards have been taken on by Global SLP, and as yet there is no indication as to whether members will transition. It was not thought appropriate to include either standard within this report during this period of transition. We were unable to find any other comparable beef or lamb assurance schemes which are widely used in the Netherlands.

## Outline of farm assurance schemes chosen for study

The schemes studied within this report were chosen because they have the widest coverage of any farm assurance scheme within their specific region.

### Red Tractor (RT), England

All RT farms are inspected every 18 months, allowing farms to be inspected during different seasons and stages of production, e.g. if animals are housed and are out at grass at different periods of the year. Audits are carried out by independent auditors under the control of the two licenced certification bodies NSF and Intertek SAI Global.

RT deliver approximately 60,000<sup>3</sup> supply chain inspections annually (farms, transporters, processors etc), delivered by over 350 independent inspectors. Approximately 3,000<sup>4</sup> farms of all types (livestock, arable and

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<sup>2</sup> Global Gap, [globalgap.org/about/](https://globalgap.org/about/)

<sup>3</sup> Red Tractor

<sup>4</sup> Red Tractor, [redtractor.org.uk](https://redtractor.org.uk) “Our Impact & History”

produce) failed the inspection and were suspended from the scheme in 2020 and had to apply corrective measures. These farms had their approval removed until the corrective measures were evidenced.

Most inspections are announced, and the farmer can prepare for the audit. However, depending on the nature and number of non-conformances found during routine inspections, members may be subject to unannounced inspections – numbers for which are not available.

RT facilitate a range of commercial bolt-ons and retain the ability to create additional general access additions where this is deemed to meet the needs of the industry.

The standard audited for this report was version 5.0.

### Quality System (QS), Germany

The goal of the QS Germany scheme is the assurance of process quality along all stages in the supply chain. This scheme does not cover sheep production within its standards. QS Germany is the scheme owner and holder of the QS Germany certification scheme for foods. The standards defined by QS Germany lay down strict, verifiable production criteria for all stages of the value-added food chain. The cross-stage check of these criteria, as well as the traceability of agricultural products and the foods made from them, are the distinguishing features of the scheme. Changes or revisions to the scheme manual are scheduled for the 1<sup>st</sup> of January every year.

The scheme participants conduct and document a self-assessment based on the guidelines to be used for the production, processing or marketing stage. Independent certification bodies regularly check all scheme participants for compliance with requirements. A risk-based approach (the better the result of the inspection, the longer the duration of the certificate) produces incentives to improve process quality in the companies. Definite deadlines for the correction of established defects are determined with the agreement on corrective actions.

The laboratories approved by QS Germany conduct the product tests in the monitoring programmes. Quality System works with accredited certification bodies and laboratories in Germany and abroad. The approval of the certification bodies, including the auditors and recognition of the labs, is granted by QS Germany in accordance with clearly defined criteria and qualification requirements. The cooperation between QS Germany and the certification bodies and/or laboratories is regulated per contract.

The standard audited for this report is Version: 01.01.2024rev01.

### Quality Meat Poland (QMP), Poland

QMP is a voluntary, open, sustainable system for production of livestock and beef developed and managed by the Polish farmers' organisation. This scheme does not cover sheep production.

Farms are audited by accredited certifications within four weeks from the date of receipt of the application. They are then assessed yearly, with the year starting in August. Re-inspection takes place where non-compliances are identified within four weeks of contact with the controller.

The standard audited for this report is Issue VII, 23<sup>rd</sup> November 2023.

### Sustainable Beef and Lamb Assurance Scheme (SBLAS), Republic of Ireland

The SBLAS has been developed by Bord Bia in response to the demands of the marketplace. There is an increasing demand from purchasers of Irish meat products for proof that the meat is produced sustainably on farms that are certified members of an accredited Quality Assurance Scheme which is based on sustainability principles incorporating environmental, social and economic aspects. Through measurement and analysis the

SBLAS will demonstrate the sustainability of Irish beef and lamb farming at individual farm level and provide constructive feedback to farmers to help them with decision making aimed at improving their sustainability performance.

Each member's farm is visited at a maximum of 18-month intervals<sup>5</sup> by an independent auditor. A comprehensive report on the performance of the farm is produced which can be used by the farmer to identify and implement measures that could further improve the sustainability performance of his or her farm enterprises.

We are aware of a 'Grass Fed Standard for Irish Beef' certification for this scheme, which has not been analysed as part of this report. The standard audited for this report is the March 2017 version of the Sustainable Beef and Lamb Assurance Scheme.

It is important to note that SBLAS contains a number of strong requirements to measure and improve environmental performance of the farm, rather than simply preventing environmental damage. This environmental improvement component is out of scope of this review, but it does contain several positive requirements which would bring benefits if applied within other schemes.

### Label Rouge, France

The Label Rouge is a national sign, which refers to products which by their terms of production or manufacture have a higher level of quality compared to other similar products usually marketed.

In addition to the consumers perception of the sensory characteristics of Label Rouge products, the superior quality is based on:

- production conditions, which differ from the conditions of production of usually marketed similar products,
- product image in terms of its conditions of production,
- elements of the presentation or service.

The Label Rouge is open to all products, regardless of their geographical origin (including outside the European Union).

At all stages of its production and its development, the Label Rouge product must meet the requirements defined in the specifications, validated by the Institut national de l'origine et de la qualité (INAO) and approved by a ministerial order published in the Official Journal of the French Republic.

The monitoring of compliance with these requirements and product traceability is ensured by an independent certification body on the basis of a monitoring plan approved by the INAO. Monitoring of maintenance over time of the high eating quality is ensured by performing regular sensory analysis and organoleptic tests that compare the Label Rouge product with the other available product which is not accredited by the Label Rouge scheme.

The standard audited for this report is the n°2024-13 18 mars 2024 version.

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<sup>5</sup> SBLAS (or its appointed agents) also carries out supplementary unscheduled audits for the purpose of verifying compliance with the standard, or in order to determine that corrective and / or preventive actions submitted after audit closeout are in place. Failure to permit access to such an audit may result in the suspension of the herd from the Scheme.

## Beter Leven/Better Life, Netherlands

The Better Life label is a welfare focused scheme for farmed animals. The label is intended to offer an alternative between regular and organic farming. Welfare criteria have been defined for laying hens, broiler chickens, pigs, beef cattle, calves, dairy cattle, turkeys and rabbits. This scheme, however, does not cover sheep.

The standards audited for this report are version 2.2 (Beef 1 and 2 star), and 1.2 (Beef 3 star). Beter Leven also operates a three star calves scheme, aimed at veal production, which has not been taken into consideration in this study.

## Coverage of legislation within the study

As part of the study programme, legislation within each region was investigated. This was not a forensic study to the same level of detail as delivered for the assurance schemes but was intended to give a broad understanding of the legislative framework in which farming is taking place and the assurance schemes are being delivered. An important factor to note for this study is, that just because a component is contained within legislation, it will not be considered part of the assurance scheme (and scored accordingly within this study) unless the scheme specifically refers to it and audits against it. This is because farm assurance audits take place much more frequently than government inspections against regulatory compliance and thus the presence of legislation alone does not guarantee compliance.

## Authors

After a rigorous tender process, Birnie Consultancy were appointed by AHDB to undertake this series of Reports. Birnie Consultancy is a solutions-driven consultancy working with primary and secondary food processors, farmers, supermarkets, levy bodies, research institutions and governments across the UK and Europe. They have vast experience in the comparison of farm assurance standards, having previously completed several analyses of global farm assurance schemes.

### Dr Jonathan Birnie

With over 25 years of comprehensive whole-chain experience in the Food Industry, Jonathan is well connected and brings vast experience to the project.

He is a graduate of Edinburgh University with a PhD from the Agricultural Research Institute of Northern Ireland/Queens University Belfast. He has worked as a Policy Advisor for the National Farmers Union in England before moving on to become Sainsburys' Agricultural Manager. Headhunted by Dunbia (one of Europe's leading red meat processors), he then spent 13 years running Agricultural Supply Chain Research and Development, finishing as Head of Agriculture and Research (reporting to company CEO) with a team spread across the UK. Jonathan is also a Nuffield Scholar (2014 year) where he studied methods of effecting change in agriculture and food production.

### Dr Iain Maguire

Iain has over ten years of experience in analytical, laboratory and scientific disciplines. Before joining Birnie Consultancy, Iain graduated with a PhD in Animal Behaviour and Welfare from Queen's University Belfast. He has published a range of scientific papers and has proven experience in the collection, handling and analysis of a wide range of data. He is an experienced research project manager, having delivered multiple programmes across Queens University and Randox. As a beef suckler farmer, Iain also brings first-hand experience of farm assurance standards, and how they are applied in real-life situations.

### Ashley Hassin

Ashley has over 15 years of experience working in communication and publishing. Having joined Birnie Consultancy in 2020 he has gained a wealth of knowledge on a variety of subjects, including farm assurance standards. His research, project management and communications skills have been essential to the successful delivery of project with multiple high-profile clients. These have ranged from business start-up management, farm research projects, consumer research, industry analysis, CSR report production, editing, copywriting, and auditing.

## Independent experts

To ensure that this series of reports is as credible as possible, four independent experts were recruited from an open process to scrutinise the findings of this report. At different stages they were invited to provide constructive feedback to enhance the quality of the report and ensure credible, authentic, and independent conclusions were drawn. The experts reviewed and approved the following aspects of the study;

1. *The key assessment criteria utilised by the research agency.*
2. *The final scoring associated with the assessment.*
3. *The relevant weightings of the scores, to ensure as accurate and robust a comparison as possible.*
4. *The final report's findings, ensuring they are accurate.*
5. *The final report's key conclusions, ensuring they are credible.*

### Mandy Lucas, farm animal welfare consultant

#### **Subjects covered in this report: Biosecurity and disease control; fallen stock; traceability and documentation**

Mandy is an experienced animal welfare specialist who is committed to socialising animal welfare throughout the supply chain, from primary producer to consumer.

She has been successful in facilitating conversations across global, diverse supply chains to understand animal production methods and welfare changes created by current farming methods, while providing practical solutions and pragmatic compromises to improve animal welfare whilst balancing the commercial business needs and sustainability goals.

### Jude Capper, livestock sustainability consultant and Harper Adams University

#### **Subjects covered in this report: Environmental protection; feed and water; livestock transport; vermin control**

Jude is an experienced animal scientist, with a record of publishing results in high-impact journals, using her skills to educate and inform global food system stakeholders. She has two main roles, acting as both the ABP Chair and Professor of Sustainable Beef and Sheep systems at Harper Adams University (HAU) in Shropshire, UK; and as an independent Livestock Sustainability Consultant.

Jude's research focuses on modelling the sustainability of livestock production systems, specifically dairy, beef and sheep. She is currently working on projects relating to on-farm greenhouse gas emissions from UK beef and sheep production; the sustainability of smallholder farming, and the impacts of livestock health on system sustainability. Jude is a liveryman of the Worshipful Company of Butchers and Treasurer of the National Beef Association. She is also Chair of the Route Panel for Agriculture, Environment and Animal Care and Vice-Chair of the Green Apprenticeships Advisory Panel at the Institute for Apprenticeships and Technical Education.

### Nigel Scollan, Queen's University, Belfast

#### **Subject covered in this report: Food safety; housing and shelter; personnel; young stock**

Director of the Institute for Global Food Security (IGFS) and Chair of Agriculture & Sustainability at Queen's University, Belfast, Nigel's research seeks to underpin the development of more sustainable and resilient food supply chains with focus on animal protein.

His research includes advancing the development of metrics to describe sustainability of farm systems and is using large and multi-data systems and machine learning approaches to support on-farm decision making to underpin the sustainability credentials of supply chains.

## Jonathan Statham, Veterinary Surgeon, farm & livestock sustainability consultant

### **Subjects covered in this report: Animal health and welfare; animal medicines; husbandry procedures**

A graduate of Cambridge University Veterinary School, Jonathan has over 25 years of experience in the industry. He is Chief Executive of RAFT Solutions Ltd, Chair of Bishopton Veterinary Group, and Professor of Sustainable Livestock Health & Welfare at Harper & Keele Veterinary School.

Jonathan holds, and has held many prestigious posts including President of the British Cattle Veterinary Association (BCVA) and the Yorkshire Veterinary Society as well as having sat on the GB 'Cattle Health & Welfare Group' (CHAWG), GB 'Sheep Health & Welfare Group' (SHAWG), the Veterinary Policy Group (VPG) of the British Veterinary Association (BVA) and is a past director of Cattle Health Certification Standards (CHeCS) and member of the 'Farmskills' Steering Group.

He is currently Chair of the Animal Health and Welfare Board England, a member of the GB Ruminant Health & Welfare Steering Group and Veterinary Products Committee of the Veterinary Medicines Directorate (VMD). He is Professor of Sustainable Livestock Health & Welfare at Harper and Keele Veterinary School and chairs the InSHAW (Institute for Sustainable Livestock Health and Welfare) Leadership Group.



## Methodology

We studied six schemes within this report. Some schemes covered both beef and lamb, others covered just beef. Unlike RT, QS, QMP and Beter Leven 1, 2 and 3 standards only cover beef production, and it was necessary to account for in the calculations which deliver the overall percentage score for each scheme. Where a scheme does not cover sheep, it has a lower potential raw score. The final percentage score awarded to each scheme is calculated from the maximum potential score for each scheme, meaning that the schemes which do not cover sheep have their percentages calculated using their lower maximum raw score. We provide tables at the end of the report which show the comparison of all schemes for beef only, and sheep only.

The direct comparison of farm assurance schemes is not straightforward. Schemes are designed for different reasons and have diverse foci. Most schemes are structured differently, containing a range of modules and topics, and governing different practices. This is appropriate as production practices differ very strongly across the world. As a consequence, we have carefully designed the analysis process to enable a balanced comparison of the standards, based on the typical production processes in the regions where the schemes are used.

### Analysis by category

A series of categories were devised for the farm assurance analysis. This was a direct result of each assurance scheme containing its own modules and categories which did not facilitate a straight comparison. Fourteen categories were created and the content of each scheme for each category was compared, and a score applied subjectively, based on how well it addresses the criteria. This necessitated the summarisation of the relevant content of each scheme and its entry into a database for comparison against the other schemes for each category. This was deemed to be the fairest way to enable comparison. The categories included:

- Traceability, Documentation and Assurance
- Personnel
- Food Safety
- Housing and Shelter
- Feed and Water
- Husbandry Procedures
- Youngstock Management
- Animal Health and Welfare
- Animal Medicines
- Biosecurity and Disease Control
- Livestock Transport
- Vermin Control
- Fallen Stock
- Environmental Protection

### Assessment against a series of outcome questions

Because the schemes were so different, a line-by-line comparison was not possible. Instead, each scheme was assessed against a series of questions within each category. The questions for each category are shown in each of the category analysis sections below and are also shown in Appendix 1.

### Equivalence

The analysis has employed the principle of equivalence throughout. It is not sensible to mark a scheme down if it does not address a practice which does not exist or is highly infrequent in the region in which it is targeted.

## Application of weightings to the data to reflect the relevant impact of each component

To reflect the value of each scheme component, a series of weightings were applied to the data. Weightings are acknowledged to be at least partially subjective and are a judgement call from experts who have in mind the expectations of UK consumers, as well as the scientific evidence for best practice. Three levels of weighting were applied:

- 1) **Within category weightings** were applied to each question within the category to reflect the fact that some of the assessment questions asked in each category are more important than others
- 2) **Between country weightings** were applied to the total score from each category to reflect the importance of each category within each country
- 3) **Between category weightings** were applied to the total score from each category to reflect the relative importance of the categories in relation to each other

A worked example is provided at the end of this section to show how the weightings were applied.

### ***Application of weightings within each category***

A first weighting was applied within each category. Each of the questions posed combine to give an overall assessment of the suitability of the scheme. However, some of the questions deal with issues which are more important than those addressed by other questions. As a consequence, it is important to reflect the importance of each question using a weighting within the category, with Ten representing the highest importance and one the lowest. This weighting was used with the raw score for each question to produce a total weighted score for each scheme for each category.

### ***Application of country weightings***

Within the analysis we have applied country weightings for each country, for each category within the analysis. The application of weightings is an extension of the 'equivalence' principle. In each of the different countries, there are common practices, but the frequency of these practices is very different. Consequently, for the scores applied to each analysis section we have applied weightings relative to England, where the RT scheme is weighted at 100 for everything and the other countries schemes are weighted above or below this depending on how relevant each factor is deemed to be with regard to farming practices and systems within the country where the scheme is applied. Some examples of this include:

- Transport of animals is relevant to all countries but the potential impact on animal welfare is greater in the mainland Europe countries due to the potential for greater travel distances.

The country weightings are shown in Table 1:

**Table 1. Country weightings adapted**

	England Weighting	Ireland Weighting	Germany Weighting	Netherlands Weighting	France Weighting	Poland Weighting
Traceability, documentation and assurance	100	100	100	100	100	100
Personnel	100	100	100	100	100	100
Food safety	100	100	100	100	100	100
Housing and shelter	100	100	100	100	100	100
Feed and water	100	100	100	100	100	100
Husbandry procedures	100	100	100	100	100	100
Youngstock management	100	100	100	100	100	100
Animal health and welfare	100	100	100	100	100	100
Animal medicines	100	100	100	100	100	100
Biosecurity and disease control	100	100	100	100	100	100
Livestock transport	100	100	120	120	120	120
Vermin control	100	100	100	100	100	100
Fallen stock	100	100	100	100	100	100
Environmental protection	100	100	100	100	100	100

It is worth noting that the country weightings for this report (Lot 2) are less important than for the Lots 1, 3 and 4. This is because, in general, farm practice within Europe is very similar, as is the context in which the farms operate. Consequently, the only country weightings applied are within the transport section for mainland Europe.

**Application of category weightings**

Each of the fourteen analysis categories were also awarded a weighting which reflected its relative importance within the scheme. These weightings are shown below, and it can be seen, for example, that food safety is awarded much higher rating than vermin control or personnel. We acknowledge that there will be debate around these weightings and recognise that they are subjective, but in the opinion of the experts who created this study and those who peer reviewed it, they are reasonable reflections of the importance of each category from a farm assurance perspective.

**Table 2 Category weightings for each farm assurance category**

Heading	Relative Weighting
Traceability, documentation and assurance	200
Personnel	110
Food safety	200
Housing and shelter	120
Feed and water	150
Husbandry procedures	150
Youngstock management	105
Animal health and welfare	150
Animal medicines	150
Biosecurity and disease control	150
Livestock transport	95
Vermin control	70
Fallen stock	70
Environmental protection	150

## Worked example

The following example uses illustrative data for the Housing and Shelter category to demonstrate how the weightings were applied within the scoring.

### Stage 1: Within category weightings

The first application of weightings is made within each individual category. Each question has been awarded a weighting to reflect its importance against the other questions in that category. The raw score for each question (Column A) is multiplied by the question weighting (Column B) to give the weighted actual score for each question (Column C). A maximum potential score for each question is also calculated at this point (Column D).

**Table 3. Category weightings for each farm assurance category**

		Column A	Column B	Column C	Column D
Housing and Shelter Questions		Question Raw Score	Question Weighting	Weighted Actual Score	Weighted Maximum Potential Score
A	Is housing well-designed and safe?	8.5	10	85	100
B	Does housing promote high welfare?	6.5	10	65	100
C	Is housing hygienic?	5	10	50	100
D	Is there adequate ventilation?	8	10	80	100
E	Is housing well-lit?	7	8	56	80
F	Is housing structurally sound?	8	10	80	100
G	Is there adequate space available for each animal?	7	10	70	100
H	Are loading and unloading facilities available and to a good standard?	8	7	56	70
I	Are there appropriate isolation and birthing facilities?	8	9	72	90
J	Is housing appropriate and safe for stock managers?	7	10	70	100
K	Do animals outside have access to appropriate shelter?	10	6	60	60
L	Are animals kept outside kept in appropriate conditions, including well drained lying areas and the absence of severe poaching?	10	10	100	100
M	Are bedding requirements appropriate?	5	10	50	100
N	Are requirements for records appropriate?	8	10	80	100
<b>Total Within Category Weighted Score for Category</b>				<b>974</b>	<b>1300</b>

### Stage 2: Between country weightings

Country weightings have been applied to the maximum potential score (Column F multiplied by Column G) for each category. This weighting adjusted the maximum potential score up or down, or left is as it was, depending on whether the weighting was above 100, below 100 or equal to 100. This meant that the final percentage calculated score rose for those countries in which the category was agreed to be less important and fell where it was deemed to be more important. The final percentage score was calculated by dividing Column E by Column H.

**Table 4. Country weightings for each farm assurance category**

	Column E	Column F	Column G	Column H	Column I
Housing and Shelter	Weighted Within Category Score	Country Weighting	Maximum potential category score	Corrected maximum potential score for each country (F x G)	Calculated percentage score (E/G)*100
Country 1 scheme	974	100	1300	1300	74.9%
Country 2 scheme	433	50	1300	650	66.6%
Country 3 scheme	302	25	1300	325	92.9%

### Stage 3: Between category weightings

The final stage of weightings is applied between categories, and is delivered by multiplying the previously calculated 'within category and between country' weighted score (Column J) by the between category weighting (Column L), giving a fully weighted score for each scheme for each category (Column M).

At the same time the maximum potential fully weighted score for each category is calculated by multiplying the previously calculated 'within category and between country weighted maximum potential score' (Column K) by the category weighting (Column L).

The calculations of the actual fully weighted score and the maximum potential fully weighted score allows the calculation of the scheme's actual performance as a percentage of the potential maximum, which has been rounded to the nearest figure. (Column O).

**Table 5. Calculations of the fully weighted score**

Category	Column J	Column K	Column L	Column M	Column N	Column O
	Weighted score within Category and between Country	Maximum Potential weighted score for each scheme within Category and between Country	Between Category Weighting	Category, Country and within Category Weighted Score	Maximum potential Category, Country and within Category Weighted Score	Category Score as a percentage of the total potential maximum
Food safety			200			
Housing & shelter	97,400	130,000	120	11,688,000	15,600,000	75%
Feed and water			150			

## Scoring as a percentage of total maximum possible weighted score

The final reported scores from each scheme are presented as a percentage of the maximum possible weighted score. It was necessary to use percentages because in many sections the maximum total raw or weighted potential score for each of the three schemes differed from one another within each category, and thus a raw score was not reflective of the actual performance of the scheme. This is particularly important for schemes which did not include sheep within their standards.

Using percentages allowed the relative importance of the factors within each scheme to be accounted for and to be reflected fairly in the final overall scores which each scheme received.

## Reflecting where specific practices or categories are not as important within a country

It should be noted that the within category scores shown in the spider diagram are weighted percentage scores. If the scheme does not answer a particular question either comprehensively or at all, the score will be low. If, however, that question is less relevant to that country, the weightings will account for this by reducing the maximum possible score from which the percentages are calculated.

Thus, in each of the performance categories represented below, the table which follows the spider diagram shows the final weighted percentage scores for each scheme. Where the subject of that question is less important within a specific country, the country weightings which are applied will correct for this. Therefore, the spider diagrams are simply guides for scheme developers as to where a scheme has or has not addressed a specific question, and the final percentage scores in the table are those which should be used to gain an understanding of how effectively the assurance scheme minimises risk within that investigative category.

# Findings from the analysis

## Traceability, documentation and assurance

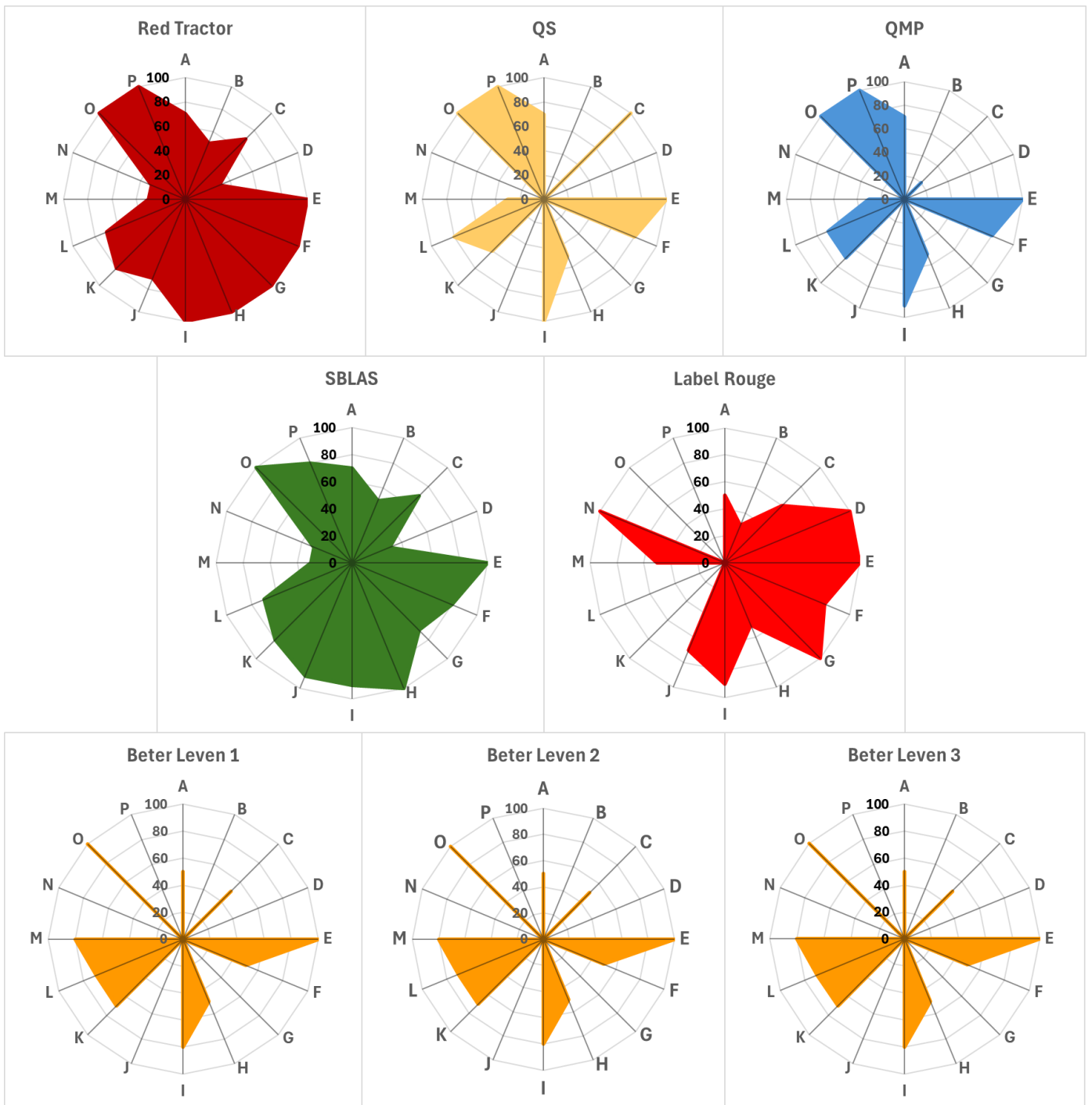
The traceability, documentation and assurance category was included as this is the single most important component of any assurance scheme. An effective farm assurance scheme must inspect and record against a clearly defined set of standards and must, to a high degree of confidence, be able to assure that the livestock products which are eventually sold can be traced back to the farm from which it originated. To this end, the basic scheme standards must be robust, and the documentation created by the scheme detailed and specific enough to allow the user to be confident that the scheme delivers against its stated aims.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Traceability, Documentation and Assurance category;

- A. Are cattle individually identified on the farm of origin?
- B. Are sheep individually identified on the farm of origin and linked to a dam?
- C. Is tagging/identification required close to time of birth for cattle?
- D. Is tagging/identification required close to time of birth for sheep?
- E. Is there a central database recording all farm movements?
- F. Do cattle movements have to be individually reported to a central database within an acceptable timeframe? (inside 3 days)
- G. Do sheep movements have to be individually reported to a central database within an acceptable timeframe? (inside 3 days)
- H. Is a Food Chain Information declaration (or equivalent) required to travel with animals which are being transported to slaughter?
- I. Is the traceability system robust (Cattle)?
- J. Is the traceability system robust (Sheep)?
- K. Audit frequency?
- L. Auditor training and standardisation?
- M. Are cattle assured from birth?
- N. Are sheep assured from birth?
- O. Are the certification bodies required to be accredited to ISO17065, with the specific standard within their scope?
- P. Do assured animals need to be transported by assured transporters to retain their approval status?

Figure 2. Percentage weighted scores for each question area for the Traceability, Documentation and Assurance category<sup>6</sup>



<sup>6</sup> Please note that questions regarding sheep (D, G, J and N) have been omitted for QS Germany, Quality Meat Poland, and Beter Leven as these are beef only schemes. This has subsequently been reflected with a lower maximum potential score.



**Table 6. Scores for the Traceability, Documentation and Assurance category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	120/160	77
QS Germany	87/110	79
QMP	78/110	72
SBLAS	114/160	74
Label Rouge	88/160	56
Beter Leven 1	70/110	67
Beter Leven 2	70/110	67
Beter Leven 3	70/110	67

## Summary of findings

Each of the schemes performs relatively well within the Traceability and Documentation section, with all schemes requiring appropriate identification of animals and demonstrating appropriate traceability through the production process. Auditor training is acceptable for all schemes, although audit frequency and the proportion of spot audits (where this can be determined), does differ.

## Individual scheme findings

### **Red Tractor**

RT scores second highest in the Traceability and Documentation section, with a score just above SBLAS and just behind QS. RT requires individual identification of cattle (close to birth) and sheep (prior to leaving the holding), and also requires strong record keeping. There is a central database for recording of movement. However, assurance periods are short, with full assurance being granted after 90 days (for cattle) and 60 days (for sheep). RT does require that assured transport is used.

RT inspects farms approximately every 18 months, depending on the farming system that is in place. There is good training in place for auditors to ensure standardisation between different auditors.

### **QS Germany**

QS Germany scores highest in this section. Individual identification of cattle is required within appropriate timescales (and is inspected against), and each farm is required to keep detailed records. Sales records must be kept. The scheme specifies records that must travel with livestock during movements.

QS Germany adopts a risk-based approach to auditing of farms, with 10% of the audits being unannounced spot visits. The maximum time between audits is two years, but it can be less than this if the farm is deemed to present a higher risk. Auditor training is strong within QS, with annual course attendance required to maintain skill levels.

### **QMP**

QMP requires appropriate identification of animals to national legislation. The scheme is not clear about what information needs to travel with animals during transport. The scheme is audited on an approximately annual basis and the standard of audit appears to be strong, with five approved and accredited companies which carry out audits for QMP. QMP does require much longer residency periods than RT, at a minimum of six months for growing cattle and eight months for finishing cattle.

### **SBLAS**

SBLAS requires individual identification of cattle (close to birth) and sheep (prior to leaving the holding), and also requires strong record keeping. There is a central database for recording of movement. However, assurance periods are very short, with full assurance being granted after 60 days (for cattle) and 42 days (for sheep). SBLAS specify good detail around the information which needs to travel with animals which are sold,

and the traceability is robust. Audits are conducted on an 18-month basis, but the scheme documentation is unclear about how auditor training takes place.

### ***Label Rouge***

Label Rouge scores lower than any other scheme for this section as it lacks detail across several components within the category. Animal identification requirements are appropriate, but the scheme does not specify the information which must travel with livestock, and the scheme documentation is unclear about audit frequency and auditor training. Cattle must spend at least a year on the farm to qualify, or in the case of sheep, the lifetime of the lamb.

### ***Beter Leven***

Beter Leven has acceptable requirements around animal identification. The scheme requires lifetime assurance for the animal, well ahead of the other schemes. Audits take place on an annual basis, but there is very limited information about auditor training or standardisation.

## **Legislative requirements**

As part of the European Union, each of the farm assurance standards in this study are mainly covered under European Law, which is the main basis for study in this analysis.

### ***England***

RT requirements are based on a number of regulations within England governing traceability of livestock. These include Cattle identification Regulations 2015 (CIR), EC Hygiene Regulations and the SAGRIMO Order enforcing the Council Regulation (EC) 21/2004.

Under these regulations, powers are given to the competent authorities and specify requirements for keepers with respect to notification of holdings, ear tags, registration of cattle, cattle passports, notification of movements or death, and record keeping. The key requirement for traceability is the requirement to tag individual animals.

### ***European Legislation***

Regulation (EC) NO 178/2002 of the European Parliament outlines the general principles of food law and requires that all food businesses must have a traceability system in place. The regulation is minimal in its description of what is required. The legal minimum is a system in which a food business records what ingredients/food products it receives and from who (including contact details) together with what product it dispatches to which customers (including their details) with the only exception being direct supply to final consumers. This is called the one-up-one-down system. Traceability information must be transferred up/down the chain on the product or on accompanying documents. Identification and traceability is covered across the EU with Regulation (EU) 2016/429 and Commission Delegated Regulation (EU) 2019/2035 and is essentially the same as that in England.

# Personnel

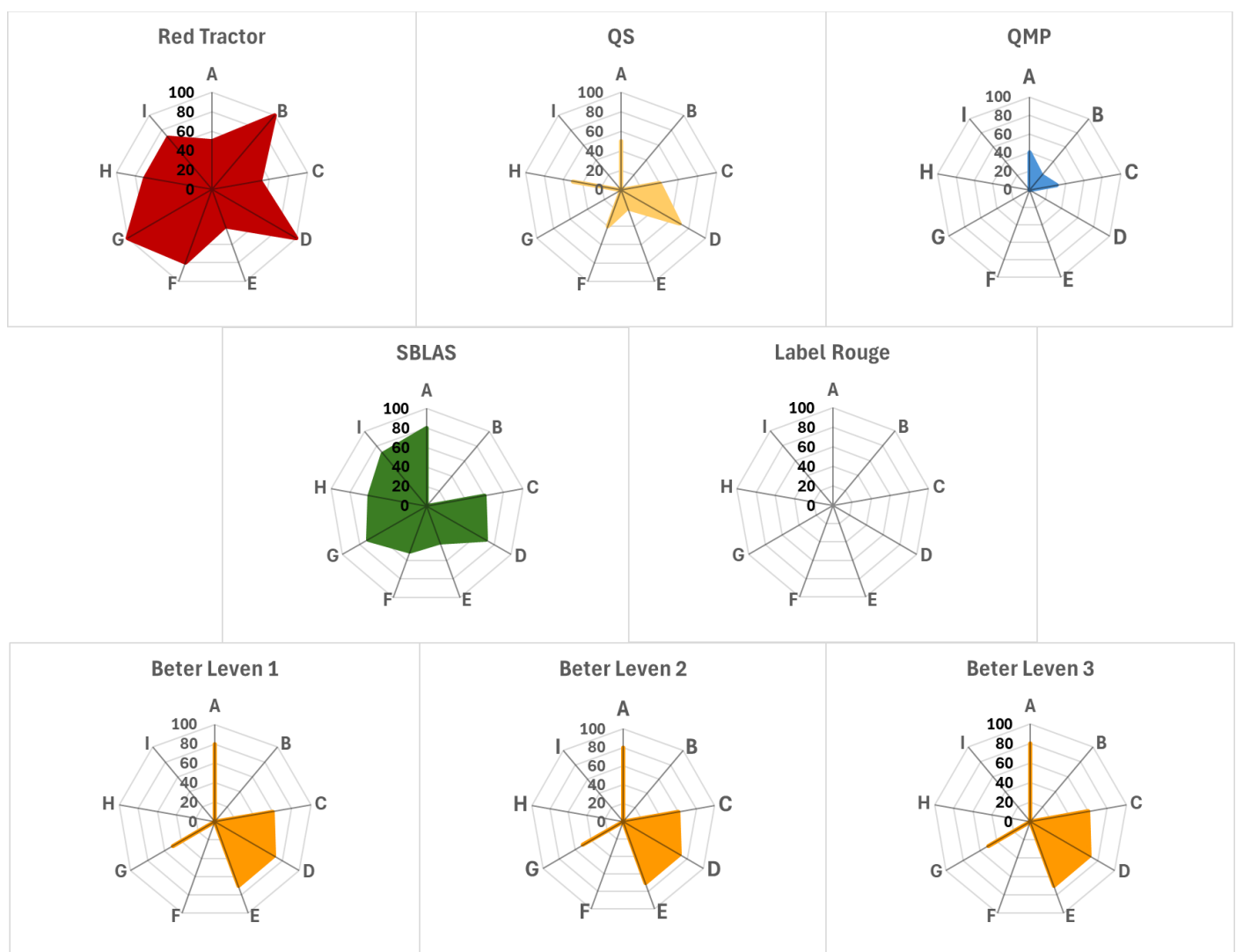
The personnel category has been designed to test the assurance which the schemes provide around the welfare of those who access and work on farms. This concept includes the safety of staff as they work on the farm, the induction and training that is required, the qualifications which are necessary for a person to work on the unit, the ways in which competency and training needs are assessed, and the continuous professional development that takes place on the farm.

## Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the personnel category;

- A. What qualifications are required for farm staff?
- B. Is staff induction required?
- C. Is staff training required?
- D. What training records are required?
- E. What topics are covered in training and do these meet the needs of the farm staff appropriately?
- F. How often is training required?
- G. Are appropriate Health and Safety policies required?
- H. Is the performance of employees reviewed regularly and appropriate training given if required?
- I. Is labour provision from external providers adequately covered?

**Figure 3. Percentage weighted scores for each question area for the Personnel category**



**Table 7. Scores for the Personnel category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	66/90	72
QS Germany	27/90	29
QMP	9/90	11
SBLAS	50/90	55
Label Rouge	0/90	0
Beter Leven 1	33/90	36
Beter Leven 2	33/90	36
Beter Leven 3	33/90	36

## Summary of findings

Red Tractor (RT) is the highest scoring scheme in this area. None of the schemes achieve full scores with regard to the employment, management and training of personnel. RT, SBLAS, QS, QMP and Beter Leven all require staff training to varying degrees, whilst Label Rouge does not.

The schemes do require competency from staff, but in most cases do not promote activity to continuously improve knowledge of best practice as well as to develop the personal skills leading to improved job satisfaction, job performance and safety.

### **Red Tractor**

RT does not generally require specific qualifications for farm staff, although all staff are required to be competent.

Staff training is required for certain, specified activities, but to score higher, the activity list should be expanded to include activities like stock management, animal welfare, record keeping, health and biosecurity management as well as the more obvious chemical handling, health and safety etc. All key tasks should be specified and the minimum level of training/qualifications indicated.

It is appreciated that RT has to walk a fine line between continuously developing the standards and remaining acceptable to UK farmers, but as a number of experts have pointed out, just because someone has many years of experience of the delivery of a task does not mean that they are delivering it correctly, and that in an ideal world all farmers would have qualifications which cover all tasks which they are delivering.

Regardless of these concerns, RT scores above the standards of the other schemes in this category

### **QS Germany,**

QS Germany requires training of staff, but is not specific about the type of training. No induction training is required. There is an implicit requirement for staff to be competent and there is an expectation of training and recording of any training which is undertaken. QS Germany does not include specific health and safety policies at farm level. The scheme does not specifically cover external labour providers.

### **SBLAS**

SBLAS requires that the producer can demonstrate competency and has a minimum of five years experience or can demonstrate relevant training. There is a requirement for training of workers who will deal with hazardous material. Health and safety of staff is considered, as well as the recording of accidents and the delivery of follow up training in response to accidents. External labour provision is considered.

## **QMP**

QMP requires that people handling animals are adequately skilled, but does not require training or recording of training. Health and Safety of workers is not considered. The scheme does not specifically cover external labour providers

## **Beter Leven**

Beter Leven requires that the farmer and their personnel must have at least completed secondary vocational education in livestock farming or have a minimum of one year of working experience in beef farming or are working under the responsibility of someone with the above qualifications. The manager of each site that participates in Beter Leven and where beef cattle are kept must have followed a human-animal interaction workshop approved by the Society for the Protection of Animals. Health and safety is not really considered, other than through a requirement for an emergency plan. The scheme does not specifically cover external labour providers

## **Label Rouge**

Label Rouge does not consider on-farm personnel.

## **Legislative requirements**

Within each region, there is extensive legislation which governs employment. This legislation is not usually specific to agriculture. The relevant legislation is normally framed as employment law and covers employment contracts and health and safety at work. The regulations only cover appropriate induction and training from a human safety perspective, they do not cover competency for the tasks they are required to deliver, with the exception of the use of potentially dangerous chemicals.

## **England**

The Management of Health and Safety at Work Regulations 1999 require that all employers or the self-employed assess their own risk, and the risk to anyone working for them regarding their working environment. The Health and Safety Executive issued the following guidance for farms:

- be certain that all buildings are kept in good repair and that floors are not overloaded, especially in feed lofts
- provide handrails on stairs and ramps where needed
- make sure there are safety hoops or rest stages on long vertical fixed ladders
- keep all workshops tidy
- equip inspection pits with accessible escape routes and cover pits when not in use
- provide adequate lighting and replace any old lights
- ensure there is good drainage and non-slip flooring for wet areas

Broadly the RT scheme assesses against legal requirements, but its requirements around training and induction are above legal requirements, as is the requirement to regularly assess employee performance and provide refresher training.

## **European Union**

EU employment law sets minimum requirements for working and employment conditions and informing and consulting workers, with individual member states free to provide higher levels of protection if they wish.

The EU adopts directives which its member countries incorporate in national law and implement. This means that it is national authorities - labour inspectorates and courts, for example - that enforce the rules.

A wide variety of Community measures in the field of safety and health at work have been adopted on the basis of Article 153 of the Treaty on the Functioning of the European Union. European Directives set out minimum

requirements and fundamental principles, such as the principle of prevention and risk assessment, as well as the responsibilities of employers and employees. A series of European guidelines aims to facilitate the implementation of European directives as well as European standards which are adopted by European standardisation organisations.

The EU operates a Working Time Directive which governs holidays, rest breaks, and breaks between shifts. There is more flexibility for jobs where there are seasonal peaks, such as farming.

## Food safety

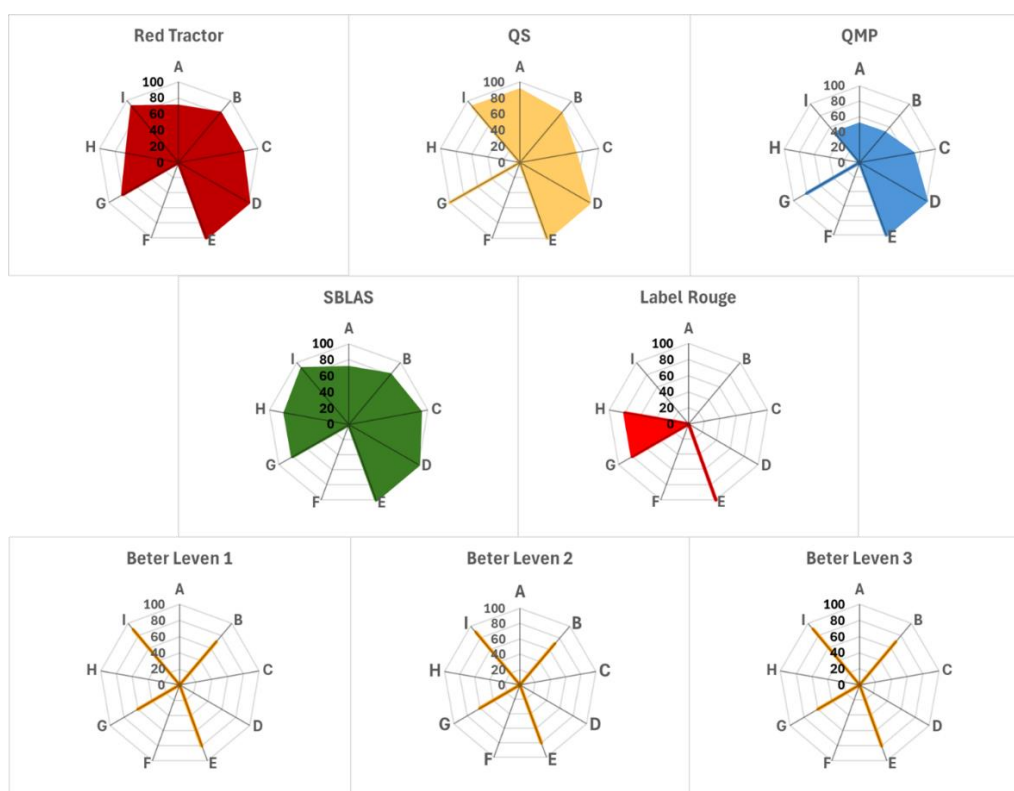
The Food Safety section was created to test the effectiveness of each assurance scheme in ensuring that food sourced from livestock produced under their schemes are free from contamination by chemicals, tainted food, or physical contaminants such as broken needles. A further requirement is that the food produced from each unit can be traced if a problem is discovered.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Food Safety category:

- A. Does the scheme require actions which manage vermin infestation on the farm?
- B. Does the scheme require activity to prevent chemical contamination of food?
- C. Does the scheme require activity to prevent contamination of food with medicines?
- D. Does the scheme require activity to ensure that broken needles or other physical contaminants do not reach the food chain?
- E. Does the scheme restrict food types which can be offered to ruminants in order to prevent prion diseases?
- F. Does the scheme require dietary restriction of sheep prior to slaughter to prevent contamination during the slaughter and processing process?<sup>7</sup>
- G. Is animal traceability robust (cattle)?
- H. Is animal traceability robust (sheep)?
- I. Is the assurance scheme robust and trustworthy, with adequate audit independence and frequency?

**Figure 4. Percentage weighted scores for each question area for the Food Safety category<sup>8</sup>**



<sup>7</sup> The restriction of access to food for sheep prior to slaughter is important because sheep or lambs which are processed with full bellies of grass or forage present increased risk of contamination of meat as the carcass is disassembled.

<sup>8</sup> Please note that questions regarding sheep (F and H) have been omitted for QS Germany, Quality Meat Poland, and Beter Leven as these are beef only schemes. This has subsequently been reflected with a lower maximum potential score

**Table 8. Scores for the Food Safety category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	66.5/90	77
QS Germany	63/70	90
QMP	50/70	71
SBLAS	69/90	80
Label Rouge	26/90	30
Beter Leven 1	30/70	43
Beter Leven 2	30/70	43
Beter Leven 3	30/70	43

## Summary of findings

Several of the schemes in this study were established to promote and guarantee food safety and protection of the consumer and to protect the reputation of the industry. Consequently, these schemes score relatively well in this area. RT and SBLAS achieve the highest fully weighted scores and QS Germany also scores well. QMP achieves a lower score than the top three but is still above Label Rouge and Beter Leven. Neither of the last two schemes put a significant focus on the delivery of food safety.

Robustness of audit requirements are strong within most of the schemes, with all schemes except Label Rouge scoring well in this regard. Animal traceability is relatively strong across Europe, and this is reflected in the schemes. All schemes also specifically mention the prohibition of specific food types to prevent the transfer of prion disease. RT, QMP, QS Germany and SBLAS all require activity to prevent the contamination of food with both medicine and on-farm chemicals, as well as the management of vermin infestation. Label Rouge and Beter Leven again do not require this and score lower as a result. QS and RT scores well across all these factors.

## Individual scheme findings

### **Red Tractor**

RT scores third highest within the Food Safety section. RT requires effective control of vermin as well as the removal of habitat which could harbour vermin close to buildings. An annual site survey is required. Safe storage of feed is required and explained. Scheme traceability is robust.

### **QS Germany**

QS Germany achieved the highest score in this category. It requires pest monitoring and appropriate actions, along with a bait map. The scheme also requires that farmers prevent animals being contaminated through their food. The scheme has robust traceability and the audit process is clearly described and appropriate. A risk based audit process is in place.

### **QMP**

The QMP scheme also achieves a high within the Food Safety category. The scheme does not require a vermin management plan but does require that steps are taken to prevent contamination of food. If vermin management is to take place, a plan is required. Control of medicine is required to ensure that food is not contaminated by residue, and the scheme is clear about prohibited food products. Audit frequency is approximately annual, but the approach to auditing is not clearly specified within the available scheme documentation.



## **SBLAS**

SBLAS scores second highest within the Food Safety section. It requires planned pest control and measures to prevent access by non-target species. It covers safe storage of food and appropriate feed being offered to animals. The audit process is strong and an audit takes place every 18 months.

## **Label Rouge**

Label Rouge scores lowest within this category. It contains no requirements or guidance around pest management, but does contain requirements and guidance around the types of food which can be offered to ruminants. Audit type and frequency is not specified.

## **Beter Leven**

Beter Leven scores above Label Rouge but below the other schemes in this category. It does not discuss the management of vermin, but does require activity to ensure that animal feed is stored correctly. It does not specifically describe actions to ensure that food is not contaminated, although it does require that the food offered to animals is safe and appropriate. The scheme does require assured sources of feed. Annual audit takes place, and 20% of these audits are unannounced.

## **Legislative requirements**

For each country in this study, there is relatively little information on the control of food safety at farm level in any of the food safety legislation, as this is primarily focused on fresh food at the consumption ready stage. The main legislation which is applicable at farm level in each country is the legislation which controls medicine usage and chemical/pesticide usage to avoid contamination of meat with medicines or other chemicals.

## **England**

Within England, food safety is governed by the Food Standards Agency, established by the Food Safety Act 1990 which also provides the framework for all food legislation in England, Wales and Scotland. Traceability is governed by Article 18 of Regulation (EC) No. 178/2002 and establishes the need and requirements for traceability at all stages of production, processing and distribution.

## **European Union**

Health protection is the aim of all EU laws and standards in the agriculture, animal husbandry and food production sectors. An extensive body of EU-wide law covers the entire food production and processing chain within the EU, as well as imported and exported goods.

EU food safety policy and action is concentrated in four main areas of protection:

- Food hygiene: food businesses, from farms to restaurants, must comply with EU food law, including those importing food to the EU.
- Animal health: sanitary controls and measures for pets, farmed animals and wildlife monitor and manage diseases, and trace the movement of all farm animals.
- Plant health: detection and eradication of pests at an early stage prevents spreading and ensures healthy seeds.
- Contaminants and residues: monitoring keeps contaminants away from food and animal feed. Maximum acceptable limits apply to domestic and imported food and feed products.

## Housing and shelter

The housing and shelter section has been designed to ensure that animals produced under each assurance scheme has accommodation which is appropriate to their needs. This includes housing and the provision of appropriate shelter when animals are outside. Housing needs are, generally speaking, equivalent within each of the different countries in the study.

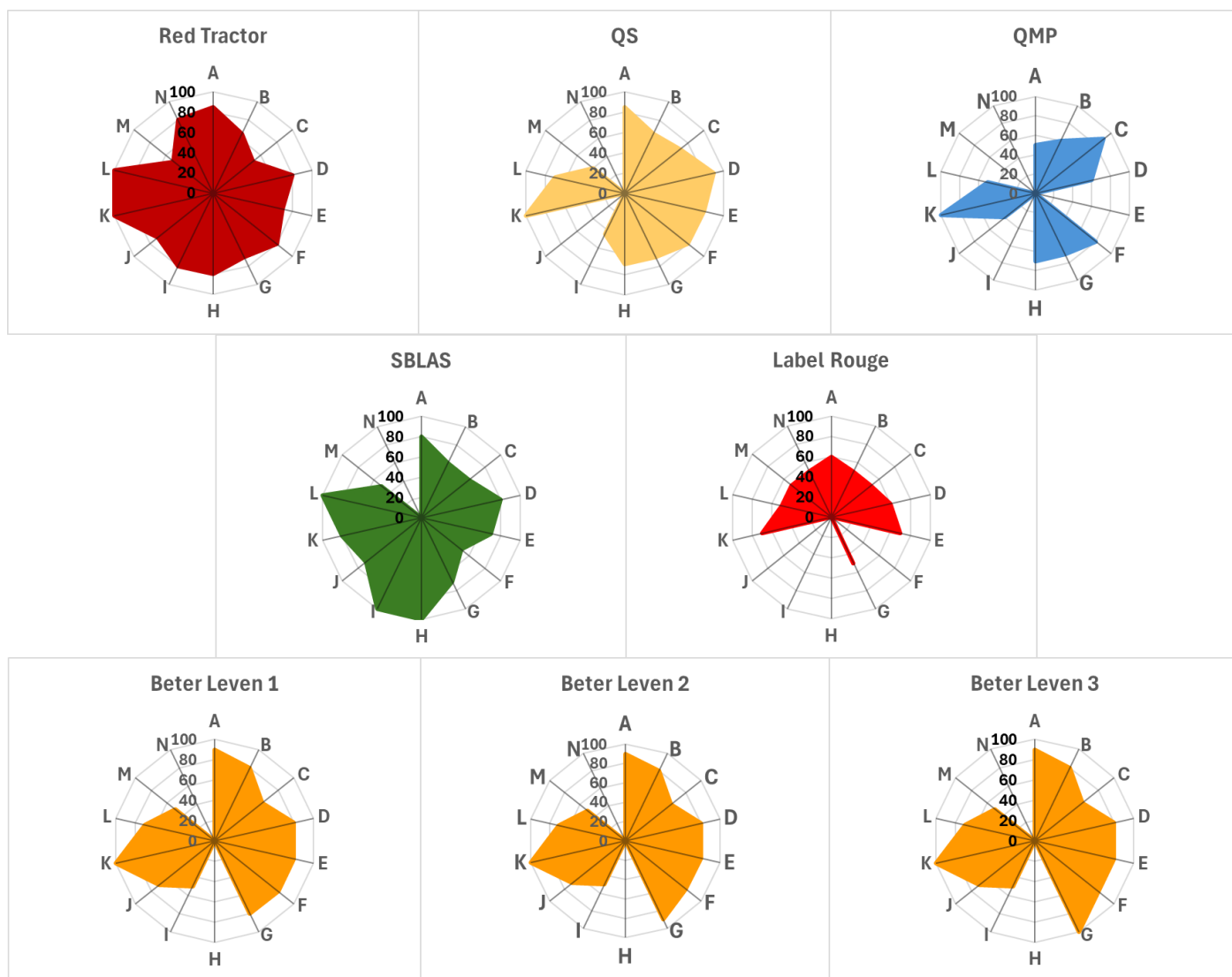
The importance of housing and the provision of shelter is a component of assurance which is growing in importance. Climate change has increased the regularity of extreme weather events in all parts of the world. Within this section, housing design and management is important in Europe, particularly because of the amount of time which animals can be housed for, and the ability of climatic conditions to create heat stress or pneumonias where ventilation (for example), is not appropriate.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Housing and Shelter category:

- A. Is housing well-designed and safe?
- B. Does housing promote high welfare?
- C. Is housing hygienic?
- D. Is there adequate ventilation?
- E. Is housing well-lit?
- F. Is housing structurally sound?
- G. Is there adequate space available for each animal?
- H. Are loading and unloading facilities available and to a good standard?
- I. Are there appropriate isolation and birthing facilities?
- J. Is housing appropriate and safe for stock managers?
- K. Do animals outside have access to appropriate shelter?
- L. Are animals kept outside kept in appropriate conditions, including well drained lying areas and the absence of severe poaching?
- M. Are bedding requirements appropriate?
- N. Are the requirements for records appropriate?

**Figure 5. Percentage weighted scores for each question area for the Housing and Shelter category**



**Table 9. Scores for the Housing and Shelter category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	106/140	75
QS Germany	86.5/140	60
QMP	67/140	47
SBLAS	97/140	68
Label Rouge	56/140	40
Beter Level 1	89/140	64
Beter Level 2	90/140	65
Beter Level 3	91/140	65

### Summary of findings

The RT scheme scored higher than the other schemes with regard to housing and shelter. The RT scheme is generally comprehensive and scores well against each question, although requirements around the promotion of welfare, hygiene control and bedding could be more specific. RT also requires that shelter structures such as hedges, trees, well-drained areas etc. are available for animals living outside. This is becoming more important in England as the climate changes, and is perhaps more important again on the European mainland due to the greater annual temperature variation.

Beter Leven requires high standards around the active promotion of animal welfare, requiring rubbing stations and soft lying areas. The other schemes all score at a similar level for this specific question, and all schemes are broadly equivalent for ventilation requirements, and for ensuring structural soundness of buildings. All schemes, except QMP cover the adequate lighting of housing facilities and score at a similar level.

Space allowances are similar between the majority of schemes, with the exception of Beter Leven. Beter Leven progressively raises the standards from one star through to three star. Even the Beter Leven one star requires larger space allowances than those that are required by any of the other schemes, and the two and three star progressively increase this.

Beter Leven does not include requirements around loading and unloading facilities on farm, while SBLAS contains strong and very specific requirements. RT, SBLAS and Beter Leven require specific, separate birthing or isolation facilities. All schemes require that shelter is available to animals when they are outside, and RT also requires dry lying areas and feeding areas are available. Several other schemes contain some requirements around maintaining suitable conditions for animals when they are outside.

## Individual scheme findings

### **Red Tractor**

RT achieved the highest score in this category. The scheme requires that housing meets the basic needs of the animal and that the yard is kept tidy, that cleaning chemicals and equipment are available. The scheme requires appropriate ventilation, avoidance of humidity and odour build up, and a comfortable temperature for the animals. The scheme requires that there is adequate lighting and that the housing is structurally sound. Space allowances are specified and are adequate. Loading facilities must be fit for purpose. Bedding is not required, although where bedding is supplied, it must be appropriate.

### **QS Germany**

QS Germany requires that buildings and facilities must be clean and well maintained, and the design of buildings should facilitate this. Where necessary, buildings must be heat insulated (appropriate for parts of Germany in winter), and the air must be fresh. Appropriate lighting is required. Space allowances are acceptable but not generous. Animals outside must have access to appropriate shelter.

### **QMP**

QMP requires that housing is designed and maintained to ensure the health of animals. An oral or written hygiene plan is required, and examples of implementation must be provided. Ventilation is not discussed within QMP, nor is lighting. Space allowances are acceptable but not generous. Animals outside must have access to shelter.

### **SBLAS**

The SBLAS scheme scored second highest within this category. Housing must be constructed, managed and maintained to permit effective cleaning and disinfection and to minimise risk of injury, and sheds and other facilities must be managed and maintained so as to facilitate clean cattle and sheep production. Producers must have animal handling facilities for the management of their livestock. Ventilation must be sufficient to provide fresh air and to minimise draughts and condensation. Housing must permit natural daylight to be available.

### **Label Rouge**

Label Rouge requires that housing enables optimal animal comfort and that the conditions in the house promote good health. The house must be kept clean, and an annual full cleanse of the house must take place. The house must be well ventilated and free from drafts, and natural light must be available. Label Rouge does permit the use of tie-stalls. Animals which are outside must be able to access shelter.

## **Beter Leven**

Beter Leven requires that housing is designed and configured to ensure optimal comfort for the animals and to maintain an atmosphere conducive to their proper development and reduction of health problems. Farmers are required to ensure that animals are kept clean and that ventilation in the building is good. Natural light is required. Space allowances are acceptable for indoor animals, and animals outdoors must have access to natural or man-made shelters. Space allowances are generous increasing in each of Beter Leven 1 star, 2 star and 3 star.

## **Legislative requirements**

Within the EU and England, housing is covered by legislation but also governed by the broader animal welfare regulation. Farming activity within England is also based on Codes of Good Agricultural Practice, but this is not the case for every country within Europe.

### **England**

Within England, the Welfare of Farmed Animals (England) Regulations 2007 requires that any person who employs or engages a person to attend to animals shall ensure that the person attending to the animals:

- is acquainted with the provisions of all relevant statutory welfare codes relating to the animals being attended to;
- has access to a copy of those codes while he is attending to the animals; and
- has received instruction and guidance on those codes.

The legislation states that “any person who keeps animals, or who causes or knowingly permits animals to be kept, shall not attend to them unless he has access to all relevant statutory welfare codes relating to the animals while he is attending to them, and is acquainted with the provisions of those codes”.

This has application to the housing of animals, and the legislation goes on to state that “the causing of unnecessary pain or unnecessary distress to any livestock on agricultural land is an offence under Section 1(1) of the Agriculture (Miscellaneous Provisions) Act 1968. The breach of a code provision whilst not an offence, can nevertheless be used in evidence as tending to establish the guilt of anyone accused of causing unnecessary pain or distress under the Act (Section 3(4)),

Consequently, animal housing in England must be appropriate and must not cause discomfort or pain. However, but the legislation is non-specific and each incident would be treated on a case-by-case basis.

### **European Union**

The current EU legislation which is relevant to animal welfare is composed of a General Farming Directive (Council Directive 98/58/EC), as well as four species-specific rules for laying hens, broilers, pigs and calves and regulations on live animal transport (Council Regulation (EC) No 1/2005) and slaughter (Council Regulation (EC) No 1099/2009).

Council Directive 98/58/EC gives general rules for the protection of animals of all species kept for the production of food, wool, skin or fur for farming purposes, based on the European Convention for the Protection of Animals kept for Farming Purposes.

Legislation has been further developed to progressively improve the welfare status of farmed animals and to set standards for their transport and conditions at the time of stunning and slaughter.

## Feed and water

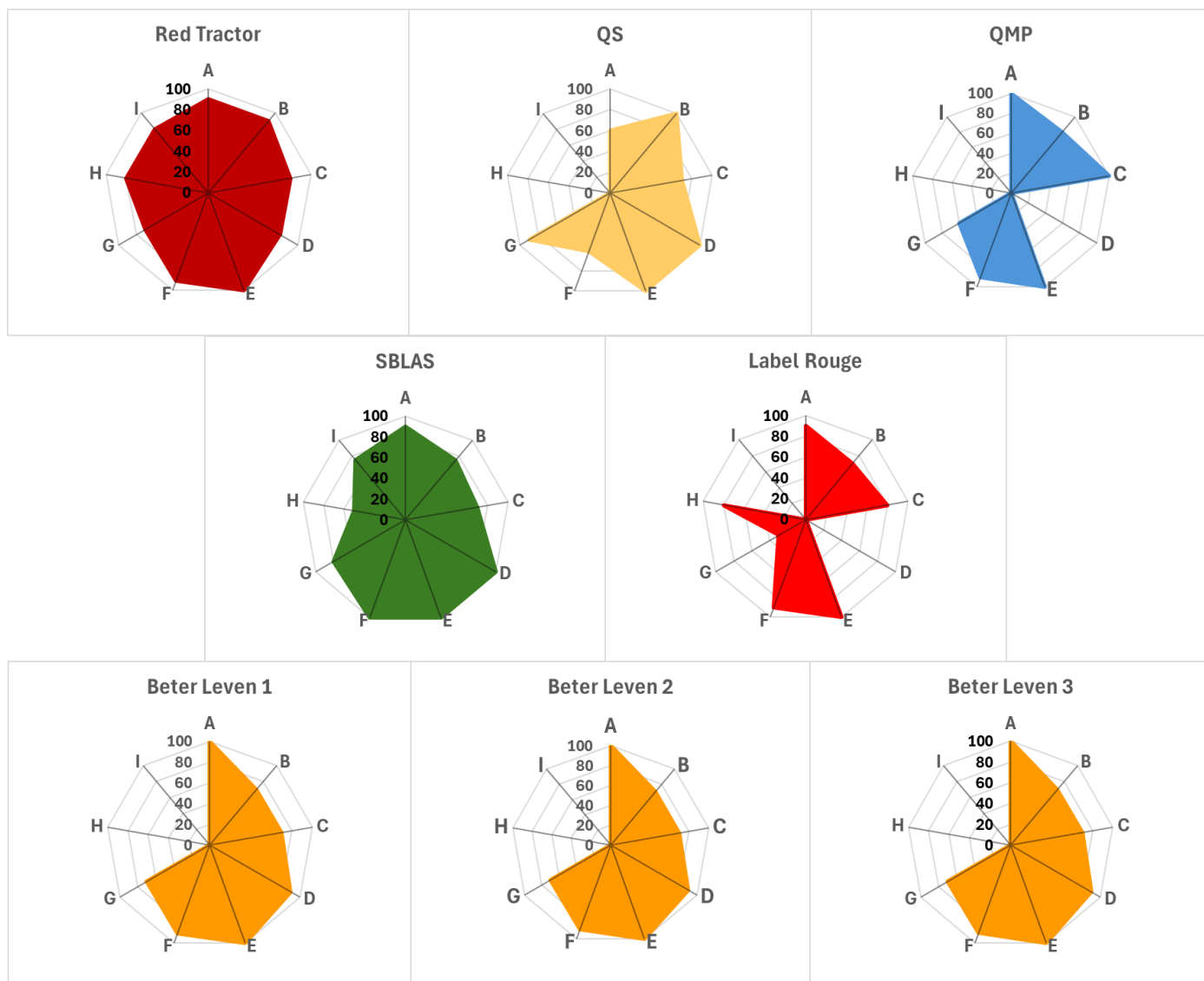
The feed and water category questions are designed to test whether the assurance scheme can ensure that cattle and sheep have ready access to appropriate, clean, fresh feed and water, and whether the nutritional needs of the animal are fully met.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Feed and Water category:

- Do animals have enough feed and water to maintain normal bodily function?
- Do animals have easy ready access to fresh, clean water?
- Is the feed offered to animals appropriate?
- Are the feed storage requirements appropriate?
- Are Hormone Growth Promoters permitted?
- Are any types of feed prohibited?
- Are systems and records in place to prevent livestock being contaminated via feed?
- Do young animals receive enough colostrum?
- Is feeding equipment checked regularly and maintained?

**Figure 6. Percentage weighted scores for each question area for the feed and water category**



**Table 10. Scores for the Feed and Water category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	76/90	85
QS Germany	58/90	65
QMP	53/90	62
SBLAS	74/90	82
Label Rouge	54/90	64
Beter Leven 1	59/90	67
Beter Leven 2	59/90	67
Beter Leven 3	59/90	67

## Summary of findings

RT and SBLAS scored the highest in the feed and water section, primarily because they covered a full range of inputs and practices. However, all of the schemes contain a good level of detail around the requirement to ensure that animals are able to access fresh water and food to ensure that animals should be able to maintain health.

## Individual scheme findings

### **Red Tractor and SBLAS**

Although RT and SBLAS did not justify full scores in this section, there were no significant gaps and the schemes aim to ensure that animals receive an appropriate diet and that they have access to enough water. RT specifically considers rumen health while SBLAS does not. Both schemes require that food is appropriate to the class of animal, and that the food is stored appropriately to prevent cross-contamination. Both RT and SBLAS consider the nutritional health of young animals requiring (RT) or recommending (SBLAS) appropriate access to colostrum.

### **QS Germany, QMP, Label Rouge, Beter Leven**

Each of QS, QMP, Label Rouge and Beter Leven include appropriate requirements around the provision of food and water to animals. Beter Leven considers food type and the proportion of forage:concentrate in the diet, but does not consider nutritional quality or matching the diet to the animal's needs. QMP and Label Rouge do not consider food storage, whereas QS Germany contains a high level of detail around the storage and protection of feedstuffs. Beter Leven requires that feedstuff is bought from a certified feed source, as do RT, QS and SBLAS.

## Legislative requirements

As for many of the other categories, the feeding of animals falls under general animal welfare legislation, and also the interpretation of the farm manager and those who enforce the legislation.

### **England**

The legislation governing the provision of food and water is the Animal Welfare Act 2006. It requires that animals must have a suitable diet, including access to water. The codes of practice for cattle and sheep cover what constitutes a suitable diet in extensive detail. The majority of the RT standard in this case is therefore essentially a less detailed repeat of these codes of practice. Feed storage *per se* is not generally covered in the legislation, but falls under the concept of clean, fresh and appropriate food. Hormone Growth Promoters are not permitted.

### **European Union**

Feed and water legislation is governed by Council Directive 98/58/EC which outlines general standards for animal welfare. It states that animals must be fed a wholesome diet which is appropriate to their age and

species, which is fed to them in sufficient quantity to maintain them in good health and satisfies their nutritional needs. No animal shall be provided with food or liquid in a manner, nor shall such food or liquid contain any substance, which may cause unnecessary suffering or injury. Hormone Growth Promoters are not permitted.

It also touches on the equipment used for feed and water, which must be designed, constructed and placed so that the contamination of food and water, and the effects of competition between animals for access to feed and water is minimised.



## Husbandry procedures

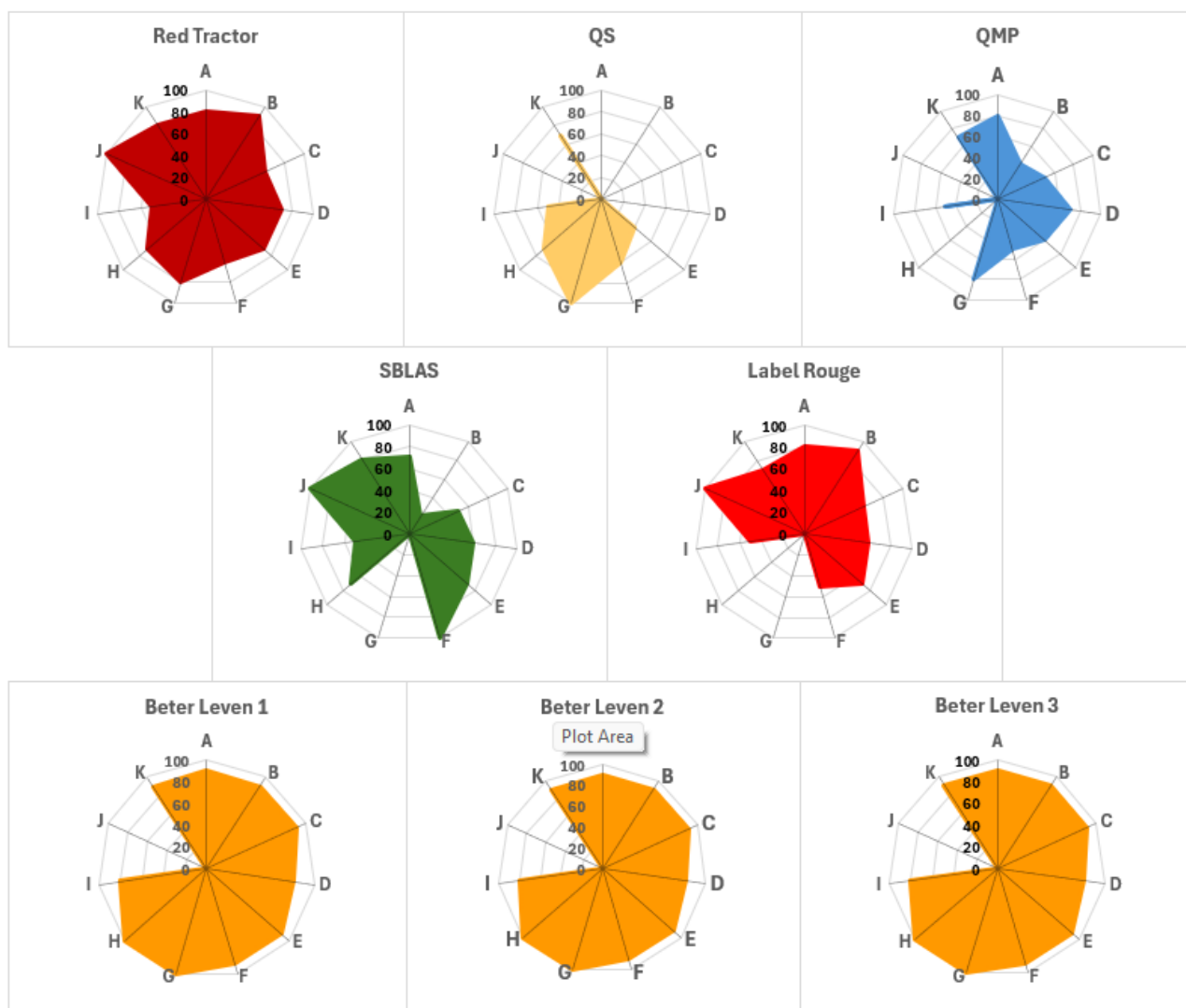
The husbandry procedures section is designed to identify which procedures are permitted under each scheme, and the measures which are taken to protect animal welfare during the procedures.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Husbandry category:

- A. Is castration permitted?
- B. What age is castration permitted up to without anaesthetic and by what means?
- C. What age is castration permitted to with anaesthetic and by what means?
- D. Is disbudding permitted?
- E. What methods of disbudding are permitted? Is anaesthetic required?
- F. What methods of dehorning are permitted? Is anaesthetic required?
- G. Is branding permitted? If so, hot branding, freeze branding or both?
- H. Is tail docking permitted? If so, what rules govern this?
- I. What other miscellaneous procedures are permitted? Are they acceptable?
- J. Is mulesing permitted?
- K. Who is permitted to carry out each procedure, and what qualifications are required?

**Figure 7. Percentage weighted scores for each question area for the husbandry procedures category**



**Table 11. Scores for the husbandry procedures category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	81/110	74
QS Germany	39/100	39
QMP	55/100	55
SBLAS	67/110	61
Label Rouge	63/110	57
Beter Leven 1	90/100	90
Beter Leven 2	90/100	90
Beter Leven 3	90/100	90

## Summary

Husbandry procedures are specified at different levels within each of the assurance schemes. Overall, Beter Leven scores the highest, ahead of RT. QMP, SBLAS and Label Rouge all offer a similar, but lower level of performance, whilst QS Germany scores at a lower level.

Castration can take place under all schemes although QS Germany does not discuss it, and QMP simply requires adherence to local law. Label Rouge is much more specific than QS and QMP, specifying the need for vet involvement for surgical castration, for castration of calves above one month of age, and the requirement for use of anaesthesia and analgesics. Beter Leven also requires the use of anaesthetic when castration of calves is taking place and analgesics must be used for up to three days post-castration. RT and SBLAS control the ages at which castration can take place by different methods and specify ages at which analgesia and/or anaesthetic must be used.

Disbudding can take place under all schemes, although Beter Leven specifies a high level of detail around the control of this practice. SBLAS only recommends the use of analgesia during disbudding, but requires the use of anaesthetic above 14 days of age. QMP requires the use of anaesthetics for disbudding, whilst RT requires the use of both analgesia and anaesthetic. QS Germany does not discuss disbudding. Regarding dehorning, RT, QS Germany, SBLAS, Beter Leven and Label Rouge all cover this topic in a good level of detail, while QMP refers to it very briefly.

In terms of those who carry out the procedures on farm, Beter Leven has the strongest requirements around competency, with the farm manager being required to prove competency of the staff, and the staff having received relevant training. SBLAS and RT requirements fall just below those of Beter Leven, and QS Germany, QMP and Label Rouge are similar in their requirements, below those of SBLAS and RT.

### **Red Tractor**

RT contains very specific requirements around castration and disbudding procedures. It is prescriptive about what methods are permissible, who can carry out each procedure and the use of analgesics or anaesthetics. Dehorning is permitted but discouraged. Tail docking is not permitted for cattle, unless under specific veterinary direction following trauma or infection

RT has relatively tight age restrictions at which a competent stockperson can deliver husbandry procedures. Beyond these, a vet is required to deliver the procedure, which will have the effect of limiting the number of older animals which undergo these type of husbandry procedures.

### **QS Germany**

QS Germany permits castration and disbudding but does not discuss these procedures in the scheme. Dehorning is permitted but can only be done with veterinary approval if the animal is over the age of six weeks.

The QS scheme lacks detail in this category and scores lower than any of the other schemes. Tail docking of cattle is not permitted.

### **QMP**

The QMP scheme permits castration, disbudding and dehorning, but provides limited guidance and detail within the scheme. Anaesthetics are required when disbudding and dehorning of adult cattle is only allowed following veterinary recommendation. The scheme does not refer to tail docking.

### **SBLAS**

SBLAS permits castration, disbudding and dehorning and provides a reasonable level of detail around the management of these schemes. Castration is permitted without anaesthetic (although it is recommended) up to the age of six months by the farmer, and only by a vet, with anaesthetic above this age. The producer must be able to demonstrate competency and staff must be aware of good animal welfare practice. Tail docking is not permitted for cattle.

### **Label Rouge**

Label Rouge allows castration, disbudding and dehorning. It provides some guidance around these procedures, but at a lower level than any of the other schemes. Within Label Rouge, castration of male cattle is mandatory and must take place before the age of 12 months. Pain must be minimised using anaesthesia and/or analgesia. Tail docking is not discussed in the scheme.

### **Beter Leven**

Beter Leven is the highest performing scheme within the husbandry category. The scheme offers a high degree of control around husbandry procedures and requires the use of anaesthetics and analgesics more frequently than the other schemes. Castration, disbudding and dehorning are permitted. Beter Leven has tight restrictions on who can carry out each procedure, with some procedures only allowed to be carried out by vets, or under the supervision of a vet. Tail docking is not permitted.

## **Legislative requirements**

### **England**

The Welfare of Farmed Animals (England) Regulations 2007 are made under the Animal Welfare Act 2006 and set the minimum welfare standards for all farm animals. It covers standards for stockmanship; health, feed, water and other substances; accommodation; equipment; management; fire and other emergency precautions; pregnancy, rearing, and breeding.

Under The Protection of Animals (Anaesthetics) Act 1954, as amended, it is an offence to disbud calves or dehorn any cattle without the use of an anaesthetic other than when chemical cauterisation is used. In England, the use of a rubber ring, or other device, to restrict the flow of blood to the scrotum, is only permitted without an anaesthetic if the device is applied during the first week of life. The Protection of Animals (Anaesthetics) Act 1954 makes it an offence to remove a supernumerary teat from a calf which has reached three months of age without the use of an anaesthetic.

### **European Union**

Based on this European Convention, Council Directive 98/58/EC gives general rules for the protection of animals of all species kept producing food, wool, skin or fur or for other farming purposes, including fish, reptiles or amphibians. Article 2 mandates that all animals whose welfare depends on frequent human attention shall be inspected at least once a day. Article 7 protects the animals' freedom of movement, and Article 10 requires that breeding procedures (natural or artificial) likely to cause suffering or injury must not be practised, though there are exceptions to this. Article 21 further states that no animal shall be kept for farming purposes unless it can reasonably be expected, based on its genotype or phenotype, that it can be kept

without detrimental effect on its health or welfare. All European Union countries implement European Union law and operate broadly to the same standards around the control of animal welfare.

### ***Republic of Ireland***

Husbandry of animals is covered under Section 36 of the Animal Health and Welfare Act 2013, which is not prescriptive, only requiring the provision of proper husbandry and management of animals, requiring proper farming practice as well as appropriate welfare standards for animals at all stages of their lives, including during sale, transport or, in the case of farm animals, during lairage or at slaughter.

### ***Netherlands***

The welfare of animals kept commercially in the Netherlands are safeguarded by rules on transportation, feed, housing and husbandry. There are three main sections of legislation: the Animals Act, a decree containing rules for keepers of animals, and a decree concerning permitted veterinary procedures. The Animals Act 2011 recognises the welfare of animals used in farming as a specific issue and enables rules to be made on issues including the health and welfare requirements of European Union legislation (Article 2.3(3)), the transport of animals (Article 2.5), breeding (Article 2.6), trade (Article 2.7) and slaughter (Article 2.10). Within the Netherlands, secondary legislation – Decrees, which set out minimum standards for production animals. There are also general anti-cruelty and duty of care provisions in Articles 2.1 and 2.2(8) of the Animals Act 2011.

### ***France***

There is no overall animal welfare Act in France. Rather, animal protection provisions are laid out in the Penal Code and the Rural and Maritime Fishing Code. Domestic animals are protected from deliberate acts of cruelty and neglect, and the law requires that animals are kept in a state of good health, with unnecessary suffering being prevented, that animals are not kept in the dark or in permanent light, that animals have sufficient water and food, and that animals kept outdoors are protected from inclement weather and from predators.

### ***Germany***

Regulation lays down minimum standards for the protection of farm animals. The general duty of care and anti-cruelty provisions of the Animal Protection Act (TierSchG) apply to animals used in farming. Particularly relevant are the regulations on: the duties of care (Article 2) including the knowledge and skills of the people caring for the animals (Article 2(a)); the prevention of pain, suffering and/or distress including force-feeding (Article 3); the pre-stunning of warm-blooded animals (with an exemption for religious slaughter) (Article 4); mutilations (Articles 5 & 6), and the design and use of animal housing and husbandry systems / equipment (Article 13(a)).

### ***Poland***

Animal welfare in Poland is dealt with under the Animal Protection Act (2017), which also handles general anti-cruelty to farm animals under Article 6. The legislation includes prohibitions on branding and freeze-marking, keeping animals in inadequate living conditions, including in rooms or cages that prevent them adopting natural positions and exposing them to adverse weather conditions. The Act allows the creation of detailed regulations on specific welfare issues, including minimum conditions and standards for specific species of farmed animals. Ultimately Polish welfare law has been established to ensure that EU legislation is enacted.

# Youngstock management

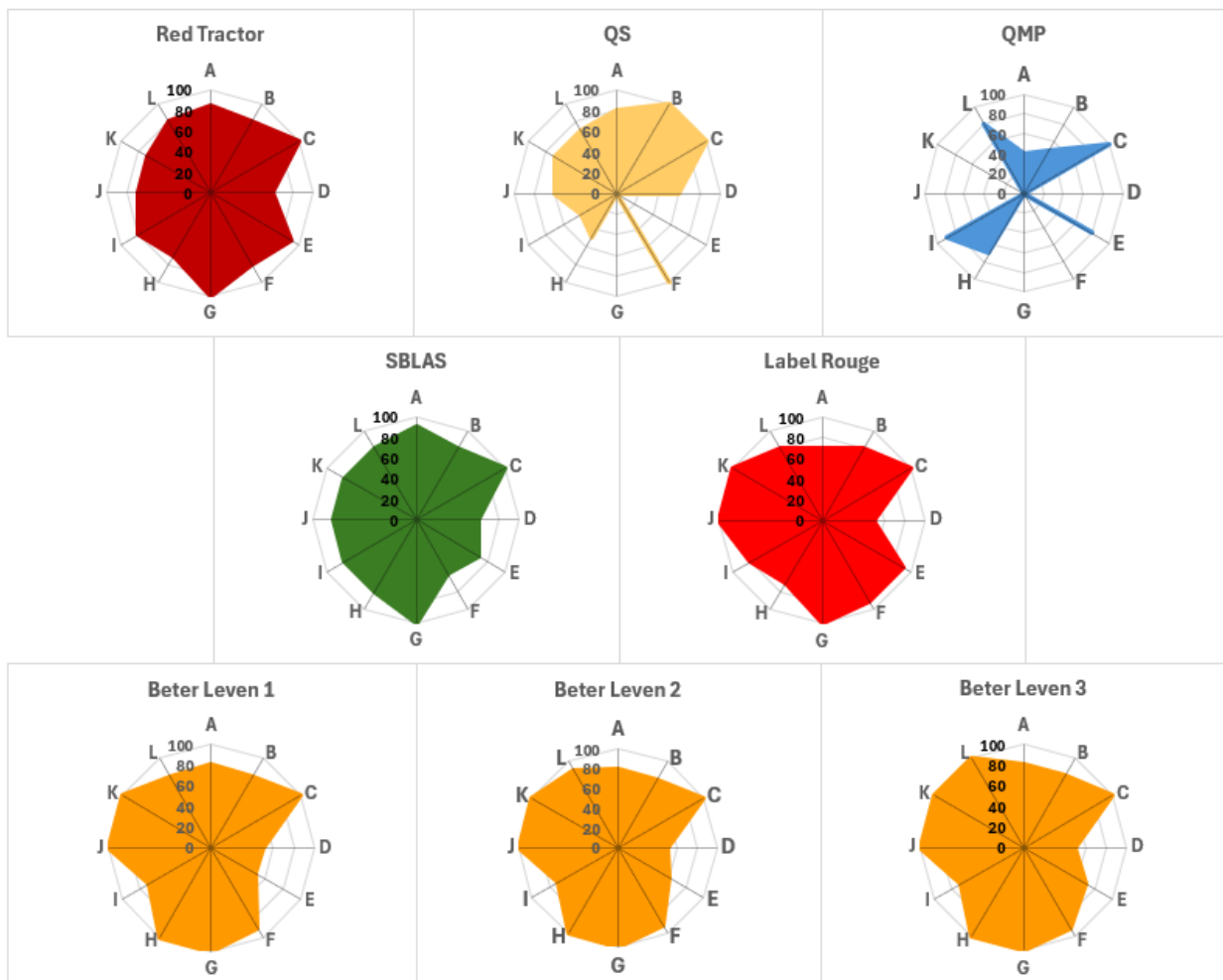
Youngstock management was included due to its critical importance to the long-term health of the animal. The conditions under which animals are farmed are relatively similar for the countries being considered in this review, although temperatures will vary strongly between summer and winter for mainland Europe, placing extra demands on housing design.

## Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the youngstock management category:

- A. Do animals have comfortable and safe indoor accommodation?
- B. Is there adequate fresh air?
- C. Is there adequate clean water?
- D. Is there adequate bedding?
- E. Do animals have access to appropriate amounts of feed?
- F. Is there adequate light?
- G. Is there adequate darkness?
- H. Is there an absence of unnecessary and painful husbandry procedures?
- I. Are animals able to safely and easily access feed and water?
- J. Are animals permitted to be kept on their own when very young?
- K. Are animals permitted to be kept on their own when older?
- L. Is the animal's diet nutritious and appropriate?

**Figure 8. Percentage weighted scores for each question for the youngstock management category**



**Table 12. Scores for the youngstock management category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	96.5/120	81
QS Germany	73/120	61
QMP	51/120	46
SBLAS	96/120	80
Label Rouge	100/120	83
Beter Leven 1	101/120	82
Beter Leven 2	102/120	84
Beter Leven 3	104/120	86

## Summary of findings

Beter Leven 3 scores highest in this section, followed by Label Rouge, Beter Leven 2, Beter Leven 1 and RT. However, with the exception of QMP, all of the schemes achieve a high score in this section. The schemes require good housing design and most schemes also refer to the need for ongoing maintenance. All require that the housing allows for the good health of the animals within them, with almost all schemes referring to appropriate ventilation. Except for QMP, the schemes also cover the need for light and darkness. Access to feed and water is covered by all the schemes, with QS Germany having the lowest score, due to an absence of specific detail which is covered in the other schemes. All of the schemes require that the diet is adequate, providing appropriate nutrition for the stage of growth of the animal. The four highest performing schemes score above the others mainly because of the length of time that calves are required to spend with their mothers.

## Individual scheme findings

### **Red Tractor**

RT contains information specific to youngstock, requiring that housing must be effectively ventilated, avoiding high humidity, odour build up and a comfortable temperature. Artificially reared youngstock must be provided with unrestricted access to clean fresh drinking water. Guidance around husbandry procedures is clear and adequate. Calves must not be housed in individual hutches after eight weeks of age.

### **QS Germany**

QS Germany requires appropriate housing and ventilation. It requires that calves have a soft or elastic layer on the floor of their accommodation, although this does not necessarily have to be a type of bedding. A light intensity of at least 80 lux is required for at least ten hours per day in areas where calves are kept. The lighting must be adapted to the daily rhythm, and it must be distributed as evenly as possible. The scheme permits animals to be kept individually, but they must have contact with other animals.

### **QMP**

QMP requires that buildings are appropriately designed. Calves must be provided with constant access to clear drinking water that is suitable for human consumption. Bedding is not required for calves. Periods of light and darkness are not referred to by the QMP scheme. There are no requirements around social contact for young calves.

### **SBLAS**

Under SBLAS, calves under eight weeks may only be housed in individual pens where they have direct tactile and visual contact with other calves. Calves must have access to enough fresh water, milk or other liquids to satisfy their nutritional and fluid intake needs. The scheme requires animal managers to think through the procedures which are to be applied to youngstock. Hygiene is well-covered by the scheme.

### **Label Rouge**

Label Rouge tightly controls what can and cannot be fed to youngstock. It requires lambs to be suckled from birth to 20 days of age. It also requires that calves are suckled and not weaned before four months of age. When housed, natural light is required. Label Rouge permits animals to be held in tie-stalls.

### **Beter Leven**

Beter Leven does not permit calves to be weaned from the cow before three months of age, and requires that weaning occurs gradually. Calves must have access to supplementary feed and fresh water from 14 days of age. The scheme has very specific requirements around the requirement for natural light and requires a dark period of at least six hours.

## **Legislative requirements**

In general, legislation in each jurisdiction considers the welfare of all animals, rather than that of youngstock specifically, and therefore provisions within farm assurance schemes help ensure that the proper care and attention is given to this specific category. However, Council Directive 2008/119/EC of 18 December 2008 lays down minimum standards for the protection of calves.

### **England**

Within England, the legislation does not differentiate youngstock from mature stock in most incidences. The codes of practice for the management of cattle and sheep do describe the required nutrition for younger stock and the necessity of them receiving adequate levels of colostrum inside the first few hours of birth and appropriate ongoing nutrition.

### **European Union**

As within England, EU legislation does not differentiate youngstock from mature stock in most instances, and legislation is written for animals at all stages of their lives.

## Animal health and welfare

The animal health and welfare category was included within our assessment because, outside of food safety, this is the area which is of most importance to consumers<sup>9</sup>. The questions in this section have been designed to identify if the various assurance schemes promote good animal health and enable the animals to experience conditions which promote high welfare.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Animal Health and Welfare category:

- A. Are animal welfare scoring/outcome measures required?
- B. How effective is each welfare score?
- C. How regularly are welfare scoring measures required to be taken?
- D. Are welfare measures reported to external organisation?
- E. Is a veterinary health plan required and accessible to staff?
- F. Is the plan active?
- G. Are medicine records fully up to date?
- H. Does the scheme require isolation facilities in a separate air space?
- I. Is locomotion scoring required?
- J. Is body condition scoring required?
- K. Is a review of the veterinary health plan required?
- L. Is it a requirement to regularly monitor the health of stock? How often? How often is a vet visit required?
- M. Are miscellaneous circumstances, including euthanasia, well managed, and equipment controlled to maintain high welfare?
- N. Are staff appropriately trained? Is a competent individual available?

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<sup>9</sup> AHDB/Blue Marble, 2022



Figure 9. Percentage weighted scores for each question for the Animal Health and Welfare category

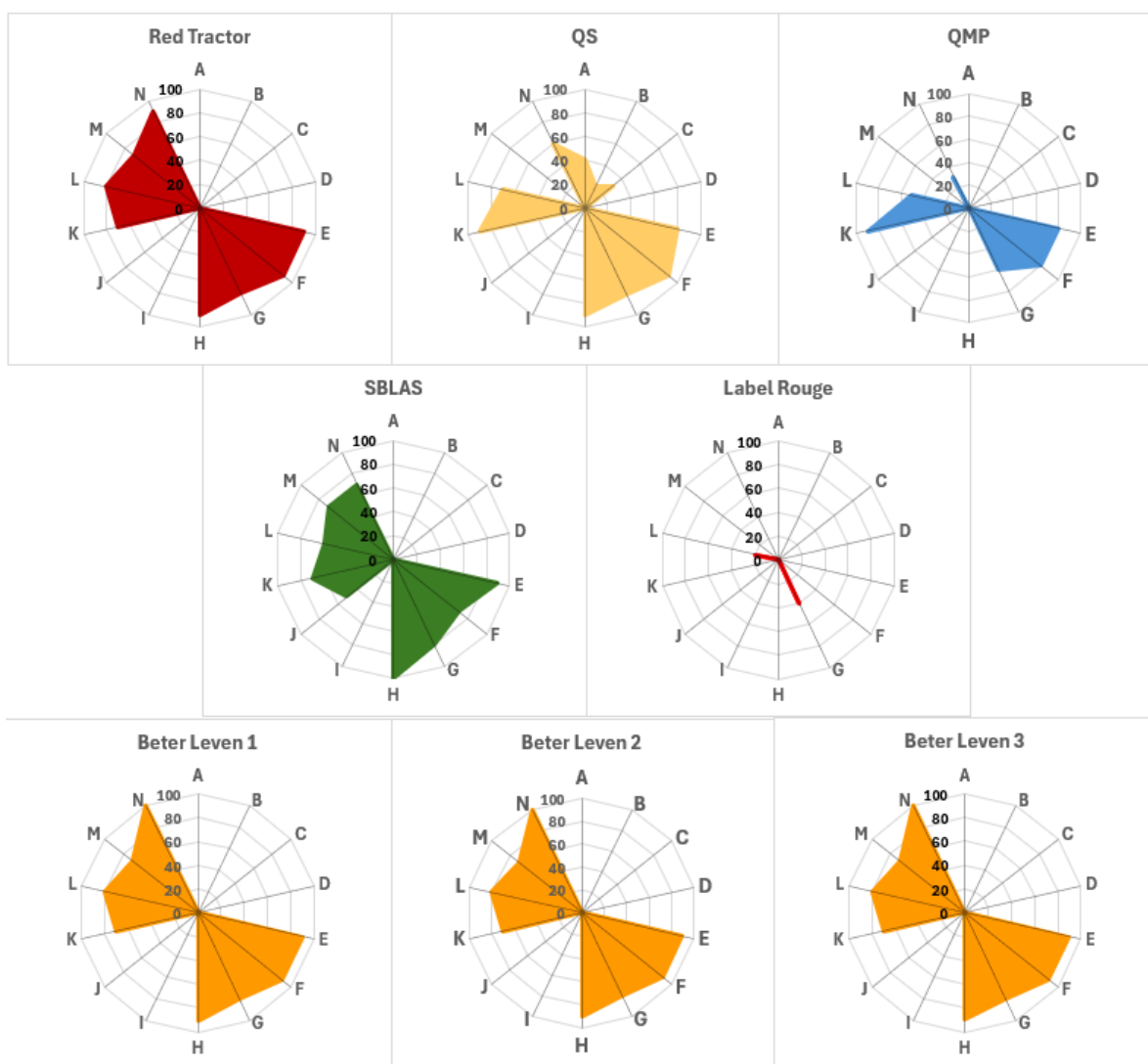


Table 13. Scores for the Animal Health and Welfare category in each scheme

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	66/140	59
QS Germany	65/140	57
QMP	39/140	36
SBLAS	66/140	56
Label Rouge	6/140	6
Beter Leven 1	67/140	59
Beter Leven 2	67/140	59
Beter Leven 3	67/140	59

### Summary of findings

RT, Beter Leven, QS Germany and SBLAS all score well against the category criteria. All schemes require limited proactive steps to monitor animal health and enable the early treatment of illness, although RT does require more frequent monitoring of the animals than the other schemes.

RT, QS Germany, and Beter Leven require regular inspection of animals to monitor health. This is also a requirement of the QMP and SBLAS schemes, but less frequently (or less clearly specified). Label Rouge does not specify the need for regular monitoring of stock. QS requires that welfare indicator measures are collected and evaluated, but does not specify within the scheme documentation the exact indicators that are to be used. RT, QMP, SBLAS, Label Rouge and Beter Leven do not require that welfare or locomotion scoring is undertaken. None of the schemes assessed in this report include the requirement for implementation of a recognised method of welfare assessment for beef and lamb.

Veterinary Health plans are required by RT, QS Germany, QMP, SBLAS and Beter Leven Schemes. All of the health plans contain a relatively high level of detail, are required to be active, and to be regularly updated. The Beter Leven and the QS Germany standards are particularly strong, Label Rouge does not require a Veterinary Health plan and the scheme scores lower as a result.

Detailed medical records are required to be kept by all of the schemes, with recording of all medicine use required to be fully up to date at all times. The details required by Label Rouge falls below the other schemes, but the content is still acceptable.

The RT scheme contains further detail related to the management of animal welfare, prohibiting electric goads, requiring that dogs are kept under control and that housing is maintained to prevent injury to livestock. Beter Leven requires that euthanasia procedures are managed and controlled and are implemented appropriately.

Requirements for appropriate training and skills of staff does vary between the schemes. Beter Leven displays the highest standards in this area, with detailed requirements and a strong requirement for the farmer/owner to be able to demonstrate the competency of their staff, which is a strong, auditable standard, and also requires secondary vocational education in livestock farming, or one year of experience working in beef farming or, that the person is working under the responsibility of someone with the appropriate qualifications. The manager of each site participates in a human-animal interaction workshop approved by a society for the protection of animals. RT requires that staff skills are appropriate to each task that the person has to deliver (and also applies this to contractors which work on the farm as well). QS Germany requires training but does not specify the type of training. However training activity must be recorded, along with the qualification that results. Family members are also required to be trained. SBLAS requires that the producer is able to demonstrate competence, with a minimum of five years on-farm experience. All stock handlers must be aware of the principles of best practice in animal welfare. QMP contains less detailed requirements around training, but does require that all workers are adequately skilled. Label Rouge does not discuss staff training and competency.

One of the main weaknesses in most of the schemes is a lack of specificity around the training that is required. Most of the schemes require training, without detailing the type of training that should take place.

## Individual scheme findings

### **Red Tractor**

RT has a clear focus on the maintenance of health and welfare of animals. It scores highly in this section because it is comprehensive and covers multiple areas. It requires daily checks for animal health (twice daily when housed), and inspects against the availability of feed and water. RT does not require animal welfare scoring or the reporting of outcome measures but does use records of animal health recording to assess activity within a health plan. RT does require a Veterinary Health Plan that is active and up to date. This plan must identify all key individuals responsible for livestock management and welfare, and be available to all staff. Medicine records are appropriate and staff must be adequately skilled and able to demonstrate competency.

### **QS Germany**

QS Germany also performs well in this section. Again it is comprehensive and addresses the expected areas. Daily livestock health checks are required, as is the provision of adequate food and water. The scheme does require evidence of a contract and ongoing planning with a veterinary practice which covers preventative health. Requirements around recording of medicines and veterinary treatment is appropriate, and staff training is required, although the scheme is not specific about the type of training.

### **QMP**

The QMP scheme achieves a lower score than all other schemes except for Label Rouge. The scheme requires an active Veterinary Health Plan and active monitoring of health and disease. No inspection intervals are specified regarding regular health checks, and, although staff are required to be adequately skilled, there are no requirements around training.

### **SBLAS**

SBLAS does not require welfare or locomotion scoring but, again does require an active Veterinary Health Plan, as well as the ability to isolate animals if necessary. The scheme requires that purchased stock are monitored for disease for one month after purchase. The producer must be able to demonstrate the competency of staff and all staff are required to be familiar with the principles of good animal practice.

### **Label Rouge**

Label Rouge contains very little information relating to animal health and welfare, other than to specify a minimum period between treatment and slaughter of 15 days, or four months if an antibiotic is used.

### **Beter Leven**

Beter Leven scores joint highest in this section, along with RT. It covers a wide range of actions in good detail. Again, it does not require locomotion or welfare scoring, but does require that the farmer has a plan produced in conjunction with a vet which is detailed and proactive. Medicines must be prescribed by a vet. Hygiene requirements are covered in detail and daily inspection of animals is required. The scheme requires that all staff have the necessary knowledge and skills regarding animal health, animal welfare, animal behaviour and various livestock farming systems, and the site manager is required to have attended a human-animal interaction workshop approved by the society for protection of animals.

## **Legislative requirements**

Animal health and welfare is regulated in each country, and with the exception of England, all countries fall under general European legislation with some raised requirements for individual countries.

### **England**

The Welfare of Farmed Animals (England) Regulations 2007 set the minimum welfare standards for all farm animals. It covers standards for stockmanship; health; feed, water and other substances; accommodation; equipment; management; fire and other emergency precautions; pregnancy; rearing; and breeding. England also provides animal welfare codes of practice which guide farmers on the most appropriate practice to deliver good animal welfare. Under The Protection of Animals (Anaesthetics) Act 1954, as amended, it is an offence to disbud calves or dehorn any cattle without the use of an anaesthetic other than when chemical cauterisation is used.

### **European Union**

Based on this European Convention, Council Directive 98/58/EC gives general rules for the protection of animals of all species kept for the production of food, wool, skin or fur or for other farming purposes, including fish, reptiles or amphibians. Article 2 mandates that all animals whose welfare depends on frequent human attention shall be inspected at least once a day. Article 7 protects the animals' freedom of movement, and Article 10 requires that breeding procedures (natural or artificial) likely to cause suffering or injury must not be

practised, though there are exceptions to this. Article 21 further states that no animal shall be kept for farming purposes unless it can reasonably be expected, on the basis of its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare.

### ***Republic of Ireland***

Animal welfare is covered under the Animal Health and Welfare Act 2013, which is not proscriptive. The act requires the provision of proper husbandry and management of animals, delivery of proper farming practice and of appropriate welfare standards for animals at all stages of their lives, including during sale, transport or, in the case of farm animals, lairaging or at slaughter.

### ***Netherlands***

The welfare of animals kept commercially in the Netherlands are safeguarded by regulation on transportation, feed, housing and husbandry.

### ***France***

There is no overall animal welfare Act in France. Rather, animal protection provisions are laid out in the Penal Code and the Rural and Maritime Fishing Code. Under the Rural and Maritime Fishing Code and the Penal Code, animals who are owned have protection from deliberate acts of cruelty and neglect.

### ***Germany***

The general duty of care and anti-cruelty provisions of the Animal Protection Act (TierSchG) apply to animals used in farming. Relevant regulations include: the duties of care (Article 2) including the knowledge and skills of the people caring for the animals (Article 2(a)); the prevention of pain, suffering and/or distress including force-feeding (Article 3); the pre-stunning of warm-blooded animals (with an exemption for religious slaughter) (Article 4); mutilations (Articles 5 & 6), and the design and use of animal housing and husbandry systems / equipment (Article 13(a)).

### ***Poland***

Animal welfare in Poland is dealt with under the Animal Protection Act (2017), which also handles general anti-cruelty to farm animals under Article 6. Particularly relevant are the prohibitions on branding and freeze-marking, keeping animals in inadequate living conditions including in rooms or cages that prevent them adopting natural positions and exposing them to adverse weather conditions.

# Animal medicines

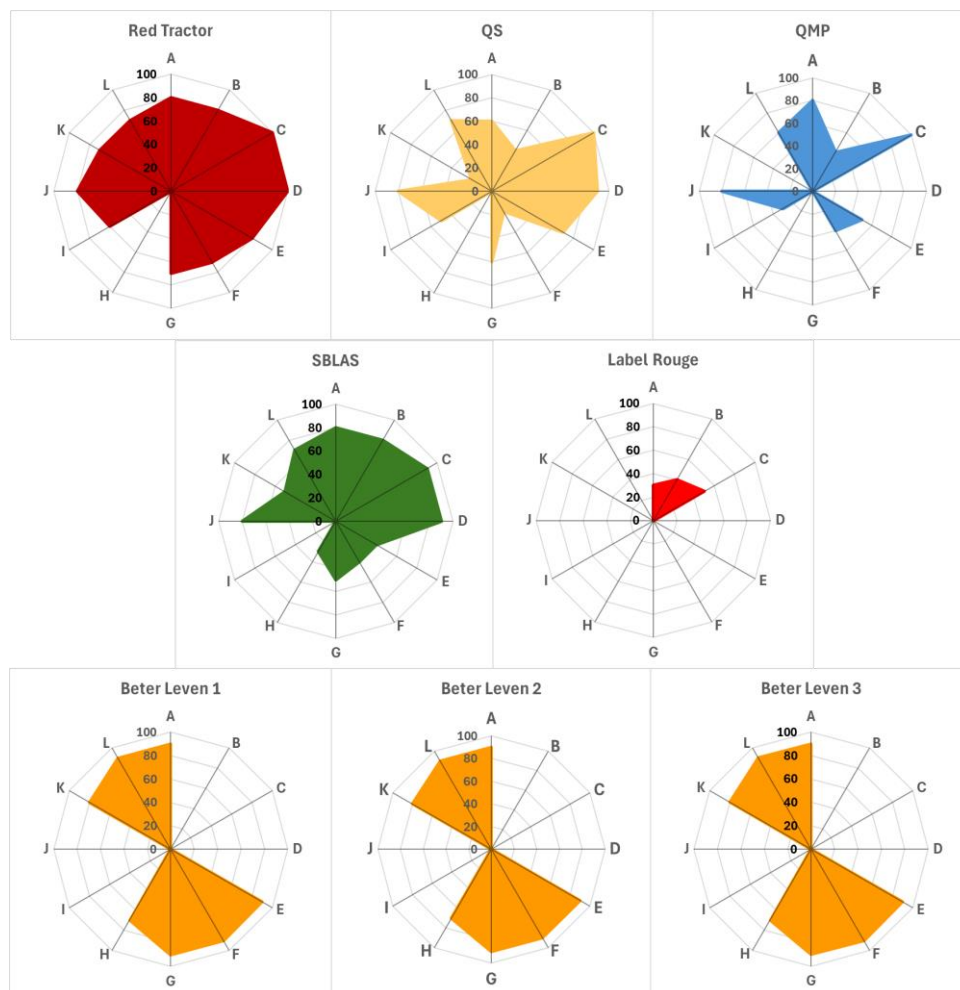
The animal medicines category was created to assess the quality of the scheme’s requirements to control the use of medicines, ensure that they are used effectively and that they cannot enter the food chain.

## Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Animal Medicines category:

- A. Is medicine usage and administration appropriate?
- B. Are movement documents required which show what animals have been treated and their withdrawal periods?
- C. Are withdrawal periods appropriate and adhered to?
- D. Are medicine storage, handling, use and disposal of a good standard?
- E. Is responsible antibiotic use required and assured?
- F. Are critically important antibiotics prohibited or permitted?
- G. Is a central monitoring system required to permit the use of antibiotics?
- H. Is sensitivity testing required prior to use?
- I. Is off-label (cascade) use of veterinary medicine permitted?
- J. Is a broken needle policy and records required?
- K. Is the person administering medicines competent?
  - a. How is this assured?
- L. Are detailed medical records required (including purchase records and broken needle records)?

**Figure 10. Percentage weighted scores for each question area for the Animal Medicines category**



**Table 14. Scores for the Animal Medicines category**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	86/120	77
QS Germany	66/120	59
QMP	48/120	43
SBLAS	70/120	62
Label Rouge	12/120	11
Beter Leven 1	60/120	51
Beter Leven 2	60/120	51
Beter Leven 3	60/120	51

## Summary of findings

With the exception of Label Rouge, medicine usage is clearly stipulated within the assurance schemes in the study.

All schemes permit the controlled off-label use of medicines, although the standards are slightly different between the schemes. All schemes also require that animals which have been potentially exposed to broken needles are identified throughout their lives and, if they are being transferred to slaughter, the abattoir must be informed. All schemes also require that medicines are stored appropriately.

All schemes permit the use of critically important antibiotics, but their use is strongly discouraged by RT – they must be a last resort, and supported by veterinary advice. Beter Leven places very specific requirements and limits around when critically important antibiotics can be used. RT and QS contain requirements around training requirements for those who will be administering antibiotics, but this is not specifically referred to in the other schemes.

Central monitoring of antibiotic use is required in the Netherlands. RT and QS Germany operate a form of voluntary central monitoring, but the other schemes do not.

## Individual scheme findings

### **Red Tractor**

RT achieves the highest score in the animal medicines section and requires relevant experience or training for those who are administering the medicine, and that withdrawal periods are carefully adhered to. RT requires a good level of detailed management and recording and requires appropriate training or experience for staff that are administering medicines.

### **QS Germany**

QS Germany offers a moderate level of control around medicine and antibiotic use, and requires ongoing contact with a veterinary practice to deliver planned health management. Record keeping under QS is less specific than for RT.

### **QMP**

QMP does not rule out prophylactic use of antibiotics, but requires medicine usage to be under the control of a vet, who is also required to ensure adherence to withdrawal periods.

### **SBLAS**

SBLAS requires that medicine usage is carefully controlled and used in a way which minimises the development of resistance through effective engagement with the farm vet. Good record keeping is also required.

### **Label Rouge**

Label Rouge prohibits the use of antibiotics in the last four months of the animal's life, and if antibiotic use is required, the slaughter date of the animal must be postponed. However, Label Rouge does not specify any other requirements around medicine usage.

### **Beter Leven**

Administration of antibiotics is carefully controlled under Beter Leven. Beter Leven requires susceptibility testing to verify that no other antibiotics belonging to less important groups will be effective, before an antimicrobial belonging to fluoroquinolones or 3<sup>rd</sup> or 4<sup>th</sup> generation cephalosporins can be prescribed.

The regulations around use of antibiotics in the Netherlands are more restrictive than any of the other countries studied in this report, with antibiotic administration being only permitted by a vet. Beter Leven requires that the farmer implements a farm treatment plan which controls the application of medicines, but does not contain detailed requirements around record keeping for medicines. Central monitoring of antibiotic use is required in the Netherlands.

## **Legislative requirements**

Animal medicine usage is controlled in all regions by the country (or state) regulations. The rules around the use of medicines which are permitted, what they may be used for etc, are almost all legislative, and the assurance schemes simply reflect this. The use of medicines in all each jurisdiction (except the Netherlands) is permissible even by those who are not professionally trained.

### **England**

In England, keeping accurate records of medicine use on farms is a legal requirement. The owner or keeper of food-producing animals must maintain records related to the purchase of all veterinary medicinal products acquired for those animals. These records should be kept for a minimum of five years. The following information needs to be recorded: Name of the product and its batch number; Date of acquisition; Quantity acquired; Name and address of the supplier.

When administering medicine, farmers must record: Name of the product; Date of administration; Quantity administered; Withdrawal period; Identity of the treated animal(s). If a vet administers the medicine, they must also record the batch number and their name in the farm's records or provide this information in writing for you to enter. If you dispose of a veterinary medicine (other than by treating an animal), you must record: Date of disposal; Quantity of product involved; Details of how and where it was disposed of.

There are four levels of treatment of antibiotics for veterinary use in England<sup>10</sup>;

1. Category A: Antibiotics in this category are not authorised as veterinary medicines in the EU and should not be used in food-producing animals. They may be given to companion animals under exceptional circumstances
2. Category B: antibiotics in this category are critically important in human medicine and use in animals should be restricted to mitigate the risk to public health and should be considered only when there are no antibiotics in Categories C or D that could be clinically effective. Their use should be based on antimicrobial susceptibility testing, wherever possible
3. Category C: for antibiotics in this category there are alternatives in human medicine. For some veterinary indications, there are no alternatives belonging to Category D. Category C antibiotics should be considered only when there are no antibiotics in Category D that could be clinically effective

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<sup>10</sup> NOAH Technical Briefing: Categorisation of Antibiotics and Updated Guidance to Support Responsible use and UK Animal Health and Welfare

4. Category D antibiotics should be used as first line treatments, whenever possible. Again, they should be used prudently, and only when medically needed

Within England the Veterinary Medicine regulations have just been updated. These regulations set out the controls on the marketing, manufacture, distribution, possession and administration of veterinary medicines. The main changes for farm animal veterinary surgeons include the fact that anyone selling medicines online will need to be registered to ensure they are compliant with medicine laws including the responsibility for safe storage of medicines until they arrive with the customer. From November, Vets, pharmacists and SQPs have to start recording the reason for prescribing a POM-V/POM-VPS product. The prescriber now has a duty to give the withdrawal period information to the owner in a particular way, and there are new calculations to work out what those safe limits are. Subject to the professional obligations of a veterinary surgeon to ensure the health and welfare of animals under their care, antibiotics may not be used routinely, prophylactically to compensate for poor hygiene, inadequate husbandry, or poor farm management practices. It is now a specific criminal offence to promote breach of the cascade – a series of steps that a vet legally has to follow if they want to use medicines which are not licensed for that particular purpose in that particular species of animal.

### **European Union**

Regulation (EU) 2019/6 governs the use of veterinary medical products in the European Union. It contains measures to support the availability and safety of veterinary medicines and enhanced EU action against antimicrobial resistance.

The main objectives of the Regulation are to:

- harmonise the internal EU market for veterinary medicinal products,
- reduce the administrative burden on companies and EU regulatory authorities,
- enhance the availability of veterinary medicinal products,
- stimulate innovation of new and existing medicines,
- strengthen the EU response to fight antimicrobial resistance.

Individual countries are able to implement additional requirements where required. Some of the European legislation is post-Brexit and therefore not implemented in UK / English law. These include the 2019/6 Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC; and 2019/4 Regulation (EU) 2019/4 of the European Parliament and of the Council of 11 December 2018 on the manufacture, placing on the market and use of medicated feed, amending Regulation (EC) No 183/2005 of the European Parliament and of the Council and repealing Council Directive 90/167/EEC.

The main clauses which differentiate the EU from the UK are that the routine use of prophylactic antibiotics is not permitted and never allowed through feed. The legislation requires that antimicrobial medicinal products shall not be applied routinely nor used to compensate for poor hygiene, or inadequate animal husbandry or lack of care or to compensate for poor farm management. (Article 107.1 of Regulation (EU) 2019/6). They also state that antimicrobial medicinal products shall not be used for prophylaxis unless, in exceptional cases for the administration to an individual animal or a restricted number of animals when the risk of an infection or of an infectious disease is very high and the consequences are likely to be severe. In such cases the use of antibiotic medicinal products for prophylaxis shall be limited to the administration to individual animal only, under the conditions laid down in the first sentence.

The legislation also requires that antimicrobial medicinal products are used for metaphylaxis only when the risk of spread of an infection or of an infectious disease in the group of animals is high and where no other appropriate alternatives are available. Member States may provide guidance regarding the other appropriate alternatives referred to in this paragraph and are required to actively support the development and application of guidelines which promote the understanding of risk factors associated with metaphylaxis and include criteria for its initiation



## Biosecurity and disease control

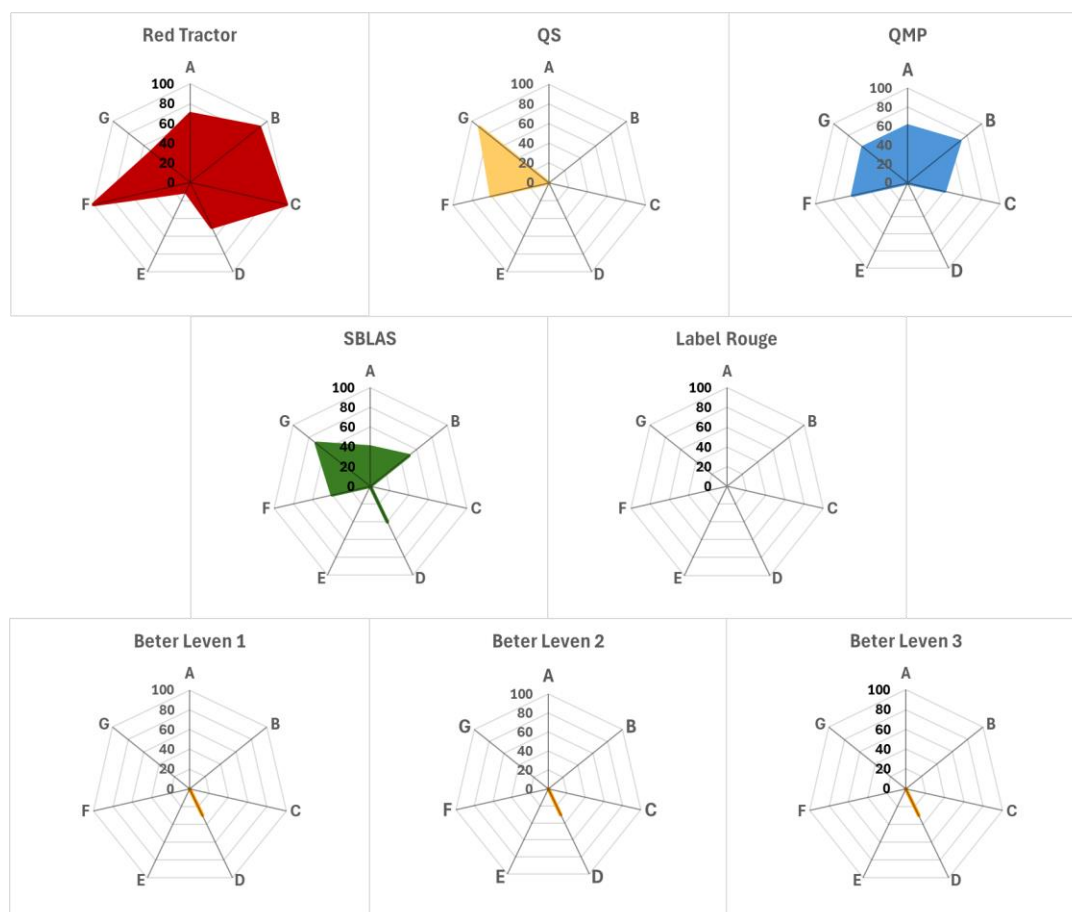
There is a genuine importance to the prevention of the spread of disease. This has traditionally been an area where beef and sheep farms have underperformed<sup>11</sup> in comparison to other sectors such as pig and poultry. Beef and lamb farms have fewer restrictions about who can enter and have contact with animals, together with taking animals to and from market, and the lack of isolation of newly purchased animals. Farm assurance can have a key role in improving biosecurity practice. Strong biosecurity requirements in farm assurance schemes can encourage better animal health and welfare, as well improved animal performance through drawing the attention of the farmer to its importance.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Biosecurity and Disease Control category:

- Does the scheme require the creation of a biosecurity plan?
- Does the scheme check adherence to the biosecurity plan?
- Does the scheme require updating of the biosecurity plan?
- Does the scheme require a known health status for animals brought onto the farm?
- Is there a record of people, vehicles and machinery entering the farm?
- Does the scheme require appropriate cleaning material to be available on-farm?
- Does the scheme require appropriate activity to deliver good biosecurity?

**Figure 11. Percentage weighted scores for each question area for the Biosecurity and Disease Control category**



<sup>11</sup> Cennydd Owen Jones et al, 'Biosecurity in UK Livestock Farms: An Insight Into current Practice' Jan '23

**Table 15. Scores for the Biosecurity and Disease Control category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	47/60	67
QS Germany	15/60	23
QMP	29/60	42
SBLAS	24/60	38
Label Rouge	0/60	0
Beter Leven 1	3/60	5
Beter Leven 2	3/60	5
Beter Leven 3	3/60	5

## Summary of findings

There is a clear disparity between the schemes which address biosecurity and those which do not. Label Rouge and Beter Leven score at or close to zero because their standards do not directly specify farm level actions to prevent disease. The other four schemes all contain requirements to prevent the ingress of disease to the farm. Of the four schemes, RT obtains the highest score because it requires the creation of a biosecurity plan, its implementation and its updating (if necessary). QMP does not require a plan, and SBLAS recommends rather than requires some actions.

## Individual scheme findings

### **Red Tractor**

The RT scheme requires the creation of a detailed biosecurity plan, and assesses adherence to this plan as well as how up to date it is. The scheme requires appropriate activity to deliver good biosecurity. The scheme does not require a known health status for animals brought onto the farm, and does not require a visitor book to record details of those who visit the farm. RT does not specify how key biosecurity risks should be mitigated, and although it requires approved cleaning chemicals to be present, it does not require their use. It also does not require that the health status of incoming animals is known. This is a very significant weakness. RT also does not assess the appropriateness of the biosecurity plan – it will simply inspect against the plan.

### **QS Germany**

QS Germany does not score as well as RT, QMP or SBLAS. The scheme is much less detailed and does not require the creation of or adherence to a biosecurity plan, nor does it require a knowledge of the health status of animals which are brought onto the farm. A visitor book is not required. The scheme suggests that cleansing plans should include products as well as record keeping for cleansing procedures that are delivered.

### **QMP**

The QMP scheme adequately covers biosecurity in most areas, but scores less than RT. The scheme does require strong steps to maintain good biosecurity, although a plan is not required. The scheme does, however, require that actions take place to deliver good biosecurity. It does require that animal health is monitored and that actions are taken to maintain good health status. The scheme does not require a known health status for animals which are brought onto farm, and a visitor book is not required.

### **SBLAS**

The SBLAS scheme requires the creation of a biosecurity plan, and requires actions under this plan. The plan recommends (but does not require) farmers to implement an observation period for animals brought onto farms, and to take all possible measures to prevent the purchase of animals that present health risks to other animals on the farm. The scheme provides guidelines around housing design to improve the ability to maintain hygiene.

### ***Label Rouge and Beter Leven***

Label Rouge does not address biosecurity within their standard. This is also true of Beter Leven with the exception that this scheme does deal with the prevention of IBR and BVD via a small number of recommendations.

### **Legislative requirements**

There are very limited requirements in legislation in any of the countries within regard to biosecurity and the prevention of transmission of disease. It could be argued in all three countries that the legislation could be used to prosecute a manager whose gross negligence permitted the transfer of disease which caused a very substantial welfare problem. However, this is extremely rare, and the main aim of good biosecurity is the prevention of disease, loss of thrift and general underperformance as this is much more common at farm level.

The codes of practice within England do contain references to the importance of good biosecurity (disease prevention measures) and recommend a focus on it within the veterinary health plan.

## Livestock transport

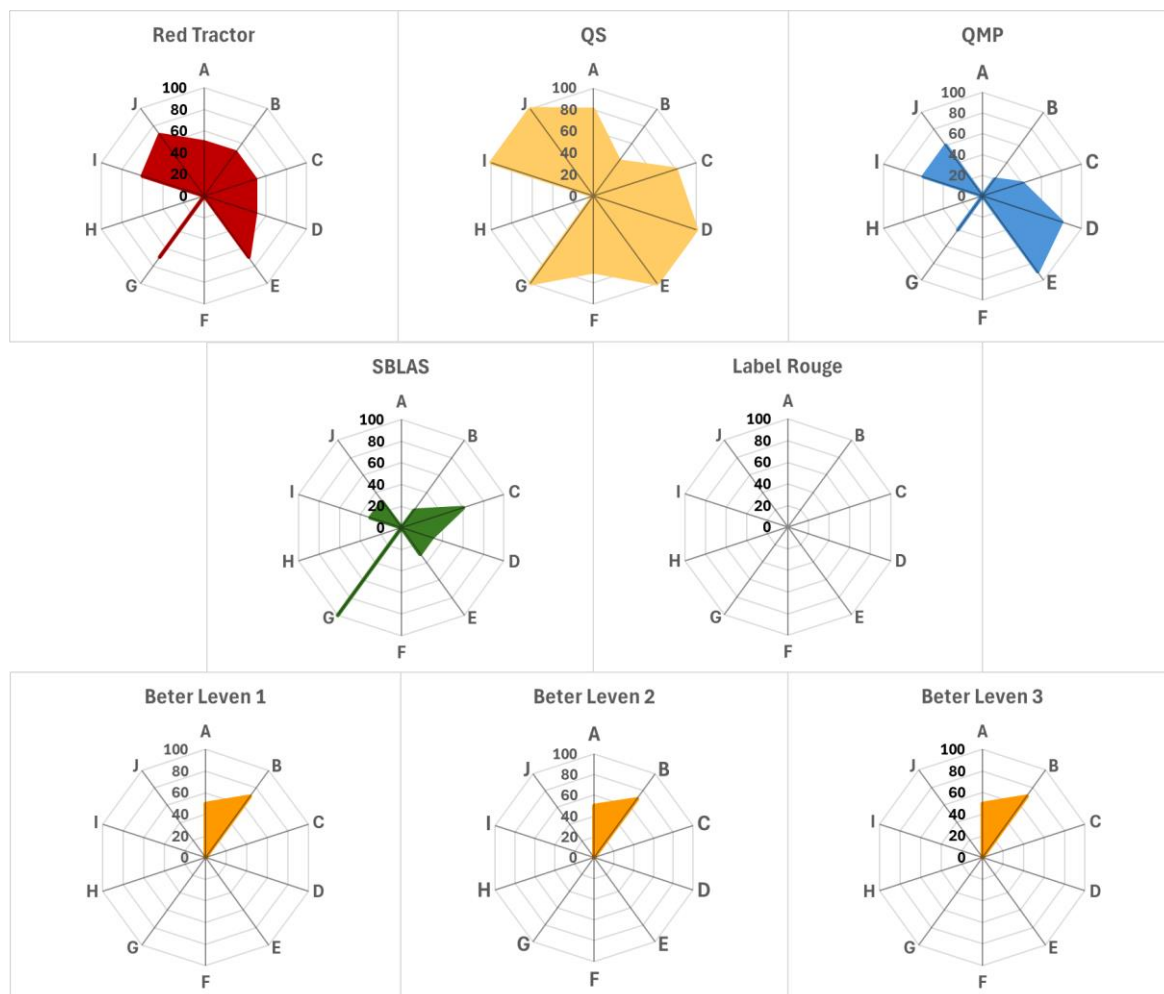
The Livestock transport category has been included because it is a critical control point for the welfare of meat animals. Poor or difficult transport conditions can severely compromise the health and welfare of animals over a short period of time and can also reduce the quality of the meat which comes from the animals. As such this is an animal welfare, animal health and food quality indicator and is therefore an important consideration within a farm assurance scheme.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Livestock Transport category:

- Is there a maximum permitted journey time?
- Is there a maximum permitted journey distance?
- What assurance requirements are there for vehicles/companies which are permitted to transport animals?
- Is there a requirement for assured transport throughout the lifetime of the animal?
- What are the conditions in which animals can be transported?
- Is water/feed available during transport?
- Is there a maximum/minimum stocking density during transport depending on species?
- Are there speed recommendations during transport?
- Are drivers aware of good animal welfare principles and are they effectively trained or certified?
- Is certification and documentation in place?

**Figure 12. Percentage weighted scores for each question area for the Livestock Transport category**



**Table 16. Scores for the Livestock Transport category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	47/100	52
QS Germany	77/100	83
QMP	39/100	44
SBLAS	30/100	35
Label Rouge	0/100	0
Beter Leven 1	12/100	10
Beter Leven 2	12/100	10
Beter Leven 3	12/100	10

## Summary of findings

QS Germany obtained the highest score for assurance of transport. It contains some very specific requirements designed to protect animals during transport, ensuring that conditions during transport are appropriate for each class of animal. It does not put a maximum travel time or distance over which most animals can be transported but does require food and water if journey time is over eight hours. The other schemes are less specific, and while there are specific transport modules available for some of the schemes, it is still important that transport is assessed within the main scheme.

## Individual scheme findings

### **Red Tractor**

The RT standard for transport places no limits on the distance animals can move, or maximum time limits for journeys, except for young lambs and calves which cannot be transported for more than 60km without their dam. Within England and the UK, distance and journey times are relatively limited for geographical reasons.

RT requires that assured transport is used, and this provides a degree of confidence around the conditions in which livestock can be transported. A farmer’s own transport can be used for journeys of up to 65km and these vehicles are inspected during audit. Good driver training and certification is required and assured transport must be used. Some guidance is given around stocking rates, but there do not appear to be strong guidelines around the mixing of different species or different classes of livestock.

### **QS Germany**

QS Germany scores the highest in the transport section. Calves may only be transported once their umbilical wounds have healed completely and those that are less than 28 days old must not be transported within Germany. QS Germany also requires transport that is assured and is highly specific about the conditions under which animals can be transported, requiring that cattle have litter or bedding during transport, and specifies appropriate stocking densities. It also requires that animals being transported for more than eight hours must be provided with suitable feed and water. Driver or handler training is required, as well as proof of qualifications. Extensive documentation must be supplied and made available for inspection during animal transport.

### **QMP**

QMP scores less than QS and RT, mainly because the documentation requirements are not as clear or as comprehensive. Assured transport is required, and there are clear instructions as to how to ensure animals are fit for transport, and that the transport container itself is suitable for carrying animals. However, the provision of food and water is not discussed, and space allowances are not specified, although there is a requirement that animals have adequate space during transport. Training and qualifications are required for those transporting animals, but detail around these requirements is lacking.

## **SBLAS**

The SBLAS scheme covers transport requirements at a reasonable level of detail, but falls behind RT, QS Germany and QMP, mainly because it is not as specific as these other schemes. There is no maximum permitted journey time or distance, although, as for many of the other schemes, only approved operators are permitted to transport animals over 65 kilometres. Producers must ensure that the animals are fit for transport, and the scheme specifies appropriate stocking densities for transport. There is less detail around certification of drivers or animal handlers than for the RT, QS Germany and QMP schemes.

## **Label Rouge and Beter Leven**

The Beter Leven and Label Rouge schemes do not deal with transport of livestock in any detail within the main assurance schemes and consequently have low scores within this section.

## **Legislative requirements**

Livestock transport is the subject of legislation with each region in the study. Broadly all legislation is currently equivalent.

### **England**

The transport of animals legislation in the UK is governed by Council Regulation (EC) No 1/2005 on the protection of animals during transport and related operations. This regulation requires that means of transport and containers used for transporting animals on long journeys (those in excess of eight hours) must be inspected and approved by the competent authority of a Member State or a body designated by a Member State. This is EU legislation that has currently been accepted for the UK and has not changed (although a consultation is ongoing). An analysis of the legislation shows that the RT standard makes requirements that are broadly the same as or just above UK law, including guidance on distances, times, driver licensing etc.

The Welfare of Animals (Transport) Order 1997 (S.I. 1997 No. 1480) Article 6, states that: *(3) Animals shall not be considered fit for transport if (inter alia) they are newborn animals in which the navel has not completely healed. The Welfare of Animals at Markets Order 1990 (S.I. 1990 No. 2627), Article 14, states that: "no person shall bring to a market a calf which is less than seven days old or which has an unhealed navel", "no person shall bring to a market a calf which has been brought to a market on more than one occasion in the previous 28 days".*

A new ban on exporting live animals came into law on Monday 20 May as the Animal Welfare (Livestock Exports) Act received Royal Assent. The legislation bans the export of live animals including cattle, sheep, and pigs for slaughter and fattening from Great Britain.

### **European Union**

Council Regulation (EC) No 1/2005 currently defines the responsibilities of all actors, involved in the transport chain of live animals entering or leaving the EU. This includes monitoring tools, inspections and means of transport. On 7 December 2023, the Commission adopted a proposal for a Regulation of the Council and European Parliament on the protection of animals during transport to replace Council Regulation (EC) No 1/2005. The proposal focusses on the following main objectives, which are essential for the good welfare of animals in transport:

- reduce animal welfare problems linked to long journeys and repetitive unloading and re-loading linked to several rest periods;
- ensure that animals have more space when transported;
- improve the conditions of transport of vulnerable animals;
- avoid exposing animals to extreme temperatures;
- facilitate enforcement of EU rules on the protection of animals
- better protect animals exported to non-EU countries.

# Vermin control

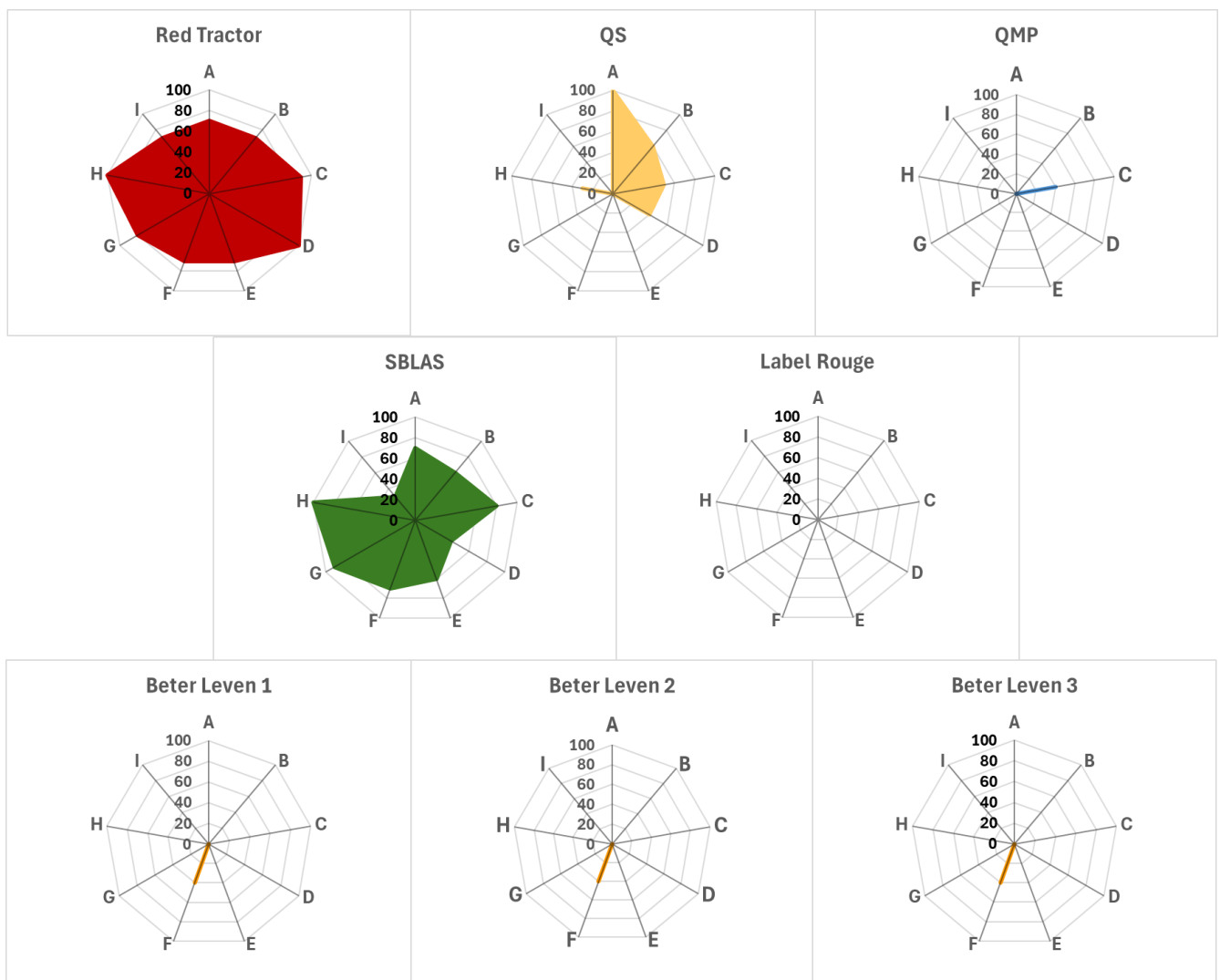
The control of vermin is included because it is of particular importance where animals are housed. However, regardless of the housing or non-housing of animals, all schemes should include some guidelines around the control of vermin and pests that can potentially transmit disease.

## Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in Vermin Control category;

- A. Is a plan to control vermin required by the assurance scheme?
- B. Are actions other than baiting required to prevent vermin infestation?
- C. Is a site survey required on at least an annual basis?
- D. Is an environmental risk assessment required prior to bait laying?
- E. Are dead/trapped vermin disposed of regularly?
- F. Are there requirements in place to ensure that non-target animals do not have access to baits?
- G. Is permanent baiting prohibited?
- H. Are product label directions followed during use?
- I. Is a COSHH assessment required?

**Figure 13. Percentage weighted scores for each question area in the Vermin Control category**



**Table 17. Scores for the Vermin Control category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	72/90	81
QS Germany	28/90	33
QMP	4/90	5
SBLAS	60/90	68
Label Rouge	0/90	0
Beter Leven 1	4/90	4
Beter Leven 2	4/90	4
Beter Leven 3	4/90	4

## Summary of findings

There are only three schemes which cover vermin control in any detail. RT achieves the highest score because it requires pest monitoring, followed by appropriate control measures. All monitoring and control has to be recorded and the impact of the control measures determined. The scheme provides a pest monitoring and control protocol.

## Individual scheme findings

### **Red Tractor**

The RT standards score well across each of the assessment questions, with none of the scores below 70%. Specific detailed requirements are not included in the overall vermin control plan- including justification for baiting; potential causes of vermin infestation; preventative measures to be taken as opposed to baiting or how to prevent poisoning of non-target species would also be helpful. Site surveys are only required every 12 months, which makes it more difficult to ensure that baiting occurs when needed but bait is required to be removed when not needed for vermin control. RT requires a COSHH assessment prior to bait being used on the farm.

### **QS Germany**

QS Germany requires pest monitoring to determine the need for vermin control. Monitoring and control must be documented, and specific information must be recorded including dates, bait sites created, the baits used, other control measures, and the impact of the control. QS Germany provides a pest monitoring and control protocol. The scheme does not require a COSHH assessment prior to bait being used on the farm.

### **QMP**

QMP requires monitoring of pest and vermin. The scheme does require that farmers monitor and control both of these, and that records are kept. However, the scheme contains very little explanatory detail.

### **SBLAS**

SBLAS requires the farm to operate and maintain an effective pest control programme in the farmyard. When baiting is used it is to be recorded and controlled, an appropriate bait must be used. SBLAS does not require a COSHH assessment prior to bait being used on the farm, but does require elements of COSHH to be included.

### **Label Rouge**

Label Rouge does not cover vermin control.

### **Beter Leven**

Beter Leven does not focus heavily on vermin control, but does require that bait stations are placed safely around the farm.



## Legislative requirements

The management of vermin on the farm is not subject to legislative control in England or the European Union, but the use of chemicals and poisons can fall under specific legislation which controls the following:

- 1) The type of poison which can be used
- 2) The chemical or poison's application and use
- 3) The controls around the chemical or poison

None of the requirements around vermin control (other than safe, appropriate use) are legislative within this category.

## Fallen stock

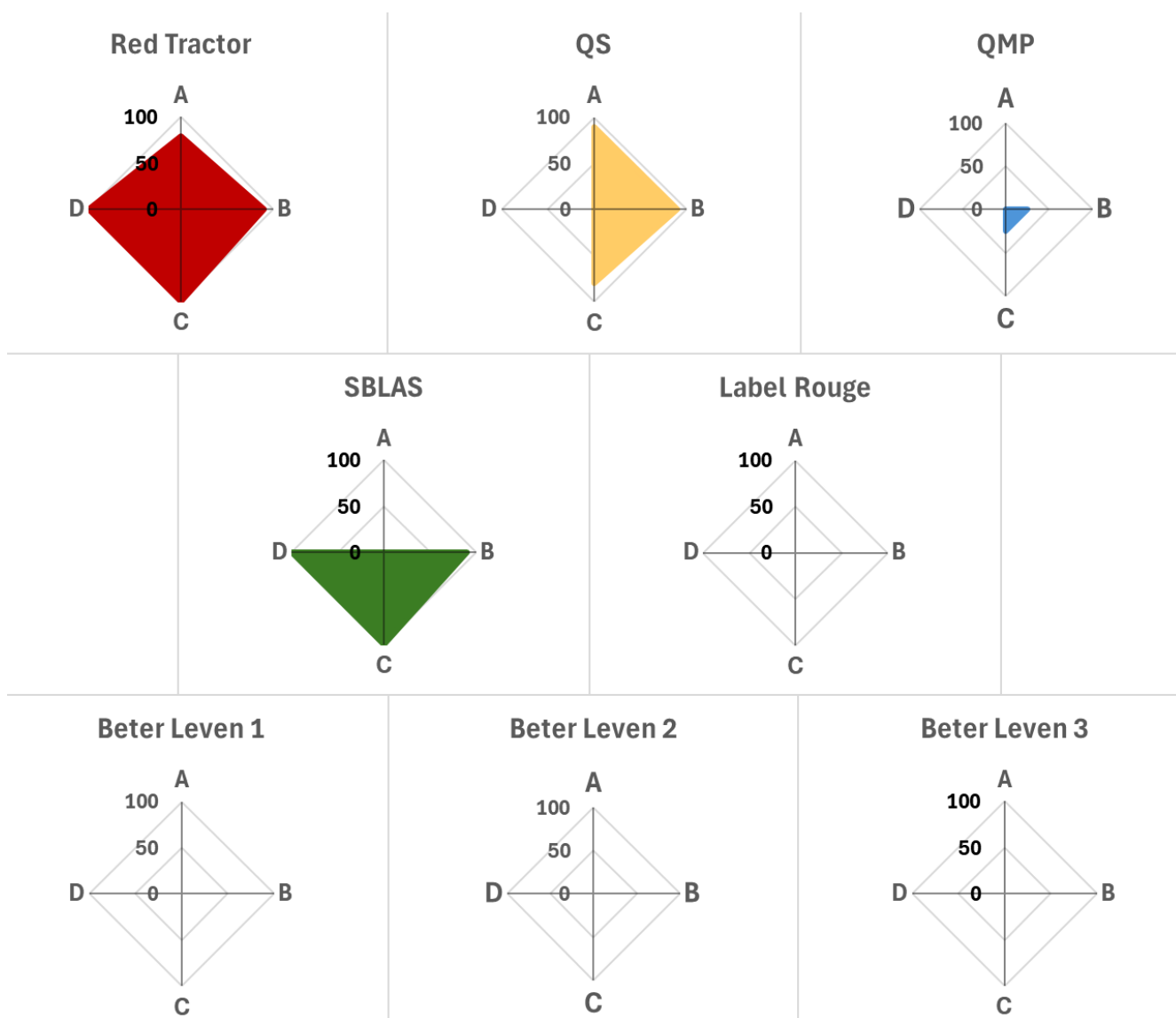
Fallen stock are included as a category because there is a risk to the environment, the health of other animals and potential spread of disease from stock which are not disposed of correctly. This is generally a greater risk where farms are more intensive.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Fallen Stock category;

- A. Does the scheme require regular checks for fallen stock?
- B. Are carcass storage methods acceptable?
- C. Are carcass disposal methods acceptable?
- D. Are on-farm disposal facilities acceptable?

**Figure 14. Percentage Weighted scores for each question area for the Fallen Stock category**



**Table 18. Scores for the Fallen Stock category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	37/40	94
QS Germany	26/40	55
QMP	5/40	12
SBLAS	29/40	79
Label Rouge	0/40	0
Beter Leven 1	0/40	0
Beter Leven 2	0/40	0
Beter Leven 3	0/40	0

## Summary of findings

Only three schemes cover fallen stock in any detail (RT, QS Germany and SBLAS). Of these, RT is the most detailed and specific and addresses all key issues with regard to the monitoring, control and disposal of fallen stock. Label Rouge, QMP, and Beter Leven do not discuss the topic.

### **Red Tractor**

RT contains a good level of detail around appropriate management of fallen stock. The scheme is highly specific in its requirements around inspection for fallen stock, collection, storage and disposal. Regular checks for fallen stock are required, carcass disposal takes place in a timely fashion, and that carcasses awaiting collection are stored appropriately. RT covers on-farm incineration.

### **QS Germany**

QS Germany requires daily checks for fallen stock and immediate removal of any that are discovered. The scheme is very specific about storage areas and acceptable disposal methods. QS Germany is essentially equivalent to RT, other than that it does not cover on-farm incineration.

### **QMP**

The QMP scheme does not address fallen stock in any detail, but does require that scheme members adhere to good agricultural practice.

### **SBLAS**

SBLAS contains a good level of detail around fallen stock. However, it does not require regular checks for fallen stock, but requires adherence to department of agriculture requirements when they are found, ensuring that carcasses are moved to an appropriate holding area prior to collection. Carcass collection must take place without undue delay.

### **Label Rouge and Beter Leven**

Label Rouge and Beter Leven do not address fallen stock and consequently score zero.

## Legislative requirements

### **England**

The Animal By-Products (Enforcement) (England) Regulations 2013 control the disposal of carcasses. Within the Red Tractor scheme the standards are broadly equivalent to the English legislative standard, although the scheme expands slightly on the regulations, covering regular inspection for stock, storage whilst awaiting disposal etc. The English standards require that fallen livestock must be disposed of appropriately and cannot be buried or burnt in the open because of the risk of disease spread through groundwater or air pollution.

### ***European Union***

Article 21 of the EU Control Regulation 2017/625 requires fallen stock to be collected, identified and transported without 'undue delay', which is not defined.

## Environmental protection

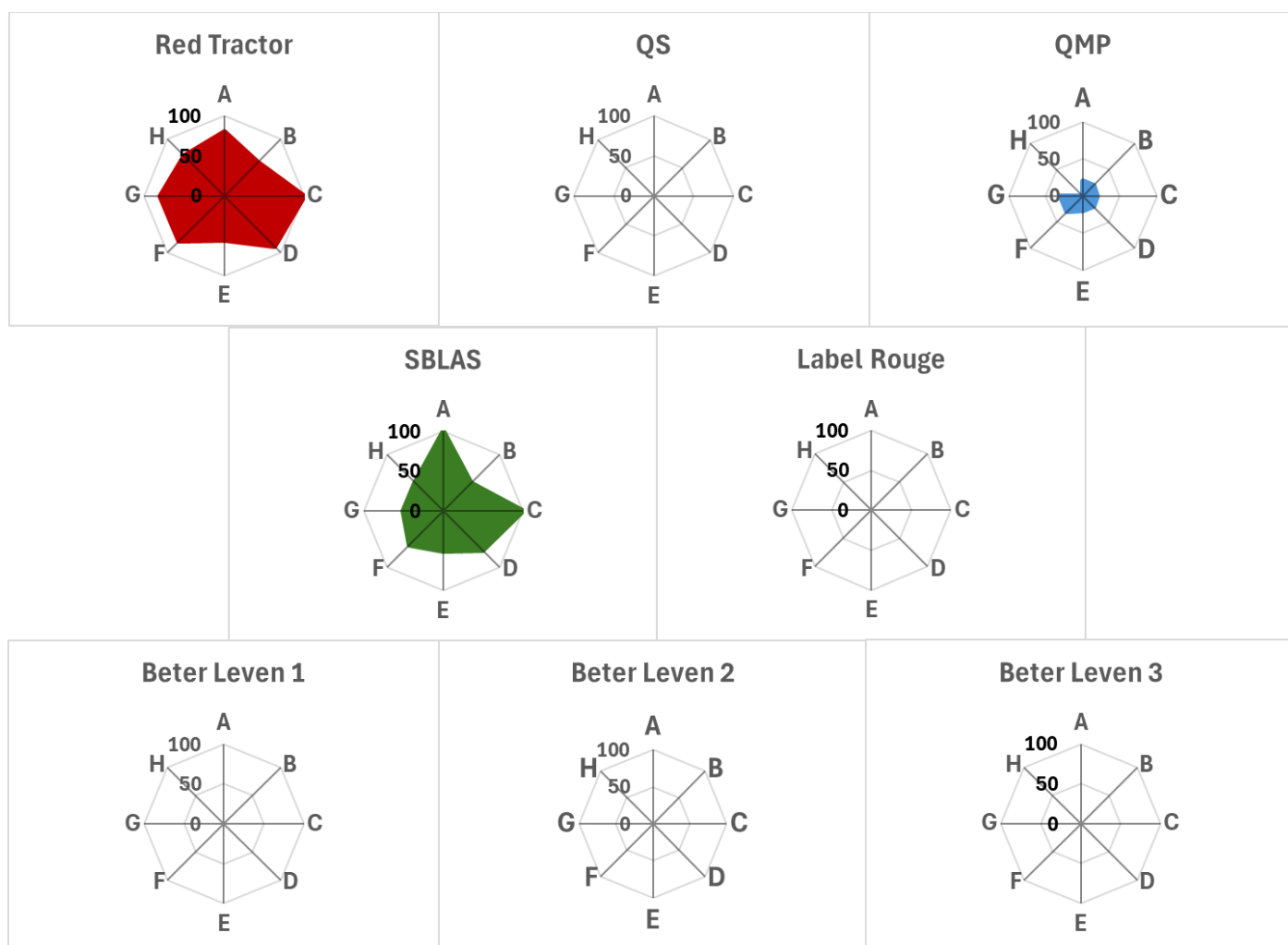
The environmental protection category is included because of its importance to the protection and maintenance of the environment in which the farm operates. This section is not about the creation and promotion of additional biodiversity or delivering reduction in GHG output, it is simply focused on the prevention of damage through correct management of risk areas on a farm, such as the storage and use of fertilisers or pesticides.

### Questions against which the category was assessed

The following questions were used to assess the performance of each scheme in the Environmental Protection category:

- A. Are pesticides stored correctly?
- B. Are pesticides applied correctly?
- C. Are pesticides disposed of correctly?
- D. Are fertilisers stored correctly?
- E. Are fertilisers applied correctly?
- F. Are slurries and manures stored correctly?
- G. Are slurries and manures applied correctly?
- H. Are other potential contaminants dealt with appropriately?

**Figure 15. Percentage weighted scores for each question area for the Environmental Protection category**



**Table 19 Scores for the Environmental Protection category in each scheme**

Scheme	Raw Score	Fully Weighted Percentage Score
Red Tractor	61.5/80	77
QS Germany	0/80	0
QMP	16/80	20
SBLAS	53/80	67
Label Rouge	0/80	0
Beter Leven 1	0/80	0
Beter Leven 2	0/80	0
Beter Leven 3	0/80	0

## Summary of findings

In the Environmental Protection analysis, RT scores higher than the other schemes, primarily because it requires higher levels of detail across a wider range of practices. SBLAS comes very close to RT, and QMP also covers some aspects of environmental protection. The other schemes do not include environmental protection concepts within them and hence score zero.

## Individual scheme findings

### **Red Tractor**

RT contains good standards around appropriate storage, handling and application of pesticides and fertilisers but does not recommend methods of optimising application to maximise resource use efficiency and reduce the chances of environmental damage by the overapplication of chemicals. The scheme does not require appropriate testing/diagnosis prior to application.

### **SBLAS**

SBLAS has strong standards around the storage of pesticides, the keeping of records showing use, requirements for safe disposal of used containers, as well as some guidance around safe use. Producers are required to be aware of and to adhere to appropriate legislation around the application of fertilisers, slurries and manures, and the scheme inspect against this.

### **QMP**

QMP contains some detail around the use of chemicals, fertilisers, manures and slurries, requiring adherence to good agricultural policy. However the scheme does not include any explanatory detail.

### **QS, Label Rouge and Beter Leven**

None of the other three schemes contain requirements around the control of potential pollutants on-farm.

## Legislative requirements

The control and use of pesticides is heavily regulated in each country in this study, and the requirements within the farm assurance schemes are primarily based on the relevant legislation.

### **England**

Within the UK, pesticide use is controlled by the Health and Safety Executive. Users of pesticides are required to comply with the official controls, and pesticide products must be authorised for use before they can be used, sold, supplied or stored. The requirements set out the competence requirements for sale and use of PPPs, the use, handling and storage requirements of PPPs (including aerial spraying) and requirements for the inspection of PPP equipment. Everyone who uses a PPP must, amongst other things: take all reasonable precautions to protect human health and the environment; confine the application of the pesticide to the crops

or area to be treated; ensure when using pesticides in certain specified areas, for example, those used by the general public, that the amount of PPP used and the frequency of use are as low as are reasonably practicable. Anyone using a professional PPP must either have a recognised specified certificate (previously known as a 'Certificate of Competence') or be working under the direct supervision, for the purposes of training, of someone who has such a certificate. The majority of the standards within RT are therefore legislative, with other details being taken from the Codes of Practice. The Codes of Practice are much more detailed than RT requirements.

### **European Union**

Much of EU legislation which protects the environment is technical, setting out detailed scientific standards for use. It is also usual for the legislation to require member states to provide information to the European Commission about how they are implementing the rules and about how effective they have been. In addition, there are several international conventions on environmental protection. In general, these are ratified by the EU and then implemented through EU legislation.

Use of pesticides is regulated by (EC) No 1107/2009. The regulation outlines a strict approval process where only pesticides with active substances proven to be safe for humans and the environment can be authorised for use in the EU. It also outlines risk assessments, sustainable use principles, restrictions and required training and certification.

## **Summary of findings**

The findings from this study show that, when directly compared, RT achieves a higher average score than the other schemes in this study. However, there are five areas where other schemes display higher performance than RT

- Traceability, Documentation and Assurance: QS Germany is the highest performing scheme in this category.
- Food Safety: QS Germany is the highest performing scheme in this category, with SBLAS also slightly higher than RT.
- Husbandry Procedures: Beter Leven is the highest performing scheme in this category.
- Youngstock: Beter Leven is the highest performing scheme in this category with Label Rouge also higher than Red Tractor.
- Livestock Transport: QS Germany is the highest performing scheme in this category.

There is also one category where another scheme performs as well as RT.

- Animal Health and Welfare: Beter Leven and RT are the highest scoring schemes in this category.

In general, RT is more prescriptive and contains more detail than the other schemes, and therefore scores more highly in any comparison, and is likely to influence users to address key issues appropriately. It also scores more highly because it targets areas which are important to the UK consumer. The following table shows how each scheme compares in each category using the fully weighted percentage scores.

**Table 20. Final weighted percentage scores for all schemes**

Category	RT	QS	QMP	SBLAS	Label Rouge	Beter Leven 1	Beter Leven 2	Beter Leven 3
Traceability, Documentation and Assurance	77%	79%	72%	74%	56%	67%	67%	67%
Personnel	72%	29%	11%	55%	0%	36%	36%	36%
Food Safety	77%	90%	71%	80%	30%	43%	43%	43%
Housing and Shelter	75%	60%	47%	68%	40%	64%	65%	65%
Feed and Water	85%	65%	62%	82%	64%	67%	67%	67%
Husbandry Procedures	74%	39%	55%	61%	57%	90%	90%	90%
Youngstock Management	81%	61%	46%	80%	83%	82%	84%	86%
Animal Health and Welfare	59%	57%	36%	56%	6%	59%	59%	59%
Animal Medicines	77%	59%	43%	62%	11%	51%	51%	51%
Biosecurity and Disease Control	67%	23%	42%	38%	0%	5%	5%	5%
Livestock Transport	52%	83%	44%	35%	0%	10%	10%	10%
Vermin Control	81%	33%	5%	68%	0%	4%	4%	4%
Fallen Stock	94%	55%	12%	79%	0%	0%	0%	0%
Environmental Protection	77%	0%	20%	67%	0%	0%	0%	0%

## Summary of categories

### Traceability, documentation and assurance

An effective farm assurance scheme must inspect and record against a clearly defined set of standards and must, to a high degree of confidence, be able to assure that the livestock products which are eventually sold can be traced back to the farm from which it originated. To this end, the basic scheme standards should be robust, and the documentation created by the scheme detailed and specific enough to allow the user to be confident that the scheme delivers against its stated aims.

With this category each of the schemes scored relatively well, requiring appropriate identification of animals and demonstrating appropriate traceability through the production process. Auditor training is adequate for all schemes, although audit frequency and the proportion of spot audits (where this can be determined), does differ.

It is of interest that QS Germany is the only scheme identified so far in this report series which adopts a risk-based approach to auditing of farms, with 10% of the audits being unannounced spot visits. The maximum time between audits is two years, but it can be as low as six months if the farm is deemed to present a higher risk.

### Personnel

The personnel category has been designed to test the assurance which the schemes provide around the welfare of those who access and work on farms. This concept includes the safety of staff as they work on the



farm, the induction and training that is required, the qualifications which are necessary for a person to work on the unit, the ways in which competency and training needs are assessed, and the continuous professional development that takes place on the farm.

RT scored highest in this category, although none of the schemes achieve full scores with regard to the employment, management and training of personnel. RT, QS, QMP, SBLAS and Beter Leven all require varying degrees of training of staff, whilst Label Rouge does not. The schemes do require competency from staff, but in most cases do not promote activity to continuously improve knowledge of best practice as well as to develop the personal skills leading to improved job satisfaction, job performance and safety.

RT comes closest by requiring regular assessment of staff competency (without giving a great deal of explanation about how this should be done), and by requiring that training is provided where performance is below that expected. Training records are required, but assessment records are not specified (although this is implicit).

## Food safety

The Food Safety section was designed to test the effectiveness of each assurance scheme in ensuring that food sourced from livestock produced under their schemes are free from contamination by chemicals, tainted food, or physical contaminants such as broken needles. Not all schemes scored equally well in this area, perhaps reflecting scheme focus, with Label Rouge focusing on eating quality and Beter Leven on animal welfare.

RT and SBLAS require effective control of vermin as well as the removal of habitat which could harbour vermin close to buildings, or other types of control measures. An annual site survey is required. Safe storage of feed is required and explained. Scheme traceability is robust. Strong bait control is specified in both schemes. QS Germany requires monitoring of vermin and appropriate response to the findings.

All schemes also specifically mention the prohibition of specific food types to prevent the transfer of prion disease. RT, QMP, QS and SBLAS also require activity to prevent the contamination of food with both medicine and on-farm chemicals, as well as the management of vermin infestation. Label Rouge and Beter Leven do not require this and score lower as a result. QS in particular scores well across all of these factors.

## Housing and shelter

The housing and shelter section was designed to ensure that animals produced under each assurance scheme have accommodation which is appropriate to their needs. This includes housing and the provision of appropriate shelter when animals are outside.

RT achieved the highest score in this category, requiring that housing meets the needs of the animal and that the yard is kept tidy, and that cleaning chemicals and equipment are available. The scheme requires appropriate ventilation, avoidance of humidity and odour build up, and a comfortable temperature for the animals. The scheme requires that there is adequate lighting and that the housing is structurally sound. Space allowances are specified and are adequate. Loading facilities must be fit for purpose. Bedding is not required, although where bedding is supplied, it must be appropriate. The comprehensiveness of the RT scheme enabled it to achieve a high score, although there are still areas for improvement.

Space allowances are similar between most schemes, with the exception of Beter Leven. Beter Leven progressively raises the standards from one star through to three star. Even the Beter Leven one star requires larger space allowances than those that are required by any of the other schemes, and the two and three star progressively increase this.

## Feed and water

The feed and water category questions were designed to test if the assurance scheme can ensure that cattle and sheep have ready access to appropriate, clean, fresh feed and water, and that the nutritional needs of the animal are fully met.

RT and SBLAS scored the highest in the feed and water section, primarily because they covered a full range of inputs and practices. However, all the schemes contain a good level of detail around the requirement to ensure that animals are able to access fresh water and food to ensure that animals are able to maintain health.

## Husbandry procedures

The husbandry procedures section was designed to identify what procedures are permitted under each scheme, the ages at which specific practices are permitted and the measures which are taken to protect animal welfare during the procedures.

Beter Leven was the highest scoring scheme within the husbandry procedures category. The scheme offers a high degree of control around husbandry procedures and requires the use of anaesthetics and analgesics more frequently than the other schemes. Castration, disbudding and dehorning are permitted. Beter Leven has tight restrictions on who can carry out each procedure, with some procedures only allowed to be carried out by vets, or under the responsibility of a vet.

## Youngstock management

Youngstock management is critically important to the long-term health of the animal. Except for QMP, all of the assurance schemes scored well in this section. Schemes required good housing design, and most schemes also refer to the need for ongoing maintenance and cleanliness. All require that the housing permits good animal health, and that there is appropriate ventilation. Except for QMP, the schemes also cover the presence of light and darkness. Access to feed and water is covered by all the schemes. All the schemes require that the diet is adequate, providing appropriate nutrition for the stage of growth of the animal.

Beter Leven 3 scores highest in this section, followed by Beter Leven 2, Label Rouge, and Beter Leven 1. These four highest scoring schemes score above the others mainly because of the length of time that calves are required to spend with their dam.

## Animal health and welfare

The animal health and welfare category was included within the assessment because, outside of food safety, this is the area which is of most importance to consumers<sup>12</sup>. Red Tractor, Beter Leven, QS Germany and SBLAS all score well against the category criteria. All schemes require limited proactive steps to monitor animal health and enable the early treatment of illness, although RT does require more frequent monitoring of the animals than the other schemes. There is a general absence across all schemes of a requirement for delivery of welfare assessments using methods such as locomotion scoring, temperature monitoring, and monitoring of intake of feed and water.

Beter Leven and Red Tractor both score highest in this section. It covers a wide range of actions in good detail. Again, it does not require locomotion or welfare scoring, but does require that the farmer has a plan produced in conjunction with a vet which is detailed and proactive. Medicines must be prescribed by a vet. Hygiene requirements are covered in detail and daily inspection of animals is required. The scheme requires that all staff have the necessary knowledge and skills regarding animal health, animal welfare, animal behaviour and

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<sup>12</sup> AHDB/Blue Marble, 2022

various livestock farming systems, and the site manager is required to have attended a human-animal interaction workshop approved by the Society for Protection of Animals.

## Animal medicines

The animal medicines category was created to assess the scheme's ability to control the use of medicines, and to ensure that they are used effectively and that they cannot enter the food chain. With the exception of Label Rouge, medicine usage is relatively well controlled within the assurance schemes in the study. All schemes also permit the controlled off-label use of medicines, although the standards are slightly different between the schemes. All schemes also require that animals which have been potentially exposed to broken needles are identified.

All schemes permit the use of critically important antibiotics, but their use is strongly discouraged by RT – they must be a last resort, and supported by veterinary advice. Beter Leven places very specific requirements and limits around when critically important antibiotics can be used. RT and QS contain requirements around training requirements for those who will be administering antibiotics, but this is not specifically referred to in the other schemes.

RT achieves the highest score in the animal medicines section and requires relevant experience or training for those who are administering the medicine, and that withdrawal periods are carefully adhered to. RT requires a good level of detailed management and recording and requires appropriate training or experience for staff that are administering medicines.

## Biosecurity and disease control

There is a genuine importance to preventing spread of disease through optimised biosecurity. This has traditionally been an area where beef and sheep farms have underperformed<sup>13</sup> in comparison to other sectors such as pig and poultry, with many fewer restrictions about who can enter a farm and have contact with animals, the ability to take animals to market and bring them back, and the lack of isolation of newly purchased animals from other animals already on the farm.

There is a clear disparity between the schemes which address biosecurity and those which do not. Label Rouge and Beter Leven score at or close to zero because their standards do not directly specify farm level actions to prevent disease. The other four schemes all contain requirements to prevent the ingress of disease to the farm. Of the four schemes, RT obtains the highest score because it requires the creation of a biosecurity plan, its implementation and its updating (if necessary). QMP does not require a plan, and SBLAS recommends rather than requires some actions.

The RT scheme requires the creation of a detailed biosecurity plan, and assesses adherence to this plan as well as how up to date it is. The scheme requires appropriate activity to deliver good biosecurity, but does not require a known health status for animals brought onto the farm. It also does not require a visitor book to record details of those who visit the farm.

## Livestock transport

The category on livestock transport was included because it is a critical control point for the welfare of meat animals. Poor or difficult transport conditions can severely compromise the health and welfare of animals over a short period of time and can also reduce the quality of the meat from the animals<sup>14</sup>. As such, this is an animal

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<sup>13</sup> Cennydd Owen Jones et al, *'Biosecurity in UK Livestock Farms: An Insight Into current Practice'* Jan '23

<sup>14</sup> Gary C. Smith et al *'Effect of Transport on Meat Quality and Animal Welfare of Cattle, Pigs, Sheep, Horses, Deer, and Poultry'* December 2004

welfare, animal health and food quality indicator and is therefore an important consideration within a farm assurance scheme.

QS Germany obtained the highest score for the control of transport. It contains some very specific requirements designed to protect animals during transport, particularly youngstock, and ensures that conditions during transport are appropriate for each class of animal. It does not put a maximum travel time or distance over which most animals can be transported, but does require food and water if journey time is over eight hours. The other schemes are less specific, and while there are specific transport modules available for some of the schemes, it is still important that transport is controlled within the main scheme.

## Vermin control

The control of vermin was included because it is of particular importance where animals are housed. Only three of the schemes in the study cover vermin control in any detail (Red Tractor, QS Germany and SBLAS). RT achieves the highest score because it requires pest monitoring, followed by appropriate control measures. All monitoring and control has to be recorded and the impact of the control measures determined. The scheme provides a pest monitoring and control protocol.

## Fallen stock

Fallen stock were included as a category because there is a risk to the environment, the health of other animals and a potential spread of disease from stock which are not disposed of correctly. Only three schemes cover fallen stock in any detail (RT, QS Germany and SBLAS). Of these, RT is the most detailed and specific and addresses all key issues regarding the monitoring, control and disposal of fallen stock. Label Rouge, QMP, and Beter Leven do not discuss the topic.

RT scores the highest because it contains a high level of detail around appropriate management of fallen stock. The scheme is specific in its requirements around inspection for fallen stock, collection, storage and disposal. Regular checks for fallen stock are required, carcass disposal takes place in a timely fashion, and that carcasses awaiting collection are stored appropriately. RT also covers on-farm incineration.

## Environmental protection

The environmental protection category was included because of its importance to the protection and maintenance of the environment in which the farm operates. This section is not about the creation and promotion of additional biodiversity or delivering reduction in GHG output, it is simply focused on the prevention of damage.

In the environmental protection analysis, RT scores higher than the other schemes, primarily because it requires higher levels of detail across a wider range of practices. SBLAS comes close to RT, and QMP also covers some aspects of environmental protection. The other schemes do not include environmental protection concepts within them and hence score zero.

## Summary of legislation

The legislative framework in each country was researched as part of this project. This was not a forensic analysis, but was designed to uncover the broad base legislation against which farms operate and which will inevitably form some of the requirements within assurance schemes. Legislation is useful, but by itself is rarely inspected. Farm assurance schemes provide a degree of assurance around adherence to legislation because this forms part of the inspection process. The basic legislation under each inspection category was summarised as follows:

### Movements and traceability

A significant component of the content of all three schemes is based on legislation in the countries in which they are based. In England practice is based on a number of regulations governing traceability of livestock. These include Cattle Identification Regulations 2015 (CIR), EC Hygiene Regulations and the SAGRIMO Order enforcing the Council Regulation (EC) 21/2004. Under these regulations, powers are given to the competent authorities and specify requirements for keepers with respect to notification of holdings, ear tags, registration of cattle, cattle passports, notification of movements or death, and record keeping. The key requirement for traceability is the requirement to tag individual animals.

Regulation (EC) NO 178/2002 of the European Parliament outlines the general principles of food law and requires that all food businesses must have a traceability system in place. The regulation is minimal in its description of what is required. The legal minimum is a system in which a food business records what ingredients/food products it receives and from who (including contact details) together with what product it dispatches to which customers (including their details) with the only exception being direct supply to final consumers. This is called the one-up-one-down system. Traceability information must be transferred up/down the chain on the product or on accompanying documents. Identification and traceability is covered across the EU with Regulation (EU) 2016/429 and Commission Delegated Regulation (EU) 2019/2035 and is essentially the same as that in England.

### Personnel

Within each region, there is extensive legislation which governs employment and wellbeing of personnel at work. This legislation is not usually specific to agriculture. The relevant legislation is normally framed as employment law and covers employment contracts and health and safety at work. The regulations only cover appropriate induction and training from a human safety perspective, they do not cover competency for the tasks they are required to deliver, with the exception of the use of potentially dangerous chemicals.

In England The Management of Health and Safety at Work Regulations 1999 require that all employers or the self-employed assess their own risk, and the risk to anyone working for them regarding their working environment. The Health and Safety Executive has issued guidance which can be used to assure compliance.

In the European Union, employment law sets minimum requirements for working and employment conditions and informing and consulting workers, with individual member states free to provide higher levels of protection if they wish. The EU adopts directives which its member countries incorporate in national law and implement. This means that it is national authorities - labour inspectorates and courts, for example - that enforce the rules.

A wide variety of Community measures in the field of safety and health at work have been adopted on the basis of Article 153 of the Treaty on the Functioning of the European Union. European Directives set out minimum requirements and fundamental principles, such as the principle of prevention and risk assessment, as well as the responsibilities of employers and employees. A series of European guidelines aims to facilitate the implementation of European directives as well as European standards which are adopted by European standardisation organisations.

The EU operates a Working Time Directive which governs holidays, rest breaks, and breaks between shifts. There is more flexibility for jobs where there are reasonable peaks, such as farming.

## Food safety

Food safety is of critical importance within each region, and all areas carry extensive legislation to govern activities and practice. The primary factors relating to food safety in farming are related to cleanliness of animals at slaughter, avoidance of contamination with medicines or chemicals, and the ability to trace animal movements throughout the food chain should a challenge occur. As a result, specific food safety legislation does not tend to apply to farms in these regions in the same way that the requirements around safe pesticide storage and use, or the specific rules around reporting of animal movements.

For each region in this study, there is relatively little information on the control of food safety at farm level in any of the food safety legislation, as this is primarily focused on fresh food at the consumption ready stage. The main legislation which is applicable at farm level in each country is the legislation which controls medicine usage and chemical/pesticide usage to avoid contamination of meat with medicines or other chemicals.

Within the England, food safety is governed by the Food Standards Agency, established by the Food Safety Act 1990 which also provides the framework for all food legislation in England, Wales and Scotland. Traceability is governed by Article 18 of Regulation (EC) No. 1978/2002 and establishes the need and requirements for traceability at all stages of production, processing and distribution.

Health protection is the aim of all EU laws and standards in the agriculture, animal husbandry and food production sectors. An extensive body of EU-wide law covers the entire food production and processing chain within the EU, as well as imported and exported goods. EU food safety policy and action is concentrated in four main areas of protection; Food hygiene; Animal health; Plant health; Contaminants and residues.

## Housing and shelter

There is limited specific legislation around housing and shelter of animals in any of the regions in this study, with principles for governance being drawn instead from animal welfare requirements. Within the EU and England, housing is covered by legislation but also governed by the broader animal welfare regulation. Farming activity within England is also based on Codes of Good Agricultural Practice, but this is not the case for every country within Europe.

Within England, the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) requires that any person who employs or engages a person to attend to animals shall ensure that the person attending to the animals: is acquainted with the provisions of all relevant statutory welfare codes relating to the animals being attended to; has access to a copy of those codes while he is attending to the animals; and has received instruction and guidance on those codes. The legislation states that “any person who keeps animals, or who causes or knowingly permits animals to be kept, shall not attend to them unless he has access to all relevant statutory welfare codes relating to the animals while he is attending to them, and is acquainted with the provisions of those codes”. Consequently, animal housing in England must be appropriate and must not cause discomfort or pain. However, but the legislation is non-specific and each incident would be treated on a case by case basis.

Within the European Union, legislation which is relevant to animal welfare is composed of a General Farming Directive (Council Directive 98/58/EC), as well as four species-specific rules for laying hens, broilers, pigs and calves and regulations on live animal transport (Council Regulation (EC) No 1/2005) and slaughter (Council Regulation (EC) No 1099/2009). Council Directive 98/58/EC gives general rules for the protection of animals of all species kept for the production of food, wool, skin or fur for farming purposes, based on the European Convention for the Protection of Animals kept for Farming Purposes. Legislation has been further developed to

progressively improve the welfare status of farmed animals and to set standards for their transport and conditions at the time of stunning and slaughter.

## Access to food and water

Legislation in all regions requires that animals receive enough water and access to a diet in sufficient amounts to meet all nutritional needs of the animal enabling it to remain in good health. Codes of practice or Guidance are available in most regions to enable the farmer to understand their responsibilities. As for many of the other categories, the feeding of animals falls under general animal welfare legislation, and also the interpretation of the farm manager and those who enforce the legislation.

In England, the legislation governing the provision of food and water is the Animal Welfare Act 2006. It requires that animals must have a suitable diet (which includes access to water). The codes of practice for cattle and sheep cover what constitutes a suitable diet in extensive detail. The majority of the RT standard in this case is therefore essentially a less detailed repeat of the Cattle and Sheep codes of practice. Feed storage *per se* is not generally covered in the legislation, but falls under the concept of clean, fresh and appropriate food. Hormone Growth Promoters are not permitted.

Within the European Union, feed and water legislation is governed by Council Directive 98/58/EC which outlines general standards for animal welfare. It states that Animals must be fed a wholesome diet which is appropriate to their age and species and which is fed to them in sufficient quantity to maintain them in good health and satisfy their nutritional needs. No animal shall be provided with food or liquid in a manner, nor shall such food or liquid contain any substance, which may cause unnecessary suffering or injury.

## Husbandry procedures

Animal welfare regulations govern the husbandry procedures which are permitted in each country, and the scheme standards are broadly equivalent to legislative standards in the relevant region including requirements around use of anaesthetics or analgesics when performing specific painful husbandry practices.

In England, Husbandry procedures are mainly covered under The Welfare of Farmed Animals (England) Regulations 2007, and the Animal Welfare Act 2006 which set the minimum welfare standards for all farm animals. These cover standards for stockmanship; health, feed, water and other substances; accommodation; equipment; management; fire and other emergency precautions; pregnancy, rearing, and breeding.

Under The Protection of Animals (Anaesthetics) Act 1954, as amended, it is an offence to disbud calves or dehorn any cattle without the use of an anaesthetic other than when chemical cauterisation is used. In England, the use of a rubber ring, or other device, to restrict the flow of blood to the scrotum, is only permitted without an anaesthetic if the device is applied during the first week of life. The Protection of Animals (Anaesthetics) Act 1954 makes it an offence to remove a supernumerary teat from a calf which has reached three months of age without the use of an anaesthetic.

Within the European Union, Council Directive 98/58/EC gives general rules for the protection of animals of all species kept producing food, wool, skin or fur or for other farming purposes, including fish, reptiles of amphibians. Article 2 mandates that all animals whose welfare depends on frequent human attention shall be inspected at least once a day. Article 7 protects the animals' freedom of movement, and Article 10 requires that breeding procedures (natural or artificial) likely to cause suffering or injury must not be practised, though there are exceptions to this. Article 21 further states that no animal shall be kept for farming purposes unless it can reasonably be expected, based on its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare.

## Youngstock management

There is a very limited amount of legislation within any of the regions in the study which is relevant specifically to youngstock. The relevant legislation which controls the welfare of and husbandry procedures on youngstock is contained within the general animal welfare legislation of each country.

In general, legislation in each jurisdiction considers the welfare of all animals, rather than that of youngstock specifically, and therefore provisions within farm assurance schemes help ensure that the proper care and attention is given to this specific category.

Within England, the legislation does not differentiate youngstock from mature stock in most incidences. The codes of practice for the management of cattle and sheep do describe the required nutrition for younger stock and the necessity of them receiving adequate levels of colostrum inside the first few hours of birth and appropriate ongoing nutrition. As within England, EU legislation does not differentiate youngstock from mature stock in most instances, and legislation is written for animals at all stages of their lives. However, Council Directive 2008/119/EC of 18 December 2008 lays down minimum standards for the protection of calves.

## Animal health and welfare

Animal health and welfare is covered within each region by animal welfare legislation. Good animal health and welfare is an output of a wide range of factors, including management practices, housing, nutrition and husbandry procedures, as well as effective health and welfare planning. Legislation in all regions does not require the presence of a Veterinary Health Plan.

In England, under The Protection of Animals (Anaesthetics) Act 1954, as amended, it is an offence to disbud calves or dehorn any cattle without the use of an anaesthetic other than when chemical cauterisation is used. The Welfare of Farmed Animals (England) Regulations 2007 set the minimum welfare standards for all farm animals. It covers standards for stockmanship; health; feed, water and other substances; accommodation; equipment; management; fire and other emergency precautions; pregnancy; rearing; and breeding.

Within the EU There is a wide range of legislation that covers animal welfare in the European Union, protecting all species kept for the production of food, wool, skin or fur or for other farming purposes, including fish, reptiles or amphibians. There is a mandate that that all animals whose welfare depends on frequent human attention shall be inspected at least once a day. There is also a requirement for freedom of movement, and a requirement that breeding procedures (natural or artificial) likely to cause suffering or injury must not be practised, though there are exceptions to this. There is a clear rule that requires that that no animal shall be kept for farming purposes unless it can reasonably be expected, on the basis of its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare.

## Animal medicines

In England, keeping accurate records of medicine use on farms is a legal requirement. The owner or keeper of food-producing animals must maintain records related to the purchase of all veterinary medicinal products acquired for those animals. These records should be kept for a minimum of five years. When administering medicine (either themselves, or administered by a vet), farmers must record: Name of the product; Date of administration; Quantity administered; Withdrawal period; Identity of the treated animal(s).

Within the European Union, Regulation (EU) 2019/6 governs the use of veterinary medical products in the European Union. It contains measures to support the availability and safety of veterinary medicines and enhanced EU action against antimicrobial resistance. EU legislation has restricted the prophylactic use of antibiotics, while England has not.



## Biosecurity and disease control

There are very limited requirements in legislation in any of the countries within regard to biosecurity and the prevention of transmission of disease. The codes of practice within England do contain references to the importance of good biosecurity (disease prevention measures) and recommend a focus on it within the veterinary health plan.

## Livestock transport

Livestock transport is the subject of legislation with each region in the study. Broadly all legislation is currently equivalent, although it is possible that there will be divergence between England and the rest of the EU in the future.

In England, The transport of animals legislation in the UK is governed by Council Regulation (EC) No 1/2005 on the protection of animals during transport and related operations. This regulation requires that means of transport and containers used for transporting animals on long journeys (those in excess of eight hours) must be inspected and approved by the competent authority of a Member State or a body designated by a Member State. This is EU legislation but has currently been accepted for the UK and has not changed (although a consultation is ongoing). An analysis of the legislation shows that the RT standard makes requirements that are broadly the same as or just above UK law, including guidance on distances, times, driver licensing etc.

Within the European Union, Council Regulation (EC) No 1/2005 currently defines the responsibilities of all actors, involved in the transport chain of live animals entering or leaving the EU. This includes monitoring tools, inspections and means of transport. Recently, the Commission adopted a proposal for a Regulation of the Council and European Parliament on the protection of animals during transport to replace Council Regulation (EC) No 1/2005. The proposal focusses on the following main objectives, which are essential for the good welfare of animals in transport:

- reduce animal welfare problems linked to long journeys and repetitive unloading and re-loading linked to several rest periods;
- ensure that animals have more space when transported;
- improve the conditions of transport of vulnerable animals;
- avoid exposing animals to extreme temperatures;
- facilitate enforcement of EU rules on the protection of animals, including through digitalisation;
- better protect animals exported to non-EU countries.

## Vermin control

The management of vermin on the farm is not subject to legislative control in England or the European Union, but the use of chemicals and poisons can fall under specific legislation which controls the following:

- 1) The type of poison which can be used
- 2) Its application and use
- 3) The controls around it

None of the requirements around vermin control (other than safe, appropriate use) are legislative within this category.

## Fallen stock

The Animal By-Products (Enforcement) (England) Regulations 2013 control the disposal of carcasses. English standards require that fallen livestock must be disposed of appropriately and cannot be buried or burnt in the open because of the risk of disease spread through groundwater or air pollution. In England, the Animal By-Products (Enforcement) (England) Regulations 2013 control the disposal of carcasses. Within RT the standards

are broadly equivalent to the English legislative standard, although the scheme expands slightly on the regulations, covering regular inspection for stock, storage whilst awaiting disposal etc. The English standards require that fallen livestock must be disposed of appropriately and cannot be buried or burnt in the open because of the risk of disease spread through groundwater or air pollution.

Within the European Union Article 21 of the EU Control Regulation 2017/625 requires fallen stock to be collected, identified and transported without 'undue delay', which is not defined.

## Environmental protection

The concept of environmental protection is contained within the legislation of each country. The legislation which governs this is mainly contained within other legislation, such as that governing the use of pesticides, fertilisers or manures. Within England, pesticide use is controlled by the Health and Safety Executive. Users of pesticides are required to comply with the Official Controls, and before any pesticide product can be used, sold, supplied or stored it must be authorised for use. The requirements set out the competence requirements for sale and use of PPPs, the use, handling and storage requirements of PPPs (including aerial spraying) and requirements for the inspection of PPP equipment. Anyone using a professional PPP must either have a recognised specified certificate (previously known as a 'Certificate of Competence') or be working under the direct supervision, for the purposes of training, of someone who has such a certificate. The majority of the standards within RT are therefore legislative, with other details being taken from the Codes of Practice. The Codes of Practice are much more detailed than RT requirements.

Much of EU legislation which protects the environment is technical, setting out detailed standards for use. It is also usual for the legislation to require member states to provide information to the European Commission about how they are implementing the rules and about how effective they have been. In addition, there are several international conventions on environmental protection. In general, these are ratified by the EU and then implemented through EU legislation.

Use of pesticides is regulated by (EC) No 1107/2009. The regulation outlines a strict approval process where only pesticides with active substances proven to be safe for humans and the environment can be authorised for use in the EU. It also outlines risk assessments, sustainable use principles, restrictions and required training and certification.

# Conclusions

Figure 16. Final weighted percentage scores for each scheme

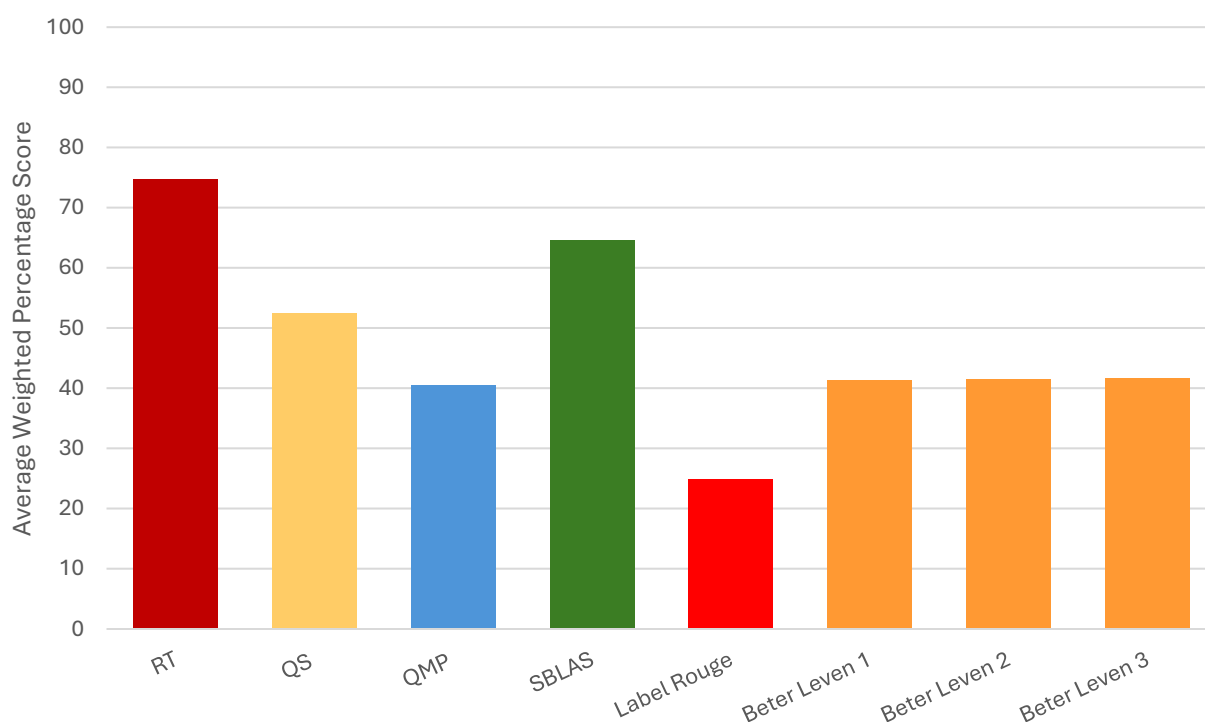


Figure 16 shows that RT achieves a higher average score than the other schemes in this study. It is important to recognise however that there are five categories in which other schemes display higher performance than RT. Beter Leven achieves a higher score in husbandry procedures and youngstock management and matches the score for animal health and welfare, whilst QS is the highest ranking in livestock transport, food safety and traceability. There are learnings for RT within these other schemes. However, there are areas of potential improvement for every scheme in all categories. All of the schemes provide some degree of customer reassurance, but this does vary strongly according to the scheme and the specific category of study.

Overall, RT performs at least adequately in each category, and contains a wider range of detail than the other schemes. Consequently, it scores more highly in comparisons with other assurance schemes and is likely to influence users to address a wider range of on-farm practice.

Because the United Kingdom has only exited the EU relatively recently, the regulatory baselines in each country in this study are relatively similar. If the legislation is followed in each region, animals will be raised to an acceptable standard, the major challenge of legislation is that in most cases it is not inspected on a frequent or regular basis, and compliance is not reported to customers or consumers. In some cases, this is addressed by Farm Assurance, where schemes with regular inspection intervals ensure that there is both regulatory and scheme compliance.

# Appendix 1. Category questions

## **Traceability, Documentation and Assurance**

- A. Are cattle individually identified on the farm of origin?
- B. Are sheep individually identified on the farm of origin and linked to a dam?
- C. Is tagging/identification required close to time of birth for cattle?
- D. Is tagging/identification required close to time of birth for sheep?
- E. Is there a central database recording all farm movements?
- F. Do cattle movements have to be individually reported to a central database within an acceptable timeframe? (inside 3 days)
- G. Do sheep movements have to be individually reported to a central database within an acceptable timeframe? (inside 3 days)
- H. Is a Food Chain Information declaration (or equivalent) required to travel with animals which are being transported to slaughter?
- I. Is the traceability system robust (Cattle)?
- J. Is the traceability system robust (Sheep)?
- K. Audit frequency?
- L. Auditor training and standardisation?
- M. Are cattle assured from birth?
- N. Are sheep assured from birth?
- O. Are the certification bodies required to be accredited to ISO17065, with the specific standard within their scope?
- P. Do assured animals need to be transported by assured transporters to retain their approval status?

## **Personnel**

- A. What qualifications are required for farm staff?
- B. Is staff induction required?
- C. Is staff training required?
- D. What training records are required?
- E. What topics are covered in training and do these meet the needs of the farm staff appropriately?
- F. How often is training required?
- G. Are appropriate Health and Safety policies required?
- H. Is the performance of employees reviewed regularly and appropriate training given if required?
- I. Is labour provision from external providers adequately covered?

## **Food Safety**

- A. Does the scheme require actions which manage vermin infestation on the farm?
- B. Does the scheme require activity to prevent chemical contamination of food?
- C. Does the scheme require activity to prevent contamination of food with medicines?
- D. Does the scheme require activity to ensure that broken needles or other physical contaminants do not reach the food chain?
- E. Does the scheme restrict food types which can be offered to ruminants in order to prevent prion diseases?
- F. Does the scheme require dietary restriction of sheep prior to slaughter to prevent contamination during the slaughter and processing process?
- G. Is animal traceability robust (cattle)?
- H. Is animal traceability robust (sheep)?
- I. Is the assurance scheme robust and trustworthy, with adequate audit independence and frequency?

## **Housing & Shelter**

- A. Is housing well-designed and safe?
- B. Does housing promote high welfare?

- C. Is housing hygienic?
- D. Is there adequate ventilation?
- E. Is housing well-lit?
- F. Is housing structurally sound?
- G. Is there adequate space available for each animal?
- H. Are loading and unloading facilities available and to a good standard?
- I. Are there appropriate isolation and birthing facilities?
- J. Is housing appropriate and safe for stock managers?
- K. Do animals outside have access to appropriate shelter?
- L. Are animals kept outside kept in appropriate conditions, including well drained lying areas and the absence of severe poaching?
- M. Are bedding requirements appropriate?
- N. Are requirements for records appropriate?

### ***Feed and Water***

- A. Do animals have enough feed and water to maintain normal bodily function?
- B. Do animals have easy ready access to fresh, clean water?
- C. Is the feed offered to animals is appropriate?
- D. Are the feed storage requirements appropriate?
- E. Are Hormone Growth Promoters permitted?
- F. Are any types of feed prohibited?
- G. Are systems and records in place to prevent livestock being contaminated via feed?
- H. Do young animals receive enough colostrum?
- I. Is feeding equipment checked regularly and maintained?

### ***Husbandry Procedures***

- A. Is castration permitted?
- B. What age is castration permitted up to without anaesthetic and by what means?
- C. What age is castration permitted to with anaesthetic and by what means?
- D. Is disbudding permitted?
- E. What methods of disbudding are permitted? Is anaesthetic required?
- F. What methods of dehorning are permitted? Is anaesthetic required?
- G. Is branding permitted? If so, hot branding, freeze branding or both?
- H. Is tail docking permitted? If so, what rules govern this?
- I. What other miscellaneous procedures are permitted? Are they acceptable?
- J. Is mulesing permitted?
- K. Who is permitted to carry out each procedure, and what qualifications are required?

### ***Youngstock Management***

- A. Do animals have comfortable and safe indoor accommodation?
- B. Is there adequate fresh air?
- C. Is there adequate clean water?
- D. Is there adequate bedding?
- E. Do animals have access to appropriate amounts of feed?
- F. Is there adequate light?
- G. Is there adequate darkness?
- H. Is there an absence of unnecessary and painful husbandry procedures?
- I. Are animals able to safely and easily access feed and water?
- J. Are animals permitted to be kept on their own when very young?
- K. Are animals permitted to be kept on their own when older?
- L. Is the animal's diet nutritious and appropriate?

### ***Animal Health and Welfare***

- A. Are animal welfare scoring/outcome measures required?
- B. How effective is each welfare score?
- C. How regularly are welfare scoring measures required to be taken?
- D. Are welfare measures reported to external organisation?
- E. Is a veterinary health plan required and accessible to staff?
- F. Is the plan active?
- G. Are medicine records fully up to date?
- H. Does the scheme require isolation facilities in a separate air space?
- I. Is locomotion scoring required?
- J. Is body condition scoring required?
- K. Is a review of the veterinary health plan required?
- L. Is it a requirement to regularly monitor the health of stock?
  - a. How often?
  - b. How often is a vet visit required?
- M. Are miscellaneous circumstances, including euthanasia, well managed, and equipment controlled to maintain high welfare?
- N. Are staff appropriately trained?
  - a. Is a competent individual available?

### ***Animal Medicines***

- A. Is medicine usage and administration appropriate?
- B. Are movement documents required which show what animals have been treated and their withdrawal periods?
- C. Are withdrawal periods appropriate and adhered to?
- D. Are medicine storage, handling, use and disposal of a good standard?
- E. Is responsible antibiotic use required and assured?
- F. Are critically important antibiotics prohibited or permitted?
- G. Is a central monitoring system required to permit the use of antibiotics?
- H. Is sensitivity testing required prior to use?
- I. Is off-label (cascade) use of veterinary medicine permitted?
- J. Is a broken needle policy and records required?
- K. Is the person administering medicines competent?
  - a. How is this assured?
- L. Are detailed medical records required (including purchase records and broken needle records)?

### ***Biosecurity and Disease Control***

- A. Does the scheme require the creation of a biosecurity plan?
- B. Does the scheme check adherence to the biosecurity plan?
- C. Does the scheme require updating of the biosecurity plan?
- D. Does the scheme require a known health status for animals brought onto the farm?
- E. Is there a record of people, vehicles and machinery entering the farm?
- F. Does the scheme require appropriate cleaning material to be available on-farm?

### ***Livestock Transport***

- A. Is there a maximum permitted journey time?
- B. Is there a maximum permitted journey distance?
- C. What assurance requirements are there for vehicles/companies which are permitted to transport animals?
- D. Is there a requirement for assured transport throughout the lifetime of the animal?
- E. What are the conditions in which animals can be transported?
- F. Is water/feed available during transport?
- G. Is there a maximum/minimum stocking density during transport depending on species?

- H. Are there speed recommendations during transport?
- I. Are drivers aware of good animal welfare principles and are they effectively trained or certified?
- J. Is certification and documentation in place?

### ***Vermin Control***

- A. Is a plan to control vermin required by the assurance scheme?
- B. Are actions other than baiting required to prevent vermin infestation?
- C. Is a site survey required on at least an annual basis?
- D. Is an environmental risk assessment required prior to bait laying?
- E. Are dead/trapped vermin disposed of regularly?
- F. Are there requirements in place to ensure that non-target animals do not have access to baits?
- G. Is permanent baiting prohibited?
- H. Are product label directions followed during use?
- I. Is a COSHH assessment required?

### ***Fallen Stock***

- A. Does the scheme require regular checks for fallen stock?
- B. Are carcass storage methods acceptable?
- C. Are carcass disposal methods acceptable?
- D. Are on-farm disposal facilities acceptable?

### ***Environmental Protection***

- A. Are pesticides stored correctly?
- B. Are pesticides applied correctly?
- C. Are pesticides disposed of correctly?
- D. Are fertilisers stored correctly?
- E. Are fertilisers applied correctly?
- F. Are slurries and manures stored correctly?
- G. Are slurries and manures applied correctly?
- H. Are other potential contaminants dealt with appropriately?

## Appendix 2. Reasoning behind weightings awarded

### Country Weightings

Heading	England Weighting	Ireland Weighting	Germany Weighting	Netherlands Weighting	France Weighting	Poland Weighting
<b>Traceability, documentation and assurance</b>	100	100	100	100	100	100
Provision of appropriate traceability and assurance was viewed as equally important in each country and consequently equal weightings were awarded to each one.						
<b>Personnel</b>	100	100	100	100	100	100
Provision of a safe working environment, with good provision of training was viewed as equally important in each country and consequently equal weightings were awarded to each one.						
<b>Food safety</b>	100	100	100	100	100	100
The provision of safe food was viewed as equally important in each country and consequently equal weightings were awarded to each one.						
<b>Housing &amp; shelter</b>	100	100	100	100	100	100
Different weightings were applied to each country within the Housing & Shelter category. In England, some cattle can be permanently housed, and the majority of other cattle are housed for several months per year, as are some sheep.						
<b>Feed and water</b>	100	100	100	100	100	100
The provision of appropriate amounts of fresh feed and water is equally important in each region and therefore equal weightings have been awarded.						
<b>Husbandry procedures</b>	100	100	100	100	100	100
It was agreed that husbandry procedures were equally important in each country						
<b>Youngstock management</b>	100	100	100	100	100	100
Care for youngstock is equally important in each region and equal weightings have been awarded.						
<b>Animal health and welfare</b>	100	100	100	100	100	100
The management of animal health and welfare is equally important in each region and therefore equal weightings have been awarded.						
<b>Animal medicines</b>	100	100	100	100	100	100
It was recognised that, in England, animals tend to be more closely managed and are more likely to be treated with a medicine. As a result, England has been awarded a slightly higher weighting for this category.						
<b>Biosecurity and disease control</b>	100	100	100	100	100	100
Biosecurity and disease control is vitally important across each region in this study.						
<b>Livestock transport</b>	100	100	120	120	120	120
Conditions during transport were recognised as being more important in mainland Europe than in either England or Ireland. This is because these last two countries are relatively small, and most internal transport is relatively restricted in time and distance in contrast to mainland Europe						
<b>Vermin control</b>	100	100	100	100	100	100
Vermin control is proportionately more important where there are larger amounts of housing and storage of feed for animals (particularly cereal based feed).						
<b>Fallen stock</b>	100	100	100	100	100	100
Management of fallen stock is proportionately more important where farms are smaller and farmed more intensively. It is also more important where there is a raised likelihood of proximity to watercourses, or to the general public. different weightings that have been applied.						
<b>Environmental protection</b>	100	100	100	100	100	100
Protection of the environment is equally important in each region and therefore equal weightings have been awarded.						



<b>Heading</b>	<b>England Weighting</b>	<b>Ireland Weighting</b>	<b>Germany Weighting</b>	<b>Netherlands Weighting</b>	<b>France Weighting</b>	<b>Poland Weighting</b>
Traceability, documentation and assurance	100	100	100	100	100	100
Personnel	100	100	100	100	100	100
Food safety	100	100	100	100	100	100
Housing and shelter	100	100	100	100	100	100
Feed and water	100	100	100	100	100	100
Husbandry procedures	100	100	100	100	100	100
Youngstock management	100	100	100	100	100	100
Animal health and welfare	100	100	100	100	100	100
Animal medicines	100	100	100	100	100	100
Biosecurity and disease control	100	100	100	100	100	100
Livestock transport	100	100	120	120	120	120
Vermin control	100	100	100	100	100	100
Fallen stock	100	100	100	100	100	100
Environmental protection	100	100	100	100	100	100

## Category weightings

Heading	Relative Weighting
<b>Traceability, documentation and assurance</b>	200
The traceability and assurance category was awarded the highest category weighting because it was agreed to be the single most important aspect of a farm assurance scheme. Product from each farm must be traceable, and the assurance scheme must be robust and trustworthy. If this is not the case, the scheme does not offer effective assurance, hence the high weighting for this category.	
<b>Personnel</b>	110
The training, management and safety of farm workers is important, but a lower weighting has been awarded because this is not the main purpose of farm assurance schemes, and thus this category is of lower importance than, for instance, traceability or food safety.	
<b>Food safety</b>	200
Food safety is the primary reason for the creation and implementation of farm assurance schemes and hence the highest weighting has been applied to this category.	
<b>Housing &amp; shelter</b>	120
Housing and shelter of animals is recognised as important for the welfare of animals, but is not the most critical component of this, hence a medium rating has been awarded to this category,	
<b>Feed and water</b>	150
Feed and water is vitally important to animal welfare. As a result, the second highest weighting has been applied to this category.	
<b>Husbandry procedures</b>	150
Husbandry procedures can have a significant impact on animal welfare. As a result, the second highest weighting has been applied to this category.	
<b>Youngstock management</b>	105
Youngstock management is important but does fall under other categories within farm assurance and therefore a weighting of 100 was awarded.	
<b>Animal health and welfare</b>	150
Effective management of animal health and welfare has a significant impact on animal wellbeing. As a result, the second highest weighting has been applied to this category.	
<b>Animal medicines</b>	150
The use of animal medicines strongly impacts animal wellbeing. As a result, the second highest weighting has been applied to this category.	
<b>Biosecurity and disease control</b>	150
Biosecurity is important to the ongoing wellbeing of stock, through the prevention of transfer of disease. As a result, the second highest weighting has been applied to this category.	
<b>Livestock transport</b>	95
Livestock transport, while important, only represents a relatively short proportion of the animal's life, and as a consequence, a lower weighting has been applied.	
<b>Vermin control</b>	70
Vermin control does have some impact on disease transfer and food safety, but for livestock production, its impact is relatively low and hence a lower weighting has been applied.	
<b>Fallen stock</b>	70
Fallen stock has some impact on the overall wellbeing of flocks or herds, and on the environment around the farm, but its impact is generally fairly limited. This category has therefore been awarded a relatively low weighting.	
<b>Environmental protection</b>	150
Protection of the environment through the responsible use of chemicals and manures is extremely important. The implementation of good practice significantly reduces run-off and pollution events and consequently this category has been awarded a high weighting.	

## Appendix 3. Table showing the principles of how scores were awarded within each category

The following table outlines the general principles which were used assist decision making when deciding on the scheme scores for each question within each category. A degree of judgement had to be applied when awarding scores, but there was very good agreement amongst the experts on the final scores awarded.

Score	Qualitative description matching each score
1	Scheme fails to address the topic of the question
2	Scheme recognises the issue, but fails to address it
3	Scheme recognises the issue and makes some attempt to address it
4	Scheme recognises the issue and addresses a minority of components but misses the majority of key details
5	Scheme recognises the issue and addresses the majority of components, but is not fully credible
6	Scheme recognises the issue and credibly addresses it, but misses out several important details
7	Scheme recognises the issue and addresses it quite well, but misses out one or two important details
8	Scheme answers the question well, and does not miss any important issues. However, it fails to address three or more minor issues
9	Scheme almost answers the question ideally, but misses out on one or two minor details
10	Scheme fully answers the question, enabling the end user to be sure that the issue is managed to a high level