

Farm Infection Risk Management (FIRM) Final Report

Dr Sam Strain

Animal Health & Welfare NI.

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Contact:

info@animalhealthni.com

Phone 028 7963 9333.

Website:

www.animalhealthni.com

Operational Group

Ruminant High Health.

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Abstract

Infectious disease is one of the most significant constraints on animal production in Northern Ireland. It is estimated that the UK sheep and cattle industries experience losses of more than £500 million per annum to endemic diseases with more than £290 million of this due to the 10 most common infectious diseases. One of those key infections is Johne's Disease (JD).

Johne's disease (JD) is an infectious condition of cattle caused by the bacterium *Mycobacterium avium* subspecies *paratuberculosis* (Map). The disease progresses slowly and leads to increasingly severe damage to the lining of the gut. Obvious signs of disease often only become apparent in adult animals, typically between 3 and 5 years of age. The signs vary depending upon the stage of infection but begin with reduced productivity leading to weight loss, scour and ultimately emaciation and death. Often animals are culled before the typical signs appear. In these cases, Johne's disease may be contributing to an excessively high cull rate.

A cornerstone of Johne's Disease control is the identification and mitigation of risks that increase the likelihood of infection introduction into herds, its establishment in herds and the propagation of infection within herds. This forms the core aspect the Northern Ireland Johne's Disease Control through the use of standardised veterinary risk assessment and management plans (VRAMP). V-RAMP are designed to identify the most important Johne's Disease risks on farms and put in place measures to reduce those risks.

VRAMPs use a system which assigns scores based on the risks identified by the farmer and their vet. Those areas that score highest are deemed riskiest for the introduction and transmission of infection. The assessment examines five elements of farm management and biosecurity practices: risks of infection introduction, calf management, heifer management, adult cow management and management of the calving areas. Once the risks have been assessed and the most important risks identified, the vet and farmer agree up to three actions that are achievable and can be carried out to reduce these risks.

The key achievement of this project was to develop an IT platform that facilitates the carrying out of VRAMPs by vets as well as allowing farmers easy access to their findings and recommendations. This is facilitated through a dashboard which allows herdowners to benchmark their findings against their peers. It also provides a robust system of assurance to quality assurance providers that participating herdowners are compliant with the Northern Ireland Johne's Disease Control Programme through the automated generation of certificates of compliance. An important element of this project was to successfully develop a platform that could be developed into the future to facilitate other infection risks as well as a means of providing future herd and flock health planning.

Farm Infection Risk Management Project

Project Background

This project was designed to support the recently launched Northern Ireland Johne's Disease Control Programme (JDCP) through the development of an online platform to facilitate the capture of Johne's Disease related data and display them back to farmers and their veterinary advisors. It also provides a robust and secure system for quality assurance providers that participating herdowners within the programme were compliant with the programme requirements. This programme is managed and delivered by Animal Health and Welfare NI (AHWNI) a not-for-profit company managed and funded by the Northern Ireland Agri-Food Industry to support endemic disease control initiatives.

The AHWNI JDCP is a voluntary programme. The objective of the programme is to provide herdowners with the various programme components, required to support a robust and internationally recognised Johne's Disease control programme in Northern Ireland. The goals of the programme are:

- a) **Bioexclusion.** To help identify those herds that test negative for Johne's disease and provide these farmers with the knowledge and professional support to allow them to increase their confidence over time of being free of infection and to protect their herds from the on-going risk of introduction of this disease.
- b) **Biocontainment.** To provide herds identified as being infected or having a low confidence of freedom from infection, with the knowledge and professional supports to allow them to control and reduce the prevalence of infection over time and ultimately to achieve a high confidence of freedom from infection.
- c) **Market reassurance.** To underpin the quality of Northern Irish produce in the national and international marketplace.

The required components of the programme are:

1. Programme enrolment including acceptance of programme Terms & Conditions.
2. The provision by an approved veterinary practitioner of an on-farm veterinary risk assessment and management plan (VRAMP) which is captured electronically.
3. Limitation on the sale of JD positive/inconclusive animals to other herds.

In addition to the mandatory components, it is strongly advised that participating herds undertake whole herd testing for the infection.

The VRAMP is a detailed on-farm review carried out by an approved veterinary practitioner in partnership with the farmer to

1. identify aspects of management that could predispose to the introduction (bio-exclusion) and spread of infection within the farm (bio-containment)
2. provide recommendations for the reduction of these risks.

Only veterinary practitioners who have undergone specific training provided by AHWNI are approved to undertake the assessments.

The VRAMP uses a scoring system which assists the identification of high-risk practices and areas within the farm on which control should be focussed. As a consequence of the assessment, up to three agreed farm-specific practical recommendations are made to reduce infection risk that both the farmer and the approved veterinary practitioner (AVP) agree can be implemented on the farm.

Where tests have been carried out an assessment of the results are made, and actions agreed that may be needed to further investigate the infection status of the herd.

After herds have completed an initial VRAMP a follow-up risk assessment must be carried out annually. These follow-on assessments are essential to monitor progress that the herd may have made in mitigating Johne's disease related risks. This can be achieved by comparing scores attributed to risks in previous VRAMPs and measuring the degree to which the management plan has been successfully carried out so that further amendments to recommendations can be made and that the advice a farmer is receiving is current.

Project Aims

The core aim of the project was to develop an IT platform that would support the Northern Ireland Johne's Disease Control Programme. This application would allow:

- the real-time capture of on-farm risk assessments.
- Herdowners with online access to risk assessments findings.
- dashboards of findings to allow benchmarking relative to other participating herds.
- auditable evidence of participation in the programme for the purposes of quality assurance schemes.

In developing this application, it was the clear intention to develop a platform that would allow future developments to be included in it, whether they could be achieved within the timescale and budget of the current EIP project or beyond it. These include developing:

- a platform for medicine use reviews (using already available data).
- further components of the On Farm Risk Assessments encompassing wider Biosecurity considerations for other infections.
- Herd/flock health planning supports.

Project Operational Group

The members of the Project operational group were selected to provide a broad range of experiences in the formulation and development of the project. To achieve this an initial group of contacts was expanded on through a 'snowballing' exercise carried out by AHWNI to extend the number of potential group members available. Snowball sampling is a recognised means of recruiting future subjects through an initial pool of people's acquaintances. The final members of the group are listed in appendix 1.

The group met several times by videoconference during the course of the project. The main activities of the group focussed on:

- Agreeing the detailed terms of the project.
- Agreeing the mechanisms for identifying potential suppliers.
- Agreement on the ultimate supplier to the project.
- Oversight and agreement of project development and direction.
- Assessment of the IT application at various stages of development including the final product.

Project Activities and Outcomes

The online tool is designed to facilitate the capturing of VRAMP information on-farm by approved veterinary practitioners as well as integrate animal information which is used to pre-populate on-farm risk assessments, dashboard summaries for participating herds and approved vets and generate farmer declarations of participation within the AHWNI Johne's Control Programme.

The aim of the tool was to develop in such a way that it can collate data from a number of sources, notably APHIS (e.g., animal births, deaths, and movements), labs (e.g. milk recording labs), medicine sales (e.g. STAMP project) on farm findings (veterinary risk assessments), and abattoirs.

The utility would first incorporate Johne's Disease risks with the intention that it would be further developed to incorporate other common infection risk measures. The ambition of the project was that the assessment tool could be further developed to include:

- other infection risks including elements specific to beef herds and sheep flocks.
- online herd or flock health plans bespoke to each farm.
- a medicine use tool to facilitate the annual review of medicine use.

Funding

The project was co-funded between the European Innovation Partnership (EIP) and Animal Health and Welfare NI (AHWNI). In total £81,662.08 was provided to the project from the EIP funding stream and AHWNI contributed £19,200 for annual software licensing costs.

Project Development

The project effectively went through three stages of development.

1. A feasibility study to provide advice on how best to deliver the project objectives.
2. Procurement cycles to identify the best value for money options to deliver agreed objectives.
3. Delivery of the final application.

Feasibility Study

A key consideration for the project was to determine whether the development of the utility should be carried out by an external agent/organisation or internally by the group through the recruitment of a suitably qualified IT developer/s. The purpose of the feasibility study was to address this specific question and provide written advice to the Operational Group on how to proceed with the development of the project and particularly the building of the utility.

This feasibility study was asked to take account of:

- The best value for money options for developing the utility and associated risk assessment tools, given that the limited resource available.
- What approaches to utility development would be most able to provide flexibility as the project develops, given that there are likely to be changes to the detailed specification as it is tested on-farm and that this flexibility must allow future development beyond the timescale of the current EIP project.
- The expertise that will be needed to develop the utility and provide veterinary guidance for its development.
- The long-term sustainability of the project outputs. It was the intention of the operational group to develop a platform that would continue to be available to farmers beyond the current project's duration and continue to be developed over time.

The key outcome from this was a report outlining the agent's findings and recommendations to the Operational Group. The feasibility study was completed within 2 months of the successful supplier being appointed.

DEVELOPMENT OPTIONS

There were four options that were considered for developing the application.

1. **Employment of internal developer** to develop the system and to manage and develop the utility on an ongoing basis.
2. **Engagement of an external developer**, ideally with multiple developers who have a range of skillsets, followed by employment of a dedicated internal developer to manage, and develop the programme.
3. **Engagement of an external developer** (with multiple developers who have a range of skillsets) and implementing an ongoing service contract with the external consultant to manage and develop the programme on an ongoing basis.
4. **Utilisation of an 'off the shelf' software package.**
5. **Utilisation of an existing software package** to deliver the required outcomes of the project, with a small number of specific changes or developments.

Consideration & Recommendations

The key recommendation was that a development company is likely to be superior to that of an internal developer in terms of expertise available, the ability to cover for absence of technical support, and having established experience in developing solutions. However, an external company is likely to be a more expensive option.

The detailed summary recommendations to the operational group were:

- Create a clear development brief which allows for flexibility within Phase 1 development.
- Create a brief which outlines future management and development requirements and sets an appropriate time commitment per week for an external developer (or a summary work plan for an internal developer if external developers are not available) for future maintenance and development work.
- Investigate whether an 'off the shelf' programme is available to meet the requirements of FIRM. This is by far the easiest and simplest option. Some additional development may be required, but this may be at a much lower level than for the complete development of a new system. If an 'off-the-shelf' solution is available, a functionality specification should be drawn up and an initial delivery contract and an ongoing service contract should be agreed with the provider.
- If a suitable 'off-the-shelf' option cannot be found, an external development company should be engaged against a clear specification.
 - The initial contract should include the initial development requirement (Phase 1)
- Provided that Phase 1 is successfully delivered, a secondary contract (Phase 2) could be created for ongoing development and maintenance. This contract would include.
 - Provision of day-to-day problem solving.
 - Provision of ongoing utility development time against requirements agreed by the operational group.
 - Development of decision-making tools.
 - Development of communication apps and interfaces.

Following the recommendations from the report the Operational Group decided to go to public tender for the development of the application.

Procurement Cycles

Following an initial tendering process one company was identified that could in principle provide the utility. The potential provider was invited to discuss with the operational group their proposed solution which would use an already developed platform. A key consideration for the group was the initial development costs, ongoing maintenance costs as well as additional costs for future developments which would have to met by industry. The final decision of the group was not to proceed with this initial option, but to re-visit other options, specifically options for in-house development and to further engage with potential industry partners that may not have responded to the initial tender.

In exploring potential options, the development of a Knowledge Transfer Partnership with Ulster University was explored. While initial contacts suggested this might be a feasible option to procure the necessary expertise to develop the utility, on seeking advice from Innovate UK, it became evident that the funding model for EIP projects precluded using KTP.

Following further pre-market engagement, it was felt by the operational group that there may be other IT development companies that might be interested in engaging in the project. A new tender was developed which focussed on development of the Johne's Online Tool which would be so configured to allow future modular components to be added. In summary the characteristics of this refined solution would be that

1. The system is modular (object-orientated) so that any future additional requirements can be easily applied with minimal rebuild of the existing system.
2. The system is developed with the flexibility to add additional data sources (e.g., animal/health databases in other regions or jurisdictions or farm software data), and additional data fields (e.g., additional disease test results) as needed.
3. The contractor would provide all maintenance needs for the tool including:
 - Resolution of software issues/faults reported after the delivery of each component of the system (i.e., bugs, interface issues, data fixes).
 - Server environment maintenance - i.e., operating system patches, firewall updates, system & data backups, hardware upgrades, penetration testing.
 - Data restoration in event of critical failure.
4. The identification and authentication of farmers and vets would be via a bespoke login and password system.
5. Any farm and vet registration system developed could be managed by AHWNI.
6. The identification and authentication of laboratories and AHWNI admin would be via a custom login form managed by the AHWNI administrators.
7. The system would conform to current accessibility standards.
8. The system would allow the carrying out of V-RAMPs, for example on smartphones, without the need for internet connection (e.g., signal blackspots) to allow for subsequent uploading of VRAMP findings.

Following a second system tendering exercise a new company was identified that provided compelling evidence that it could develop a Johne's VRAMP tool to the specifications given, within the timeframe of the project and within budget. The company provided evidence that it could further develop the utility to meet the other ambitions of the group. However, there would not be sufficient budget within the project to allow these further developments to take place. These further developments are subject to ongoing discussion with industry partners but fall outside the scope of this project and therefore this report. The following is a detailed description of the Johne's VRAMP utility specification and its delivery.

Application Delivery

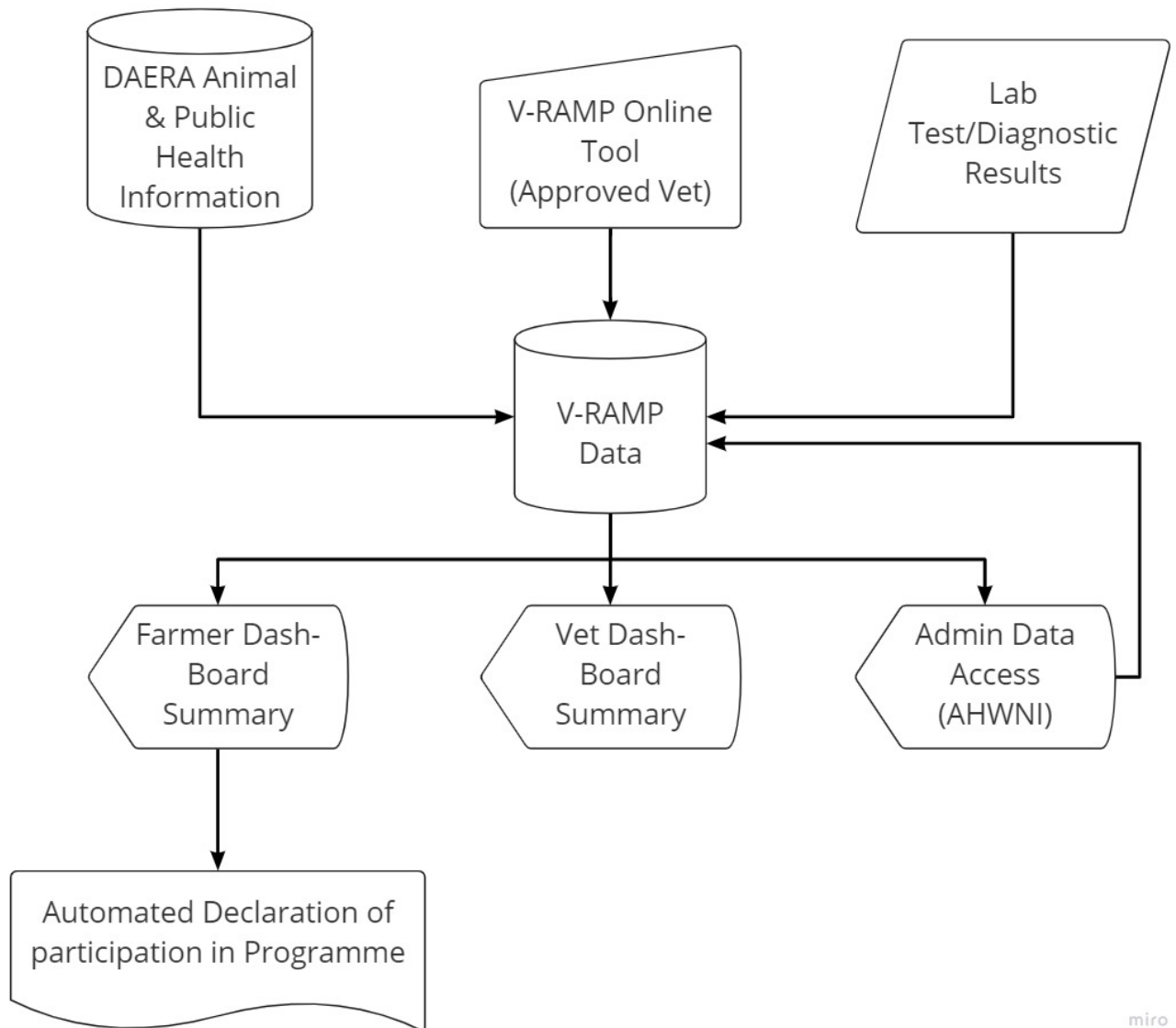
The utility has now been delivered and is being rolled out to veterinary practitioners to be used by them with their clients who are part of the Northern Ireland Johne's Disease Control Programme. A series of screenshots have been included in appendix 4.

Application Specification

The tool has been designed allow the collection of on farm findings during the veterinary risk assessment and the capture and display of any Johne's Disease laboratory test data. It also provides a dashboard of findings back to the farmer and their nominated vet as well as evidence of participation in the Johne's Disease Control Programme for quality assurance purposes. Figure 1 illustrates the components and data flows of the tool.

The tool also provides a means of linking data captured (by API) within the tool to other utilities that AHWNI may develop in the future.

The assessment tool has been developed to allow the inclusion of other infection risks including elements specific to beef herds and sheep flocks. While these elements are not part of the current project, the tool has been developed in such a way as to easily allow future developments to incorporate additional animal and herd data and new or amended components of the VRAMP.



miro

Figure 1. High Level Schematic of Data Flows.

Data Permissions

All data sourcing, managing, and holding including the provision of permissions to access data is done in compliance with current legislation i.e., currently GDPR. Farmer or farmer representative users of the tool are required to provide permissions to AHWNI to access the pre-determined data that is held in the various data sources described in this specification.

In summary the data that each user has access to is:

- For herdowners, all information pertaining to their herd.
- For authorised vets, all information pertaining to those herds that have nominated them.

Data Integrity

The utility has been developed such that all data transfers are secure, and that the data held within the tool is held securely to internationally recognised standards. All data is securely backed up so that in the event of a system failure data can be restored within an agreed timescale.

Dashboards

For herds participating in the Johne's Disease Control programme a summary of all VRAMP findings including previous ones are accessible to users. For numerical risk assessment scores these are displayed so that progress can be measured across yearly assessments as well as benchmarking them against other participants within the programme.

Administrator Access

In order to administer the VRAMP tool, AHWNI has administrator access to all records within it. This includes the ability to manage participants as well as generate reports.

Information held by the tool is printable (e.g., pdf) and downloadable (e.g., csv file) and allows administrators to produce interrogation reports by selecting datasets of interest for analysis. The administrator facilities include:

- Herd Search based on
 - Herd number
 - Herdowner Surname
- Veterinary Practitioner Search based on
 - Surname
 - Veterinary Practice
- Register or re-register Herd to include ability to update:
 - Herdowner name
 - Herd number
 - Contact mobile number.
 - Email address
 - Nominated vet (Name, Practice)
 - Data permission agreement in place
 - Upload previous V-RAMP findings (e.g., import via CSV)
- Re-set veterinary practitioner password
- Manage/Update Vet Practices
 - Practice Name
 - Nominated Vet/s
 - Address
 - Phone Number
 - Email Address
 - Herd/Vet Association
 - Delete Vet User
 - Delete Herdowner User
- Reports
 - Participating herds
 - Johne's Control Programme Herds
 - Composite summary of listing of participating herds
 - Number of V-RAMPs carried out.
 - Date of latest V-RAMP
 - Detailed listing for selected herds to include all V-RAMP data.

Bridge Building

This project is the first of its kind within the UK. It has taken a bottom-up approach to developing and delivering a solution to a pressing need for the Northern Ireland Agri-Food industry; namely an integrated solution to identifying Johne's Disease infection risks. It provides farmers and veterinary surgeons an easy-to-use platform, while allowing for auditable compliance with Red Tractor quality assurance needs in terms of Johne's Disease control. It is a system that will be available to all dairy farmers within Northern Ireland.

Key to developing this has been the input from farmers, veterinary surgeons, and quality assurance experts in co-designing the project. Because this has been built from the ground up it has been designed primarily with the needs of the NI Agri-Food industry in mind. Key to its success has been the 'real-world' input of farmers and veterinary surgeons. The project has facilitated collaboration between people from a number of industry backgrounds. This collaboration allowed for the exploration of a number of potential solutions as well as agreeing on a sustainable way forward that would allow a viable outcome from the project as well as one that could be maintained by industry.

A crucial consideration of the project was ensuring that any solution delivered would be such that it could be further refined and developed to meet future industry needs. For example, a key ambition for the platform is that it could be further developed to meet future animal health planning needs. Therefore, in developing the project the range of operational group members worked at ensuring that the application could be developed in such a way that any future animal health requirements could be easily applied with minimal rebuild of the existing system.

One unexpected area that emerged during the course of the project was the engagement with an IT company that had previously been focussed on Poultry Management support. The IT platforms that they have developed over many years proved to be an excellent fit for this project, given the commonalities of on-farm auditing, on-farm findings analysis and dashboarding they provide to the poultry industry, and the needs of this project. Key to the success of the current project was developing this work with a company that none of the members of the operational group had previously been working with. An important observation of this project is to avoid restricting engagement with only those bodies that work in the animal sectors that group members are familiar with. Rather there may be opportunities to identify potential solutions in other sectors that could be adapted to meet current needs.

Future benefits & challenges

Johne's Disease is one of the most significant endemic infections of cattle within NI. The key component of control is the identification of infection risks and their mitigation at the farm level. Critical to successfully controlling infection is the use of enabling systems that make the process easy to carry out, straightforward for the farmer to engage with and understand, and one that is robust. The outcome from the current project meets these needs very well.

Virtually every dairy farmer within NI is in the NI Johne's Control Programme with more than 230 veterinary surgeons trained to deliver it. Therefore, all of these businesses will benefit from access to this utility. Most importantly it is likely that the use of the utility will improve the control of Johne's Disease at the farm level. While it is impossible to estimate the impact, given the estimated costs of Johne's disease to NI dairy businesses may be in the order of £2.5 million per annum (1), even a modest saving is likely to accrue significant levels of savings. Similarly, it has been estimated that percentage increase in CO₂ equivalents over a healthy baseline for herds infected with Johne's Disease is around 23% for dairy herds (2). Given that it is likely that more than one third of UK dairy herds are infected with Johne's Disease (3), even modest infection mitigations is likely to have a significant reducing effect on CO₂ equivalent emissions from the dairy sector.

Increasingly Johne's Disease is a focus of purchasers of high value animal products such as milk powder. Future international purchasers of these products are likely to wish to see evidence of Johne's Control Programmes in place. The current utility allows for the clear demonstration of the programme as well as providing evidence of programme compliance. It is quite possible that the current utility will in the future be used by NI Agri-Food processors as evidence of compliance with emerging purchaser needs. Therefore, the utility is likely to act as an underpinning resource in support of international markets for certain NI Agri-Food products.

While the short term benefits from this project focus on Johne's Disease, this project has allowed the development of a first stage towards a more wide-ranging platform for supporting ruminant animal health within NI. An ambition of this project was to develop a system that would draw information in from other data sources such as APHIS/NIFAIS, laboratories and medicine sales datasets to facilitate herd and flock health planning. The platform that has now been developed will allow these elements to be developed over time, dependent on funding being available. The potential benefit of these future iterations of the platform is very substantial and likely to be far greater than the private and public good accruing from the current system. Therefore, future benefits from this project are likely not be confined to supporting Johne's Disease control but a much wider range of beneficial ruminant health outcomes over time.

A core challenge for this project has been the limited funds available. The project was designed to be ambitious and has delivered a utility that will be enormously useful. However, given the limited resource available only the Johne's Disease element of the wider project could be delivered. To further develop the utility will require further funding. On the basis of the principle that the beneficiaries should provide funding, and given that both private and public goods will be derived from this project, inevitably there will need for both private and public support for the future development of the system, in order for the full potential of the concept to be realised.

A further challenge to the project is data availability. The project has developed a system for drawing on data from APHIS/NIFAIS. However, developing other data streams into the utility are dependent on the keepers of that other data being able to transmit data electronically (on the basis that appropriate data permissions are in place). Therefore, to fully meet the potential of this project will require the ongoing cooperation of organisations which are outside of the control of the holders of the utility.

Conclusions

In conclusion, this project has been remarkably successful. A working utility has been developed that is now being used as part of the Northern Ireland Johnne's Disease Control Programme. This utility provides support to farmers and their veterinary surgeons in identifying infection risk and provides assurance of compliance with Red Tractor requirements. Further to this, the utility has been developed such that further modules will be able to be added as resource becomes available. Fundamentally this project demonstrates that industry managed projects can successfully manage and develop IT projects despite the well-recognised challenges of developing IT systems from scratch (4). It should give confidence to both industry and industry partners such as those within government that, given appropriate resources, organisation, and management, that the NI Agri-Food industry can successfully deliver IT projects that support its needs. This project provides a model for future industry led work developing IT systems within the NI Agri-Food industry.

Recommendations

Our recommendations are:

1. In the context of this project, the EIP process has proved to be highly successful. This approach to funding industry led projects to meet industry needs has led to a very successful outcome. We strongly recommend that this initiative is maintained and further developed as it provides a unique opportunity to address industry needs through industry driven innovation.
2. A significant amount of the time for this project was taken up identifying a viable solution to the need identified by the project. Undertaking a feasibility study and subsequent pre-market engagement meant that a substantial part of the project's time was taken up by these aspects, reducing the available time to deliver the final utility. In future it may be helpful, where appropriate, that a separate fund is offered to undertake feasibility studies and pre-market engagement. Where successful or where evidence indicates a viable way forward, these initial projects could then feed into funded innovation projects.
3. The funding envelope was limited and therefore limited what could be feasibly achieved within the project. In order to provide flexibility, consideration might be given to offering a range of funding options, for example larger numbers of smaller projects alongside smaller numbers of larger project. This would accommodate a range of project sizes and probably open new possibilities for industry led innovation.
4. Consideration should be given to developing and further defining and supporting the role of the innovation broker. The innovation broker role is crucial, but a significant amount to the activity of the broker is to act as project manager, i.e., the innovation broker is not just there to act as a broker between members of an innovation group but to manage the project as

well. Further supports to allow project management of successful projects is likely to improve project success.

5. The success of any project is ultimately measured in its impact and its long-term survival. Consideration should be given to how best to support the outcomes from projects, so that outputs continue to be viable.

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Appendices

Appendix 1. Operational Group Members

Name	Expertise
Mr Alan Cleland	Dairy/Pedigree Farming.
Mr Crosby Cleland	Sheep Farming.
Mr John Egerton	Beef farming.
Mr Wallace Gregg	Dairy Farming/Pedigree farming.
Mr William Irvine	Dairy Farming/Agriculture Policy.
Dr Brian McAuley	Veterinary Surgeon/Pedigree farming/Johne's Disease.
Mr Thoburn McCaughey	Dairy Farming.
Mr Tynan Roulston	Dairy Farming.
Mr Colin Smith	Quality Assurance.
Mr John Thompson	Dairy Farming.
Dr Sam Strain	Innovation Broker/Johne's Disease.

Appendix 2. Organisations that Delivered services to the project.

Organisation	Role
Animal Health & Welfare NI	Innovation brokerage. Veterinary expertise.
Birnie Consultancy	Feasibility Study
Unitas	IT Developer

Appendix 3. Dissemination Activities.

Activity	Description
Private Veterinary Practitioner Training	Online demand-based training for private veterinary practitioners to undertake VRAMPS. Circa 230 vets trained.
Information articles for NI Dairies.	One-page factual information supplied to the major Northern Ireland dairy processors for dissemination within material sent to processor farm suppliers.
Farm walk	Dissemination stand at an event organised by another NI EIP project, 'ArcZero.'
Development a new AHWNI website that will allow easier online dissemination of Johne's Disease information.	At the time of writing in development. The new website will have a separate Johne's Disease Section which will be kept current by AHWNI.

Appendix 4. Utility Screenshots




UNITAS
SOFTWARE

Username

Password

 SIGN IN


Animal Health & Welfare NI
**John's Disease
Control Programme**
www.johnesni.com


Department of
**Agriculture, Environment
and Rural Affairs**
www.daere.ni.gov.uk


**rural
Development
Programme**
The European Agricultural Fund
for Rural Development. Support
Investing in rural areas

Johne's Application Login Page

Clinical and Testing History

This section explores what evidence there is that Johne's Disease might be in the herd.

Have you ever completed a Johne's Disease Herd Test? *

Yes

Previous Answer

Which Tests were used? *

Individual Milk ✕

Previous Answer

Have you had any suspect cases of clinical Johne's Disease e.g. cows with chronic diarrhoea/chronic wasting? *

Yes

Previous Answer

How many suspected cases did you have? *

1

Previous Answer

What year was the most recent case? *

More than 3 years ago

Previous Answer

Have you ever had a confirmed case of Johne's Disease in your herd? (Faeces test positive) *

No

Previous Answer

Screenshot of a portion of the Herd History Page.

Section Total
17

Pre-Weaned Heifers

The pre-weaned heifers are particularly susceptible to acquiring Johne's Disease as well as a range of other pathogens including those causing calf scour. This section assesses the risk of exposure to Map and other pathogens, as well as how likely passive immunity is likely to be acquired by all calves.

> Are calves fed colostrum from their own mother or from known low risk colostrum cows or artificial colostrum? *

1 4 7 10


Previous Answer

✓ Are at least 3 litres of colostrum consumed within the first 2 hours of life (or appropriate volume for smaller calves)? *

1 4 7 10

Previous Answer

Notes


Upload new file

0 of 3 files

> Are heifer calves fed on low risk whole milk, pasteurised low risk milk or milk replacer? *

1 4 7 10

Previous Answer

< Young Calves >

36/37

SAVE DRAFT

Screenshot of a Sample of the Calf Risks Page

Section Total

18

The calving area is the most important area where calves can acquire John's Disease together with a range of other pathogens. Many of these risks will overlap, i.e. where there is a high score for one it is likely to lead to a high score in another. This section has been deliberately designed to do this, as risks often will cluster together, and approaches to reducing one risk can lead to a reduction in other risks.

> How clean are the springing cows just before they enter the calving area? *

1 4 7 10

Previous Answer

> How clean are the cows at the point of calving down (ie after they enter the calving area)? *

1 4 7 10


Previous Answer

✓ Are there single or multiple cows in the calving area? *

1 4 7 10

Previous Answer

Notes


Upload new file

< Calving Area >

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SAVE DRAFT

Screenshot of a Sample of the Calving Risks Page

Overall Total
40

Based on what has been discussed, the purpose of this section is to identify up to 3 recommendations that can be implemented by the herdowner to reduce infection risks identified during the V-RAMP.

Herdowner Email: gary.thompson.agriculture@gmail.com

> First Management Recommendation.

Excellent management so far . Milk monitoring last 5 years . 1 red cow now a few amber . Red cow not to go in calving pen and to be culled

The recommendations should be aimed at addressing the most significant risks identified during the V-RAMP and must be agreed by the herdowner, i.e. they should be achievable by the herdowner.

Previous Answer

> Second Management Recommendation.

Possibly have a separate area for sick cows or downer cows instead of calving pen . Or subdivide calving oen

The recommendations should be aimed at addressing the most significant risks identified during the V-RAMP and must be agreed by the herdowner, i.e. they should be achievable by the herdowner.

Previous Answer

> Third Management Recommendation.

Consider not overwintering sheep on pasture as unknown risk

The recommendations should be aimed at addressing the most significant risks identified during the V-RAMP and must be agreed by the herdowner, i.e. they should be achievable by the herdowner.

Previous Answer

< Recommendations >

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SAVE DRAFT

Screenshot of a Sample of the Recommendations Page



Screenshot of a Sample of the Farmer Dashboard.

Vet Risk Assessment

Farm Code: [REDACTED] Assessment: VRamp Assessment Date: 22 Mar 2022

Section	Score	Max Score	Percentage
Pre-Weaned Heifers	17	80	21.25%
Young Heifers	5	14	35.71%
Calving Area	18	90	20.00%
Total	40	184	21.74%

Question	Status	Notes
Assessment Date		
Veterinary Practice	[REDACTED]	
Vet Practitioner Name	[REDACTED]	
Herd Detail		
Herdowner/Herdowner Representative	[REDACTED]	
Herd number	[REDACTED]	
Do you as the Herdowner agree to the terms and conditions of the AHWNI Johne's Disease Control Programme. These can be found at www.animalhealthni.com *	Yes	
Herd History		
Have you ever completed a Johne's Disease Herd Test?	Yes	

Screenshot of the First Page of the Farmer's VRAMP Report.



Declaration of Johne's Disease Control Programme participation

Herd Number:

Farm Name:

Farm Address:

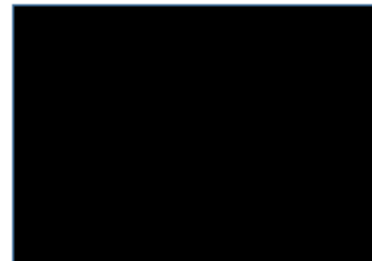


This declaration confirms that the above named herd is participating in the AHWNI Johne's Control Programme and has a Veterinary Risk Assessment and Management Plan (VRAMP) for Johne's Disease carried out by the named AHWNI Approved Veterinary Practitioner. It confirms that a review of the key risks for Johne's Disease introduction and spread on this farm have been assessed and veterinary advice provided on measures that can be implemented to mitigate the most important risks identified. Where appropriate, advice on how to investigate for the presence of Johne's Disease on this farm has been provided.

AHWNI Approved Veterinary Practitioner:

Veterinary Practice Name:

Veterinary Practice Address:



Date of VRAMP Upload:

22 Mar 2022

Unique VRAMP Identifier:

049C5B54-57A1-4EC8-8ECF-2BEF19B48372

Date by which the next VRAMP must be carried out:

22 Mar 2023

To comply with the AHWNI Johne's Control Programme, a VRAMP or a VRAMP review must be carried out annually and the findings uploaded by an Approved Veterinary Practitioner to AHWNI using the AHWNI Johne's Control Programme online utility.