



The Healthy Livestock Pneumonia Initiative

Thomas Rees

Steve Grills

Healthy

livestock.org



A RDPE initiative from the Rural Business School



Healthy
livestock

Why are we here?



Why are we here?



Why are we here?



A RDPE initiative from the Rural Business School



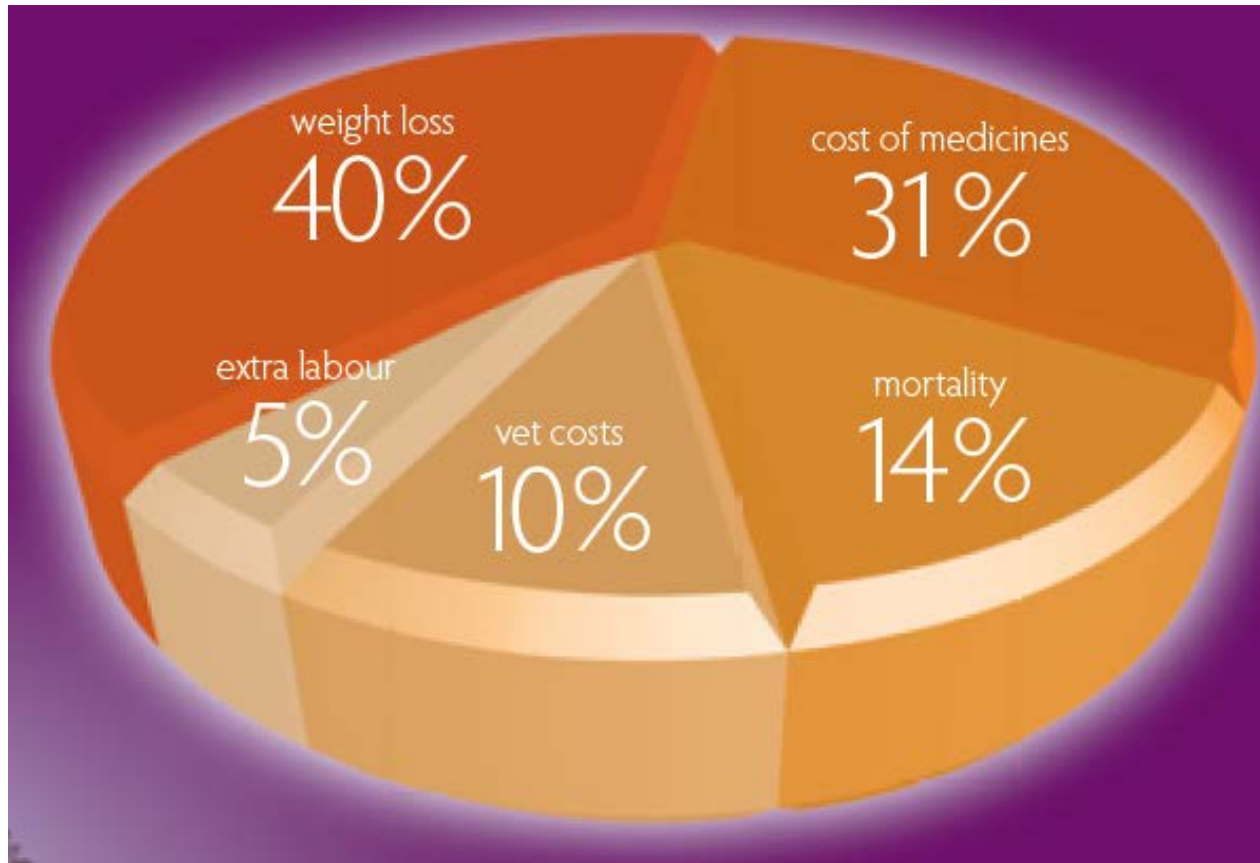
But it all comes down to...

Calf
Respiratory Disease
estimated to cost around
£80 million
per annum
to UK cattle
industry¹



Bovine
Respiratory Disease
estimated to cost around
£82
per calf²

Break down of costs



Worse than you think!

500 Calves over 15 months:

Diagnosed with
pneumonia

35%



Worse than you think!

500 Calves over 15 months:

Lung damage
found at slaughter

72%



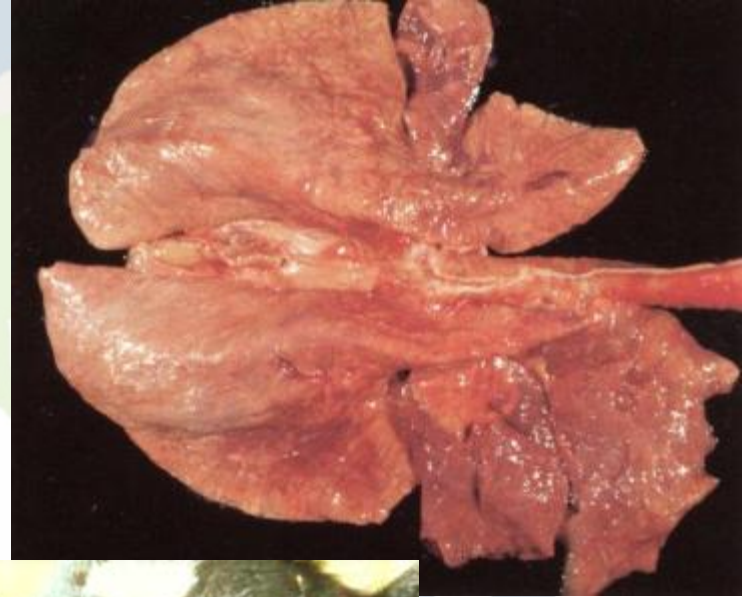
Worse than you think!

500 Calves over 15 months:



How we can help

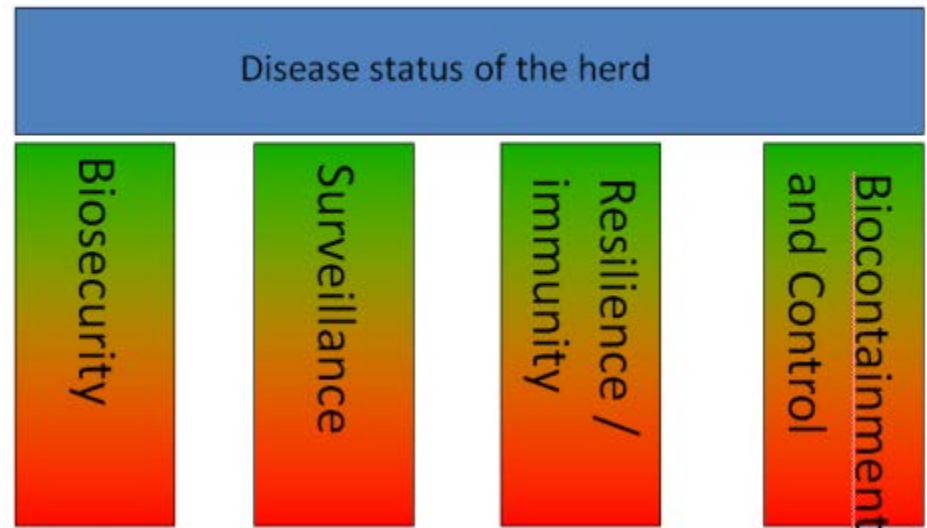
- The Healthy Livestock Initiative will allow you to:
 - Prevent pneumonia
 - Control Pneumonia
 - Treat pneumonia
- **Strategically**
- **Effectively**
- **With funding help**



Preventive Veterinary Medicine

- Prevention is better than cure
 - Mostly
- Risks
 - Entry
 - Spread
- Surveillance
- Resilience

The four pillars supporting the disease status of a herd



Causes of BRD

PI3
RSV
IBR



Primary agents lead to further infections

BVD – Immuno-suppression

Bacteria

- Mannheimia (pasteurella) haemolytica
- Pasteurella multocida
- Histophilus somni
- Mycoplasma bovis

Parasites

- Lung worm (Dictyocaulus viviparus)

More than just bugs!

Transport & handling = stress



Housing



Dust

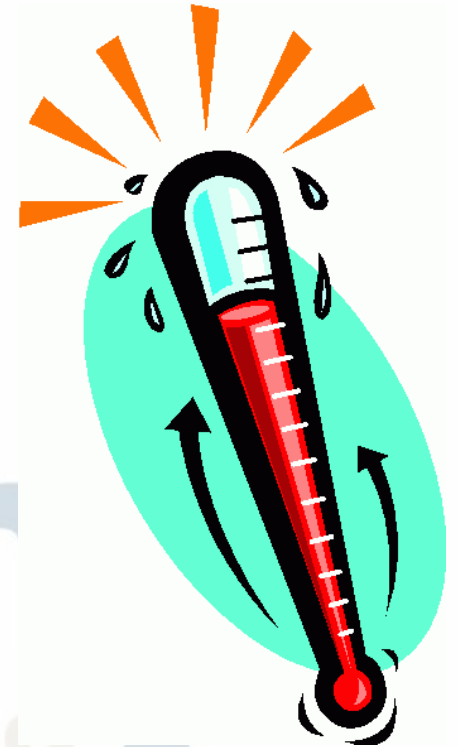


Damp & moisture



Prompt diagnosis

- Coughing
- Depression
- Off-food
- Rapid or deep breathing -> mouth breathing
- Temperature (39.5-42 degrees)/>103F
- Discharge – mouth/nose/eyes
- Death!



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Too little, too late

PREVENTION IS BETTER THAN
CURE!

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Farm Visits & Health Planning

Individual Risks

- Buying cattle
- Mixing cattle (bought in and young & old)
- Disease status of farm
 - BVD?
 - IBR?
- Housing

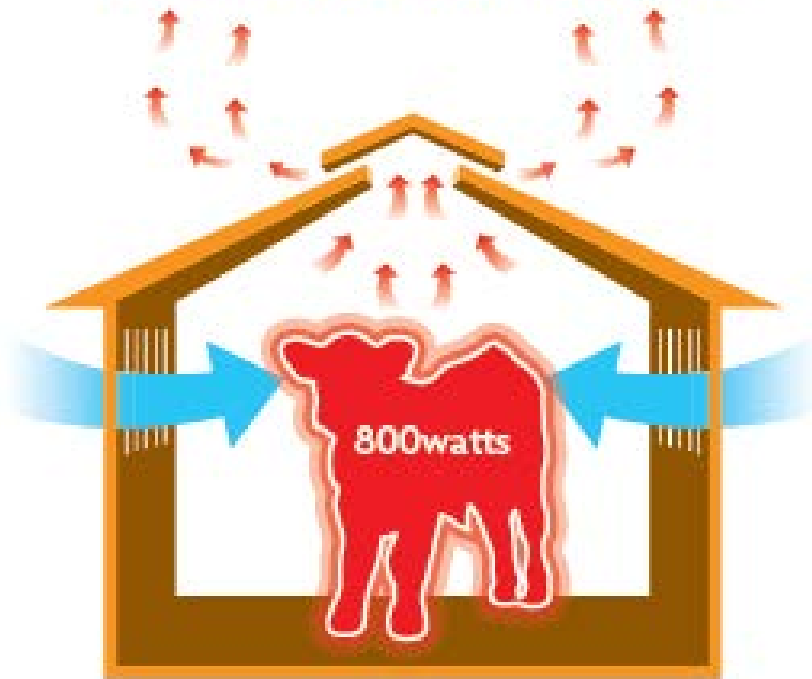
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Farm Visits & Health Planning



Farm Visits & Health Planning

Ideally, ventilation should work on the Stack Effect, shown in the diagram:



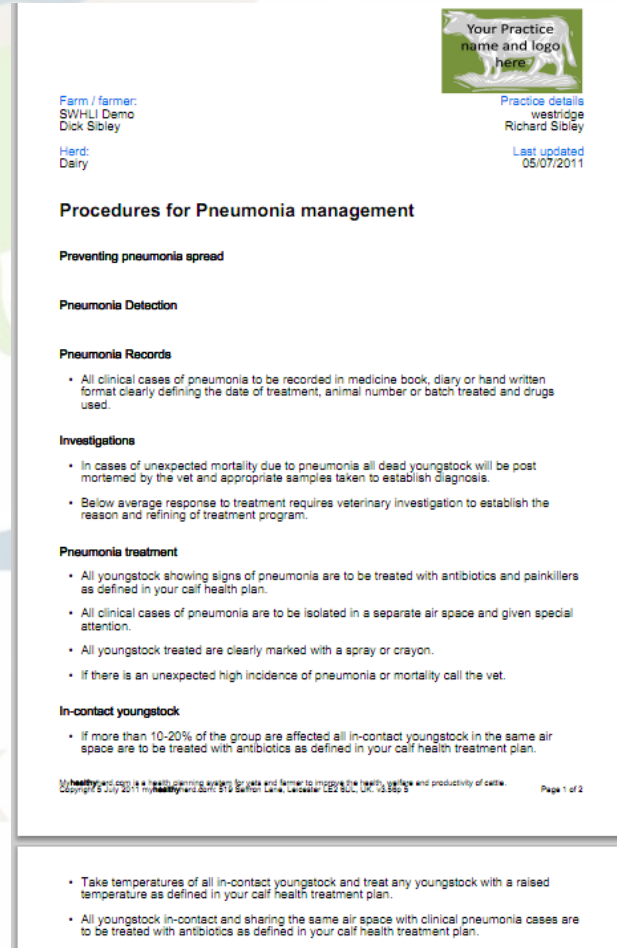
Treatment – important to get it right

- Strategy
- Detail
- Best practice
- Use MHH for treatment plans

The screenshot shows the myhealthyherd.com website interface. The header includes navigation links: Home, Join, Program, Dairy, Beef, Log in/out, and About us. Below the header is a banner with the text "Making herds healthier" and the myhealthyherd.com logo. The main content area is a form for creating a health plan for "Prescription treatments". The form is titled "Sewers" and is for the "Youngstock" target group. It includes a "Medication" dropdown menu with a list of options: Ravflor Inj, Exceval RTU 50 mg/ml Solute, Exceval Stevia Powder Soluble, Frazdyne, Framycetin 15% Inj, Hexaval LA, Marbocyl 10%, Marbocyl 2%, Marbocyl 50%, Marbocyl Solute, Metacam, Micolil, Neopen, Nivamox Inj, Nuffer Inj, OxyCare 10%, OxyCare 20/LA, Oxycomplex NS, Duglaxen 20 LA, and Penicillin. The form also includes fields for "Dose", "Milk hold", and "Meat hold". The "Dose" field is set to "2.5ml/10", "Milk hold" is set to "N/A", and "Meat hold" is set to "Select if required". The form also includes an "Instruction text" field with a "select if required" dropdown.

Basic Planning

- Use the Health Planning Section of myhealthyherd.com
- Full access to Myhealthyherd
- Other MHH benefits:
 - Health planning for farm assurance
 - Cost calculator
 - Vaccine and testing management



The screenshot displays a web page titled "Procedures for Pneumonia management". At the top right, there is a placeholder for a practice logo and name, "Your Practice name and logo here", with a small image of a cow. Below this, the practice details are listed: "Practice details: westridge, Richard Sibley" and "Last updated: 05/07/2011". The main content area is divided into several sections:

- Farm / farmer:** SWHLI Demo, Dick Sibley
- Herd:** Dairy
- Procedures for Pneumonia management**
 - Preventing pneumonia spread**
 - Pneumonia Detection**
 - Pneumonia Records**
 - All clinical cases of pneumonia to be recorded in medicine book, diary or hand written format clearly defining the date of treatment, animal number or batch treated and drugs used.
 - Investigations**
 - In cases of unexpected mortality due to pneumonia all dead youngstock will be post mortemed by the vet and appropriate samples taken to establish diagnosis.
 - Below average response to treatment requires veterinary investigation to establish the reason and refining of treatment program.
 - Pneumonia treatment**
 - All youngstock showing signs of pneumonia are to be treated with antibiotics and painkillers as defined in your calf health plan.
 - All clinical cases of pneumonia are to be isolated in a separate air space and given special attention.
 - All youngstock treated are clearly marked with a spray or crayon.
 - If there is an unexpected high incidence of pneumonia or mortality call the vet.
 - In-contact youngstock**
 - If more than 10-20% of the group are affected all in-contact youngstock in the same air space are to be treated with antibiotics as defined in your calf health treatment plan.

At the bottom of the page, there is a small copyright notice: "Copyright © 2011 myhealthyherd.com. All rights reserved. SWHLI Demo, Dick Sibley, UK. 13 565 5" and "Page 1 of 2".

The use of myhealthyherd.com

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This is the vet's herd home page. You can return to it using the 'home' icon above. For help click on the ? buttons or try [getting started](#). You are logged in as 'dick' at the 'westridge' practice. Choose the farm and then the herd you wish to monitor. Click on the quick links or images to navigate.

Which one of your herds are you currently monitoring?

Farm: SWHU Demo Farm Only favourites Search Herd: Dairy

| Health evaluator | General biosecurity management | Infectious disease management | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-------------------------|-----------------------|---------------------------|-----------------------------------|--------------------------|----------------------------|-------------|------------------------|-----|--|--|--|-----|--|--|--|---------|--|--|--|-------|--|--|--|----------|--|--|--|----|--|--|--|
| Fertility | Cattle People Objects | <table border="1"> <thead> <tr> <th>Disease risk status</th> <th>Vaccine status</th> <th>Surveillance status</th> <th>Control /current status</th> </tr> </thead> <tbody> <tr> <td>Blue tongue </td> <td></td> <td></td> <td></td> </tr> <tr> <td>BVD </td> <td></td> <td></td> <td></td> </tr> <tr> <td>IBR </td> <td></td> <td></td> <td></td> </tr> <tr> <td>Johna's </td> <td></td> <td></td> <td></td> </tr> <tr> <td>Lepto </td> <td></td> <td></td> <td></td> </tr> <tr> <td>Neospora </td> <td></td> <td></td> <td></td> </tr> <tr> <td>IB </td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Disease risk status | Vaccine status | Surveillance status | Control /current status | Blue tongue | | | | BVD | | | | IBR | | | | Johna's | | | | Lepto | | | | Neospora | | | | IB | | | |
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| Blue tongue | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BVD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IBR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Johna's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lepto | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Neospora | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Udder health | Health planning | Vaccination | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lameness | Surveillance | Getting started | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metabolic/sick animals | Quick links | <table border="1"> <tbody> <tr> <td>View / print report</td> <td>Herd / farmer details</td> </tr> <tr> <td>View / enter vaccinations</td> <td>View / enter surveillance results</td> </tr> <tr> <td>Health evaluator summary</td> <td>Infectious disease summary</td> </tr> <tr> <td>Admin (vet)</td> <td>View / upload document</td> </tr> </tbody> </table> | View / print report | Herd / farmer details | View / enter vaccinations | View / enter surveillance results | Health evaluator summary | Infectious disease summary | Admin (vet) | View / upload document | | | | | | | | | | | | | | | | | | | | | | | | |
| View / print report | Herd / farmer details | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| View / enter vaccinations | View / enter surveillance results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Health evaluator summary | Infectious disease summary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Admin (vet) | View / upload document | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Youngstock | Messages | <p>This is the preview web site.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Culling | <p>Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm myhealthyherd.com Ltd, 519 Saffron Lane, Leicester LE2 6UL, UK</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Overview | <p>Dairy Bovine pneumonia complex v3.56p 5 July 2011</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Biosecurity risk assessment

Complete general biosecurity risk assessment (cattle, people and objects)

Then complete disease specific risks for Bovine Pneumonia

This page is used to estimate your biosecurity risks related to:
Entry risks for Bovine pneumonia complex

| | | |
|-------------------------------------|--|--|
| <input checked="" type="radio"/> Q1 | I purchase young calves prior to weaning and introduce them into the calf rearing unit? | <input type="radio"/> Frequently <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q2 | I purchase weaned calves and youngstock and introduce them into the herd? | <input type="radio"/> Frequently <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q3 | I purchase calves or youngstock from livestock markets or dealers who use multiple sources for the provenance of their stock? | <input type="radio"/> Frequently <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q4 | I purchase calves or youngstock directly from breeding farms, and if so, how many farms are used as suppliers? | <input type="radio"/> None <input type="radio"/> Only one or two <input type="radio"/> More than two |
| <input checked="" type="radio"/> Q5 | Are any calves or youngstock that are introduced into the herd or rearing unit introduced as batches and kept in stable groups? | <input type="radio"/> Always <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q6 | Are any calves or youngstock that are introduced kept in quarantine until known to be healthy and of low risk to other animals? | <input type="radio"/> Always <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q7 | Are any calves or youngstock that are introduced specifically selected for being low risk of introducing respiratory diseases? | <input type="radio"/> Always <input type="radio"/> Sometimes <input type="radio"/> Never |
| <input checked="" type="radio"/> Q8 | Are any calves or youngstock that are introduced effectively vaccinated on arrival or at a time that reduces the risk of any shedding of respiratory diseases or susceptibility to respiratory diseases? | <input type="radio"/> Never <input type="radio"/> Sometimes <input type="radio"/> Always |

Submit then continue Submit then view risks Submit then return to home Cancel changes and return to home page

This form is slow to submit, please wait.

Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm
myhealthyherd.com Ltd: 519 Saffron Lane, Leicester LE2 6UL, UK

Dairy Bovine pneumonia complex
v3.56p 5 July 2011


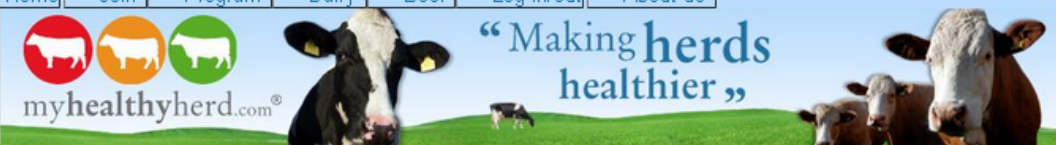
Biosecurity Risks

The report will form the summary and basis of a biosecurity plan –

For herds that have not yet been affected by BRD

For herds that are affected and wish to control the disease





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Bovine pneumonia complex Biosecurity Risks

Date of printing: 05/07/2011

Current status:

| | | | |
|--|--|--|---|
| <p>Disease entry risks from cattle</p>  <p>Red - high risks</p> | <p>Disease entry risks from people</p>  <p>Red - high risks</p> | <p>Disease entry risks from objects</p>  <p>Green - low risks</p> | <p>Disease entry risks from Bovine pneumonia complex:</p>  <p>Red - high risks</p> |
|--|--|--|---|

General comments:
You have high risks that the pathogens associated with respiratory disease and pneumonia in youngstock will enter your herd. You should take steps to protect your calves and youngstock, and manage the biosecurity risks.

My Bovine pneumonia complex biosecurity risks
[Each dagger indicates a doubling of the risk. \(Unanswered questions may be from the general biosecurity section.\)](#)

- ++++ You frequently purchase weaned calves and youngstock and introduce them into the herd.
- +++ You occasionally purchase calves or youngstock from livestock markets or dealers who use multiple sources for the provenance of their stock.
- +++ You occasionally purchase young calves prior to weaning and introduce them into the calf rearing unit.
- +++ Are any calves or youngstock that are introduced are only sometimes effectively vaccinated on arrival or at a time that reduces the risk of any shedding of respiratory diseases or susceptibility to respiratory diseases.
- ++ Calves or youngstock that are introduced are only sometimes specifically selected for being low risk of introducing respiratory diseases.
- ++ Calves or youngstock that are introduced are only sometimes kept in quarantine until known to be healthy and of low risk to other animals.
- ++ Calves or youngstock that are introduced into the herd or rearing unit are only sometimes introduced as batches and kept in stable groups.
- ++ Visitors are sometimes allowed to enter the animal areas of your farm or have contact with the cattle (unless they are dressed in clean protective clothing and their boots have been disinfected in approved disinfectant).
- ++ You sometimes visit other farms or have contact with other cattle without wearing protective clothing and disinfecting before returning to your farm.
- + You purchase calves or youngstock directly from one or two breeding farms as suppliers of youngstock.

Continue assessing risks of other diseases | Continue by assessing risk of this disease spreading

Risks of spread: Housing risks

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This page is used to estimate your biosecurity risks related to:
 * Housing risks for Bovine pneumoniae complex.

Q1: Is the natural ventilation of the housing adequate as determined by provide 6 – 10 air changes per hour, or the results of smoke tests?
 Adequate
 Inadequate

Q2: Do housed youngstock at risk of respiratory disease have adequate air space volume in accordance with the recommendations in the air space calculator?
 Not housed
 Adequate
 Inadequate
[See Air and floor space calculator.](#)

Q3: Do housed youngstock at risk of respiratory disease have adequate floor space area in accordance with the recommendations in the floor space calculator?
 Compensated
 Adequate
 Inadequate
[See Air and floor space calculator.](#)

Q4: Does any mechanical ventilation system provide adequate air exchange: at least 30m³ of air exchange per hour per housed animal during winter months and / or at least 70m³ of air exchanger per hour per housed animal during summer months?
 Compensated
 Adequate
 Inadequate
 Not present

Submit then continue Submit then view risks Submit then return to home Cancel changes and return to home page

This form is slow to submit, please wait.

Herd: M12041 'Balty' herd at the 'SWIRLI Berris Farm' farm.
 myhealthyherd.com@ Ltd. 519 Saffron Lane, Leicester LE2 6UL, UK

Dairy Bovine pneumoniae complex
 v3.58a 5 July 2011

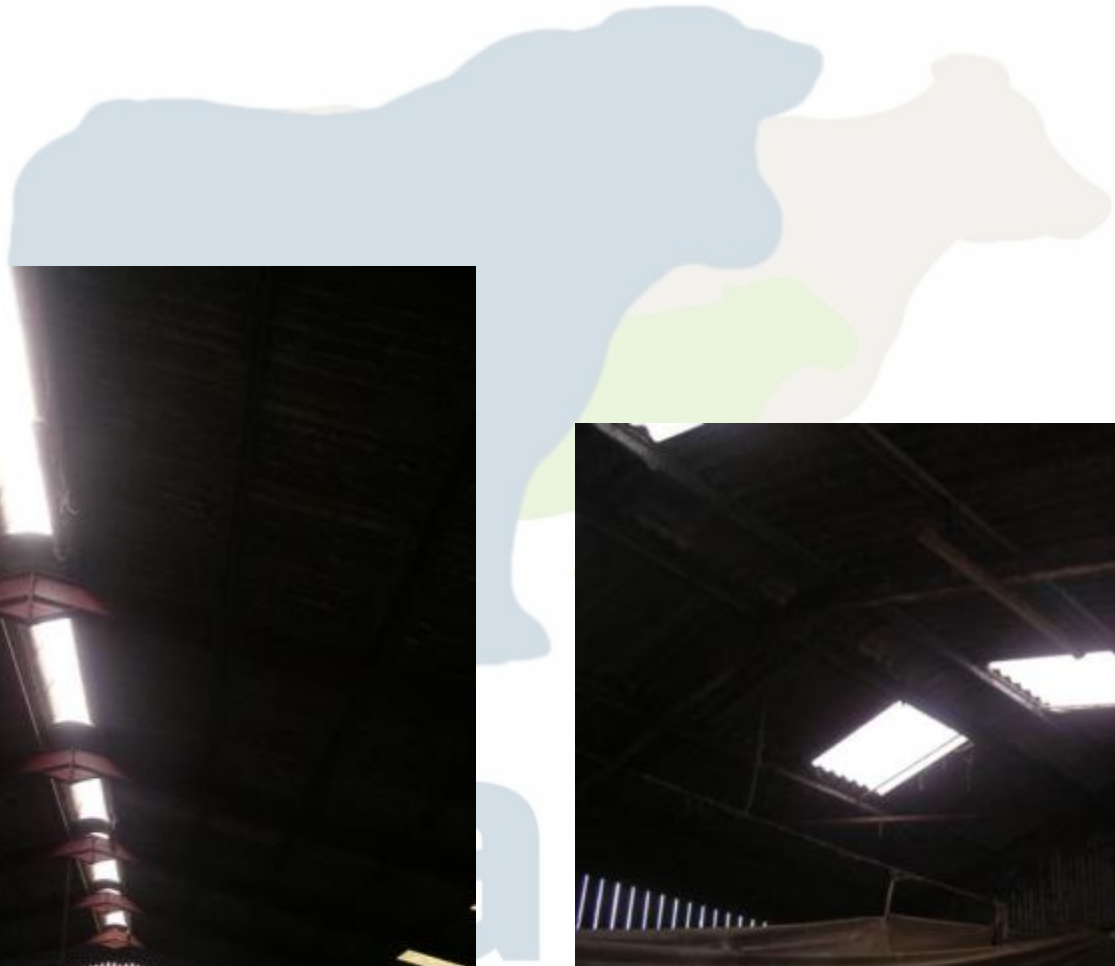
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This page is used to calculate the area and volume of a building and establish whether it is suitable for the number of animals.

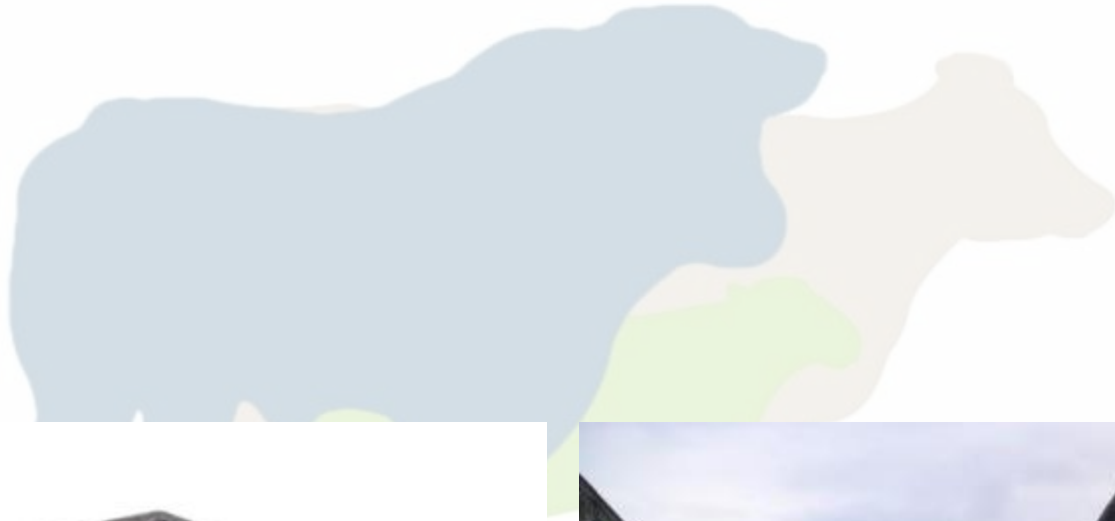
| | | | |
|---------------------------------|-----|--|--|
| Length (metres) | 25 | | |
| Depth (metres) | 15 | | |
| Height to eaves (metres) | 3 | | |
| Height to ridge (metres) | 5 | | |
| Height between inlet and outlet | 2 | | |
| Outlet area | 8 | | |
| Outlet percent holes | 100 | | |
| Inlet area | 50 | | |
| Inlet percent holes | 20 | | |
| N animals 0 - 50kg | 20 | | |
| N animals 60 - 90kg | 40 | | |
| N animals 100 - 140kg | 20 | | |
| N animals 150 - 190kg | 10 | | |
| N animals 200 - 290kg | 10 | | |
| N animals 300 - 490kg | 10 | | |
| N animals 500 - 690kg | 10 | | |
| N animals 700 - 990kg | 10 | | |
| N animals >= 900kg | 0 | | |

| Parameter | Required | Actual | Pass/Fail |
|-----------------------|----------|--------|-----------|
| Air space volume | 1595.0 | 1900.0 | Fail |
| Floor space area | 225.0 | 375.0 | Pass |
| Effective outlet area | 5.3 | 8.0 | Pass |
| Effective inlet area | 10.8 | 10.0 | Fail |





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Resilience risks

Resilience, natural or acquired

Husbandry factors are important

Control strategies may be based on resilience if these are shown to be the biggest risks

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This page is used to estimate your biosecurity risks related to:
* Resilience risks for Bovine pneumonia complex

Q1 Are calves given at least 3 litres of colostrum at birth or within six hours of birth?

Q2 Are calves provided with colostrum for at least four days after birth?

Q3 Do calves receive a diet that is appropriate and provides all their nutritional needs to maintain good health and vitality?

Q4 Are calves fed ad lib milk such that the drainage and ventilation of the housing is compromised?

Q5 Are calves and youngstock gradually exposed to respiratory pathogens to allow them to build natural resistance without compromising their health?

Q6 Are calves and youngstock properly vaccinated in accordance with the vaccination plan?

Q7 Do calves suffer from any concurrent disease that may affect their resilience to respiratory disease?

Q8 Are calves disbudded and / or castrated by a trained stockman skilfully and at a time that may compromise their resilience to respiratory disease?

Q9 Are calves or youngstock transported in a way or at a time that may compromise their resilience to respiratory disease?

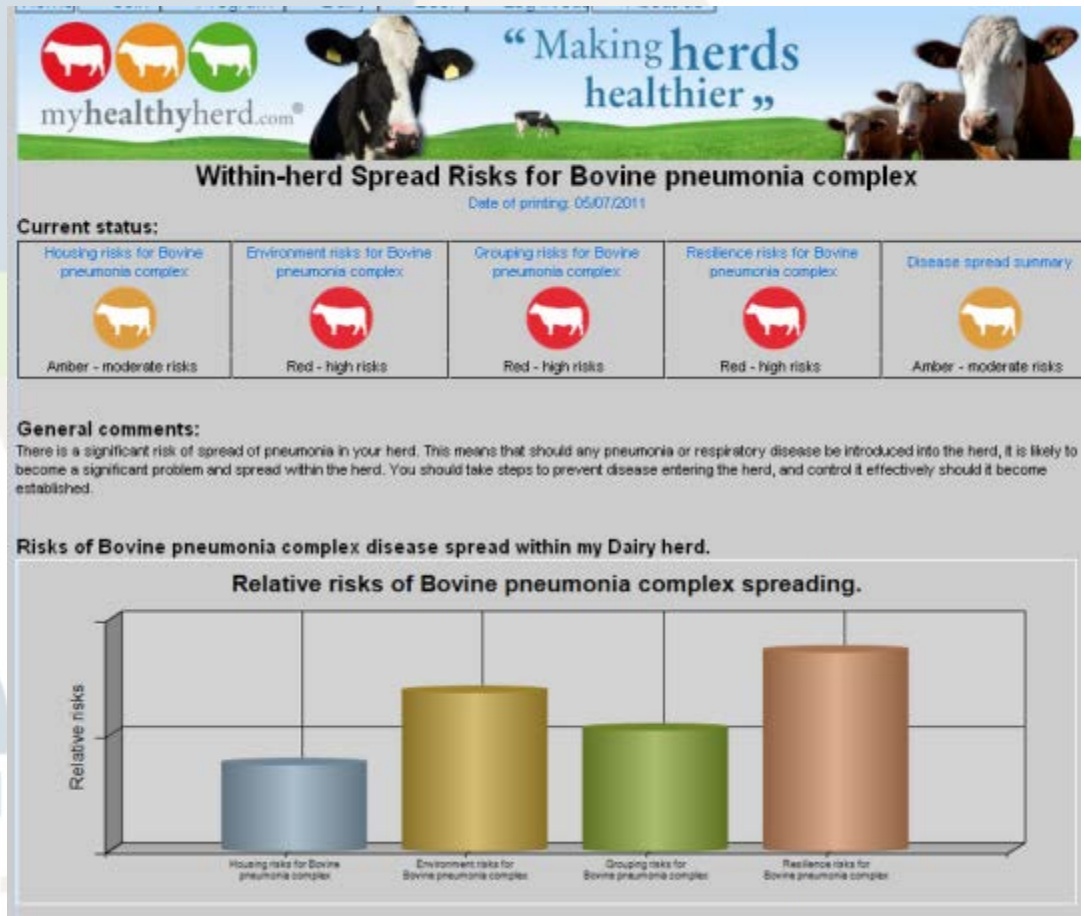
Submit then continue | Submit then view risks | Submit then return to home | Cancel changes and return to home page

Risks of spread

This summary will be the main discussion document leading to a prevention and control plan

Skills will be required to get to this point.

Three hours of your time is allocated to get here



Biosecurity planning

- The prevention of disease coming in to the herd
- Risk reduction rather than risk elimination
- Identify the hazards and manage them

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This page lets you approve the tasks suggested by the strategies you choose.

| Title | Description | Recurrence | Rating | Use |
|--|---|------------|--------|--------------------------|
| Quarantine | Any calves or youngstock introduced into the herd are to be kept in quarantine, isolated in their own air space, until shown to be of low risk to the rest of the herd. | Every time | **** | <input type="checkbox"/> |
| Observe quarantine stock | All calves or youngstock in quarantine or isolation are to be observed daily and any showing signs of respiratory disease are to be marked, recorded and treated appropriately in accordance with the pneumonia treatment plan. | Daily | **** | <input type="checkbox"/> |
| Examine and record all quarantined animals | All animals kept in quarantine to reduce the risks of disease entry are to be examined daily for temperature, respiratory rate and any clinical signs indicative of respiratory disease. Any affected animals are to be marked, recorded and treated appropriately in accordance with the pneumonia treatment plan. | Daily | **** | <input type="checkbox"/> |
| Vaccination | All incoming calves and youngstock are to be properly vaccinated in accordance with the respiratory disease vaccination plan. | Every time | **** | <input type="checkbox"/> |
| User specified | Vet specified task | Once | **** | <input type="checkbox"/> |
| User specified | Vet specified task | Once | **** | <input type="checkbox"/> |
| User specified | Vet specified task | Once | **** | <input type="checkbox"/> |
| User specified | Vet specified task | Once | **** | <input type="checkbox"/> |

Continue, use selected tasks Reassess strategy Cancel Return to home page

Herd: MHC041 Dairy herd at the 'SWHLI Deano Farm' farm.
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Dairy Bovine pneumonia complex
v3.56p 5 July 2011

Biosecurity plan

- Like all good health Plans:
- V = Valued
- E = Effective
- S = Specific
- P = Practical
- A = Agreed

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Bovine pneumonia complex biosecurity risks plan

Date of prep: 05/07/2011

Current status:

| | | | | |
|-----------------------------------|--------------------------------------|--------------------------------|---------------------------------|--|
| Disease-entry risk status: Red | Disease-spread risk status: Amber | Vaccination status: Unknown | Surveillance status: Unknown | Current disease status: Unknown - high risk disease or unknown status |
|-----------------------------------|--------------------------------------|--------------------------------|---------------------------------|--|

Your intentions:
You aspire to:

Control strategy:
* Isolation and vaccination: Isolation and quarantine of introduced stock, with appropriate vaccination to minimise disease in high risk stock.

Plans and actions:

| Task title, description and notes | |
|---|--|
| Quarantine * Any calves or youngstock introduced into the herd are to be kept in quarantine, isolated in their own airspace, until shown to be of low risk to the rest of the herd. | |
| Observe quarantine stock * All calves or youngstock in quarantine or isolation are to be observed daily and any showing signs of respiratory disease are to be marked, recorded and treated appropriately in accordance with the pneumonia treatment plan. | |
| Examine and record all quarantined animals * All animals kept in quarantine to reduce the risks of disease entry are to be scanned daily for temperature, respiratory rate and any clinical signs indicative of respiratory disease. Any affected animals are to be marked, recorded and treated appropriately in accordance with the pneumonia treatment plan. | |
| Vaccination * All incoming calves and youngstock are to be properly vaccinated in accordance with the respiratory disease vaccination plan. | |

Surveillance Plan

What disease is present in the herd?

How do you find out?

- Count
- Assess
- Get a better system
- Specific diagnoses

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Bovine pneumonia complex surveillance plan

Date of printing: 05/07/2011

Current status:

| | | | | |
|---|--|--|--|--|
| Disease-entry risk status:  Red | Disease-spread risk status:  Amber | Vaccination status:  Unknown | Surveillance status:  Green - good reliability | Current disease status:  Unknown - high risk disease or unknown status |
|---|--|--|--|--|

Your intentions:

| | |
|----------------|------------|
| You aspire to: | Green open |
|----------------|------------|

Control strategy:

- * Clinical cases and Post Mortem Observation, examination and recording of all clinical cases and any animals in contact with clinical cases, or those at particularly high risk. Post mortem examination of all deaths or culls due to respiratory disease. 🔗
- * Convalescent serology Serological examination of selected cases that have been exposed to any endemic pathogens. 🔗
- * Examination of incoming stock Clinical examination of all incoming stock whilst in quarantine 🔗

Plans and actions:

| Task title, description and notes | |
|--|---|
| * Post mortem examination * Deaths and culls due to respiratory disease are to be examined post mortem and the diagnosis confirmed with any necessary further investigations to determine causal pathogens. Results are to be recorded. | 🔗 |
| Convalescent serology * Blood samples are to be taken from sentinel animals, being those that have been exposed to any causal pathogens or endemic disease for a time that would effect a significant serological response, and tested for antibody to specific respiratory pathogens. | 🔗 |
| Examine and record all quarantined animals * All animals kept in quarantine to reduce the risks of disease entry are to be examined daily for temperature, respiratory rate and any clinical signs indicative of respiratory disease. Any affected animals are to be marked and recorded. | 🔗 |
| Examine and record clinical cases * Examine all animals affected with respiratory disease and record clinical signs including temperature, respiratory rate and other relevant clinical signs. All affected animals are to be marked and recorded. | 🔗 |
| Examine and record animals in contact * Examine all animals in contact with animals with respiratory disease and record any clinical signs including temperature, respiratory rate and other relevant clinical signs. Any affected animals are to be marked and recorded. | 🔗 |
| Treatments * All treatments for respiratory disease are to be recorded, including reasons for treatment, clinical signs, and treatments given. Response to treatment is to be observed and recorded. | 🔗 |
| * Deaths and culls * All deaths and culls for respiratory disease are to be recorded, including any clinical signs prior to death or cull. | 🔗 |

Prevalence and risk prediction

Set priorities and create a starting point

What is likely to happen if you do nothing?

Knowing is not enough




The screenshot shows the myhealthyherd.com website interface. At the top, there is a navigation bar with links for Home, Join, Program, Dairy, Beef, Log in/out, and About us. Below the navigation bar is a header image with the text "Making herds healthier" and the myhealthyherd.com logo. The main content area is titled "Understanding your herds prevalence" and includes a sub-link "Explain prevalence". The text below states: "The percent of your herd identified with signs of pneumonia is 9.1%, which suggests approximately 9.1% are infected. In the future if your risks remain unchanged the herd prevalence is likely to be similar." A table follows, comparing actual test prevalence, estimated true prevalence, and the estimated change in prevalence if risks remain unchanged. The table shows that both actual and estimated prevalence are 9.1%, and the estimated change is zero, indicated by a double-headed arrow. Below the table, there is a section titled "Future predictions and control" which states: "In the future, your bovine pneumonia complex prevalence is likely to be similar." This is followed by a bold instruction: "Discuss your results with your vet and create a vet myhealthyherd control plan for your herd." A disclaimer states: "The myhealthyherd disease predictor is designed to provide guidance only and is designed for you to discuss these findings with your vet. Please refer to Terms and Conditions." At the bottom of the page, there are four buttons: "Continue" (highlighted with a red box), "View prevalence report", "Change prevalence", and "Return to home page". The footer contains the text: "Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm. myhealthyherd.com Ltd: 519 Saffron Lane, Leicester LE2 6UL, UK" and "Dairy Bovine pneumonia complex v3.56p 5 July 2011".

| Actual % of herds testing positive, ie test prevalence | Estimated % of herd infected, ie true prevalence | Estimated change in prevalence with current risk unchanged |
|--|--|--|
| 9.1% | 9.1% | ↕ |

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Control strategies

Home | Join | Program | Dairy | Beef | Log in/out | About us



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“Making herds healthier”

Select a strategy for Bovine pneumonia complex disease-control in dairy herds. The strategy you select will enable you to change your risk status to that indicated in the strategy title. The strategy will create specific tasks for you to complete, and so improve your biosecurity. ?

| Title | Description | Suitable for | Use |
|------------------------------|---|---|----------------------------|
| Total Risk management | Use of management and husbandry to control risks of entry and spread of respiratory disease. | Low or medium prevalence herds where risk management can be effective | ? <input type="checkbox"/> |
| Resilience | Use of youngstock husbandry to improve resilience to respiratory disease in animals at risk. | Low or medium risk herds with good housing | ? <input type="checkbox"/> |
| Vaccination | Use of strategic vaccination along with management and husbandry to manage the spread of respiratory disease. | Medium or high prevalence herds where risk management alone not effective | ? <input type="checkbox"/> |

Submit strategy and create new plan | Cancel | Return to home page

Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm. Dairy Bovine pneumonia complex
 myhealthyherd.com® Ltd: 519 Saffron Lane, Leicester LE2 6UL, UK v3.56p 5 July 2011

Control tasks

Home | Join | Program | Dairy | Beef | Log in/out | About us



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This page lets you add notes to tasks you have selected. Generally this is not required, however it is essential for 'vet specified' tasks.

New note to be attached to task:

| Title | Description | Notes | Add note |
|----------------------|--|-------|--|
| Ventilation | Each calf will be provided with clean air by means of proper ventilation of the shed. | | <input type="button" value="Add note here"/> |
| Air changes | Ventilation will be designed and managed such that there will be 6 – 10 air changes per hour in the housing. | | <input type="button" value="Add note here"/> |
| Airspace | Each animal in the housing will be provided with adequate airspace in accordance with current recommendations. | | <input type="button" value="Add note here"/> |
| Bedding | Every housed animal will be provided with clean dry bedding at all times | | <input type="button" value="Add note here"/> |
| Draughts | Draughts at animal level will be minimised by proper ventilation to ensure adequate air movement without draught | | <input type="button" value="Add note here"/> |
| Drainage | Bedded areas will be properly drained to ensure that the beds remain dry and there is no standing water or wet bedded areas where calves may lie | | <input type="button" value="Add note here"/> |
| Humidity | Air humidity levels will be maintained to ensure that relative humidity does not exceed 75% | | <input type="button" value="Add note here"/> |
| Condensation | Ventilation will be managed to ensure that there is no condensation dripping on to youngstock, or into the bedded areas | | <input type="button" value="Add note here"/> |
| Numbers per airspace | There will not be more than 40 young animals in any one airspace | | <input type="button" value="Add note here"/> |
| Concurrent diseases | Diseases that may predispose calves and youngstock to respiratory diseases, such as enteric diseases, endo-parasites and ecto-parasites, immunosuppressive diseases such as BVD, will be adequately controlled | | <input type="button" value="Add note here"/> |

Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm. Dairy Bovine pneumonia complex

Vaccination

- Judgement of necessity - samples
- Strategy and specific vaccination plan
 - Initial courses
 - Boosters
 - Records and reminders
- Getting it right – 40% of vaccines are used incorrectly

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The control plan

Concentrate on risk management

Vaccines alone are unlikely to work

Vaccine compliance is not good

Skill and judgements are required

VESPA

Home | Join | Program | Dairy | Beef | Log in/out | About us

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“Making herds healthier”

Bovine pneumonia complex disease-control plan

Date of printing: 05/07/2011

Current status:

| | | | | |
|--|---|---|---|---|
| Disease-entry risk status: Red | Disease-spread risk status: Amber | Vaccination status: Unknown | Surveillance status: Green - good reliability | Current disease status: Unknown - high risk disease or unknown status |
|--|---|---|---|---|

Control strategy:

- * Total Risk management: Use of management and husbandry to control risks of entry and spread of respiratory disease.
- * Vaccination: Use of strategic vaccination along with management and husbandry to manage the spread of respiratory disease.

Plans and actions:

| Task title, description and notes | |
|--|--|
| Ventilation Each calf will be provided with clean air by means of proper ventilation of the shed. | |
| Air changes Ventilation will be designed and managed such that there will be 6 – 10 air changes per hour in the housing. | |
| Air space Each animal in the housing will be provided with adequate airspace in accordance with current recommendations. | |
| Bedding Every housed animal will be provided with clean dry bedding at all times | |
| Draughts Draughts at animal level will be minimised by proper ventilation to ensure adequate air movement without draught | |
| Drainage Bedded areas will be properly drained to ensure that the beds remain dry and there is no standing water or wet bedded areas where calves may lie | |
| Humidity Air humidity levels will be maintained to ensure that relative humidity does not exceed 75% | |
| Condensation Ventilation will be managed to ensure that there is no condensation dripping on to youngstock, or into the bedded areas | |
| Animals per airspace There will not be more than 40 young animals in any one airspace | |
| Concurrent diseases Diseases that may predispose calves and youngstock to respiratory diseases, such as enteric diseases, endo-parasites and ecto-parasites, immunosuppressive diseases such as BYD, will be adequately controlled | |

Progress

The progress page will tell you (and Healthy Livestock) where you are

Keep up with progress

Progress is not possible without change

Funding will help, but is not the solution

The screenshot displays the 'myhealthyherd.com' website interface. At the top, there is a navigation bar with links for Home, Join, Program, Dairy, Beef, Log in/out, and About us. Below this is a banner with the slogan "Making herds healthier" and a photo of cows. The main content area is titled "Progress with Bovine pneumonia complex questionnaires:" and contains five columns of progress indicators:

| Disease entry risks from cattle | Disease entry risks from people | Disease entry risks from objects | Disease entry risks from Bovine pneumonia complex | Disease spread risks from Bovine pneumonia complex |
|---------------------------------|---------------------------------|----------------------------------|---|--|
| Red - high risks | Red - high risks | Green - low risks | Red - high risks | Amber - moderate risks |
| Update View | Update View | Update View | Update View | Update View |

Below this is the "Bovine pneumonia complex continued:" section with five columns:

| Biosecurity plan | Vaccination status | Surveillance plan | Disease control plan | Disease prevalence |
|------------------|--------------------|-------------------|----------------------|--------------------|
| Plan present | Not required | Plan present | Plan present | Similar |
| Update View | Update View | Update View | Update View | Update View |

The "Bovine pneumonia complex recorded history:" section shows:

| | | |
|--------------------------------|--------|------|
| Recent surveillance entries: 0 | Update | View |
| Recent vaccination entries: 0 | Update | View |

At the bottom, there are links for "More Bovine pneumonia complex" and "Return to home page". The footer contains the text: "Herd: MH2041 'Dairy' herd at the 'SWHLI Demo Farm' farm. myhealthyherd.com Ltd: 519 Saffron Lane, Leicester LE2 8UL, UK Dairy Bovine pneumonia complex v3.58p 5 July 2011".

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Thank you for listening



Any questions or to book a visit call:

01752 892 700