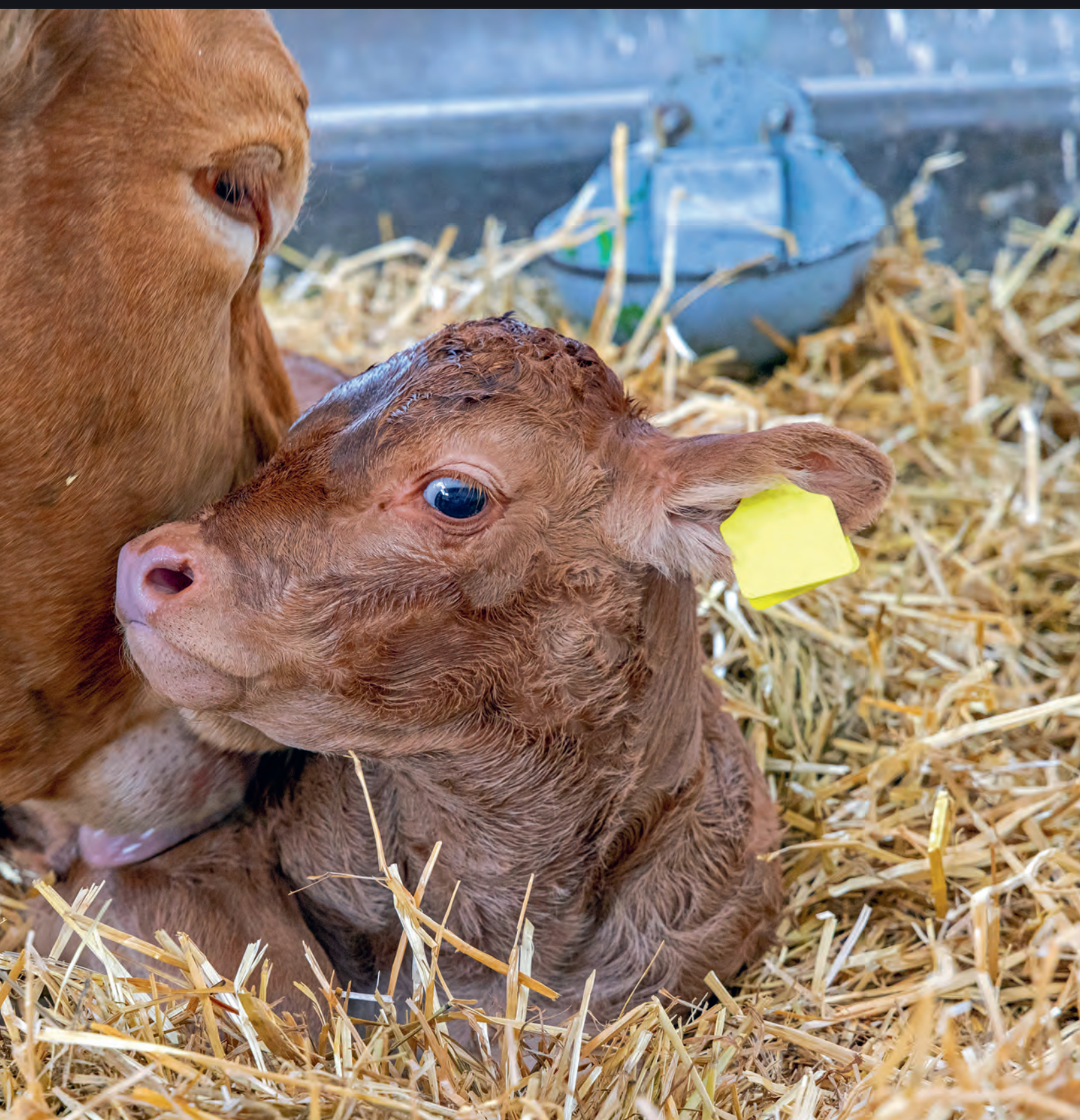
EVANS VANODINE
YOUNGSTOCK HYGIENE



INTRODUCTION

For over 100 years, Evans Vanodine has led the innovation of disinfectants and hygiene solutions, supporting livestock producers in protecting animal health and profitability through best-practice biosecurity.

POOR HYGIENE AND EARLY-LIFE DISEASE MANAGEMENT CAN HAVE A SIGNIFICANT ECONOMIC IMPACT ON UK FARMS:

CALF MORTALITY: Around 15% of dairy heifers die before first calving. With rearing costs at approximately £1,320 per animal, this represents a loss of £130-£200 per calf.

LAMB MORTALITY: Up to 20% of lambs die before weaning, with half of these losses occurring in the first 48 hours - often due to infection and poor hygiene.

CRYPTOSPORIDIOSIS: This protozoal infection, linked to poor hygiene and environmental contamination, affects up to 80% of UK farms, costing an estimated £130-£200 per affected calf due to treatment, labour, and lost growth potential. Cryptosporidium oocysts are highly resistant to many disinfectants - but can be effectively controlled through targeted cleaning and disinfection protocols.

IMPLEMENTING ROBUST BIOSECURITY AND HYGIENE PRACTICES DIRECTLY REDUCES DISEASE RISK AND IMPROVES PERFORMANCE:

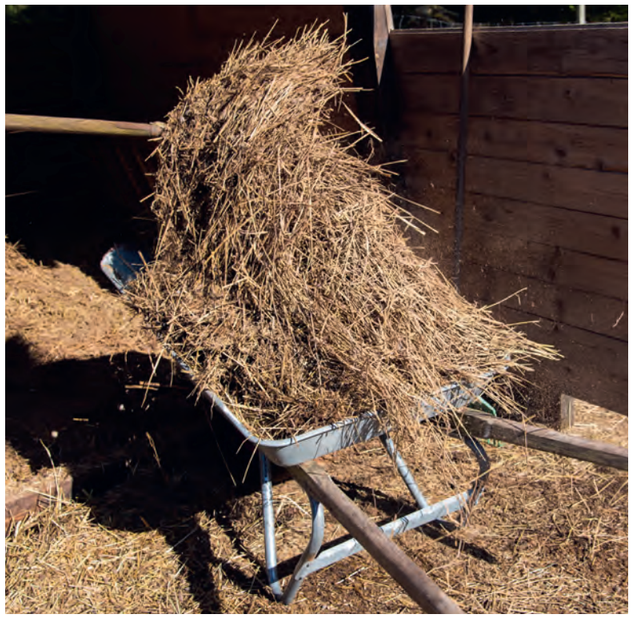
DISEASE REDUCTION: Proper cleaning and disinfection cut pathogen load, preventing bacterial and viral outbreaks such as E. Coli scours, rotavirus, and pneumonia.

LOWER VETERINARY COSTS: Healthy animals require fewer treatments and interventions, reducing reliance on antibiotics and vet visits.

IMPROVED GROWTH RATES: Clean environments support stronger immune development and better feed conversion - maximising early-life growth potential.

GREATER PROFITABILITY: Fewer losses, improved welfare, and better productivity all contribute to stronger margins and long-term sustainability.

Good biosecurity starts at the farm gate and continues through every stage of rearing. With Evans Vanodine's science-led solutions, farms can reduce disease pressure, protect youngstock, and enhance overall profitability.



CONTENTS

PRODUCTS

DETERGENTS

Shift™
Multi-Use Surfactant-Based Foaming Detergent

5 L · 25 L · 200 L · 1000 L

- Non-corrosive in-use formulation.
- Can be applied as a spray, or as a foam for improved performance.
- Rapidly removes soiling without relying on abrasive caustic chemicals.
- Suitable for cleaning animal housing, buildings, vehicles and equipment.
- Added sequestrants for improved cleaning in all water hardness levels.

Target™ Powergel
Advanced Heavy-Duty Alkaline Gel Detergent

5 L · 25 L · 200 L · 1000 L

- For rapid removal of difficult to remove organic soiling.
- Suitable for all types of livestock housing surfaces, and highly soiled food processing areas.
- Added sequestrants for improved cleaning in all water hardness levels.
- Gel technology to be applied with or without a foam lance for simple application.
- Ideal for all types of pressure washers.

TSR 100
Traffic Soil Remover

5 L · 25 L · 200 L

- Powerful, heavy-duty detergent for use with all types of high-pressure power wash machines.
- Removes road film, grease and soiling from vehicle bodywork.
- Use on heavy goods vehicles, farm machinery and equipment, including tractors, quad bikes and calf trailers.
- Quick and effective cleaning action.
- Can also be used for power washing floors and walls.

Q'det™
Unperfumed Liquid Detergent

1 L · 5 L

- Superior, unperfumed washing up liquid.
- Easily removes heavy soil and grease.
- Contains foam boosters to provide a rich, long-lasting foam.
- Concentrated for greater economy.
- Suitable for the general cleaning of floors, walls and hard surfaces.

DISINFECTANTS

FAM® 30
Multi-Purpose Iodophor Biosecurity and Surface Disinfectant

1 L · 5 L · 25 L · 200 L · 1000 L

- DEFRA Approved (Foot & Mouth, TB and General Orders).
- Active in the presence of organic matter and proven to kill pathogens on porous surfaces.
- Can be foamed for greater coverage, contact time and visible application.
- Long-lasting activity is ideal for reused solutions; boot baths, boot mats and wheel baths.
- Non-toxic, non-carcinogenic, and not a respiratory sensitiser.
- Authorised Biocide.

GPC8™
Glutaraldehyde and Twin Chain QAC-Based Disinfectant

5 L · 25 L · 200 L · 1000 L

- DEFRA approved (Foot & Mouth, and General Orders).
- Rapid action against bacteria, yeast, viruses and fungi in the presence of organic matter.
- Can be foamed for greater coverage, contact time and visible application.
- Prolonged residual activity.
- Non-corrosive and non-staining.
- For use with fogging machines.

Vanodox® Formula
Peracetic Acid-Based Disinfectant

10kg · 22kg

- DEFRA approved (Foot & Mouth and General Orders).
- Highly effective against bacteria, viruses and fungi.
- Non-staining and economical in use.
- Ideal for use in intensive livestock housing and youngstock pens.
- Surfactant-assisted formulation.
- Can be used for continuous dosing - dilution of 1:10,000 through an automated dosing system.

Peradox™
Peracetic Acid Based Circulation and Surface Disinfectant

22kg · 222kg · 1000kg

- DEFRA Approved (Foot & Mouth, TB and General Orders).
- Used for disinfecting a wide range of in-place circulation systems.
- Effective against a wide range of bacteria, viruses and fungi which may be present in youngstock pens.
- Passes EN 1656.
- Fast-acting 15 second contact required, economical in use.
- Can be used for continuous dosing - dilution of 1:10,000 through an automated dosing system.

PERSONAL HYGIENE

Handsan™
70% Alcohol-based Hand Disinfectant

500ml · 5 L

- Kills a range of bacteria, enveloped viruses and yeast passes EN 1500.
- Passes EN 1276 and EN 13727 with a 30 second contact time.
- Passes EN 14476 against enveloped viruses with a 1 minute contact time.
- Quickly evaporates without residue, added moisturiser to protect skin.
- Use when soap and water are unavailable.

Citrand™
Heavy-Duty Hand Gel with Olive Seed

5 L

- Quickly removes grease, oil and grime from the hands.
- Contains a natural exfoliant to remove difficult soiling.
- Ideal in garages, workshops on farms and general industry.
- Refreshing citrus fragrance.

Trigon® Plus
Unperfumed, Bactericidal Hand Wash

500ml · 5 L

- Passes EN 1499, EN 13727 and EN 1276; kills 99.999% of bacteria.
- Unperfumed, ideal for use before and after touching animals.
- Helps prevent the risk of cross contamination.
- Contains moisturising ingredients; ideal for frequent hand washing.

Search® Laundry Liquid
Laundry Liquid

5 L

- Low-foaming and phosphate-free.
- Removes heavy stains, soil and odours from fabrics.
- Contains optical brighteners.
- Outstanding washing ability at all temperatures.
- Suitable for hand washing.
- For automatic laundry machines.
- Use in conjunction with Search Fabric Conditioner.

BOVINE YOUNGSTOCK BIOSECURITY PROTOCOL

CALF REARING

PROTECTING CALF HEALTH AND MAXIMISING LIFETIME PERFORMANCE.

Up to 15% of dairy heifers are lost before first calving, costing farms an average of £130-£200 per animal. Most losses occur in the first six weeks and are strongly linked to preventable infections. A robust biosecurity system is essential to reduce these losses and safeguard productivity.

1 VISITOR CONTROL

- Restrict entry to calf sheds. Visitors must wear PPE and use boot dips.
- Maintain a visitor log and enforce clear hygiene rules.

Calf units are high-risk zones for introducing pathogens like rotavirus and cryptosporidium.

2 VEHICLE DISINFECTION

- Spray vehicle wheels and undercarriages with **FAM 30 at 1:100**.
- Essential for milk tankers, livestock hauliers, slurry trailers, vet transport and anyone visiting farms frequently.

Cryptosporidium oocysts can be carried on tyres and undercarriages.

3 HAND HYGIENE

- Provide hot water and soap near calf pens.
- For heavy soiling use **Citrand**, for light soiling use **Trigon Plus** then sanitise with **Handsan**.

Hand contact is a major route of disease transmission, especially when handling colostrum.

4 PPE USE

- Use dedicated gloves, coveralls, and boots in calf housing.
- Wash or disinfect PPE before entering other units.

Cross-contamination from adult cow sheds can introduce harmful bacteria like salmonella.

5 BOOT BATHS

- Implement two-stage disinfection at all entry points.
- Best practice is one bath of **Shift at 1:100** to clean, and one bath of **FAM 30 at 1:100** to disinfect. Change regularly.

Footwear easily spreads manure-borne pathogens into calf pens.

6 PEN CLEANING BETWEEN BATCHES

- Remove all waste bedding and muck.
- Clean with **Target Powergel or Shift** and disinfect using **GPC8 at 1:50–1:200**.
- Allow areas to dry fully before re-entry.

Dry environments reduce the survival of E. coli and cryptosporidium.

7 FEEDING EQUIPMENT AND TEAT HYGIENE

- Wash teats, feeders, buckets with **Shift at 1:250** or **Q'Det**.
- Disinfect with **Peradox at 1:200**.

Dirty feeding gear is a primary source of oral infection in calves.

8 TAGGING/DRENCHING EQUIPMENT

- Clean with **Q'Det**, disinfect with **Peradox at 1:200**.

Reusable equipment can carry bacteria between calves.

9 BEDDING AND ENVIRONMENT

- Change bedding daily (straw or sawdust).
- Monitor moisture and ammonia to reduce respiratory issues.

Wet bedding increases pneumonia risk and suppresses immunity.

10 AIRFLOW AND TEMPERATURE CONTROL

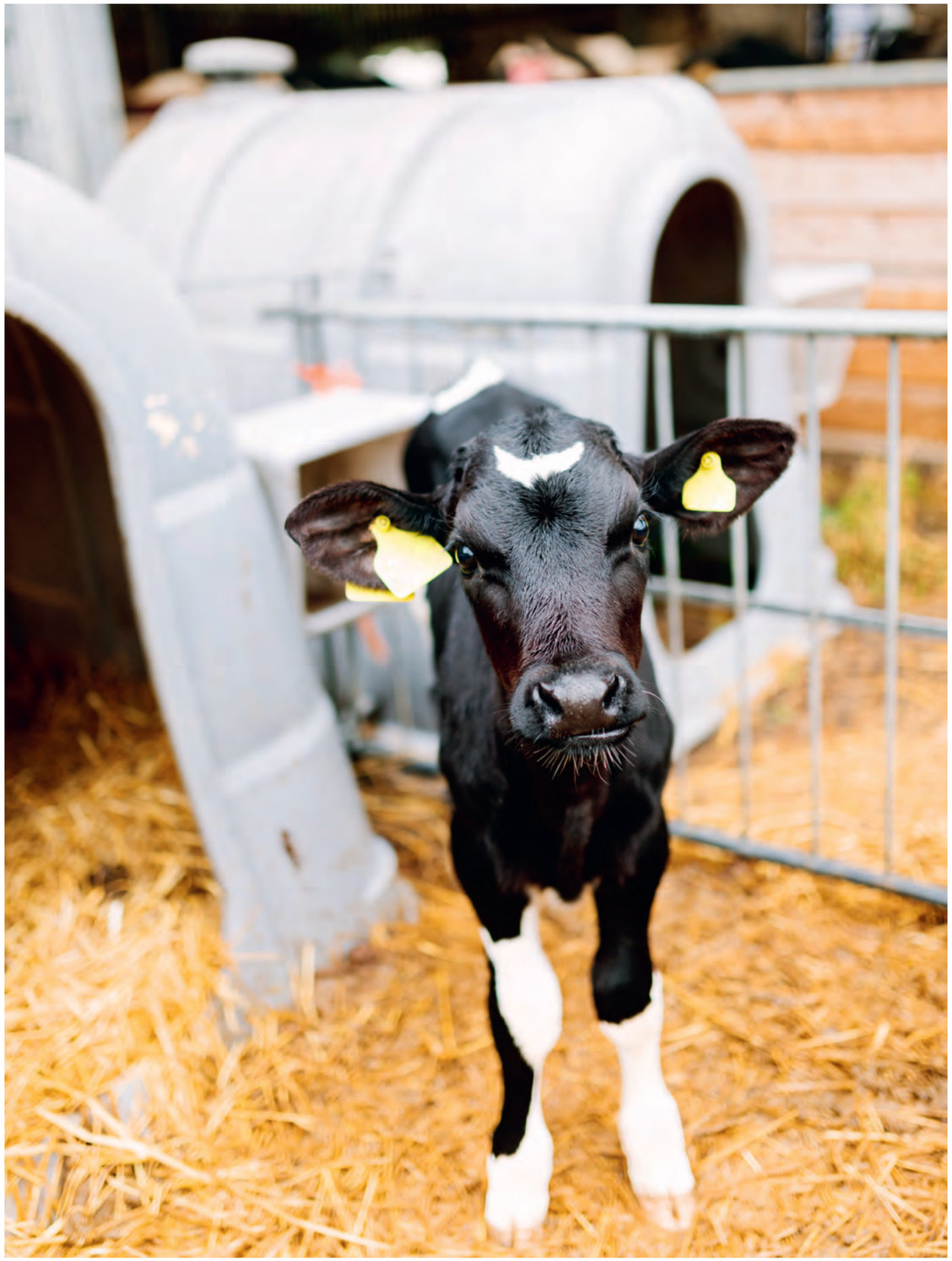
- Ensure proper ventilation and avoid draughts.
- Maintain temperature between 10–20°C to reduce stress.

Calves are highly susceptible to pneumonia in cold or damp conditions.

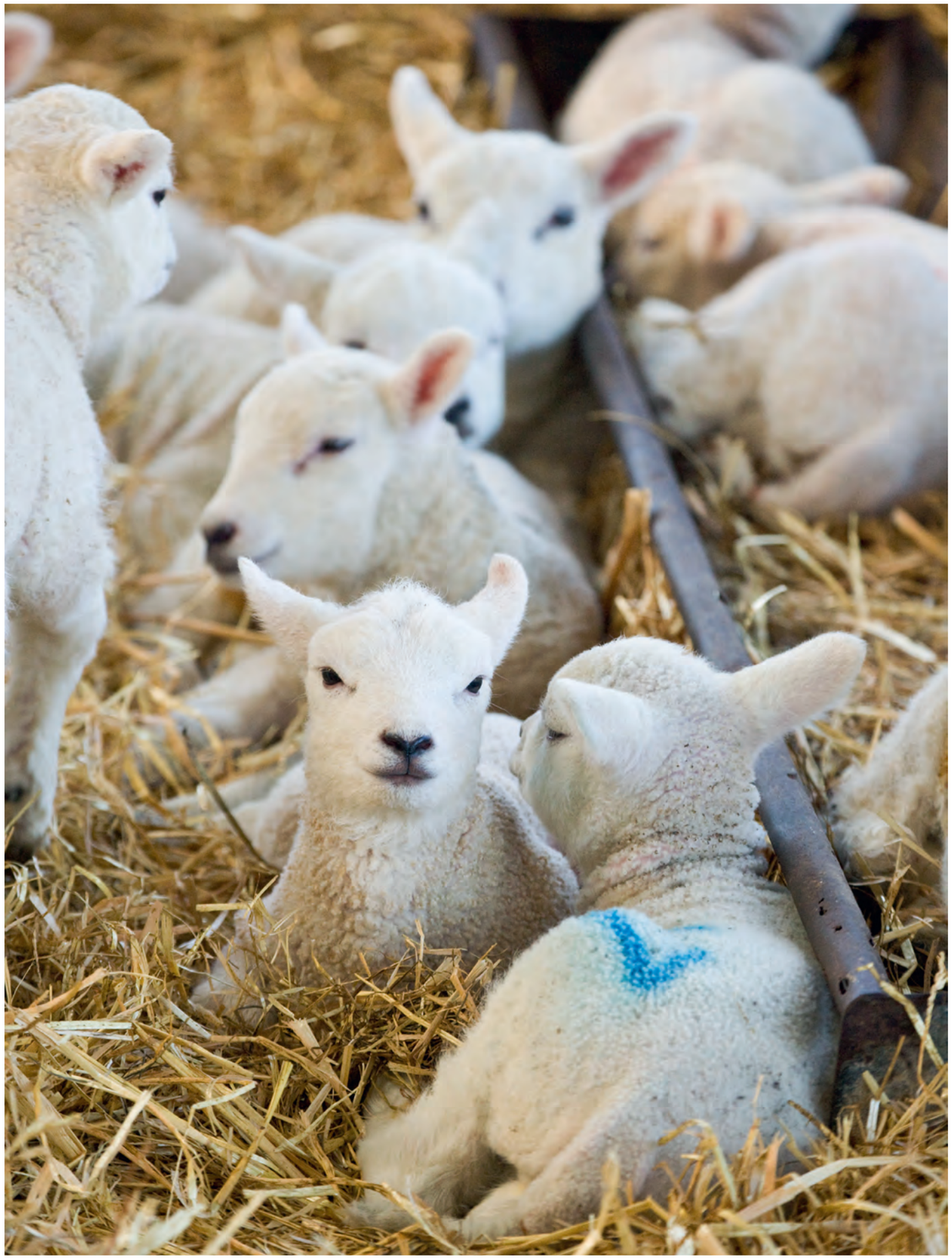
11 SHARED EQUIPMENT HYGIENE

- Clean shared tools with **Shift/Q'Det** and disinfect with **Peradox at 1:200**.

Even low-contact tools can transfer pathogens between pens.



OVINE YOUNGSTOCK BIOSECURITY PROTOCOL



LAMBING UNITS

PREVENTING LAMB LOSSES AND IMPROVING FLOCK PROFITABILITY

Lamb mortality can exceed 20%, with half of losses occurring in the first 48 hours. Many of these are due to infections exacerbated by poor hygiene. Strong biosecurity during lambing protects both lambs and ewes and improves long-term flock returns.

1 VISITOR CONTROL

- Limit access to lambing sheds. All visitors must wear clean PPE and use boot dips.

Lambing sheds are high-risk for spreading clostridial bacteria and abortion-causing pathogens.

2 VEHICLE DISINFECTION

- Spray vehicle wheels and undercarriages with **FAM 30 at 1:100**.
- Pay special attention to feed lorries, shearers' vehicles, vet transport and anyone visiting farms frequently.

Campylobacter and toxoplasma can survive on tyres and boots.

3 HAND HYGIENE

- Provide handwashing stations with hot water in lambing areas.
- For heavy soiling use **Citrand**, for light soiling use **Trigon Plus** then sanitise with **Handsan** before and after handling lambs.

Hygiene is essential during assisted lambing and colostrum feeding.

4 PPE USE

- Use dedicated lambing gloves, waterproof aprons, and overalls.
- Disinfect PPE after handling sick or aborted ewes.

Zoonotic diseases like enzootic abortion and orf can spread via clothing.

5 BOOT BATHS

- Implement two-stage disinfection at all entry points.
- Best practice is one bath of **Shift at 1:100** to clean, and one bath of **FAM 30 at 1:100** to disinfect. Change regularly.

Essential for controlling foot rot and scours caused by E. coli or Salmonella.

6 PEN CLEANING BETWEEN LAMBINGS

- Remove all bedding and organic matter.
- Clean with **Target Powergel or Shift** and disinfect using **GPC8**.

Prevents environmental build-up of clostridia, pasteurella, and cryptosporidium.

7 FEEDING EQUIPMENT AND TEAT HYGIENE

- Use **Shift at 1:250** or **Q'Det** to clean feeding bottles, teats, and stomach tubes.
- Disinfect with **Peradox at 1:200** in cold water.

Contaminated teats can cause watery mouth and scour in newborns.

8 TAGGING/DRENCHING/MARKING EQUIPMENT

- Clean and disinfect between groups with **Q'Det** and **Peradox.**

Dirty equipment spreads bacteria during high-stress handling.

9 BEDDING & SHELTER

- Provide plenty of clean straw. Spot-clean daily to keep lambing pens dry.

Moist bedding is a breeding ground for bacteria causing joint ill and pneumonia.

10 VENTILATION & TEMPERATURE MANAGEMENT

- Keep sheds well-ventilated but draught-free.
- Maintain indoor lambing temps around 10–15°C.

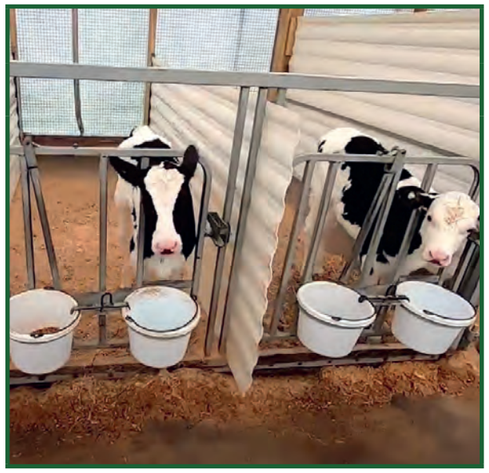
Cold-stressed lambs are more prone to hypothermia and infection.

11 SHARED EQUIPMENT HYGIENE

- Clean equipment using **Shift at 1:250** or **Q'Det.**
- Disinfect lambing aids, hurdles, buckets and other gear with **Peradox at 1:200**.
- For hygiene sensitive equipment disinfect using **FAM 30 at 1:100**.

Reusable and common items can harbour bacteria and spread illness pen-to-pen.

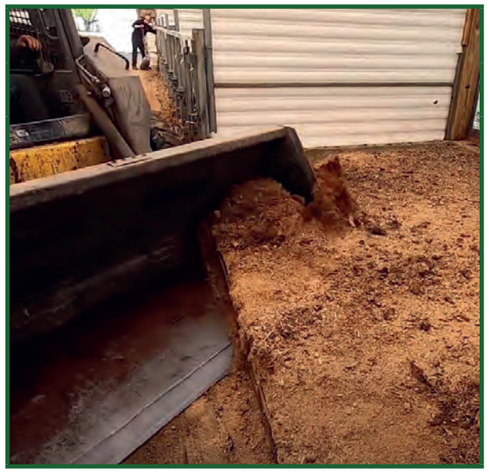
PEN HYGIENE



STAGE 1

ENSURE ALL YOUNGSTOCK AND EQUIPMENT ARE REMOVED

- All youngstock and equipment should be removed before cleaning starts.
- Removable equipment should be taken outside and soaked in a trough containing a solution of **Shift at 1:100** to remove soiling. A brush and jet wash may need to be used to remove stubborn dirt.
- After soiling has been removed equipment should be disinfected using **GPC8 at 1:100.**
- Equipment should then be dried and stored in a clean area before being returned to the cleaned and disinfected pens.



STAGE 2

REMOVAL OF BEDDING

- The bulk of bedding should be removed mechanically.
- Soiled bedding should be taken to an area away from the youngstock housing.
- Once the pen is free of the bulk of the soiled bedding, stubborn organic matter can be removed by scraping and brushing. You may need to jet wash to remove particularly stubborn matter. This will make the wash-down more effective.
- Be mindful of aerosol created by using very high-pressure spraying, as this aerosol may be contaminated with microorganisms and transmit to other areas, use lower pressure where possible.

STAGE 3

WASH-DOWN

- To wash-down the pen make up a solution of **Shift at 1:100** or for heavy soiling **Target Powergel at 1:50**. Both products are more effective applied as a foam.
- Apply to all surfaces in the pen using a spray or foaming lance, working from the bottom to the top and from the back to the front, making sure all gates are also covered. Leave for 30 minutes to ensure penetration into any remaining organic matter.
- Rinse off using a low pressure washer, working from top to bottom back to front, paying particular attention to corners and cracks.
- Leave to air dry completely before the next stage. This avoids over-diluting the disinfectant.

STAGE 4

DISINFECTION

- Make up a solution of **GPC8 at 1:50** if there is a known disease problem or **1:200** if no known problem (check microbiological profile for detailed information).
- The use of warm/hot water increases the effectiveness of the **GPC8**.
- Apply the solution of disinfectant through a sprayer to all surfaces and gates, working from bottom to top and back to front. Ensure extra coverage on corners and cracks. **GPC8** may be applied as a foam for increased adherence, coverage, and performance.
- Allow to dry. **DO NOT RINSE OFF.**

STAGE 5

RESTOCKING AFTER DISINFECTION

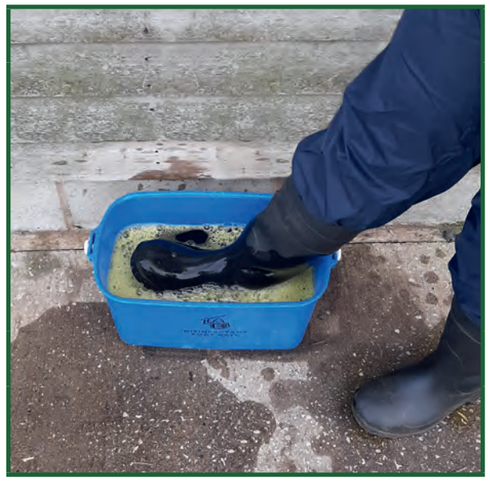
- Ensure the freshly cleaned and disinfected pens are completely dry.
- Apply lime powder, place fresh bedding into the pen and replace any disinfected equipment that was removed for the deep-clean.

GENERAL HYGIENE PRACTICES

- Keep individual and group pens as clean as possible.
- Replace bedding on a regular basis to keep organic matter to a minimum and the bedding warm and dry.
- Use isolation pens for sick animals to minimise the spread of disease.

BIRTHING PENS

- Completely clean and disinfect pens after each birth to maintain a high level of hygiene.



STAGE 6

BOOT BATHS

- Boot baths filled with **FAM 30 at 1:100** should be placed at all entrances to the calf pen area immediately after filling.
- Boot baths must be kept clean by changing the disinfectant regularly to prevent it from becoming a potential source of contamination.
- Always dip boot before entering. If boots are soiled, clean with water and a brush before using the boot bath.
- Replace the solution every 3 days (72 hours) or sooner, if the colour begins to fade or heavy soiling has been introduced.

DISINFECTION OF PATHS, ROADWAYS AND AREAS AROUND CALF HOUSING

- Keep paths and surrounding areas as clean as possible.
- Make up a solution of **FAM 30 at 1:100**. Spray or brush down these areas regularly at a rate of 300ml of solution per square metre.

FEEDING EQUIPMENT

It is vital that any milk feeding equipment is thoroughly cleaned and sanitised after every use. This will minimise bacteria levels and other pathogens from being present at the next feed.

ENSURE EQUIPMENT SUCH AS BOTTLES, TEATS, BUCKETS, HOSES, MIXING INSTRUMENTS AND STORAGE CONTAINERS ARE THOROUGHLY CLEANED AFTER EACH USE.

STAGE 1 - RINSE

Rinse equipment in lukewarm water (24-43°C) to remove dirt and milk residue by either spraying or by immersing in water. Water temperature is very important, if too hot, fat and protein from the milk residue can adhere to the surfaces which forms a film which can make disinfectants ineffective and provide a growth medium for bacteria.

STAGE 2 - WASH

Wash equipment in hot water (at least 74°C) containing **Q'det** detergent (30ml per 40L sink) by scrubbing or brushing, paying special attention to hard to reach areas e.g. rubber teats, tube feeders and milk lines DO NOT allow the water temperature to fall significantly during the wash process.
Visually check for any signs of wear and tear and replace equipment if required.

STAGE 3 - SECOND RINSE

After washing, rinse the equipment in clean, fresh water.

STAGE 4 - DISINFECT

Fill the sink with warm or cold water containing **Peradox at 1:50**, soak the equipment for a minimum of 3 minutes, the acidic solution will lower the pH on the surface of the feeding equipment. Most bacteria do not grow well under acidic conditions and bacteria counts are much lower when rinsed with an acidic disinfectant.

STAGE 5 - FINAL RINSE AND DRY

Allow the equipment to drain and air dry on racks, if possible, between feeds.
DO NOT stack buckets together before they are completely dry.
DO NOT place freshly cleaned and disinfected equipment on to the floor.

AUTOMATIC FEEDERS

TEATS:

Clean the teats using the same method used for the individual bottle teats (as above).

TANK:

After removing the teats rinse the tank or trough with lukewarm water (24-43°C) to remove dirt and milk residue by spraying.
Wash tank or trough with hot water (at least 74°C) containing **Q'det** detergent (30ml per 40L) to remove any remaining residue then rinse with clean, fresh water.
Finally using **Peradox at 1:50**, soak the tank or trough for a minimum of 3 minutes (see stage 4 above).

COCCIDIOSIS

Following 'In Vitro' field study tests carried out by the APHA (Animal and Plant Health Agency) the following cleaning and disinfection procedure was shown to reduce Coccidiosis Oocysts by over 98%

Results

	Control	Test 1 1/14 and 1/35 *2 hours Target Power Gel and GPC8	Test 2 1/14 and 1/35 *4 hours Target Power Gel and GPC8
Sporulation (%)	88	2	2
Reduction (%)	N/A	98.24	98.24
Comments	N/A	N/A	N/A

* **Additional:** Where two products were used; the first product had a contact time of 30 minutes and then the second product had a contact time of * minutes

Conclusion: Tests 1 and 2 reduced the sporulation by 98.24% when compared to the control. This indicates that the products used in test 1 and 2 are efficacious (reduction of sporulation by >95%) against the sporulation of *Eimeria* oocysts with a contact time of 30 minutes*, **at 10°C, in the presence of soiling agents and hard water.

Source: extract from APHA Scientific Parasitology Laboratory test report.

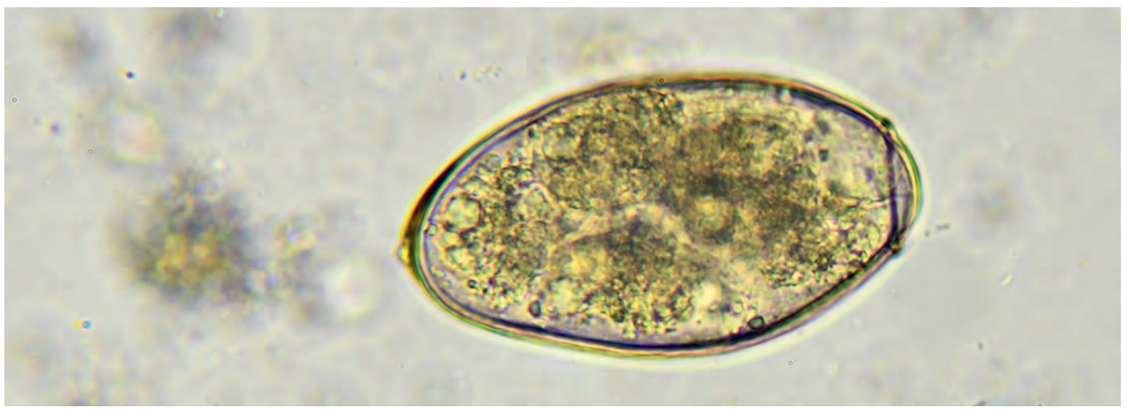
The results showed that to obtain the required >95% reduction of sporulation, the procedure outlined below is proven to be effective in destroying the oocysts which enable the infections to spread.

HOW TO USE

1. Remove all animals and portable equipment from the pen.
2. Remove any organic material.
3. Apply **Target Powergel** at 1:14 through a foaming lance or low-pressure washer (less than 70 bar). Allow a minimum contact time of 30 minutes before rinsing off thoroughly with clean water and allow to air dry.
4. Spray all areas thoroughly with a solution of **GPC8** at 1:35, at a rate of 300ml per square metre and leave for a minimum of 2 hours. For best results apply as a foam. Do not rinse off.
5. Refit portable equipment and allow to air dry.

If this procedure is followed with the correct dilution rates and with the cleaning and disinfectant steps carried out in the order described, incidences of Coccidiosis should be reduced.

Protective clothing and equipment (PPE) must be provided for all personnel as it is essential that the correct clothing and equipment is used when using chemicals to clean and/or disinfect.



EVANS VANODINE

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AUTHORISED BIOCIDES:

FAM® 30	UK-2019-1179-02
Handsan™	UK-2019-1195-0001

In the UK GPC8™ is approved by DEFRA under The Diseases of Animals Act for use in the event of a notifiable disease outbreak at the following dilutions:

Diseases of Poultry order	1:70
Foot and Mouth order	1:80
General orders	1:25

FAM® 30 is authorised under The European Biocidal Products Regulation for specific uses at a dilution of 1:100.

In the UK FAM® 30 is approved by DEFRA under The Diseases of Animals Act for use in the event of a notifiable disease outbreak at the following dilutions:

Diseases of Poultry order	1:65
Foot and Mouth order	1:550
General orders	1:49
Swine Vesicular order	1:100
Tuberculosis order	1:14

Approved dilution rates are correct as at January 2026. For up to date information visit
https://disinfectants.defra.gov.uk/

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