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# EVANS VANODINE CALF HYGIENE





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# INTRODUCTION

The health of calves should be a priority and due to the chilling effects of wind and rain, ideally, they should be kept indoors or under shelter for the first few weeks. It is important that housing management is optimised in order to prevent stress and limit the calf's susceptibility to disease.

Attention to detail and an effective cleaning and disinfection programme are also important in order to maintain high standards and reduced mortality rates.

Disinfecting without using a controlled programme is a waste of time and money. A correctly cleaned and disinfected pen helps the calves' health. Inevitably calves will be exposed to viruses, bacteria and parasites in their environment, which are capable of causing scours, respiratory problems or other diseases. If the number of organisms to which the calf is exposed are reduced, by using a good hygiene programme, infections will also be reduced.

Protective clothing and equipment (PPE) must be available for all personnel. It is essential that the correct clothing and equipment is utilised when using chemicals to clean and/or disinfect and in some situations the use of goggles will be required.

Areas around the calf pens and housing must also be considered. Identifying critical control points (CCP) and using an effective biosecurity programme to control the possible spread of contamination into the calf pen areas is recommended.



# PRODUCTS

## GPC8™

Glutaraldehyde-based disinfectant



200l  
5l 25l

- Rapid action against bacteria, yeast and viruses in the presence of organic matter.
- Passes EN\* 1656, EN 1657, EN 14349 and EN 14675.
- Suitable for livestock housing and associated equipment, as part of a biosecurity programme.
- Non-staining.

## FAM® 30

Iodophor disinfectant; BPR Approved



1000 l  
25l 200l

- Authorised Biocide.
- Passes EN 1656, EN 1657, EN 14349 and EN 14675.
- Bactericidal, virucidal and yeasticidal.
- Active in the presence of organic matter.
- Ideal for use in foot baths and vehicle wheel baths.
- Biodegradable and stable.

## VANODOX® FORMULA

Peracetic acid-based disinfectant



5l 20l

- Broad spectrum bactericidal, virucidal and fungicidal action. Passes EN 1656, EN 1657 and EN 14675.
- Contains hydrogen peroxide and peracetic acid.
- For the general disinfection of calf pens
- Effective against the spores of Aspergillus species.
- Biodegradable and non-staining.

## PERADOX™

Peracetic acid based disinfectant



1000 kg  
25 kg 200 kg

- Passes EN 1656 within 15 seconds.
- Formulated for disinfecting drinking water pipes and tanks.
- Removes biofilm.
- Fast acting, economical in use.
- A clear, colourless liquid terminal disinfectant.
- Suitable for use in all water types.

## SHIFT

Heavy duty power wash liquid



1000 l  
25l 200l

- Heavy duty, detergent cleaner.
- Can be applied as a foam.
- Rapidly penetrates and removes organic soiling.
- Suitable for cleaning buildings, vehicles and equipment.
- For use with pressure washers.

## TARGET™ POWERGEL

Alkaline foam/gel cleaner



25l

- Foam/gel cleaner for livestock housing.
- For rapid removal of organic soil.
- Increased surface contact time gives excellent organic soil penetration.
- Suitable for all types of livestock housing.
- Ideal for all types of pressure washers.
- Should be used with a suitable foam lance.

## HANDSAN™

70% alcohol-based hand disinfectant



500ml 5l

- Authorised Biocide.
- Bactericidal, virucidal and yeasticidal.
- Passes EN 1500, EN 13727 and EN 1276 with a 30 second contact time.
- Passes EN 14476; effective against Coronavirus, with a 1 minute contact time.
- Added moisturiser to protect skin.
- Evaporates without leaving a residue.
- Ideal for use where soap and water are not readily available.

## Q'DET™

Unperfumed washing up liquid



20l  
5l 1l

- Superior, unperfumed, washing up liquid.
- Produces a rich foam, even under heavily soiled conditions.
- Contains excellent grease removing properties.
- Concentrated for greater economy.
- Low impact on the environment.

## KIND™

General purpose washing up liquid



5l

- Very effective washing up liquid with a light lemon fragrance.
- Provides excellent grease removal and drainage properties.
- Produces a good foam even under heavily soiled conditions.
- Suitable for general cleaning.
- Effective in all water conditions.
- Low impact on the environment.





# BIOSECURITY

## PPE - PERSONAL PROTECTIVE EQUIPMENT

The use of protective equipment within the calf house is imperative to keep calves healthy and to prevent cross contamination from one pen to another.

PPE may vary depending on the task but must be readily available for all members of staff and should be changed regularly.

**Appropriate personal protective equipment (PPE) must be worn at all times on the farm, including:**

**Overalls, cap, gloves, goggles, face mask, waterproofs and boots.**

**Disposable gloves may also be required in the calving pens.**

**Footbaths containing disinfectant should be placed at the entrance to all calf pen housing to ensure that boots are clean when entering these areas.**



## CALVES

### CALF HOUSE MANAGEMENT

An appropriate product should be used to disinfect the newly born calf's navel to prevent infection entering the umbilical area. A dirty navel is the biggest cause of Omphalitis which can lead to joint diseases and cause septicaemia. A calf's immune system is at its weakest for the first 24 hours. The consumption of colostrum is imperative to stimulate its immune system.

Faecal matter can spread scours and can be easily ingested by calves. Exposure begins in the calving area with manure from the adult cow getting into the calf's mouth. This can be from touching the walls, bedding, the cow's flank and even from licking itself. It can also be spread by farmers hands from either helping the cow into the calving pen or helping the calf for the first important feed.

New-born calves should only remain with their mother for 24 hours. After this time they should be moved to an individual pen or crate for the next 8 weeks.

Calves must be able to see neighbouring animals to allow good interaction when moved into groups.

At 8 weeks healthy calves can be moved into group pens, initially into groups of between 4 and 6 per pen for the first week. This can then be increased into groups of up to 12 calves depending on pen size and farm facilities. Calf pens should not be overcrowded, and each group should be the same age and size.

Any calves that are unwell should be separated and medically isolated. Ideally after they have recovered, they should go into a 'recovered calf pen' instead of back to its original group of healthy calves. However, any calves holding Johnes disease and feeding solutions from cows with Johnes disease should be permanently separated from the herd.

### DO:

- Provide a dry, draught free environment.
- Provide shelter, if using outdoor pens.
- Change bedding, clean and disinfect the calf pen/crate regularly.
- Ensure all personnel wear the recommended PPE for each task.
- Follow a dedicated disinfection programme.

### DO NOT:

- Mix younger calves with older calves.
- Allow >30 cows to share the same air space.
- Allow calves to share the same air space with older cattle.
- Mix animals from different pens.
- Return isolated calves to their original group.

Most farms adopt an "all in - all out" system sometimes referred to as "block calving". This helps to keep calves within their dedicated groups, which helps to keep the calves healthier until strong enough to join the herd.



# CALF PEN CLEANING

## STAGE 1



### ENSURE ALL CALVES AND EQUIPMENT HAVE BEEN REMOVED

1. All calves and equipment should be removed before cleaning commences.
2. Removable equipment should be taken outside and soaked in a trough containing a solution of **Shift™** detergent at 1:250 (1L per 250L water) to remove soiling. A brush and jet wash may need to be used to remove stubborn dirt.
3. After soiling has been removed equipment should be disinfected using **GPC8™** at 1:100.
4. Equipment should then be dried and stored in a clean area before being returned to the cleaned and disinfected calf pen.

## STAGE 3



### WASH-DOWN

1. To wash-down the pen make up a solution of **Shift™** at 1:150 or for heavy soiling **Target™ Powergel** at 1:50.
2. Apply to all surfaces in the pen using a foaming lance, work from bottom to top and back to front making sure all gates are also covered and leave for 30 minutes to ensure penetration into any remaining organic matter.
3. Rinse off using a low pressure washer, working from top to bottom back to front, paying particular attention to corners and cracks.
4. Leave to air dry completely before the next stage.

## STAGE 5



### RESTOCKING AFTER DISINFECTION

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

### CALVING SEASON

1. Individual and group calf pens should be kept as clean as possible.
2. Bedding should be replaced on a regular basis to keep organic matter to a minimum and the bedding warm and dry for the calves.

### BIRTHING PENS

1. Pens should be completely cleaned and disinfected after each birth to maintain a high level of hygiene.

## STAGE 2



### REMOVAL OF BEDDING

1. The bulk of bedding should be removed mechanically.
2. Soiled bedding should be taken to an area away from the calf housing.
3. Once the pen is free of the bulk of the soiled bedding.
4. Stubborn organic matter can be removed by scraping and brushing, you may need to jet wash to remove particularly stubborn matter.
5. This will make the wash-down more effective.

## STAGE 4



### DISINFECTION

1. Make up a solution of **GPC8™** disinfectant (at 1:50 if there is a known disease problem or 1:200 if no known problem).
2. The use of warm/hot water increases the effectiveness of the **GPC8™** disinfectant.
3. Apply the solution of disinfectant through a sprayer to all surfaces and gates working from top to bottom and back to front, ensure extra coverage on corners and cracks.
4. **DO NOT RINSE OFF.** Allow to dry overnight.

## STAGE 6



### FOOT BATHS

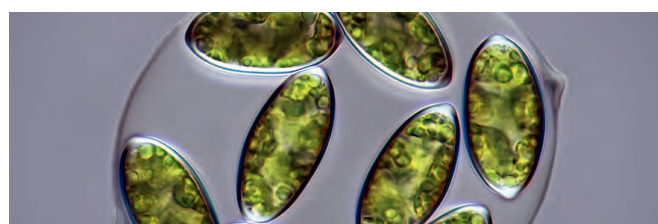
1. Foot baths filled with **FAM® 30** at 1:100 (for a 12L bath add 120ml of **FAM® 30**) should be placed at all entrances to the calf pen area immediately after filling.
2. Foot baths must be kept clean by changing the disinfectant regularly to prevent it from becoming a potential source of contamination.
3. Always dip feet before entering, if boots are soiled, clean with water and a brush before using the foot bath.
4. Replace the solution every 3 days (72 hours) or sooner if the colour begins to fade.

### DISINFECTION OF PATHS, ROADWAYS AND AREAS AROUND CALF HOUSING

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

## COCCIDIOSIS / CRYPTOSPORIDIUM REDUCTION

1. After all animals and portable equipment have been removed from the pen.
2. Remove any organic material.
3. Apply **Target™ Powergel** at 1:14 through a foam cleaner or low pressure washer (less than 70 bar). Allow a 1 hour contact time 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. For best results apply as a foam.
5. Refit portable equipment and allow to air dry.





# CALF 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.

Appropriate personal protective equipment (PPE) must be worn including: Overalls, apron, cap, gloves and boots

**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 (26-43°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 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™* or *Kind™* 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 SANITISE

Fill the sink with warm or cold water containing *Peradox™* (at 1:50), soak the equipment for a minimum of 3 minutes, the acidic sanitiser 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 sanitiser.

## 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 sanitised 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 (26-43°C) to remove dirt and milk residue by spraying. Wash tank or trough with hot water (at least 74°C) containing *Q'det™* or *Kind™* detergent to remove any remaining residue then rinse with fresh water. Finally using *Peradox™* (at 1:50), soak the tank or trough for a minimum of 3 minutes (see stage 4 above).



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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	1:50
Foot and Mouth order	1:80
General orders	1:44

**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	1:100
Foot and Mouth order	1:550
General orders	1:49
Swine Vesicular order	1:100
Tuberculosis order	1:20



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