



Guidelines for the administration of SureSeal

WHAT IS SURESEAL AND WHAT ARE THE INDICATIONS

- SureSeal contains the **inert substance bismuth subnitrate** 2.6g suspension and PVP iodine as a preservative in each 4g syringe.
- SureSeal is administered into the teat canal and the viscous inert material forms a **physical barrier inside the teat preventing the introduction of bacteria** and subsequent mastitis in heifers and cows
- **SureSeal is a non-antibiotic teat sealant** used for the prevention of mastitis in maiden heifers pre-calving and lactating heifers and cows at drying off.
- To be eligible for SureSeal treatment alone **lactating heifers must have somatic cell counts (SCC) of less than 120,000 and lactating cows less than 150,000 all season.**
- SureSeal must be used in combination with a dry cow antibiotic product e.g. Noroclox DC 600; Cloxamp DC 600; Cloxamp DC 500 in **lactating heifers with somatic cell counts greater than 120,000 and cows greater than 150,000** on one or more occasion during the lactation to **treat existing infections and lower somatic cell counts.**
- **SureSeal must only be used after the last milking at drying off** in lactating heifers and cows. Never treat heifers or cows during lactation.
- **SureSeal is used in maiden heifers at least 2- 6 weeks pre calving** before the udder 'bags up'. Don't treat if milk has started dripping from the teats.

HYGIENE

- **Hygiene is paramount** when administering SureSeal. The following hygienic administrative steps must be followed precisely to prevent introducing bacteria in to the teat canal at the time of SureSeal administration, perhaps causing unwanted and sometimes serious mastitis.
- Even **clean teats are contaminated with millions of bacteria, which must be removed before administering SureSeal.** SureSeal is not formulated to kill bacteria introduced by poor administration technique.

REQUIREMENTS

- You must wear **surgical type gloves** that are easily cleaned as bare skin spreads more bacteria than gloves. Your Vet can supply these.
- You must **clean your gloved hands and arms in water with disinfectant** between animals and between teats if the gloves get dirty.
- You must **dry your gloved hands and arms with paper towels after cleaning** so no infected water droplets get on to the teat ends – Do not use cloth towels or rags as they rapidly become highly contaminated with large numbers of bacteria.



- You must **replace gloves when they get worn out and when they get holes in them.**
- Best not to treat animals if udders **are excessively wet or dirty.** Best to reschedule for another day. If unavoidable thoroughly clean udders and teats with clean water then dry udders before commencing treatment.
- **Bring animals straight off clean pasture** immediately before using SureSeal so udders are as clean as possible and put them straight back on clean pasture after treatment.
- If you decide to **warm the SureSeal tubes in warm water for ease of administration; never place tubes directly in the water** as this water can become rapidly contaminated with bacteria that will contaminate the SureSeal tubes and perhaps cause mastitis. You must only put the whole container in a water bath and keep the tubes dry at all times.
- Alternatively use **hot water bottles placed strategically through the container to warm the tubes.**

HYGIENIC ADMINISTRATIVE TECHNIQUE

- **Check for mastitis first by palpating the udder and stripping teats if required –** record any cows with mastitis and **do not use SureSeal** in them.
- Clean teats and **administer SureSeal one teat at a time**, treating the teats furthest from you first in clockwise order **Front left, front right, hind right, hind left** to avoid re-contaminating treated teats. A left handed operator may prefer to do it in anticlockwise order **Front right, front left, hind left, hind right.**
- **Treat cows straight after the last milking** whilst teats are relatively clean.
- **Use alcohol teat wipes that contain 70% meths** (provided when you purchase SureSeal) or **cotton wool balls soaked in 70% meths and 30% clean water** in a clean container to kill bacteria effectively.
- **Use a new teat wipe or cotton wool ball for each teat.** Rub the teat end, especially the tip and the orifice as many times as it takes to get it perfectly clean. Sometimes more than one wipe or ball is needed per teat to get it clean.
- When using each teat wipe **use only one side of the teat wipe** as the disinfecting side, and the other side as the 'dirty' side in contact with your gloved hand. Never turn it over or have fingers or thumb in direct contact with the teat end.
- **Rub the teat end until it is visibly clean** with no traces of dirt and the section of the teat wipe being used has no trace of dirt on it. If needed **use additional teat wipes or cotton wool balls as required** until the teat end is perfectly clean



INSERTING SURESEAL

- **Clean the teat and insert SureSeal immediately afterwards.** Keep one hand holding the teat between cleaning and infusing to make sure the teat remains clean. If the teat does get dirty again; re-clean before SureSeal insertion.
- **Once the cap is removed from the SureSeal tube don't touch the tip** and risk contaminating it with bacteria.
- **Partially insert the tube** no greater than 3mm in to the teat canal.
- **Keep the tube in line with the teat** to avoid damaging the fragile lining of the teat canal.
- **Carefully and slowly release the SureSeal contents** into the teat canal so they are not pushed too far up the teat canal.
- The **SureSeal contents must not be massaged up the teat canal** into the udder, as they are designed to form a barrier to bacteria in the teal canal.
- **Discard the tube if the tip gets dirty or damaged.**
- **Spray all the teats with a licensed teat spray** at the strong mixing rate as per label immediately after all teats are treated with SureSeal and ensure the teat ends of all teats are completely covered.
- Finally **mark treated cows** with spray paint or aerosol and record them.

COMBINATION THERAPY

- Combination therapy must be used in lactating heifers with somatic cell counts >120,000 and lactating cows >150,000. Don't use SureSeal on its own.
- When administering combination therapy the same hygienic administrative principles apply as above with the following variation:
- **After cleaning each teat insert the dry cow antibiotic first.** Following its insertion **massage the dry cow antibiotic carefully with gloved fingers up the teat canal into the udder.** Now the **teat must be re-cleaned** with either a teat wipe or cotton wool ball soaked in 70% meths. Immediately after **a tube of SureSeal is infused,** but **do not massage it up the teat canal.** **Treat all 4 teats in the clockwise order** as described previously and **finally spray and cover the teat ends with high strength teat spray.**

AFTER TREATMENT

- Check all treated animals daily for the next four or five days.
- **Look for any sign of ill health e.g.**
 - Difficulty walking due to painful mastitis;
 - Uneven or swollen udders;
 - Animals on their own and not eating;
 - Sick animals with mastitis need to be treated immediately – consult your vet for advice on the best treatment.



AFTER CALVING

- SureSeal will stay in the teat until calving and should be removed manually at the first milking if not already sucked out by its calf.
- **Strip treated cows before the cluster is applied at the first milking** commencing at the very top of the teat to remove as much SureSeal left in the teat canal as possible.
- **Most SureSeal particles will be removed during the colostrum period by 4 days after calving** but there will still be some particles present for a few days later, **so make sure the filter sock is always in the milk line** to collect these particles. It has been reported that the occasional particle will still be seen up to 2-3 months after calving.
- It's important to be able to distinguish between mastitis and SureSeal particles – **SureSeal particles when rubbed between the fingers leave a waxy residue. Mastitis flecks break up into pieces** when they are rubbed between the fingers.
- Milk from SureSeal treated cows or heifers intended for sale for human consumption must be **discarded for not less than 8 milkings or approximately 96hrs after calving**.

TREATING MAIDEN HEIFERS

- It is recommended **not to SureSeal heifers in wet weather** particularly when the udder is wet and dirty.
- Plan to **SureSeal heifers at least 2-6 weeks prior to calving**. To be practical treat all heifers from 2 weeks prior to the planned start of calving.
- It is **easier to treat heifers in a herringbone shed**, but rotaries can be used, or your vet clinic may have a mobile trailer designed for treating heifers available.
- It's a good idea to **put the heifers through the shed a few times** a week or two prior to treatment to get them used to walking through.
- Heifers **should be fully fed a few hours before yarding**. Keep to small groups in the yard (40-50 heifers at a time).
- **Row the heifers up tightly in groups of 15-20 at a time**, with the breast rail in as tight as practical.
- **Use only one side of the herringbone** to treat the heifers so the SureSeal tubes can be kept clean and well out of the way on the other side.
- It is often useful to **have an assistant hold the tail vertical or to one side** to help control unwanted movements when SureSeal is being administered.
- It is best to **release and not treat heifers that are unduly agitated and difficult to treat** to avoid teat damage and the risk of developing mastitis. Identify them.



- It is important to **schedule enough time and staff to do the job properly**. It is recommended to employ vet technicians that have been trained to administer SureSeal correctly, if they are available in the district.
- **Check teats and quarters before you clean the teat ends**; take the time to palpate the quarters. It is normal to find swollen quarters due to mastitis or blind quarters in about one in every hundred heifers. **Don't treat these quarters with SureSeal**.
- The opening of the teat canal may be hard to find in heifers. **Squeeze the quarter to eject a little udder secretion to identify the opening**, only if required and then re-clean before inserting SureSeal.
- Follow the **hygienic administration technique** described previously precisely
- **Monitor heifers daily for two weeks** after SureSeal administration to check for any problems, such as swollen, hot quarters, lameness, or sick heifers. Heifer mastitis can be difficult to see, so inspect closely.