Data collected by veterinary surgeons throughout the United Kingdom as part of the National Animal Disease Investigation Service (NADIS) has consistently shown a dramatic rise in cattle with summer mastitis from the second half of July onwards. Preventative measures must be taken now to limit this costly and painful disease.

Supervision of maiden and in-calf heifers and dry cows at pasture during the summer months is often sporadic due to other commitments and mastitis may be well advanced before clinical signs are noted.

**Clinical signs**

*During the early stages the diligent stockman will notice:*

- Gradual enlargement, both in length and diameter, of the teat(s) of the affected gland(s) for up to one week before the heifer/cow becomes sick.
- Large numbers of flies cluster around the affected teat orifice causing considerable irritation with frequent kicking.
- Obvious swelling of the affected quarter.
- Generalised signs of illness including isolation from the group, stiffness and reluctance to walk, lack of grazing giving a gaunt appearance.

- Joint distension of the fetlock and hock joints.

- Rapid loss of body condition.

- Abortion. May occur up to two weeks after the initial episode of mastitis but is not common. More usually the calf has a normal skeletal size at full term but is weak and poorly fleshed as a consequence of growth retardation within the womb. Such calves are prone to a variety of infections unless they ingest sufficient good quality colostrum which is unlikely unless the calf is given colostrum from a healthy cow.

**Treatment**

Veterinary treatment is essential for these sick cattle. Despite antibiotic therapy and regular stripping of affected quarter(s) the affected glands will not be functional and eventually become hard and indurated. Occasionally, pus may drain through the skin from a superficial abscess in the affected gland. The hopeless treatment response in summer mastitis emphasises the need for effective preventive measures.

**Cause**

It is probable that the causal bacteria gain entry to the mammary gland after damage to the teat sphincter. While there is circumstantial evidence only to link the sheep headfly Hydrotaea irritans with disease, all recent experimental attempts to transmit disease by this route have failed. It is generally accepted that primary invasion of the mammary gland, with either the anaerobic organism Peptococcus indolicus or Streptococcus dysgalactiae, is followed by Arcanobacterium pyogenes infection. All of the bacteria are present on healthy cattle.

**Prevention**

1) *Dry cow therapy* remains the most affective means of preventing summer mastitis both in cows at drying-off, and in susceptible pregnant heifers during the summer months. As a general rule, the longer duration dry cow antibiotic preparations should be used but only after consultation with your veterinary surgeon. In herds with a severe summer mastitis challenge re-tubing cows, or more commonly at-risk heifers, at three week intervals has proven successful but is considered cost-prohibitive in beef cattle. Care must be exercised when infusing intramammary antibiotic preparations in heifers whereby the nozzle
of the tube is held at the teat orifice, but not forced into the teat canal lest damage occurs. The teats must be swabbed with surgical spirit before tubing and a teat dip used afterwards. Cattle should not be tubed in wet weather or in unhygienic conditions because of increased risks from introducing infection into the udder. If in any doubt, consult your veterinary surgeon regarding this important aspect of dry cow management.

2) **Mechanical barriers** such as Stockholm tar or micropore tape have proven successful in the prevention of summer mastitis during high risk periods in dairy herds, but require weekly handling for their application/supervision and are therefore considered unsuitable for beef cows.

3) **Fly repellents**, whether in the form of pour-on or impregnated ear tag, provide useful protection against nuisance flies but cannot be relied upon in isolation to prevent summer mastitis. Such preparations also assist in preventing New Forest disease (Pink eye). Many dry dairy cows are walked through the milking parlour at regular intervals allowing application of teat dips and attention to teat sores and lesions which attract nuisance flies.

*Richard Laven PhD BVetMed MRCVS*

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The Meat and Livestock Commission is a sponsor of NADIS (National Animal Disease Information Service), which is a network of 40 veterinary practices and 6 veterinary colleges monitoring diseases in cattle, sheep and pigs in the UK