

Farm Newsletter – August 2010

ENERGY DEFICIENCY

Many dairy farms are experiencing energy deficiency at the moment. It seems to be presenting as failure to show bulling activity and/or poor conception rates. The milk yield and solids do not seem to be affected nor do condition scores seem to be changing rapidly. Some farms have had clinical cases of slow fever/acetonemia which have given a clue as to what has been going on. We can confirm a suspected problem by blood sampling six peak yield cows usually around six weeks after calving. Remedies include increasing parlour concentrates, adding flaked maize or rolled barley to TMRs, buffer feeding and increasing out of parlour feeder rations. Energy deficiency can have a much longer impact on fertility than expected as the follicles due to be released in three months time are being adversely affected now.

BLEEDING CALF SYNDROME

(Bovine Neonatal Pancytopenia)

The country is seeing more cases of this and Thirsk VLA has also seen one. Symptoms include fever, bleeding from the nose, gums, ear tag holes, rectum and injection sites. Calves have also been found dead from internal bleeding with no external symptoms. It affects young calves, usually from the first week of life up to the first month. The cause remains unknown and most affected animals die. Let us know if you get one – we will recommend it be taken to the VLA.

INJECTABLE TB VACCINE FOR BADGERS AUTHORISED.

At the end of March DEFRA announced the first TB vaccine for use in badgers in the UK. It can only be supplied, sold or used as part of bovine TB control measures. The vaccine will be used from this summer in the Badger Vaccine Deployment Project – a 5 year initiative funded by DEFRA. Badgers will be trapped and vaccinated against TB in six of the worst TB affected areas in England. If, as a landowner you wish to use the vaccine in areas outside the project areas you will have to source and pay for licensed contractors to vaccinate badgers on your land.

Alpacas can also succumb to TB. In the UK twelve incidents of TB in alpaca herds occurred in 2009 and five have become apparent this year. More of these animals are appearing in this area and they often



graze adjacent to commercial cow herds. There is no statutory control for the identification and movement of camelids and there is no routine testing programme for alpacas.

The biggest risk to stock in this area from TB infection is from the buying in of infected animals not showing clinical signs from infected areas such as the Southwest and Derbyshire.

FEEDING COLOSTRUM TO CALVES

Calves are born with little immunity to disease. Sucking colostrum after birth provides them with the protection they need until their own immune system develops. There are many differences between normal milk and colostrum and the added protection in colostrum (the globulins) quickly disappears soon after birth. It is therefore important that calves suck within the first few hours of birth.

| | | Casein | Albumin/ Globulin | Fat | Lactose |
|-----------|----------|--------|----------------------|-----|---------|
| Colostrum | At birth | 2.7 | 16.0 | 3.5 | 3.0 |
| | 24 hours | 4.5 | 6.3 | 4.7 | 2.9 |
| | 48 hours | 3.3 | 3.9 | 4.2 | 4.4 |
| Milk | | 3.4 | Minimal | 3.8 | 4.9 |

As well as providing immunity, colostrum also has higher concentrations of calcium, phosphorus, magnesium, vitamins A and D, iron and copper. The amount of colostrum a calf actually obtains depends on various factors:

1) Constituents of colostrums

The amount of immunity provided by colostrum depends on the individual cow, its breed and breeding. Parity is important as heifers' colostrum is less concentrated. Amounts alter if there is a short dry period, poor nutrition or if there is any milking before calving. Also, infection in the dam prior to calving will reflect in less immunity, as does mastitis.

2) Volume of colostrum ingested

Maximum protection is provided by 3-5 litres of colostrum and the optimum amount is **5% or more of the body weight of the calf in the first 24 hours**. If the calf is sucking it is hard to determine the quantity taken in, but hard sucking for 20 minutes should be allowed. The ability of the calf to feed depends on how active it is following birth as well as the

physical shape of the udder and teats. Feeding is hampered by large pendulous udders as well as teats which are badly positioned or over wide. Recumbency in the dam is also unhelpful.

3) Absorptive capacity of the calf

A calf is able to absorb the most colostrum **during the first 6-8 hours** following birth. After this time the amount of colostrum a calf is actually able to absorb and make use of declines; little or none is absorbed after 24-36 hours.

4) Management practices

Generally, the more natural the situation at calving the higher the amount of immunity a calf can gain from the colostrum. Thus, calves born outside have higher values than those born indoors. Calves that are left with their dams for the first 24 hours have a greater protection than those removed at birth or immediately after sucking.

Immunity levels in calves are often inadequate; **on many farms over half the calves will not have received adequate colostrum early enough in life**. This contributes considerably to disease on these farms. Provision of colostrum frozen in half-litre or litre packs can be of use in emergencies to ensure that the calf obtains about **3 litres in the first 6 hours of life**. If frozen, colostrum can be thawed by surrounding its container with a warm water bath or in a microwave oven on its thawing setting (however this method will reduce the immunity levels in the colostrum more than a water bath). It is advisable to continue to feed small quantities of colostrum (1-3 litres per day) for a couple of days after birth to ensure that levels of local gut antibodies (IgA) are maintained as this will help prevent gut infections. Colostrum can be stored in plastic containers and allowed to sour. The soured colostrum retains most of its nutrients and can be heated up in a water bath if necessary. Dilution with water may help to prevent it from clotting.