

Teat Scoring as a Mastitis Control Tool

Mastitis is a major source of revenue loss on dairy farms and teat scoring has been developed with the Greenmount Campus Dairy Herd as a method to monitor potential mastitis problems.

The keratin cells that line the teat canal act as a teat end barrier helping to reduce the risk of mastitis. Over milking encourages excessive keratin production leading to projections of keratin around the teat end and ring formation. This has been associated with an increase in non-clinical and clinical mastitis. For this reason, systems for evaluating and scoring teat ends have been developed.

Damage to the teat ends can mainly be attributed to machine factors. Liner slip and fluctuations in vacuum level can cause cows to be over milked. If this occurs over an extended period of time, then severe teat end damage can occur. Milking machines are the most important equipment on the dairy farm. Tightening margins in the Northern Ireland dairy industry has meant that milking equipment may not receive regular servicing or testing. Regular testing of the milking equipment is vital to ensure that vacuum and pulsation levels are correct. If a problem is detected a full dynamic test of the milking equipment should be carried out by a qualified technician.

The Animal Health Challenge will cover teat scoring as a mastitis control tool. Contact your local Dairying Development Adviser for details.

New Entrants Scheme

Young farmers throughout Northern Ireland have shown a significant level of interest in the New Entrants Scheme (launched by DARDNI in June 2005). The New Entrants Scheme supports young farmers by refunding the interest charged by lending institutions on new borrowings associated with investment in production agriculture.

What's happened so far?

Over 120 young farmers have completed the first stage application for the New Entrant Scheme. Applications have come from all sectors of the agricultural industry. The Dairy sector have invested in a variety of projects including new milking parlours, roofing yards, roofing new slurry tanks, installing new cubicles, improving handling facilities, purchasing machinery, increasing cow numbers and buying more quota.

Aid Available

£5 million of aid has been allocated to the scheme. The maximum amount of aid available per farm business is £17,000 and the maximum duration of interest repayments is five years.

Eligibility

Applicants must be under 40 years of age and have set up as head of holding within the previous twelve months before submitting an application. The business must be viable and the applicant must possess or agree to attain key skills and competencies in agriculture.

Application

The scheme is now open for applications and will remain open until 5 June 2008 or until all the available funds have been committed. Application packs for the scheme are available from Grants and Subsidies Branch, Orchard House, 40 Foyle Street, Londonderry Tel: (028) 7131 9900 or from your local DARD Office.

For further details about the New Entrants Scheme, contact Philip Downey or Colin Rea on (028) 7772 1819 and (028) 9442 6609 respectively.

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Farm Nutrient Management Scheme - A Business Decision

Many dairy farmers are currently considering substantial investment on their farm with the Farm Nutrient Management Scheme being used to part fund the development. In most cases, however, the remaining 40% of expenditure will be funded using borrowed capital. The level of borrowing that can be repaid by the business depends on a number of factors:

- Farm performance;
- Milk price over the loan term;
- Loan repayment term;
- Potential off-farm income;
- Level of borrowing;
- Will the Single Farm Payment be used to help repay the loan?

It is important that farmers do not over borrow based on optimistic expectations of milk price and herd performance. All farms are different and the more

efficient farms can support a much higher level of borrowing than poorly managed farms. Therefore, farmers need to assess current profit from milk on their own farms through benchmarking before taking on substantial investment. The 2005/06 quota year can now be benchmarked. **Contact your local Dairying Development Adviser for details.**

Loans repayment periods can be extended to make annual repayments more affordable. It can be seen in Table 1 that extending the period from 5 to 10 years reduces the annual repayment by 42%. Extending the repayment period by a further 10 years only reduces the annual repayment by an extra 20% (at 6.5% interest rate). It should be noted that the longer the repayment period, the more risk of circumstances changing within the business. Dairy farmers must assess the position of their own business and make decisions that best suit them. As already noted every dairy farm is different and will require a different solution to meet slurry storage requirements. This must be coupled with the ability of the business to remain viable into the future.

Table 1. Annual repayments and total amount repayable for a £50,000 loan at 6.5% over various time periods.

Repayment period (years)	Annual repayment (£)	Total amount repayable (£)
5	11,736	58,680
10	6,816	68,160
15	5,232	78,480
20	4,476	89,520
25	4,056	101,400

What does Cross-Compliance mean?

In order to receive direct payments farming practices must be carried out in such a way to protect the environment, animal health and welfare and public health. This is known as Cross-Compliance and involves maintaining land in Good Agricultural and Environmental Condition (GAEC) and complying with 19 European Regulations known as Statutory Management Requirements (SMRs).

There are five environmental SMRs covering the conservation of wild birds, wild plants and animals, the protection of groundwater, soils from sewage sludge and waters against pollution caused by nitrates.

Good Agricultural and Environmental Conditions (GAEC)

The following six GAEC measures are designed to ensure that land is farmed according to good agricultural practices that do not damage the environment. This includes all land that is farmed, even land on which no direct payments are claimed. It is expected that compliance with GAEC measures will not be a problem for most dairy farms.

1. Soil Management

It is important to ensure that livestock and crops are managed according to ground and climate conditions to ensure soil erosion/runoff does not occur. This means:

- Preventing land from being severely trampled or poached;
- Ensuring arable land has crop cover or is left ploughed or disced over the winter;
- Avoiding cultivations on waterlogged soils.

2. Supplementary Feeding

Feeding sites should be rotated and managed to prevent excessive trampling with no supplementary feeding permitted on semi-natural habitats (woodland, scrub, moorland, wetland, species rich grassland) archaeological sites or within 10 metres from waterways.

3. Overgrazing

Avoid overgrazing grassland, semi-natural habitats or archaeological sites with livestock in such numbers, which would damage the growth, quality or species composition of vegetation or destroy the archaeological feature.

4. Undergrazing

Land abandonment is not permitted under Cross-Compliance. You must avoid undergrazing by using appropriate grazing or cutting management, except

where it is deemed necessary for environmental management, for example, as part of an Agri-environment agreement. You must avoid infestation by species such as gorse/whin, giant hogweed, rhododendron, Japanese knotweed and noxious weeds.

5. Field Boundaries

You must not remove field boundaries except by prior written permission from DARD. This includes infilling or laying drainage pipes in open sheughs. DARD will assess and grant derogations for field boundary removal after using DARD field boundary assessment criteria.

Hedge cutting/coppicing or laying is not permitted during the bird nesting season, that is between 1 March and 31 August.

6. Protection of Habitats, Archaeological Sites and Permanent Pasture

You must retain all semi-natural habitats (woodland / scrub, wetlands, species rich grasslands, moorland) ponds, shelterbelts, trees protected under the tree preservation order, archaeological features and earth science sites.

You must comply with the DARD EIA Uncultivated / Semi-natural areas regulations 2001. You must not undertake new drainage, ploughing, clearing, levelling, reseeding or cultivations on uncultivated land or semi-natural habitats without prior approval from DARD. Heather and gorse burning is not permitted between 15 April and 31 August.

For further information contact your local Countryside Management Adviser.



"In the Clover"

Clover has the ability to capture nitrogen from the atmosphere. With reducing dairy profit margins, increasing fertiliser prices and potential restrictions on both stocking rates and application of organic nitrogen through the Nitrates Directive, clover swards may offer an alternative for herds where less than 200kg fertiliser nitrogen per hectare is being used.

Benefits of grass/clover swards

- Offers substantial savings in fertiliser costs. A grass/white clover sward containing 30-40% clover can produce a similar dry matter yield to a grass sward receiving 200kg fertiliser nitrogen per hectare (6 bags of 27% nitrogen per acre).
- White clover has a higher nutritive value than grass, due largely to its lower structural fibre and higher protein content, giving improved digestion and higher intake capabilities.
- Can boost mid-summer milk and protein yields.
- Contains more minerals, particularly magnesium, reducing the risk of animal health problems associated with mineral deficiency.
- Saves on energy usage, indirectly reducing environmental pollution.
- Greater biodiversity.

Where could clover be used?

Swards grazed by replacement heifers generally receive less fertiliser nitrogen than those grazed by the milking cows. Since these may receive less than 200kg N/ha, grass/clover may be a viable alternative. New more persistent varieties of clover that have an erect growing habit also make grass/clover swards an option for rotational grazing and cutting. Maintaining a high clover content in swards to achieve satisfactory levels of production requires careful sward management.

Establishing clover rich swards

- Direct reseeding before the end of August is the most reliable method of establishing grass/clover swards. For good establishment of clover, it is best to be generous with the clover seed and economise on the grass seed with rates of 25kg perennial ryegrass seed and 4-5kg clover seed per hectare.
- Undersowing can be useful for spring reseeds, using early maturing spring cereal varieties as the cover crop.
- Overseeding can be used to place seed into an existing sward.
- It is essential that competition is minimised by grazing the sward tightly (4-5cm) in late July, or by following in immediately after a silage cut taken mid-July to late August, with soil conditions neither excessively wet or dry.

A Clover Event is planned for Thursday 3 August 2006 at Greenmount Campus.

Dairy Cow Records in Your Pocket

The "Increasing Access to ICT" Scheme aims to promote and evaluate new Information and Communication Technology used in day-to-day operations on the farm. The scheme is currently open for applications and farmers are invited to apply. Approximately 500 farm businesses are currently involved in the Scheme in a variety of ways. DARD funding is available for those who meet the Scheme requirements for the purchase of new or innovative technology for use within the farm business.

The most widely adopted technology has been the use of a small hand-held computer or PDA (Personal Digital Assistant) for recording information on the farm. Most commonly this includes fertility data such as heats, services, pregnancy diagnosis and drying off dates but also it is used for medicine records and herd lists. Once the data is in the PDA it can be transferred electronically to the PC, thereby reducing the amount of work involved in keeping records. In many cases the PDA's are linked to a herd management system on the PC that allows for fuller analysis of the data.



Another new technology being evaluated is the remote monitoring of bulk milk tanks. This is a device that is fitted to the tank and gives a warning if the temperature of the wash is too low or the temperature of the milk rises too high. The warning is received as a mobile phone text message and the farmer can then take action to fix the problem. This device has proven effective in improving the milk quality on the trial farms through reduced TBC.

The most recent technology that is due to be trialled under the scheme is a wireless camera that transmits an image that can be viewed from any laptop or computer connected to the Internet. The camera can also be controlled remotely, allowing the farmer to move the lens in any direction and zoom in for a closer look if necessary. This becomes very useful when monitoring a cow close to calving or even for security reasons.

For further information contact David Trimble on (028) 9442 6682 or david.trimble@dardni.gov.uk or Gavin McQuaid on (028) 9442 6639 or gavin.mcquaid@dardni.gov.uk