

## Interpretation of a quarterly Herd Health Report

**Number of cows sold because of:** The percentage figures in the 12 month column are the relevant ones. The overall target is less than 20% culled p.a. At 20% and at a constant herd size, the average expected lifetime of a cow is only five years and three lactations. The annual disposal rates for infertility, mastitis and lameness should be below 6% each.

**Number of cows treated for/with:** Trends from the previous quarter and differences from last year are important. The 12 month percentage figures, compared to average, illustrate the need for action. The significance of these figures depends on the accuracy with which Sheet 2 data has been recorded.

Treatment averages for 12 months from April 1999 to March 2000 (467 farms)

Condition	Percentage
Fertility	22.9
Assisted Calving	7.7
Mastitis	37.0
Digestive Upset	1.4
Hypomagnesaemia	0.5
Hypocalcaemia	4.8
Ketosis	0.6
Lameness	21.0
Injury	0.8
Other	3.4

Fertility figures vary very much between farms, depending on management attitudes, and should not be used as standards. The remaining figures can be used as standards/targets with emphasis also on change. If there are increases under 'other', the Sheet 2 forms should be referred to for the reasons.

**Average mastitis cell count ('000 cells per ml):** The average for one quarter at least should be considered. One figure in isolation is not relevant but trends over a period may be. Average figures over 250,000 cells per ml usually mean a mastitis situation worth watching. But mastitis in a herd should be judged including the incidence of new cases and culling rate for mastitis as well.

**Number of cows served by AI/bull:** First time: Comparisons with the same quarter last year can give an indication of the efficiency of presentation for first service. If the calving pattern is to remain the same and herd size has not altered, fewer first services mean lower herd fertility efficiency. Second and subsequent services give an idea of non-return rates.

**Percentage of cows of milking age in herd receiving a first service (target 100+):**

This index is a very useful guide to the average calving to first service interval in a herd - about the most critical measure of fertility efficiency and one which depends on management policy and heat detection efficiency, ie. "people" factors and so relatively easily influenced.

To achieve a herd calving index of 365 days, there must be theoretically one first service and one calving per cow per year. In practice, in herds which achieve a real calving index of 365 - 375 days, several cows receive one first service, calve and receive another first service all within 365 days.

This produces a Percentage of cows of milking age etc of 100+, usually 105 - 110, with an average culling rate of 20 - 25%. It is clear that, if this index is below 100%, calving to first service intervals and their control ought to be discussed.

If very high, ie. 120%+, then check that maiden heifer services have not been included in the first service data. A big drop in herd size could also put this index artificially high.

Deferral of first service to fit a tight calving pattern and unrecorded services lower it but these factors are not reasons to accept a low index without at least bringing the subject up.

**30 Day first service non-return rate % (target 70-80):** This is not the conception rate, which is always lower but is a rough guide to it. If the non-return rate is low, conception rates will be low. If the non-return rate is high, conception rates may be good *or* returns to service may have been missed.

Pregnancy rate of cows examined by vet % (target 95+): Not many herds achieve the target. Lower figures are chiefly a consequence of failure to detect returns to service at a high enough rate.

In herds where there has been a bull running with no recorded services, PD rates are usually lower. If scanning is being used at 30 or more days served, the target is the same as on average very small percentages of foetuses are lost after 24 days served.

## **Comments**

If the services section on the sheets is being completed, a message will appear in this part of the report once there is enough data collected. The purpose of it is to provide targets for the number of first services and total services in each of the following three months, if it is wished to maintain respectively the existing calving index and calving pattern.

There are a number of qualifications which are listed below and which may need to be taken into account in modifying the targets but, as milk production requires calvings and calvings require first services, awareness of these target figures is a very important first step to good herd fertility efficiency. (Maiden heifer services are not included in the targets.)

If in a month the target does not look as though it is going to be met, possible courses of action briefly are:

1. Reduce the interval after calving by which a cow is served if a heat is seen.
2. Check that there are no obvious nutritional or environmental problems. Blood test appropriate cows perhaps.
3. Increase heat detection efficiency: Look longer and more often - 3 x 30 minutes per 24 hours. Identify cows who are expected on heat by the use of a 3 week calendar, record board or action lists. Use veterinary examination of those which should have been seen on heat to confirm cyclicity and approximate day of next heat. Use heat mount detectors.
4. Use PRIDs or prostaglandins preferably with AI at observed heat afterwards.
5. Run the bull with the cows for a week or two but record services and heats as services.

If in a month the target looks like being heavily exceeded and calving pattern is of paramount importance, only cows returning to service should be served, with those not yet having received their first service left if a heat occurs.

#### **Reasons for increasing target numbers:**

- Larger herd size;
- lower conception rate;
- fewer heifer replacements next year;
- bull ran with the herd 9 - 10 months ago and services were not recorded;
- alteration in calving pattern desired;
- reduced herd calving index desired - applies to first services principally;
- period of poor nutrition, weather or environment just occurred or expected.

#### **Reasons for decreasing target numbers:**

- Smaller herd size;
- improved conception rate - based on confirmed pregnancy, not on non-return to service;
- more heifer replacements anticipated next year;
- alteration in calving pattern desired.