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Milk Testing for beginners

A guide for first time milk testers
including 24-hour tests and
Herd Recording



Queensland Branch
DAIRY GOAT SOCIETY OF AUSTRALIA INC

INTRODUCTION

Recording milk production can be an interesting way of gauging your goat's performance and allow you to make claims for Milk Awards. This is also a means of demonstrating the worth of your goats when selling progeny. This enables a record of the does and the bucks estimated breeding value through this long-term production assessment. The milk awards are included in the animal's pedigree and is rather impressive if there are successive generations with awards.

This manual covers all aspects of the organising and conducting of 24-hour milk tests held under the auspices of the Queensland Branch of the Dairy Goat Society of Australia Inc. Any enquiries are to be referred to the State Milk Test Officer whose contact details can be found in the newsletters, or on the Qld. Branch website.

To assist in the organisation of the tests, the Branch will appoint a Milk Testing Officer (M.T.O.) who will handle all Branch aspects of the test. The M.T.O. (who may be the secretary) will liaise with the Organiser and perform all necessary test calculations.

All Milk Testing will be conducted in accordance with Herd Book Regulations.

ORGANISATION OF TESTS

1. All milk tests, be they herd recording or a 24-hour test, are to be approved in advance by the M. T. O. using the appropriate form.
2. A test is to be held only when requested (as listed below) by an individual member of the Branch (hereinafter known as the Organiser) who may be acting on his own behalf or on behalf of a group of members, (a Club, etc.) and the Organiser is to be responsible for the overall planning and running of the test.
3. When the Organiser requests a milk test, the submission must contain the following information and be accompanied by the appropriate fee (to be set by the Branch Committee from time to time) which will be returned if the test is not approved:
 - a) Name, address and telephone number of the organiser.
 - b) Proposed location and date of test.
 - c) Whether test is purely a 24-hour test or is combined with Herd Recording.
 - d) Minimum and maximum number of goats likely to be tested.
 - e) Name of Milk Test Recorder who has agreed to supervise test. There is a list of testers in the Branch Book for your convenience
 - f) Names and Addresses of Assistant Recorders if applicable.
 - g) In the case of a 24-hour test only, the proposed method by which samples are to be returned to the Dairy Laboratory.
4. The test is to be supervised by a Branch approved Milk Test Recorder, a list of approved recorders is available in the Branch Book or from the secretary. The Organiser may provide a capable assistant (or assistants) to help the Recorder during a test.

DUTIES OF THE BRANCH MILK TEST OFFICER

1. Duties of the M.T.O. include:
 - a. Liaison with the Organiser as required.
 - b. Liaison with the Testing Laboratory as required.
 - c. M.T.O. will advise of the location of the test Equipment if the Branch equipment is to be used.
 - d. Calculate test results and advise owners of results.
 - f. Forward test results to the F. M. O. [Federal milk test Officer]
2. The M.T.O. is to dispatch test equipment, scales (Kilograms), 2 standard weights (1kg & 5kg), sample bottles, etc. to the Organiser [the owner of the goats being tested] by the most convenient means and the Organiser is responsible for the return of the test equipment to the M.T.O. within one (1) week of the test or as otherwise arranged.

FINANCIAL ARRANGEMENTS

1. In the event of a joint test at a single venue, the Organiser bears all local expenses. It is assumed that the Organiser will recover costs from other testers but this is **NOT** a Branch matter.
2. Payment of the Recorder or Recorders expenses is a private matter between the Recorder and Organiser and is **NOT** a Branch matter.

CONDUCTING 24 HR TESTS

1. Tests shall be carried out to the requirements of the Regulations of the Dairy Goat Society of Australia Ltd as cited in the current Herd Book.
Any other regulations which apply, and the standards to which recorders have been trained.
2. The Organiser is responsible for providing any reasonable requirements of the Recorder.
3. The Recorder should not be expected to be responsible for the care, and/or security of the animals in any way.
4. When doing a 24-hour test, the Recorder [and any additional testers] should arrive in sufficient time to enable **Recording** Forms to be completed in quadruple; (1 for Testing Company, 1 for Tester, 2 for Recorder); and tattoos should be checked as the goats are milked to ensure the correct goat is allocated to that milk. Testers should ensure that all necessary information is available.
5. The day after kidding is considered as day 1 of the lactation.
6. Goats should be entered on Recording Forms with all the goats entered in order of testing. Bottle numbers are allocated by way of a marking pen in order of listing.
7. The Recorder is to initial the Form against the tattoo to signify that the tattoo has been verified.
8. After strip-out the Recorder should check that each goat has been satisfactorily milked out. When doing so, the Recorder should observe any reasonable request by testers re washing of hands, use of udder wash, etc. Strip-out quantities **need not** be weighed.
9. By convention, the strip-out is performed in the afternoon and the milkings on the following morning and afternoon. This is not mandatory and can be changed to suit the individual situation.
10. At an agreed time, the first milking is carried out. The order of milking is maintained, and the Recorder should ensure that milking of individual animals is not unnecessarily prolonged. Milking should be carried out in an open manner.

MILK RECORDING PROCEDURE

Weighing and Sampling the Milk.

1. Ideally the Recorder should be in a well-lit area equipped with a bench or table. The scales used should be for weighing in Kilograms and be set up so as to allow ease of reading for an accurate recording. Using a clean bucket supplied by the Organiser for all weighing zero the scales. Check the accuracy of the scales with the two test weights. If the scales are more than half a unit (25g) out of either weight the test should not proceed until the scales are corrected. If the scales cannot be corrected the test must be abandoned. Under no circumstances must the observed weights be adjusted to compensate for scale errors.
2. After the first weighing has been made re-zero the scales to compensate for the residual amount of milk in the bucket. It is assumed this amount of milk is constant throughout the test.
3. Testers, [the person testing/owning the goats] not Recorders, should carry the milk to the Recorder and tip it into the weighing bucket. Testers are reminded that milk from individual animals becomes contaminated with milk from other animals during weighing and sampling and careful consideration should be given to the subsequent use of that milk
4. Weights are read to the nearest unit (50g) and entered on the Recording Form using 2 decimal points only.

5. Whilst the milk is still in the weighing bucket a sample is taken for butterfat testing. Using a soup ladle or similar implement, **gently stir the milk in a figure of eight** and then scoop a sample quickly from below the froth level. This should ensure a minimum of froth in the sample.
Pour the sample into the bottle to within 1-2cm of the top. Cap the bottle and gently invert it several times to dissolve the preservative. Check that the bottle number corresponds to the goat listed on the form at both milkings. **[If a composite test is being conducted in conjunction with herd recording, only half fill the bottle to allow for the second sample at the following milking].**
Place the bottle in the correct position in the box/container. It is usually necessary to repeat the inverting procedure before the samples are chilled to ensure that the preservative is dissolved.
6. Empty the milk thoroughly from the weighing bucket and drain the sampling implement between individual tests. [it may be necessary to re set the scales if using the same bucket each time as there may be a residue in it which will affect the reading.]

CARE OF THE BUTTERFAT SAMPLES

1. Bottles are supplied by the testing company [eg. Dairy Express]. These bottles have blue preservative in them when dispatched to the user.
NOTE: This preservative is moderately poisonous and should be treated with care.
The preservative is coloured so the absence of it will be obvious. The preservative prevents souring of the milk but does not prevent churning, which is the separation of the milk into various components and is caused by agitation. A churned sample does not test satisfactorily. Churning can be prevented by careful handling and prompt chilling.
2. It should not be necessary to chill the samples until a test session is complete but the sample-bottle/s, should be placed in a cold refrigerator or ice box promptly on completion of the test session and the samples should be chilled to below 10 C. Samples must not be frozen as they cannot be thawed satisfactorily. Use of a freezer for chilling samples is not advised because of the danger of freezing the samples.
3. Using a permanent marker pen, clearly number bottles 1 A.M. or P.M. matching bottle number to number for goat on test/claim form and succeeding bottles 2, 3, 4, etc .
Bottles must be packaged securely As per the instructions of the milk testing company.
4. The 24-HR samples are always to remain under the control of the Recorder until they are dispatched. This is not necessary for samples for herd recording that are being posted or collected by a courier. The security is not as relevant as any inconsistencies will be detected on the herd recording records.
5. At a time not later than 24 hours after the strip-out time the second milking commences. [Generally the first milking is approximately 12 hours after the strip out] The process is identical to the first procedure. Note that the same bottle number is used for the same goat for A.M. and P.M. tests. This will be for either composite or time related samples. After completion of all weighing and sampling the Recorder is to sign all sheets against his/her name.
6. When all samples are chilled they can be packed according to the mode of transport to the Testing Laboratory One copy of the completed Recording Form should be placed in one of the boxes in a plastic bag to protect them from moisture Packaging will differ for milk test companies and the mode of delivery to the laboratory.

FORMS

1. The Recorder retains **two of the four** duplicate copies of the Recording forms in case the originals are lost or damaged. Note that it is preferable to complete the duplicate forms separately rather than to use carbon paper because of the difficulty of aligning the two forms.

BUTTERFAT CALCULATIONS

This information is printed in your herd book.

CLAIMS

- 24-HR Test award claims are made on the official test/claim form.
- Herd Recording, Dam and Sire of Merit claims, etc. are made on the Production Awards claim form.
- Both forms can be found on the internet or obtained from the secretary.
- Please read the Herd Book for One Day Production Test regulations.

COMPANIES PROVIDING MILK RECORDING SERVICES

See current Branch Book for up-dated list including fees and charges.

PROCEDURE TO BE OBSERVED WHEN 24-HOUR TESTING IS COMBINED WITH HERD RECORDING

The results obtained during Herd Recording will be accepted for 24-hour Test purposes providing the following criteria are met:

1. An application for 24-hour test is made in advance and approved by the M.T.O.
2. The general standards applicable to a 24-hour test are observed during herd recording.
3. The Recorder is approved by the Branch to supervise 24-hour testing.
4. Normal Herd Recording equipment is used but test weights used for checking the scales are supplied by the Branch.
5. A supervised strip-out is incorporated and the final milking is started not more than 24 hours after commencing the strip-out.
6. This method of 24-hour testing is only available to does on regular Herd Recording and is not intended for casual Testing.
7. Normal 24-HR test paperwork is completed during the test in addition to the herd recording paperwork. This can be forwarded to Testing Laboratory with herd recording form or forwarded with the Testing Laboratory herd recording sheets (or a signed photocopy) direct to the M.T.O., for evidence of butterfat percentage. The 24hr test /claim form is to accompany this report if form not previously sent to Testing Laboratory.
8. A composite or individual A.M./P.M. sample is taken for butterfat testing with both the A.M. and P.M. portions representing not less than 50% of the total sample taken if a composite test is to be performed. Alternately 2 separate samples may be taken but depending of the chosen milk test laboratory, extra fees may apply for additional samples.
9. Calculations are as for a normal 24-hour test.

QUICK REFERENCE

HERD RECORDING

Herd Recording is defined in the herd book as a regular and systematic method of measuring and recording the herd's milk and butterfat production, as well as protein content.

There are three different methods of Herd Recording recognized and described in the herd book. Independent Herd Recording, Farmer Own Sampling, Combination of Independent Monitoring and Farmer Own Sampling.

It is intended that milk production tests should indicate yields on normal foods. The administration of drugs or the feeding of whole milk or animal fats to increase milk yields is not permitted.

REMINDER SHEET

Please read your manual before starting the Test and observe the following points which are some-times overlooked.

1. Ensure that milking times and milk quantities are entered in the correct columns on all the paperwork.
2. Ensure that the scales are zeroed for the particular equipment used and re-zeroed after the first weighing.
3. Ensure that a sample is taken for butterfat testing before the milk is emptied from the weighing bucket.
4. Ensure that the preservative is fully dissolved in the milk sample.
5. Ensure that sample bottles are clearly numbered with a permanent marker pen.
6. Ensure that all Recording sheets are signed by BOTH Recorder and Organiser and all tattoos are initialed after checking.
7. Ensure that one copy of the test/claim form is included with the butterfat samples when samples are for a 24hr test not done in conjunction with herd recording. (Not essential when testing is combined with Herd Recording).
8. Forward recording sheet and copy of the Testing Laboratory Herd Recording sheet (or a signed copy of same) direct to the M.T.O. when testing is combined with Herd Recording.
9. Contact Testing Laboratory directly for fees, packing and transporting information.