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# BRITISH GOAT SOCIETY

  

# MILK RECORDING MANUAL

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January, 1999

## **PREFACE:**

This Manual, produced 10 years after the first one, is a necessary response to changing circumstances of milk recording, including a recent radical change in BGS Milk Recording Regulations. It has been produced bearing in mind the need to give positive support to Club Milk Recording Secretaries.

Much of the Manual has a format suitable for direct photocopying and use by the Secretaries and others.

The availability of cheap new or second hand computers makes the move towards computerisation inevitable. The demands of operating a milk recording scheme on a computer are very modest in the computing power required. I would like to thank Roy Rowe of Somerset Dairy Goat Club, for the excellent milk-recording program he has developed and for making it freely available to BGS members. He also provides, free of charge, hot line support in using the program.

In producing this Manual I have been helped by Ruth Tyler of Mid-Essex Goat Club, Graham Hart of Sussex County Goat Club and Jean Cunnington of Norwich and District Goat Club. All have experience in running milk recording Clubs. I would like, also, to thank Ruth for being such an excellent proof-reader. I wish to thank members of the BGS Milk Recording Group for their guidance at critical points in matters of policy.

Sue Knowles, the BGS Secretary, has provided a valuable contribution in explaining the BGS administration procedures for milk recording (Section 10).

Peter Cox  
BGS Chairman  
BGS Milk Recording Co-ordinator  
December 1998

Amended by Order of the Committee in May 2004 to include Section 11, Milk Recording for goat farmers.

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## SECTION 1                      BGS Milk Recording Regulations

This is mandatory in order to obtain valid data.

### Regulation 15 (Milk Recorded Goats)

15. Milk Recorded goats must be recorded by a scheme that complies with the following Milk Recording Regulations. The yields of goats that are milk recorded and tested in accordance with these Regulations shall, at the discretion of the Committee, be published in the Society's Herd Book.

- (1) All Milk Recorded goats must be registered with the BGS
- (2) All Milk Recorded goats must have an earmark that is legible and corresponds to that on each milk recording sheet.
- (3) An incorrect or indistinct earmark may lead to an unaccepted recording for that goat. Checkers will be required to report incorrect or indistinct earmarks to the scheme organisers (in BGS Club Recording this would be the Club Milk Recording Secretary).
- (4) BGS Milk Recording may take place on either a "whole herd" or "part herd" basis.
- (5) The lactation period, upon which distinguishing marks provided for in Regulation 22(2), (3) and (4) shall be awarded, must commence from the date of kidding and cease with the termination of the natural lactation or the three hundred and sixty fifth day from the date of kidding, whichever occurs first. Lactations once terminated and for which a certificate has been issued may not be reopened. A lactation period commencing with an abortion will be treated as a new lactation. A natural lactation, for recording purposes, is deemed to be terminated when the total daily yield becomes less than 1.00 kg or the goat is milked once daily only.
- (6) An extended lactation must be in excess of 365 days and must cease with the termination of the natural lactation as defined in Regulation 15(5).
- (7) Milk samples must be taken at the p.m. and a.m. milkings i.e. successive milkings, on each weigh date. Sample bottles and completed Statement sheets must be despatched before the next evening milking commences. In *exceptional circumstances* the recording member must advise the Milk Recording Secretary, by telephone before the time of a possible check, of the individual weights if it is not possible for the samples to be off the premises. Samples must be taken in a manner described in the BGS Milk Recording Manual. Samples must be tested for butterfat percentage and protein percentage at a National Milk Records laboratory or another testing laboratory approved by the Committee, subject to the following conditions:
  - (a) no weights or results of fat and protein tests shall be included in the calculations if taken within 10 full days of the goat kidding or aborting (abortion as defined in Regulation 19(9)(c));
  - (b) no weights or results of fat and protein tests shall be included in the calculations if the total of the p.m. and a.m. yield is less than 1.00 kg.
- (8) The total milk yield and cumulative fat and protein percentages for the lactation period shall be calculated using the method defined by British Standard 4866 (1972) Method 3.
- (9) Each recording member must receive at least three complete p.m. and a.m. checks per calendar year.

A milk recording Checker approved by the Club Milk Recording Secretary, or NMR, must:

- (a) observe each recorded goat being milked;
- (b) check the earmark of the goat after it has been milked;
- (c) weigh and take samples of the milk from each goat using the methods stated in the BGS Milk Recording Manual;
- (d) enter (or check if pre-printed) the ear mark of each goat recorded so that it is correct on the check visit sheet, and then enter the corresponding weight of milk;
- (e) attend to the security of check day samples and check visit sheets as stated in the BGS Milk Recording Manual.

The checks must take place on the consecutive p.m. and a.m. milkings subsequent to the recording p.m. and a.m. milkings.

Checkers must give *no prior notice* to the recording member that a check is to take place.

Club Recording Secretaries may, *in exceptional circumstances*, respond to a member enquiring if a check is scheduled, providing the enquiry is after the a.m. weigh date recording and security measures described in the Milk Recording Manual are followed

- (10) Details of a lactation will be published in the Herd Book if a lactation certificate has been provided by the recording body and sent to the BGS Secretary, together with the month by month detailed record leading to the production of the certificate. Check day data must also be sent to the BGS Secretary who will be responsible for validating the Awards as the final step before publication.

In addition the following criteria must be met:

- (a) the milk yield must not be less than 1,000 kg within the 365 day lactation period referred to in Regulation 15(5);
- (b) there must have been at least six composite samples taken on weigh dates starting at the beginning of the lactation as referred to in Regulation 15(5) and covering a minimum period of 190 days;
- (c) in extended lactations as defined in Regulation 15(6) the yield must not be less than 2,000 kg with a minimum of 700kg being produced in the second or any subsequent year.

The BGS Milk Recording Manual is approved by the Committee as setting the detailed operational standards required to obtain valid milk records.

The Committee shall have the right to waive or make additions to any of the Regulations on Milk Recorded Goats under exceptional circumstances.

The Committee further reserves the right to delegate the responsibility for dealing with urgent milk recording decisions to one or more of its members, who must act in consultation with the BGS Secretary.

## **SECTION 2                      Setting up a Milk Recording Club**

Two methods are possible:

### **(1)      A Recording Section of an existing BGS Affiliated Society**

The easiest way to set up a milk recording Club is as part of an already existing Affiliated Society. Before starting it is necessary to get the milk recording Club officially recognised by the BGS Milk Recording Working Group. For this to happen the rules and regulations of the Club need to be accepted by that Working Group. No additional affiliation fee is required, since the parent Society is already affiliated to the BGS.

- Office holders need to be defined: Club Milk Recording Secretary, Deputy Club Milk Recording Secretary.
- Conditions of membership need to be defined.
- Details of the organisation need to be given: check visits, the proposed testing agency for milk samples.
- A statement needs to be made concerning how rules may be changed.
- A Club rule should state that the Club will "abide by all the Rules and Regulations of the BGS and follow milk recording procedures as defined in the BGS Milk Recording Manual".

Once recognition is given, the BGS Secretary needs to be sent the name, address and telephone number of the Club Milk Recording Secretary, together with the date when recording will start.

### **(2)      Direct BGS Affiliation**

For a Society or Club to become affiliated directly to the BGS, the Committee of the BGS must approve its rules and regulations. The application for affiliation, accompanied by the appropriate fee and set of Club rules must be made to the BGS Secretary in accordance with Rule 5 of the BGS.

- Office holders of the Club need to be defined: Chairman, Secretary, Treasurer, Club Milk Recording Secretary and Deputy Club Milk Recording Secretary.
- Method of election to office needs to be stated.
- A statement needs to be made of when the A.G.M. of the Club will take place.
- A description is required of how the Club will be managed: frequency of meetings, who is to be eligible for membership, how rules can be changed.
- A Club rule should state that the Club will "abide by all the Rules and Regulations of the BGS and follow milk recording procedures as defined in the BGS Milk Recording Manual".

Once Affiliation has been granted, the BGS Secretary needs to be sent the name, address and telephone number of the Club Milk Recording Secretary, together with the date when recording will start.

## SECTION 3

## Definitions and Terms used in the Manual

### **Analysis sheet:**

This is a sheet used by Club Milk Recording Secretaries to accompany samples to the testing laboratory. A blank sample analysis sheet is included with this Manual (appendix 4). Completed sheets or data provided by the testing laboratory are very important and must be carefully stored for a period of at least three years. The BGS Secretary may request the originals before awards can be validated.

### **Calculations Officer:**

Some Clubs appoint an assistant to the Club Milk Recording Secretary to carry out the necessary processing of data to obtain cumulative figures for the weigh/monthly statement sheet. Access to a PC can make such data processing much simpler and quicker.

### **Checker:**

This is a person who checks earmarks of goats, checks weighing and checks sampling on occasions stated in the Manual.

### **Check day:**

This is the 24 hour period from immediately after the AM milking on weigh date 2 until immediately after the AM milking on weigh date 3

### **Checking Officer:**

This is the title given to an assistant (if there is one) to the Club Milk Recording Secretary. He/she is a person who arranges check visits by Checkers, ensuring that the required number of visits takes place on a random basis. The Club Milk Recording Secretary arranges check visits to the Checking Officer should that person milk record.

### **Check visit sheet:**

This is a special sheet on which the Checker writes the weights of milk obtained during the check visit, and also writes (or checks if pre-printed) essential goat details: reference number and earmark of goats being checked. Often this sheet is a slightly modified weigh/monthly statement sheet (no cumulative totals are required). The BGS has produced a check visit sheet and copies are available from the BGS office (SAE please). The originals of completed check visit sheets must be kept on file for a minimum period of three years.

### **Check visits:**

These take place according to details given later in the Manual. Weighing and sampling of the milk of recorded goats is undertaken by independent persons at least three times per annum. The same times of milking need to be used during check visits as during the weigh day.

### **Club Milk Recording Secretary:**

This is the person responsible for implementing procedures described in this Manual. He/she is responsible for sending weigh/monthly statement sheets, Lactation Certificates and Lactation Detail Reports to the BGS office. He/she is also responsible for dealing with any queries from the BGS office and checking or resolving problems that may arise. The Club Milk Recording Secretary may delegate some tasks to others but remains the person to whom the BGS has delegated authority.

### **Goat Detail Form:**

This is an optional but convenient form. It can be used to ensure that all of the required information about the goats to be recorded is supplied to a Club Milk Recording Secretary before recording commences with that Club. The BGS has produced such forms and copies are available from the office (SAE please).

### **Goat reference number:**

This is a number allocated to a particular goat by the Club Milk Recording Secretary. If samples are being tested and processed by NMR this number may be called the **Line Number** of the goat. This term, for historic reasons, is in widespread use to indicate the reference number for a goat.

### **Herd Detail Form:**

This is an optional form which, when completed, provides concise details of the Herd's owners and Checkers. It is recommended that such a form is used, and copies of a suitable BGS form may be obtained from the office (SAE please).

### **Lactation Certificate:**

This is a certificate produced at a specified time e.g. at 365 days after kidding, or at the end of lactation or when a goat ceases to record with that Club for other reasons. Copies of Lactation Certificates for 365 days must be sent to the BGS office before BGS Awards will be given, or data published in the Herd Book. Lactation Certificates may need to be provided at other times. A blank Certificate is included with this Manual (appendix 2). Further copies can be obtained from the BGS office (SAE please).

**Lactation Detail Report: (previously called the Lactation Folio).**

This gives a month by month record of a goats yield, fat and protein over a lactation. It must also include details of data from check visits. A blank Lactation Detail Report is included as an appendix to this Manual (appendix 3). Copies of blank Lactation Detail Reports may be obtained from the BGS office (SAE please).

**Master sheet:**

This is a composite sheet that contains details of all weigh/monthly statements produced by herds within one milk recording Club, including the results of check visits. It is usually computer generated and is an acceptable alternative to sending to the BGS Secretary copies of all weigh/monthly statement sheets (reducing copying and storage costs). The format of the master sheet requires prior BGS approval.

**Monthly statement sheet:**

A copy of this is sent to every person who has recorded goats after a particular month's recording. It identifies each goat and gives the results of the last recording, cumulative total yields and percentages. The Club Milk Recording Secretary keeps copies of monthly weigh/statement sheets and the original is sent to the BGS office (unless the Club's master sheet is sent instead). This happens as soon as possible after the Club Milk Recording Secretary (or an assistant) has completed the calculations. If the Club records directly with NMR the cumulative totals are already calculated. Copies of approved formats are obtainable from the BGS office (SAE please).

**Weigh dates:**

*Weigh date 1:* This is the date on which the first PM recording takes place. It is the prime date for those recording, since it is the first date on which recording takes place. The AM milking (not recording) needs to take place at the stated milking times of the recording herd in order to fit in with the remainder of the schedule.

*Weigh date 2:* This is the following date on which an AM recording takes place. It is also the date on which the first check may take place at the PM recording time.

*Weigh date 3:* This is the date on which the second part of the check takes place AM.

**Weigh day:**

This is the 24 hour period from immediately after the AM milking on weigh date 1 until immediately after the AM milking on weigh date 2. This implies that a goat must be milked at the same time AM on weigh date 1, as it will be milked AM on weigh date 2.

**Weigh sheet:**

This is the sheet made out with the goat's name, reference number (line number), earmark, lactation number and date of kidding on which the actual weights of milk are written as they are measured, together with other relevant comment. The originals of these completed sheets must be kept on file for a minimum period of two years. The weigh sheet is sometimes combined with the statement sheet (see below).

**Weigh/ monthly statement sheet:**

The use of these sheets removes the need for separate weigh and monthly statement sheets. On one of these weigh/monthly statement sheets the recording member writes goat details and then enters the weights of milk. The sheet is then sent to the Club Milk Recording Secretary who in due course enters the fat and protein percentages and enters the results of the calculations. A copy of this weigh/statement is then returned to the members, and the Club Milk Recording Secretary keeps a second copy. A separate sheet, but with the same format is completed by the Checker. The completed originals of the sheets are sent to the BGS Secretary (unless a master sheet (see below) for that Club is sent instead). A sample blank sheet is included as an appendix to this Manual (appendix 1) and further copies can be obtained from the BGS office (SAE please).

## **SECTION 4                      Equipment needed**

### **Milking bucket:**

This should be a bucket with a handle, preferably stainless steel, of about 6 litres capacity.

### **PVC tape:**

Approximately 15mm wide, as used by electricians, for sealing around sample pot lids to minimise risk of milk leakage if the samples are to be posted.

### **Padded postage envelopes (Jiffy bags):**

These are for posting samples, where this is going to be necessary.

### **Plastic bags:**

These are for enclosing milk sample pots within a padded postage envelope, and are to prevent any milk leakage from affecting weigh/monthly statement sheets.

### **Sample dippers:**

These are numbered and hold different amounts of milk. Use a Number 12 dipper to sample milk that has been produced as a result of a milking interval of less than 12.5 hours. Use a Number 13 dipper when the interval since the last milking has been between 12.5 and 13.5 hours; a Number 14 dipper for an interval between 13.5 and 14.5 hours and so on. Hence, those recording with one of the milking intervals being 12.5 hours or more will require two dippers. Your Club Recording Secretary or testing agency will provide you with the correct dippers to use according to your stated milking times.

### **Sample pots:**

Supplied by the testing agency these contain a poisonous preservative. Morning and evening samples are put together in the same pot, after having been measured with the appropriate dipper.

### **Scales:**

Use purpose-built milk recording scales weighing up to 5.0Kg minimum and no more than 10.0Kg. They must be marked in divisions no further apart than 0.1Kg and should be capable of being set to read zero when weighing the empty weighing bucket. The scales must be capable of being read to the nearest 0.1kg.

### **Storage vessel:**

A churn (preferably stainless steel) for storing milk that has been weighed and sampled. The capacity of the vessel will depend on the aggregate yield of goats to be milked.

### **Torch:**

This can help in reading indistinct earmarks if held behind the ear and against it, with the light shining through. Checkers will need to check earmarks.

### **Waterproof marker:**

For marking goats Reference Numbers (Line Numbers) on the lids of a sample pots.

### **Weighing bucket:**

This should be a bucket with a handle, preferably stainless steel of about 6 litres capacity.

### **Weigh/monthly statement sheet and a pen:**

For recording the weights of milk as the milk is weighed. The goats reference number and earmark number may need to be written on the weigh/monthly statement sheet if this has not been pre-printed, or if there is a new goat being recorded.



## SECTION 5

### Milk Recording Instructions for those who record

- **Goats you intend to record must be registered with the BGS.**
- **The earmark of each goat must be clear, legible and correspond to that on its registration card. Procedure for re-earmarking indistinct earmarks is defined in BGS Regulation 11 (e).**

#### **Checkers and checks:**

Two Checkers are required; each of whom may be called upon to carry out up to two complete checks on your milk recording. A minimum of three checks is required in a calendar year, with both Checkers having been involved. These Checkers must be totally independent of the recording member, but need not be goatkeepers.

- A Checker cannot be an employee, or be subcontracted, or a regular assistant of the recording member.
- A Checker must not be a relative of the recording member.
- A Checker must not be resident in the same household as the recording member or the other Checker.

In addition to the minimum of three checks by nominated Checkers, a Club Milk Recording Secretary may organise a check after any recording as a means of ensuring quality control.

The BGS Milk Recording Group reserves the right to a spot check on behalf of the BGS immediately following any recording. No prior notice will be given.

#### **Equipment needed:**

See Section 4 in this Manual.

#### **You should supply your Club Milk Recording Secretary with the following details:**

- **Goat registration details**, best copied from the goat's registration card.

Name of goat	Registration number	Earmark number	Date of birth
Date last kidded/due	Lactation number	Breed	Breeders name
Sires name	Sires registration number	Dams name	Dams registration number

- **Times of milking** must be strictly adhered to during weigh dates 1, 2 and 3. If, for any reason, there needs to be a departure from these times the Club Milk Recording Secretary must be informed in advance. Sufficient time needs to be given to contact Checkers if possible. Recording members **MUST NOT** contact Checkers prior to the time of a possible check.
- **Dates when you expect to be on holiday or at shows** etc. Please do this well in advance so that arrangements can be made e.g. by moving weigh dates to accommodate these personal difficulties.
- **Your own details** i.e. name, address, post code, telephone number, herd prefix.
- **Your Checkers details** i.e. name, address, postcode, and telephone number, best time for contact by phone.
- **The appropriate fee** for Club membership, BGS levy and testing samples etc.

#### **You should receive from your Club Milk Records Secretary:**

- A reference number (sometimes called line number) for each goat you intend to record.
- A supply of sample pots.
- A calendar of milk recording dates (usually once per calendar month).
- A dipper or dippers to fit in with your stated milking times.
- The necessary paperwork to be filled in at the time of recording, and possibly sheets for use during check visits.
- Detailed instructions of procedures for weighing and sampling milk (printed in Section 5 of this Manual).
- A copy of BGS Regulation 15 (printed in Section 1 of this Manual).

## Instructions for weighing and sampling milk:

1. Check that a numbered sample pot is available for each goat to be sampled and that each pot contains preservative. Each sample pot must have its lid clearly marked with a waterproof (chinagraph or permanent felt tip) marker to show the goat's reference number.
2. Check that the scales read zero when weighing with the empty weighing bucket.
3. Check that the dipper is the correct one for the time interval since the previous milking.
4. At pre-arranged time milk one goat at a time into the milking bucket. The goats can be milked in any order, but chosen order must be kept to for the recording and check. When machine milking deal with one jar at a time.
5. Gently and carefully transfer the milk from the milking bucket into the weighing bucket.
6. Weigh milk and enter figure on the weigh/monthly statement sheet). Weigh to the nearest 0.1kg.
7. Pour the milk steadily back into the empty milking bucket.
8. Stand the empty weighing bucket upside down to drain.
9. Very gently stir the weighed milk to ensure that the dipper contains a representative sample of milk.
10. Lift the dipper, in an upright position, clear of the milk. Milk should flow out of the hole in the side of the dipper until it reaches the right level. If there is not a flow, tip the sample back and try again.
11. When the milk stops flowing from the hole, pour the sample into the correct sample pot.
12. Tip the milk from the weighing bucket into a storage vessel, allowing the milking bucket to drain before commencing to milk another goat.
13. In the morning repeat the process, milking the goats in the same order as the previous evening, but adding the sample to the one taken the previous evening.
14. Enter, on the weigh/monthly statement sheet, details and dates of relevant biological events e.g. suckling, kidding, dry, oestrus, death, etc.
15. Enter, on the weigh/monthly statement sheet, details and dates of management events e.g. once daily milking, service, worming, disturbance, feed bin raid, illness, etc.
16. The samples and weigh/monthly statement must be "posted", or "delivered" to the Club Milk Recording Secretary as soon as possible after completion of milking.
17. If posting the samples, seal the tops of the sample pots with electrician's PVC tape to minimize leakage risks. Place the sealed sample pots in a separate plastic bag (within a padded envelope), so that any leakage in the post will not damage the weigh/monthly statement sheet.
18. "Posted" samples **must** bear a postmark before the appointed time of any possible check. If, in exceptional circumstances, this has not been possible, the Club Milk Recording Secretary (or an agreed deputy) must be contacted and the yields of the recorded goats and their line numbers given.
19. If "delivered", the samples **must** be with the Club Milk Recording Secretary before the time of any possible check visit.

NOTE: The BGS Milk Recording Regulation (you should have received a copy from your Club Milk Recording Secretary) states when a goat needs to commence recording and also when its natural lactation is defined as being closed. In all questions of doubt the Regulation must be the prime reference.

REMEMBER: You must keep to pre-arranged times, and milk the goats in the same order.

WARNING: The sample pots contain a poisonous preservative.

NOTE: When machine milking it is essential to record the weight of milk and take a sample from each jar separately and in turn.

**Preparation by Checkers before check visits:**

Checkers have their work co-ordinated by the Club Checking Officer.

It is essential that each Checker is provided with the telephone number and contact times for the Checking Officer.

Each Checker should study the relevant parts of the BGS Milk Recording Manual, which should have been provided by the Checking Officer:

“Instructions for weighing and sampling milk” (from Section 5),

“Preparation by Checkers for check visits” (from Section 6),

and “Check Visit procedures” (from Section 6).

Each Checker should receive details of the times of milking of the herd he/she is to check.

Checkers should receive advance notice of when they may be called upon to carry out a check. It is most unlikely that you will be called upon for more than two complete checks (PM + AM) in a year.

The checks must take place on the consecutive PM and AM milkings subsequent to the recording PM and AM milkings.

It would be most helpful if the Checking Officer is informed as soon as possible of dates when checking would not be possible. This would greatly assist planning out the visits.

**Check visit procedures:**

It is essential that **NO PRIOR NOTICE BE GIVEN** of the fact that you have been asked to carry out a check visit. Just arrive about 10 minutes before the stated milking time on the first evening of the check.

Club Milk Recording Secretaries (or a Deputy) may, *in exceptional circumstances*, respond to a member enquiring if a check is scheduled, providing the enquiry is after the a.m. weigh date recording and security measures are followed. Hence Checkers may find that their arrival is expected.

The security measures require that the member has already supplied the weights of milk of the goats by telephone. The BGS Regulation allows for this dispensation, but this is the only basis for a member knowing that a check is due.

1. Observe each recorded goat being milked.
  2. Check the earmark of the goat after it has been milked.
  3. Weigh and take samples of the milk from each goat using the methods as stated in the section “weighing and sampling milk” as in section 5 of this Manual.
  4. Enter (or check if pre-printed) the ear mark of each goat recorded so that it is correct on the check visit sheet, and then enter the corresponding weight of milk.
  5. Attend to the security of check day samples and check visit sheets by taking the PM samples and check visit sheet off the premises with you overnight.
  6. Make sure all sections of the check visit sheet are completed, including any items relevant to sections in “weighing and sampling milk”.
  7. Verify that the check visit sheet is complete after the AM check by signing the sheet in the space provided.
  8. Witness the sealing and packaging of the sample pots and check visit sheet by signing over the seal of the postal package.
- Checkers should contact the Checking Officer, by telephone, regarding any irregularities or suspicious circumstances surrounding a check visit.
  - Such matters could include a departure from stated milking times, an inability to read a goats earmark, or being unable to see a goat being milked, or being unable to carry out some part of the check according to the instructions sent to the Checker.

**Instructions/advice for Checking Officers:**

- Provide Checkers with copies of the relevant parts of the BGS Manual: “Instructions for weighing and sampling milk” (from Section 5), “Preparation by Checkers for check visits” (from Section 6), and “Check Visit procedures” (from Section 6).
  - Provide Checkers with your name, address and telephone number.
  - Contact Checkers well in advance of dates when they may be needed to carry out check visits, thus enabling changes to be made as a result of unavailability.
  - Ensure that Checkers receive a pre-printed check visit sheet prior to the check visit, or a supply of blank check visit sheets on which all details are written. Samples suitable for photocopying are available from the BGS office. If the sheets are blank sheets it is a good idea to initial the sheets and date them in a colour other than black (red or green preferred).
- OR**
- Send three blank sheets to the recording member at the beginning of each year, so that Checkers will know that blank sheets will be available on their arrival.
- Plan three check visits for each member in a year, with no more than two checks from one Checker unless special permission is obtained. (The BGS Milk Recording Co-ordinator may give permission for more than two checks from one Checker, but this permission will only be given in exceptional cases).
  - Report to the Club Milk Recording Secretary any circumstances or incidents reported to you by Checkers, and keep a written dated note of such incidents.
  - Do not allow reciprocal checking unless special additional provisions are agreed i.e. members may not check each others goats. (The BGS Milk Recording Co-ordinator may give permission for this condition to be waived, providing each herd owner agrees, in advance, to pay the expenses for an additional independent spot check organised by the Checking Officer).

**The prime reference of Club Milk Recording Secretaries is Section 1 of this Manual i.e. the actual BGS Regulation**

There is still scope to allow the actual details of organisation to vary, since Clubs vary in size, location, data processing facilities and so on. This section will summarise how two successful Clubs organise their milk recording activities. It must be stressed that these are only examples and it is left to Clubs to pick up ideas and adapt to fit their needs. A few Clubs arrange for NMR to process data and issue Lactation Certificates, in addition to testing samples. Those who use this method pay for the additional services. NMR produce instructions, which are very similar to those followed in the examples below, and the BGS accepts the format of paperwork from NMR. The Manual produced by NMR gives specific instructions to Club Milk Recording Secretaries and it was felt unnecessary to repeat these instructions in the BGS Manual.

**Method 1 NMR tests for fat and protein, but data is Club processed (partly by computer)****Size of Club:**

15 herds, with no more than 5 goats per herd making about 60 goats altogether.

**Officers:**

Club Milk Recording Secretary, Checking Officer, and Calculations Officer. A small sub committee, of up to seven people, including the Officers oversees the running of the milk recording section of a BGS Affiliated Society.

**Initial administration:**

The Club Milk Recording Secretary ensures that each member has a supply of sample pots, dippers, copy of instructions for weighing and sampling milk and a copy of current BGS Regulations. The Club Milk Recording Secretary collects details of goats being recorded and allocates line numbers to them. Each recording member is given a management group number (1 to 20 at present) and then a range of line numbers (e.g. management group 2 could be allocated line numbers from 20 to 39. (The management group number is shortly to be replaced by a letter instead). It is the line number which members use to identify a goat, and a member can reuse "vacant" line numbers within the range allocated to his/her management group. The word "management" is related to the administration of the Club and is a means of allocation of a range of line numbers to a member.

Each member is sent a modified weigh/monthly statement sheet, coloured (yellow) and titled "Check visit sheet", with a space for the Checkers signature. A replacement check visit sheet is sent when the first one has been used, so that it is ready for the Checker when he/she arrives.

**Dates for recording:**

Weigh date1 is the first Thursday in each month, with weigh date 2 on Friday and weigh date 3 on Saturday, so that the checks are on Friday evening and Saturday morning. Members are allowed to record one day early or one day late providing special notice is given. This often links to show dates.

**Administration for those recording:**

Goat details are sent to the Club Milk Recording Secretary. Checker details and times of milking are sent directly to the Checking Officer. The Club Milk Recording Secretary has notified members of line numbers to be used for individual goats. The line numbers are used when partially completing a combined weigh/monthly statement sheet (BGS format) by entering the weights obtained on weigh date1 and weigh date 2. A copy of the completed weigh/monthly statement sheet is eventually returned to the member with the test results and cumulative totals added to date. The member files this copy of the completed weigh/monthly statement sheet. A new weigh/monthly statement sheet is included for the following month with dates filled in by the Club Milk Recording Secretary. Any alteration in

milking times or Checkers must be given directly to the Checking Officer. Lids of sample pots should be sealed with PVC tape (used by electricians). The Club Milk Recording Secretary removes the PVC tape before the samples are sent to the NMR testing laboratory.

### **Checkers:**

Checkers are notified by telephone of intended checks, and know that they must arrive with no prior notice. Weights are entered on a coloured check visit sheet (yellow), signed by the Checker. Sample pots have a letter “C” in front of the line number to identify the check day sample. Each Checker is sent a copy of “Instructions for Weighing and Sampling” and “Instructions for Checkers”, and asked to report any suspicious circumstances to the Checking Officer. Check samples and sheets are put in a sealed envelope with the Checker’s signature on the sheet and on the envelope seal. They are returned to the Club Milk Recording Secretary, who writes on them the weigh day figures in red ink when the results come back from NMR. The check day NMR data is also written on the check visit sheets (but not in red). The Club Milk Recording Secretary keeps a copy of check visit data. Members are not told their check day results normally, but these are released if there is a problem and the possibility of an extra check.

### **Dealing with samples:**

The Club Milk Recording Secretary deals with all samples and with NMR. Data from individual weigh/monthly statement sheets is transferred by hand to run continuously, in ascending line number, on coloured weigh/monthly statement sheets (blue). Data from checks is entered onto blank yellow check visit sheets, so that numbers, including the “C”, are in ascending line number order. The samples are then transferred to the box, starting with the weigh day samples, starting bottom left and going in rows from left to right. A gap of a complete row is left between weigh day and check day samples. Alternatively a separate box is used for check day samples. The blue and yellow sheets are included with the samples and the boxes sealed. The box (es) is (are) collected by bulk tank collecting from a local farm at 10.30 a.m. on a Wednesday morning.

### **Processing the data:**

The data is faxed back from NMR Harrogate, usually early afternoon on the Thursday. The original blue and yellow sheets arrive about 48 hours later. The faxed results are sent to the Calculations Officer who works out the cumulative figures using a spreadsheet on a computer, and the cumulative totals are entered by hand on the faxed sheets before being sent back to the Club Milk Recording Secretary. The Club Milk Recording Secretary then completes the paperwork by transposing cumulative totals onto the blue and yellow monthly statement sheets and the individual member’s weigh/monthly statement sheets. The completed blue sheets are sent to the BGS office, the completed yellow sheets are sent to the Checking Officer (as described above), copies of members weigh/monthly statement sheets are sent back to them – now complete. The Club Recording Secretary keeps photocopies of all sheets.

### **Other administration duties of the Milk Recording Secretary:**

Each month the Lactation Detail Report (folio) of individual goats is updated with that month’s data. Check day data is included on the Lactation Detail Report. Any Lactation Certificates are completed for any goats needing them (the standard MRS20 form issued by NMR is used for this at present). Completed Lactation Certificates and the relevant completed Lactation Detail Report are sent to the BGS Secretary. Copies of Lactation Certificates are sent to the members. The Club Milk Recording Secretary retains photocopies of all reports and certificates. Careful note is kept of the numbers of goats being recorded by each member in June. This will fix the levy payable to the BGS in October, unless the member has ceased to record by then. Collect all subscriptions, payable six monthly in advance.

## **Method 2     A laboratory tests the samples for fat and protein, but data is Club processed (totally by computer)**

### **Size of Club:**

15 herds, with between 50 and 130 goats each month.

### **Officers:**

Club Milk Recording Secretary and Checking Officer operating within a BGS Affiliated Society.

### **Initial administration:**

The Club uses a computer programme developed by Mr Roy Rowe, a member of the Somerset Dairy Goat Club. It is provided at no cost to BGS members all on a single 1.44-Mb floppy disk, together with a Manual.

All blank initial data capture forms are included. Hence the following forms for completion are sent out to all new members:

A blank Goat Detail form (details of all goats it is intended to record)

A blank Herd Details form (relevant details of people i.e. person recording and Checkers, and also times of milking).

When these forms have been returned the data on them is entered on the computer and then at a later stage the relevant information will be printed automatically when needed.

When the Herd details form has been returned, Checkers are sent a letter, thanking them for participating, and enclosing copies of the relevant sections of the Milk Recording Manual.

In addition new members are sent a copy of the Club Rules and Procedures and the Milk Recording Manual. The Club Rules relate to conditions of membership of the Club. The Procedures include "Weighing and Sampling", "Equipment To Be Used", "Checking Procedures" and other relevant detail from both the BGS Milk Recording Manual and BGS Regulations.

Each herd is allocated a letter as a reference, with up to two letters being possible. Each goat is allocated a further reference number of up to two digits. Hence B9 would indicate goat 9 in herd B. As 99 numbers are available to each herd, there is no need to re-use numbers, which could cause complications. All members are sent sample pots, dippers as required/requested.

During January, the Club Milk Recording Secretary prints out individual details of all goats in the scheme and sends the prints to members so that records can be updated, changes can be made in qualifications, goats deleted etc. A blank form is also supplied for members to enter details of all goats who will be joining the scheme during the year, giving the due kidding date to enable the goats to be put on the computer. At this stage reference numbers would be allocated and so get them onto the Herd Monthly Milk Recording Form (weigh sheet), for when they kid. The weigh sheet is a different format from the monthly statement sheet. By using this method each member's monthly statement contains all details of all goats in milk, and those due to come into milk, (goats that have gone dry are automatically removed until they have a new due/kidding date entered). This way the situation never arises where a member does not know the reference number for any individual animal.

In January three check visit sheets are sent to each member for use during the next twelve months. These are blank forms, again generated from the computer program.

### **Dates for Recording:**

Recording takes place on a Thursday night / Friday morning basis, once during each calendar month, at dates fixed to avoid major shows. A list of dates is circulated in January. Every effort is made to accommodate members, who know that they only have to ring up to arrange to change time and date of recording and checking, to fit in with any special requirements. Recording can take place up to 7 days before the pre-arranged date, but not afterwards. (In fact, three herds regularly record a day early every

month, as their Checkers do not like getting up on a Saturday morning!). It is essential that prior notice is given so that any checks can be arranged to fit in with re-arranged times.

### **Administration for those recording:**

Members will have received a computer printed weigh sheet. All goat details are on it, with spaces for PM, AM and TOTAL yields. There are also spaces for Comments/Events and for entering new goats. Sample pots are marked on the lid with the Herd letter and the goat reference number. The samples are put in a plastic bag, some members seal the pots with PVC (electricians tape – but please leave a tag for removal), then put with the weigh sheet in a Jiffy bag and posted by first class post. Samples must have a postmark before the time of a possible check according to the Club rules (now a BGS Regulation). If members miss the post, or have unforeseen circumstances they telephone and give the Club Milk Recording Secretary the weights for each goat before a possible check time.

### **Checkers:**

The Checking Officer telephones Checkers to arrange check visits and advises the Milk Recording Secretary what check day samples to expect. Checkers are told that they must not give any notice of arrival. They are sent all necessary written instructions. The check day samples, and signed check visit sheet, are sealed in the same way as the weigh day samples, signed across the seal by the Checker, and sent to the Milk Recording Secretary. Sample pots from checks are marked with an X as well as the “letter-number” of the goat i.e. R7X would be a check day sample for goat R7.

### **Dealing with samples:**

Samples are sent to On MeRiT Ltd for fat and protein testing. The Club Milk Recording Secretary opens all the envelopes, checking the postmarks and paperwork. An Analysis sheet is used to accompany the sheets to On MeRiT. This is filled in by hand with each goats reference number. Samples are placed in ascending letter-number order using the arrangement specified by On MeRiT (instructions are enclosed with the pots), starting with the weigh day samples, with the check day samples following on. Basically this requires starting at top left, going from left to right, but leaving a gap at sample 21, 41, 61, 81 and so on for laboratory pilot tests. A courier picks up the boxes from the home of the Club Milk Recording Secretary on the Tuesday following recording (this gives time for the check day samples to arrive on Monday). The results are faxed back the next day (OR sent by first class post, if wished).

### **Processing the data:**

When the analyst's sheets return from On MeRiT the data is entered for each goat on its computer record, together with milk weights and “events” notes. Check data is also added to the goat's computer record at this time. A back up to a floppy disk is taken when the data from a month's recording has been added to the goats' records. This disk is then filed. Each member is then sent a monthly statement print giving the month's results and cumulative figures for each lactation and a weigh sheet to be used for the next recording, filled in with details of all goats. These are printed directly from the computer with no extra work.

A master sheet is produced for the BGS Secretary summarizing all of the data for that recording (including checks) for all goats that have been recorded (this is also a standard report from the program). This is sent instead of the individual monthly statement sheets, and saves copying and postage costs.

The layout of columns is exactly the same as on the BGS combined weigh/monthly statement sheet.

### **Other administration duties of the Club Milk Recording Secretary:**

The computer produces Lactation Certificates when required, the fact that one is due is flagged up automatically by the computer program. It will also produce a Lactation Certificate to any other date. The supporting Lactation Detail Report (Lactation Folio) for the goat is also produced by the computer and includes check day data. Each of these reports is in a format accepted by the BGS. Copies of Lactation Certificates and Lactation Detail Reports are sent to the BGS Secretary and kept on file by the Club Milk Recording Secretary. Copies of Lactation Certificates are sent to each recording member.



Numbers recording in June is critical, and these are looked up to check the Milk Recording levy which will be payable to the BGS on October 1<sup>st</sup>.

## **Whatever the method of administration or organisation the following documents are absolutely essential before any award can be granted by the BGS**

### **(1) Lactation Detail Report (Folio)**

A sample Lactation Detail Report is included with this Manual (appendix 3).

A section of the Lactation Detail Report requires goat details to be entered. The member, before recording of the goat commenced, should have supplied this detail. It is suggested that this detail be entered on its report early in the lactation.

Each goat's weigh day and check visit data is entered in columns on the Lactation Detail Report.

There are seven columns for the data:

1. date of weigh date 1
2. weigh day yield
3. weigh day butterfat %
4. weigh day protein %
5. interval in days (i.e. number of days from weigh date1 in one month to weigh date1 in the next month)
6. cumulative number of days from kidding or aborting
7. "Comments" (transferred from weigh/monthly statement sheets): check day yield, butterfat % and protein %. Check data can be entered on a separate line if required.

(In the "Comments" section standard abbreviations can be used e.g. 'not sufficient' (N/S), 'missing sample' (M/S), or goat ill (ILL) if a weigh day's or check day's results are incomplete.)

It is a BGS requirement that a Lactation Detail Report must be sent to the BGS Secretary before a goat's figures can be considered for awards or publication.

It is easier to transfer the information each month than to try to recover it later from copies of the weigh/monthly statement sheets.

### **(2) Lactation Certificates**

A Lactation Certificate needs to be produced by the Club Milk Recording Secretary if a goat has:

- milked 365 days since kidding,
- gone dry,
- been reduced to once-a-day milking (and is not "ill", supported by a vet's certificate),
- kidded in milk,
- aborted in milk,
- been sold or transferred to an unrecorded herd,
- ceased to record,
- or died.

Sample blank Certificates are included with this Manual (see appendix 2)

**NOTES:** A fully completed Lactation Certificate, together with the Lactation Detail Report must be sent to the BGS Secretary within eight weeks of the lactation period end.

- If the goat has been running through, a fully completed Lactation Certificate showing the 365 day lactation figures together with the extended lactation figures, must be sent to the BGS Secretary, together with the Lactation Detail Report covering the whole lactation.

## SECTION 8

## Calculations

### Introduction:

All Club Milk Recording Secretaries should know, in principle, how milk recording figures are processed. To have an order of magnitude appreciation of totals to be expected is the only sure way of guarding against human error of wrong input to a computer. British Standard 4866 (1972) Method 3 is not easy for manual calculation month after month, unless very few goats are involved. It is strongly recommended that computers be used for working out the data (but with someone checking that the computer output “seems reasonable”). All embracing programs are available which will do everything for you (except put in the data correctly). A simple spreadsheet, from which the results of calculations are copied manually, has also been demonstrated to work very well. It is up to you.

Very few Clubs have the testing agency carry out the calculations, partly due to cost. Errors can be corrected so quickly when a Club member processes data, but there is often a delay with larger organisations.

Knowing the method of calculation also enables correct decisions to be made with “sick goats”, holidays”, “unforeseen events” and so on, as described in Section 9 of this Manual.

There are three main stages in applying the British Standard 4866 (1972) Method 3. These are (1) the opening interval, (2) the continuing interval and (3) the end points interval (although this need not be the end of lactation).

### Important basic concept applying to all intervals:

Although the fat% and protein% are given in the returned test data from a weigh day, the fat yield for the 24 hrs. of the weigh day, and the protein yield for the 24 hrs. of the weigh day are of prime importance.

- Weigh day fat yield = yield x fat% x 0.01 Kg.
- Weigh day protein yield = yield x protein% x 0.01 Kg.

**These will be referred to as fat yield and protein yield respectively.**

***They must not be confused with fat% and protein%.***

### (1) The opening interval:

The lactation starting point is the date the goat kids. No weights or results of fat and protein tests shall be included in the calculations if taken within 10 full days of the goat kidding or aborting.

In this first interval the method assumes that the weigh day figures apply to the whole interval.

Assume the goat has kidded for N complete days where N is greater than 10.

This is the first weigh day interval when the goat can be recorded.

- **Yield** for N days = N x weigh day yield
- **Yield of fat** for N days = N x weigh day fat yield
- **Yield of protein** for N days = N x weigh day protein yield
- **The cumulative fat% and protein%** are those obtained on the weigh day for this first interval only.

### (2) The continuing interval:

For the intermediate periods data from the current weigh day and the previous weigh day are used. An average yield (of these two weigh days), an average fat yield and an average protein yield are assumed to apply for the whole of the interval from one weigh day 1 to the next weigh day 1.

Assume the interval is M days (approximately one month).

- **Yield**  
Average yield for the interval = (weigh day yield + previous weigh day yield) x 0.5  
**Yield for the interval** = average yield x M
- **Yield of fat**  
Average yield of fat = (weigh day fat yield + previous weigh day fat yield) x 0.5  
**Fat yield for the interval** = average fat yield x M

- **Yield of protein**  
Average yield of protein = (weigh day protein yield + previous weigh day protein yield) x 0.5  
**Protein yield for the interval** = average protein yield x M
- **Cumulative number of days**  
This is the total number of days since the goat kidded to the **weigh date 1** of the current weigh day
- **Cumulative yield**  
This is the total yield from all of the intervals between recordings up to the **weigh date 1** of the current weigh day, rounded to the nearest Kg.
- **Cumulative fat yield**  
This is the total fat yield from all of the intervals between recordings up to **weigh date 1** of the current weigh day
- **Cumulative protein yield**  
This is the total protein yield from all of the intervals between recordings up to **weigh date 1** of the current weigh day
- **Cumulative fat% to date**  
Cumulative fat% = 100 x cumulative fat yield ÷ cumulative yield  
Quoted to two decimal places, rounding when necessary.
- **Cumulative protein% to date**  
Cumulative protein% = 100 x cumulative protein yield ÷ cumulative yield  
Quoted to two decimal places, rounding when necessary.

### (3) The end point interval:

A different method of treatment is required depending on whether the “end point” is (a) **between two recordings** or when it is an “end point” (b) **beyond a final recording**.

#### (a) Between two recordings:

This calculation is necessary, for example, if a 365 days Lactation Certificate is required and the cumulative totals need to be worked out to that date (which is between two recordings).

If the number of days from the previous weigh date 1 to the date when the calculation needs to terminate is L, rather than M as above.

- Use the same method as shown above in the “continuing interval”, but use L (lower figure) rather than M.

#### (b) Beyond the final recording:

This calculation is used in a number of situations, for example when a goat goes dry or kids or is reduced to once a day milking before the next recording. The date, and the nature of the “event”, needs to be stated on the incomplete weigh/statement sheet for the next recording.

Assume the number of days from the last weigh date 1 to the date of the “event” is E (less than M).

- **Yield for E days** = E x last weigh day yield
- **Yield of fat for E days** = E x last weigh day fat yield
- **Yield of protein for E days** = E x last weigh day protein yield
- **Cumulative number of days**  
This is the total number of days since the goat kidded to the **date of the “event”**.
- **Cumulative yield**  
This is the total yield from all of the intervals between recordings up to the **date of the “event”**, rounded to the nearest Kg.
- **Cumulative fat yield**  
This is the total fat yield from all of the intervals between recordings up to the **date of the “event”**.
- **Cumulative protein yield**  
This is the total protein yield from all of the intervals between recordings up to the **date of the “event”**

- **Cumulative fat% to the “event” date**  
Cumulative fat% =  $100 \times \text{cumulative fat yield} \div \text{cumulative yield}$   
Quoted to two decimal places, rounding when necessary.
- **Cumulative protein% to the “event” date**  
Cumulative protein% =  $100 \times \text{cumulative protein yield} \div \text{cumulative yield}$   
Quoted to two decimal places, rounding when necessary.

## SECTION 9

## What do you do when data is missing?

Test data may be missing for a number of reasons.

1. **A sample may have leaked**, or be sour, so testing is not possible, but the weight is recorded. (In this case **an estimate needs to be made of fat and protein**, taking account of the fact that the yield has been obtained).

Goats being treated with antibiotics should also declare “no sample – antibiotics” on the weigh Sheet, and these goats fit in this category.

2. **No sample or weights taken for all or some goats.**

A goat may be absent from the herd for valid and unavoidable reasons.

The member may have gone on holiday, be in hospital or ill etc.

3. **Missed test due to goat illness.**

An unrepresentative test would have been taken due to the goat being seriously ill and under veterinary treatment. (In this case **no samples should be sent for analysis and no weights from the weigh day entered** on the goats lactation details or used in calculations). A veterinary certificate **MUST** back up such a situation.

In all cases the Club Milk Recording Secretary should submit to the BGS office, with the monthly weigh/statement sheets, a written explanation for missing data.. **A comment must also be made in the Comment” column of the Lactation Detail Report.**

1. **A milk test result is missing (e.g. sour).**

The approved approach involves averaging the fat and protein yield of the goat on the weigh days for the month before and the month after the missing data month. From these averages the missing fat and protein percentages are calculated. Cumulative figures and the Lactation Detail Report (Folio) are amended to use the estimated figures, and “estimate” clearly stated. The BGS approves this method for estimating since it is felt that any further refinement would produce an inappropriate increase in complexity. *Any estimate can only be approximate*

Consider the following example:

The figures are different, so that it is possible to see where they have come from, without stating in words.

Date of test	Weigh day Yield	Fat %	Protein %
8/5/98	4.8 Kg	3.82	2.81
7/6/98	5.4 Kg	sour	sour
9/7/98	6.0 Kg	3.38	2.78

- **Missing fat %**

Work out  $4.8 \times 3.82 (=18.336)$ , then work out  $6.0 \times 3.38 (=20.28)$ ,

Add  $(18.336 + 20.28 = 38.616)$

Divide 38.616 by 2 to get an average  $(= 19.308)$

Divide by 19.308 by 5.4

Gives estimate of fat %  $(3.576 \%)$  rounded **gives 3.58%**

Note that the **arithmetic average of 3.82% and 3.38% is 3.60 %** (and is therefore quite close), but it is **NOT THE SAME**. It is a good idea to look at this figure, however, as a check on the approved method of estimating.

- **Missing protein %**

$4.8 \times 2.81 = 13.488$ ,

$6.0 \times 2.78 = 16.68$ ,

Total = 30.168

Average = 15.084,

divide by 5.4 = 2.7933%,

Rounded **gives 2.79%**

**The arithmetic average of the two test results was 2.795%, which is very close**, but the average used by the full method takes into account the fact that the goat was producing more milk at the lower protein %. It is therefore better estimate. They could be quite different and not necessarily in between the earlier and later figure for %, especially if the goat’s total yield of solids changed a bit.

- **Carrying out the calculations, having had missing test data**

Initially when using a computer program such as Roy Rowe's it is recommended that you enter 0.00% for both fat % and protein %. These will give temporarily incorrect cumulative fat and protein figures, but they will serve as a reminder, when the next weigh day figures are entered, that a retrospective estimate needs to be made.

When the next weigh day figures come along, enter the figures obtained for that weigh day. Then go back and amend the previous weigh days fat % and protein % with the estimated ones (as estimated using the method described on page 20). The revised figures will then appear on the updated and amended Lactation Detail Report (Folio) and cumulative figures are revised automatically.

A similar process needs to take place for those using spreadsheets for calculation of data. In this case it is extremely easy to set up a small sheet to calculate estimates using the approved method above. Alternatively a cheap calculator does the job very quickly, and hopefully there will not be many missing or sour samples. Under certain circumstances it may be desirable to delay the cumulative calculations for a particular goat until the correct estimates can be used.

## **2. No samples or weights taken for all or some goats in a herd.**

In cases such as this, the recording is missed completely.

- The only change that is necessary is to increase the time interval used in the calculations to correspond to the interval between the weigh date 1 before the missed recording and the weigh date 1 after it.
- "Absent" is written on the Lactation Detail Report, and a note is sent with the weigh/statement sheet giving the details.
- Cumulative totals will be calculated to take into account the missed recording when new weigh day data is used.

## **3. Missed test due to goat illness.**

In cases such as this the recording is missed out completely and no samples are sent or weights entered on the weigh/statement sheet.

- Calculations are treated in the same way as (2) above i.e. increase the number of days used in the calculation.
- "Goat ill" is written on the Lactation Detail Report.
- A veterinary certificate or letter must be provided to explain why there were no samples for that goat.

A copy of the letter should be included with the weigh/monthly statement sheets sent to the BGS office.

## **Other unforeseen events, or an extension or combinations of situations described above.**

There are two people to consult in special circumstances.

- The BGS Secretary during normal office hours although you *may* have to wait until the Secretary has consulted with the BGS Milk Recording Co-ordinator.
- The BGS Milk Recording Co-ordinator outside office hours, again you *may* have to wait why consultation takes place with the BGS Secretary.

There is close liaison between these two BGS Officers, and once a decision has been taken after consultation, similar situations are dealt with quickly on a "case law" basis. Hence there may be no need to wait for consultation to take place.

## Section 10

## What happens at the BGS Office

What happens to all those sheets that are sent to the BGS office by Club Milk Recording Secretaries each month? These notes are provided so that Club Milk Recording Secretaries can identify priorities.

- Envelopes are opened upon receipt, and every sheet is date stamped.
- Items are sorted into two sets,  
**(a) Weigh/monthly statement sheets**  
and  
**(b) Lactation Certificates, and accompanying Lactation Detail Reports** (formerly called Lactation Folios).
- Look through (a) weigh/monthly statement sheets, noting any correspondence regarding missing samples etc.  
Sort the weigh/monthly statement sheets and letters into Club and then name, and file for future reference.  
(Weigh/monthly statement sheets are a secondary reference compared with Lactation Certificates and Lactation Detail Reports).
- Look through (b) Lactation Certificates, to check that there is a corresponding Lactation Detail Report.  
**If there is no Lactation Detail Report, the Lactation Certificate is not accepted** and it is returned to the Club Milk Recording Secretary.  
Lactation Certificates and Lactation Detail Reports are fixed together for the next stage.
- Sort through the Lactation Certificates and Lactation Detail Reports, extract any that are under six tests and file by Club and then name.
- Sort through the Lactation Certificates and Lactation Detail Reports and divide into “Qualified”, “Non-qualified” and “Extended Lactations”.
- Data from the Lactation Certificate is entered on the BGS computer (“Goat Milking Details” display screen), which is linked to the main goat database. The goat’s registration number is put in first, and this brings up much of the detail about owner and breeder from the goat’s details on the main database. These are checked with the details on the Lactation Certificate. All other data from the lactation is then entered. (At this stage no awards are made, since the data has not been validated.)
- Data on the Lactation Detail Reports is validated for “Qualified” and “Extended Lactations”. Days, Yields, Fat%, and Protein % are entered manually on a “Validate Calculations – Method 3” display screen on the computer. Cumulative totals are automatically worked out and displayed. If these do not agree with the Lactation Certificate, first the weigh/monthly statement sheets are checked, and if no simple transposition error the Club Milk Recording Secretary is contacted. Details entered from the Lactation Certificate are amended, if necessary, so that the correct information is on the “Goat Milking Details” form.  
The Lactation Detail Report is also examined to see that the required number checks (3 in a calendar year) have been carried out, if there have been any missed recordings, and if estimates have been made correctly.  
The weigh/monthly statement files are examined for any notes or vet’s certificates from the Club Milk Recording Secretary relating to that goat.  
When all is satisfactory, the Lactation Certificate data has been “validated”.

- A list is printed of all “Qualified” goats, where Lactation Certificate data has been validated, to check that all is correct on the computer. This list is used to work out R, RM, and AR awards, and these are then entered on the computer against the goat’s name.
- A list is printed of all new milk recording awards and the BGS Secretary carries out a final check. If necessary, the awards can be amended at this stage.
- At present the Sire of Merit data is held on a record card system. Each time a female goat gains a milk recording award it is entered on a record card for the goat’s sire. If a male, as a result, has becomes a Sire of Merit it is entered on the male’s record on the computer.

**All work, apart from date stamping and initial filing, is “batch processed” to avoid switching of office staff from one job to another too frequently. This improves efficiency.**

**Milk Recording Charges:**

BGS Milk Recording must take place through a separate Milk Recording Club, or through a Recognised Milk Recording Group which is part of a Club or Society which is affiliated to the BGS.

The affiliation fee paid by the 'parent' Society to the BGS also covers the affiliation of its Milk Recording Group. It does not include the additional BGS levy (see below).

Milk Recording Clubs, which are not part of an existing affiliated Society, are liable to pay an affiliation fee to the BGS. This is currently £40 per annum. The BGS Committee can revise this.

Additionally each member of a Milk Recording Club or Group is liable to pay a milk recording fee (BGS levy) to the BGS based on the number of goats in milk on a specified date. This fee is to cover the additional administration costs of BGS Milk Recording.

The levy is paid by the Club or Group Treasurer to the BGS Secretary on, or shortly after, 1 October each year, and is based on the number of goats in milk recorded by each member in June of the same year.

The fee covers the year commencing 1 October, and is thus paid in advance and needs to be built into the pricing structure for charges made to members of the Club or Group.

**BGS recording fees (levy):**

The fees for the milk recording year commencing 1<sup>st</sup> October 1998 are as follows:

No of goats being recorded by a member	Fee payable
1 - 5	£5.50
6 - 20	£11.00
21 - 40	£22.00
41 +	By negotiation with the BGS Secretary

The BGS Committee reviews the fees annually. Changes are published in the BGS Journal.

**Standardisation of paperwork:**

The two items, which MUST be to a format specified by the BGS, are the **Lactation Certificate** and the accompanying **Lactation Detail Report**.

The BGS has a preferred format for **weigh/monthly statement sheets**. Other formats may be acceptable, but only with the prior approval of the BGS Secretary

Blank Lactation Certificates/Lactation Detail Reports and weigh/monthly statement sheets can be obtained from the BGS Secretary (SAE please). One copy of each of these sheets is appended to this Manual



## **Supplement to Section 10 of the Milk Recording Manual (What happens at the BGS Office?)**

*This supplement is to clarify some administration information and procedures and is issued in June 2000 with immediate effect.*

### **Milk Recording Validation Procedures:**

The Milk Recording manual of January 1999 sets the operational standards behind the BGS Regulation 15 (also printed in the Manual).

**The BGS Committee will not publish yields in the Herd Book or confirm awards unless it is clear that the standards have been met.**

It is in everyone's interest that the highest standards are applied, thus avoiding disappointment to those who have recorded.

Bearing this in mind it is recommended that the Milk Recording Secretary send out:

- A copy of Regulation 15 to each Member recording.
- A copy of Section 5 of the Manual (Milk Recording instructions for those who record) to each member and each checker.
- A copy of Section 6 of the Manual is sent to each Checker (specific instructions for checkers).

Milk Recording Secretaries can obtain a free copy from the BGS Office, although most have already received one. A copy of the BGS manual is available on floppy disk from the BGS Office (also free to MRS). Alternatively additional copies of the Manual can be obtained from the BGS Office at £5 each (including postage) to those who wish to have their own copy.

It is important for each Club Milk Recording Secretary to deal with local difficulties as they arise:

- Look at Check day data against Weigh day data and enquire about discrepancies. Note in writing answers to enquiries.
- Where appropriate obtain a written statement from the person recording, if this helps to "explain" a situation. All such evidence, in writing, must be sent to the BGS Office at the same time as the Monthly statement/check sheets. The normal time for sending these to the BGS is before the next recording is due.
- If a Club Milk Recording Secretary feels that check visit data is "out of range" in variations, not "explained" to his/her satisfaction, further action needs to take place.

A 10% variation or 0.5Kg in yield (whichever is the greater);

25% variation in butterfat % (or 0.8 %) (whichever is greater);

and 15% variation in protein % (or 0.5% if Anglo Nubian etc.) are reasonable standards to apply.

Also expect an "up and down" variation across the herd.

- Out of range check data may need to be investigated by first carrying out a “spot check” organised by the Milk Recording Secretary and not using the members nominated checkers. If this is then unsatisfactory the BGS may pay the expenses of a person to carry out a “BGS authorised” spot check. Prior agreement with the BGS Milk Recording Co-ordinator must be obtained, and a written report of the visit, together with data obtained, sent to the Co-ordinator after the check, together with a claim for travelling expenses.
- The required posting of samples before the time of a possible check has enhanced security. Milk Recording Co-ordinators should keep a log of late arrivals of posted samples so that this can be provided if the BGS Secretary requests details.
- Regular Weigh day data (i.e. not subject to a Check) should also be the subject of enquiry and details noted if something out of range happens. An example would be exceptionally high fat % and or protein % (for that breed) when more than 30 days from kidding. A Check visit should be arranged as soon as possible after such an event, unless a large drop in yield or illness etc accompanies the high %.
- It is not understood how effective monitoring can be taking place if data processing by a Club Milk Recording Secretary is delayed by more than one month of a Weigh day. Hence 30 days should be the target deadline for routine data processing and monitoring. Lactation Detail Reports and Certificates may take longer, especially if these are produced manually.

Completed Lactation Detail Reports (Folios) and Lactation Certificates must be sent by the Club Milk Recording Secretary as soon as possible after the end of a lactation, or 365 days after kidding, or when a goat ceases to record with that Club.

- Lactation Detail Reports need to be checked by the Milk Recording Secretary against Monthly statement and check sheets to ensure that data and comments are entered correctly. Both the Report and the Certificate need to be signed by the Club Milk Recording Secretary to indicate that this check has taken place.
- **Reports and Certificates need to be received in the BGS Office by September 1<sup>st</sup>, at the latest, if awards are to be validated in time for publication in the Herd Book for the following year. This date is earlier than previously to enable more thorough validation (see below).**
- The BGS Secretary checks Reports and Certificates as they come in (although one or more Committee Members sometimes help at high workload times). Calculations are checked and sent back if errors appear to have been made. Check/weigh data are looked at for unusual variations and additional follow up notes are looked at. Have three checks taken place? Contact may be made with the Club Milk Recording Secretary at this stage.
- It is essential that the BGS Secretary be provided with the name, address, telephone number, fax number and, ideally, e-mail address of each Club Recording Secretary in order to deal with problems as quickly as possible.

## Section 11

## Milk Recording for goat farmers

The BGS recognises that many of the operational details appropriate for dealing with large numbers of goats are different from those described in earlier sections aimed at Club Milk Recording.

The most appropriate method of recording for them is directly with National Milk Records (NMR) in England and the appropriate National organisation in Scotland Ireland or Wales.

If, for example, recording were with such a National body the BGS would like to enable the National system to blend in with the BGS system of Milk Recording Awards.

Within its Milk Recording Regulations (Regulation 15) the Committee has powers to waive/amend the details. Regulation 15(7) and 15(9) are incompatible with large-scale milk recording, and so the BGS regulations need a different interpretation (whilst losing none of the rigour or integrity).

The standards required for data integrity are monitored by international agencies, and the Society accepts that those standards adopted for Dairy Herds i.e. Cows) are perfectly adequate to justify acceptance by the BGS

To qualify for BGS awards, the following admin procedures must be followed:

- Initial contact must be made with the BGS Secretary, stating when you propose to start recording, and with which National organisation. The arrangements for weighing and sampling etc. need to be stated at this time.
- A copy of the Monthly Report must be sent to the BGS Secretary each month for filing, This must contain: the goats name; individual ID; kidding date; last weighing results; and cumulative lactation data to date.
- At the end of lactation/ 365 days an officially generated lactation certificate must be sent to the BGS Office, together with a lactation summary for that goat (i.e. This gives a month by month record of a goats yield, fat and protein over a lactation.)
- **Please note that all goats recorded must be registered with the BGS, perhaps in Identification Register if neither the sire nor the dam is registered. The BGS registration is essential because the goat identity record is linked to the milk recording data subsequently to be entered.**

**A typical system approved by NMR, and accepted by the BGS for award purposes is as follows:**

Milking takes place twice daily in a rotary milking parlour. Each goat's milk yield is measured daily by a flow meter to an accuracy of 0.1Kg. Results are ready for inspection immediately after milking, including other valuable data to assist in herd management.

On milk recording days, an NMR operative takes samples – the farm employees take no part in the sampling or goat identification.

An individual pot is attached to the milk line and collects a representative sample for each goat. The milk is in a very fine jet that enters the pot throughout a particular goat's milking.

Goats are individually marked by leg band, ear tag, and microchip {the chip triggers the data collection for that milking automatically, so no chance of mistaken identity). After all of the goats have been milked, the NMR operative collects the yield data. *The actual yield is shown against an "expected figure" enabling further examination of previous data for that goat to try to "explain" anomalies.*

If Recording with NMR is the possible route the central contact is  
NMR  
Fox Talbot House  
Greenways Business park  
Bellinger Close  
Chippenham  
Wiltshire SN15 1BN

In the first instance ring NMR Customer Services Tel: 08457 660236.

Your contact details are usually noted at this time. Subsequent to your initial enquiry a NMR representative (in your area) will make contact with you, visit, and discuss with you the various options and costs.

*(The example given above is the scheme being used by the Givendale Herd near Ripon, and the Yorkshire Area Field Manager is Kris Spensley.  
Telephone 01347 830186)*