

AR
12629
1989
QAG

**RULES FOR
THE OFFICIAL OPTION OF
THE DAIRY HERD ANALYSIS
PROGRAM**

(Q.D.H.A.P.-0)

Published by the
Direction des productions animales
Secteur bovins laitiers
Approved by the Canadian Milk
Recording Board

ARCHIVES DU MAPA
NE PEUT PAS ÊTRE EMPRUNTÉ

Québec 

**RULES FOR
THE OFFICIAL OPTION OF
THE DAIRY HERD ANALYSIS
PROGRAM (Q.D.H.A.P.-0)**

Published by the Direction des productions animales
Secteur bovins laitiers
1020, route de l'Église
Sainte-Foy (Québec)
G1V 4P3

No. S.P.A. = 890805

BIBLIOTHÈQUE
Ministère de l'Agriculture, des
Pêcheries et de l'Alimentation
200, chemin Ste-Foy, 1er étage
Québec (Québec), Canada
G1R 4X6

ISBN 2-550-20158-2
Legal deposit - 4th Quarter 1989
Bibliothèque nationale du Québec

Definition of terms	4
Standards governing the Official-Q.D.H.A.P.	

I- Operation:

1. Equipment and working methods	6
2. Eligibility	6
3. Responsibility and duties of herd owners	8
4. Inspection procedures	10
5. Additional testing visits	13
6. Lost samples or missing weighings	14
7. Relationship between supervisors and herd owners	14
8. Practices not allowed	14
9. Right to examine	15
10. Penalties	15

II- Records and record calculations:

11. Records and record calculations	16
12. Method of calculating production in special circumstances	18

III- Issuing of certificates:

13. Issuing of official production certificates	21
14. Breed class averages (BCA'S)	22
15. Rolling herd averages (RHA'S)	22
16. Annual summary for the herd	22
17. Other services	23
18. Exclusion	23
19. Amendments to regulations	23

Appendix: 24

1. Milk measuring devices approved for official recording (scales)	
2. Equipment used for analysis by the QDHAP laboratories	25
3. Official milk recording	25
4. Breed class standards for milk, fat and protein	26

Note: In this document, the masculine form is taken to include the feminine

DEFINITION OF TERMS

1. **"Record of lactation"**... hereafter referred to as "record", is the accumulated production calculated from the date of calving until the cow is removed from the herd or dries off.
2. **"Test day"**... refers to the twenty-four hour period for which the date is collected at two consecutive milkings. The date of the test day is that of the morning milking.
3. **"Herd owner"**... the person in whose name the herd is tested relating to the Québec Dairy Herd Analysis Program (QDHAP);
4. **"Supervisor"**... means a person appointed to collect data and provide information.
5. **"Difference between two types of Recording Programs"**
 - a) "Official" recording;
 - b) "Regular" recording;
 - a) "Official"... also referred to as "supervised", describes a system in which a supervisor collects and records the data. The records completed by cows on Official Recording are certified and published;
 - b) "Regular"... describes a system in which the herd owner collects and records the data. The records completed by cows on Regular Recording are not certified.
6. **"Registered"**... means a purebred animal, registered in geneological records of the breed, under the Livestock Pedigree Act (Canada).
7. **"NIP"**... refers to an animal identified under the National Identification Program.
8. **"Grade"**... refers to an animal not registered under the Livestock Pedigree Act (Canada) nor identified under the National Identification Program (however, such animals are eligible for the NIP).
9. **"Administration"**... refers to the person responsible for the operation of the Milk Recording Program.

10. "BCA"... Breed Class Average (see appendix IV).
11. "Disciplinary Committee"... refers to the committee composed of representatives of the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (1), Agriculture Canada (1) Macdonald College (1) and two members of the Québec Joint Dairy Breeds Committee. Its role is to ensure enforcement of official regulations, provide adequate interpretation of regulations, study all fraud and impose appropriate penalties.

The Disciplinary Committee can be reached at:

1020, route de l'Église, 4^e étage
Sainte-Foy (Québec)
G1V 4P3

Tél: (418) 643-7597

RULES FOR THE OFFICIAL QDHAP

The following set of rules has been drawn up by the Direction des productions animales of the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec. It embodies the bare minimum of standards needed to meet the requirements of the Canadian Milk Recording Board in order that the production records of animals enrolled in the Official QDHAP be nationally recognized for the purposes of cow testing and sire appraisal.

The system of milk production testing under the Official Québec Dairy Herd Analysis Program provides for the keeping of official production records for each lactation period of cows of all dairy breeds, under the joint supervision of the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, Macdonald College, PATLQ Inc., and the Canadian Milk Recording Board.

1. EQUIPMENT AND WORKING METHODS

All equipment used in the above-mentioned official program, including the computerized milk analysis system and the operating methods and procedures used, must meet the requirements of the Canadian Milk Recording Board in all respects (appendix 1).

2. ELIGIBILITY

A. Eligibility of herds:

- Herd owners must meet the eligibility criteria set by the Disciplinary Committee; among other things, they must own the required number of cows identified by sire.
- All cows in the herd, whether or not he owns them, must be positively identified by a certificate of registration in the case of purebreds or by a NIP card in the case of all other animal not entered in geneological records.
- Animals aged six months or over must also be identified (NIP or registration).

- Owners must agree to participate in the progeny testing program for young bulls of the Centre d'insémination artificielle du Québec (C.I.A.Q. Inc.), as agreed upon at the time of registration for the program.
- Applications must be made through the supervisor, and approved by the Disciplinary Committee.

B. Animals submitted to testing:

- All dairy cows, whether registered or NIP, which are owned by the applicant or present on his premises and which have already calved at least once, must be put on test, whether they are milking or not.

Rented cows, and cows providing or receiving embryos on his property, must be registered for test.

The following exceptions to this rule are permitted, provided they are reported at the time of the first test:

- a) Cows twelve years or older with a previously recorded lactation on an official test;
 - b) Cows used as nurse cows throughout the lactation period, with a previously recorded lactation on an official test; nurse cows must be maintained on the program.
 - c) Cows with a previously recorded lactation on an official test which have lost two or more quarters of the udder.
- All enrolments must be reported to the supervisor within the 60 days following enrolment of the herd for official testing or the entry of an animal into the herd.
 - Once enrolled for official testing, dairy cows may be withdrawn therefrom only after they have permanently left the herd owing to transfer, sale or death.
 - The owner of a dairy herd who has more than one farm on which dairy cows are kept may, if he wishes, divide his herd into as many production units as he has farms. Each such production unit shall then constitute a different herd and be tested separately. Howe-

ver, he will not be allowed to shift dairy cows from one farm to another to improve the average of a herd.

- A cow must have its first official test within 75 days after calving, in order to be admissible for the BCA indexes.
- If a cow is purchased from a herd on official recording and has had at least one test in her current lactation, she will be eligible for continued testing providing the period from the last test in the seller's herd to the first test in the purchaser's herd does not exceed 75 days.

Note:

If a cow does not qualify under the foregoing rules, information will nevertheless be provided to the herd owner for management purposes.

3. RESPONSIBILITY AND DUTIES OF HERD OWNERS

A. General obligations:

- Enroll all cows:

The herd owner must enroll in the Milk Recording Program all cows which have calved at least once, whether or not they are actually milking.

- Compliance with rules:

The herd owner is held responsible for his own and his employees' compliance with the rules of the Program. The Disciplinary Committee may impose penalties for any infractions of the rules of the Program.

- Milking schedule:

The herd owner must maintain the same milking schedule on test days as on other days. The testing service may be withdrawn from a herd if it is proved that the milking time has been consistently delayed on test days to obtain production for more than 24 hours.

B. Cooperation with supervisor:

The owner of a dairy herd enrolled in the official QDHAP

must at all times cooperate with the appointed supervisor.

He must:

- Agree to have his herd tested on the date set by the supervisor. If, for some compelling reason, he cannot receive the supervisor's visit, the herd owner must sign the relevant statement and indicate the reasons to the Disciplinary Committee within ten days of the refusal.
 - Maintain a milking procedure that will permit surveillance of the milking of all cows in the herd. This may include the milking of one row of cows at a time where there is head to head stabling.
 - Make all registration certificates and NIP forms available to the supervisor so that he can verify the identity of the animals on test.
 - If necessary, assist in the identification of cows by holding them for the supervisor to check ear tags or tattoos.
 - Equip cows milked in parlours with numbered tags for supplementary identification. The supervisor may also require that cows in stanchions be equipped with neck tags if difficulty is routinely encountered in identifying cows on test.
 - Be present and, if necessary, assist the supervisor when he checks the functioning and accuracy of milk measuring devices. The herd owner will be responsible for any breakage of such equipment unless negligence on the part of the supervisor can be established. In case of defectiveness, the owner must also see that the necessary repairs are made before the next test.
- C. The owner of a herd enrolled in the Official QDHAP must provide all information and equipment required for testing:**
- He must keep an accurate record of changes in the herd including dates of calving, breeding, purchases, sales, abortions, deaths or completion of lactation periods.

- He must provide the supervisor with full information on the shipment of milk from the farm and on milk consumed on the farm.
- He must provide all equipment the supervisor deems essential to carry out the test, such as tables, sufficiently large milk pails, neck chains with numbered tags, installed hooks, etc...
- In herds where metering devices are used, they must be approved by the Canadian Milk Recording Board (appendix 1) and their installation and operation must meet the Board's requirements.

D. Approval of test day report:

The owner (or his representative) must countersign the test inspection forms certifying that milk weighings, identity of animals, freshening dates, drying dates and disposal dates are correct. He may be required to produce a bill of sale in support of the date of sale claimed.

E. Right of appeal:

If the herd owner is not satisfied with the service he has received or is receiving, or has doubts concerning some matter, he should contact the Disciplinary Committee, c/o Direction des productions animales, ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, secteur bovins laitiers, 1020, route de l'Église, 4^e étage, Sainte-Foy (Québec), G1V 4P3. Tel. (418) 643-7597.

4. INSPECTION PROCEDURES

A. Number of visits and rotation:

QDHAP supervisors shall make at least 10 regular visits during a 12 month period. At least two of these visits shall be made by a person other than the regular local supervisor. This person must be duly authorized by the authorities of the QDHAP.

It is recommended that the supervisor make twelve test visits a year to the herd so that he will be in a better position to give the owner the information he needs to manage his herd well.

B. Unannounced visits:

The herd owner must never be informed of the supervisor's route or schedule nor of the date of his next visit. However, the supervisor may notify the owner of his intention to test the herd, on the day of the test, not more than six hours before the evening milking.

C. Interval between visits:

In general, the interval between two successive visits shall not be shorter than 16 days nor longer than 50 days. An exception to this rule may be tolerated in the case of repeat visits or for other compelling reasons. If the interval between two visits is between 50 and 75 days, the supervisor must give reasons for such length to the authorities of the QDHAP.

The record will not be certified if the interval between two consecutive tests exceeds 75 days.

D. Information is confidential:

The supervisor shall treat as confidential all information received by him from herd owners.

E. Supervision procedures on test day:

- Identification of cows:

At each visit, the supervisor shall identify the cows milked in the herd.

At the first test, after a cow freshens or enters a herd, she must be positively identified; this means that the registration numbers of purebred cows or NIP numbers of others must be carefully checked by the supervisor to make sure they correspond to coat colours or tattoo markings. Breed and age must also be checked.

Subsequent to the first identification following calving, the supervisor may establish identity through additional means of rapid identification such as ear tags, tattoo marks, numbered neck chains, leg bands and other devices, but they must be properly indexed with the registration papers or NIP cards and must correspond to the official identity of each animal.

The supervisor must at random positively identify at least 20% of the herd on each test day or do a complete herd check at least once a year.

If a supervisor is not able to determine an animal's identity, he should notify the Disciplinary Committee thereof.

- Verification of scales:

The supervisor shall use his own scales to weigh milk or to check, prior to the evening milking, the accuracy of the automatic milk meter or weighing device used in the milking apparatus at any time. Refusal on the part of the owner will be construed as intent to falsify the test.

- Supervision of milkings:

The supervisor must be able to observe directly the milking of every cow on test and also the automatic milk meter or scales. If necessary, he may require that the cows be milked one by one, or that one row of cows be milked at the same time.

The number of cows milked simultaneously and the number tested on a test day shall be at the discretion of the supervisor or the head supervisor.

In large herds or in herds where surveillance is difficult, the head supervisor may assign two or more supervisors to do the test together. The supervisor and the farmer shall take the necessary time to respect all the rules and requirements of official testing.

- Weighing and sampling of milk:

- a) The weighing, sampling and recording of results of each milking of every lactating cow which are carried out during a 24 hour period must be done by a qualified supervisor duly authorized by the directors of the QDHAP. The supervisor must verify the accuracy of the various milking measuring devices whose use is currently authorized (see appendix 1).
- b) In the specified 24 hour period, the supervisor must take a proportionate sample from each milking of every cow.

All milk samples and all recorded test data must be kept carefully locked up by the authorized supervisor whenever they are not under his immediate observation.

- Recording of weighings and appropriate remarks:

a) The supervisor shall record on the proper forms all weighings of milk taken from the cows in production on test during his visit. Weighings must be recorded to the nearest tenth of a kilogram or half of a pound.

The supervisor shall also report any unusual circumstances which have affected the cows' production.

b) The supervisor shall enter any change in status of individual cows since the last test, such as calving, drying, sale, abortion, etc...

- Other information:

The supervisor shall record the time at which the milkings started on test day and full information on milk shipments from the herd.

The supervisor must scrupulously observe all rules and procedures, and sign testing reports to this effect. If he has any doubt, he must notify the Disciplinary Committee accordingly.

5. ADDITIONAL TESTING VISITS

A. Retest:

If at the time of a regular testing visit, a cow of known antecedents has been credited with a butterfat yield for a 24 hour period which is higher than the standards specified by the Disciplinary Committee, an extra visit shall be made within 16 days.

Alternatively, a forty-eight hour test may be conducted at the next visit.

Verification tests of cows for which BCA index forecasts are higher than the limits set by the Disciplinary Committee are also provided for.

B. Other visits:

At the discretion of the Disciplinary Committee or the

ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, special unannounced visits may be conducted for verification of records and identifications or for investigation of infractions of the rules.

The retests and special visits will generally be made by representatives of the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec.

6. LOST SAMPLES OR MISSING WEIGHINGS

If, at the time of a test, a sample of milk is lost or if the results of the weighing are missing or if the milk yield cannot be determined for various reasons, the administrator must be notified thereof by report.

7. RELATIONSHIP BETWEEN SUPERVISORS AND HERD OWNERS

The supervisor's task in the case of official QDHAP is to make sure that weighings are done precisely, that samples are representative and well identified and that the data collected are accurately entered on the barn sheet, as well as all relevant information.

He shall not receive any gratuity from the owner of a cow or from any other interested person.

In no case is the supervisor allowed to test his own herd or that of a relative or a herd in which he has any financial or other interest.

The supervisor is not free to decide which regulations are or are not dispensable; he must observe all regulations and prescribed methods down to the smallest details.

Herd owners or their employees share with the supervisor the responsibility for the application of these rules in their entirety.

8. PRACTICES NOT ALLOWED

The following practices are not allowed:

- A.** Any action by a person who, by any act or voluntary omission, knowingly and with intent to mislead, impairs or attempts to impair the reliability of any information about an animal or herd.

- B. Use of stimulants: no stimulant nor drug may at any time be administered to a cow during her testing period. This rule does not forbid proper medical attendance on a sick cow at any time.
- C. The use of any product producing thyroïdal effects is prohibited.
- D. The use of Oxytocin prior to or during any milking on test day is prohibited.
- E. Any practice that is intended to create an abnormal yield of milk or fat is a violation of these rules.

In all cases, production will not be considered in calculating lactation credits.

- F. A herd owner is not allowed to make payment of a bonus based on production of individual cows on test.

9. RIGHT TO EXAMINE

The supervisor has the right to examine the milking equipment at any time. Refusal on the part of the operator will be construed as evidence of intent to falsify the results of a test and will be reported to the Disciplinary Committee.

10. PENALTIES

Any violation of the foregoing rules shall be referred to the Disciplinary Committee of the QDHAP. Representatives of the Direction des productions animales of the ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec will make the necessary investigation of the fraud and will submit reports to the said Committee. The Disciplinary Committee will determine the penalty in accordance with the seriousness of the offence. In some cases, the matter may be referred to the association concerned by the Committee for a joint decision to be made on the penalty to be imposed.

- A. Herd owners who infringe any regulation of the official QDHAP will have their privilege of access to information suspended, and may be barred from participating in the official testing system for a definite or indefinite period depending on the Disciplinary Committee's decision.

- B. Any supervisor who infringes these regulations or neglects to report an infringement thereof by a herd owner or any of his employees will be liable to disciplinary measures or will be dismissed.

11. RECORDS AND RECORD CALCULATIONS

Records are limited to one lactation period. Cows must be tested until dry or until they are removed from the herd.

A. Times milked per day: 2X

A 2X record is defined as one in which a cow is milked twice a day.

B. Start of lactation:

The calving date shall be considered as the first day of the new lactation. The day after calving is counted as day "one" for new lactation credit calculation purposes.

First test: the milk from a newly freshened cow may be weighed and sampled starting with the evening milking on the fifth day of lactation, counting the calving day as the first day.

C. End of lactation:

The last day of the lactation period (date of drying) at least shall be the one on which, according to the owner's declaration, the cow was milked less than twice a day, except in case of sickness.

D. The number of days dry:

The duration of the drying period is equal to the number of days between the dry date and the following calving date.

E. The number of days in lactation:

The number of days in milk is the number of days between the calving date and the dry date or the date of exclusion from the herd:

(Days in milk = dry (or sale) date - calving date).

F. Calculation of production:

- Calculation of production between two tests:

Milk and components (fat and protein) credits shall be calculated for periods, a period being the interval between two testing visits. Production credits are calculated by multiplying the number of days in a period by the average production during that period. For example: a cow yields 20 kilograms of 4% milk on June 10 and 16 kilograms of 4,2% milk on July 14.

$$\begin{array}{r} \text{Interval between the 2 tests:} \quad 34 \text{ days} \\ \text{Average production:} \quad 18 \text{ kilograms} \\ \text{Milk credits for the period} = \quad 34 \times 18 = 18 \text{ kg} \\ \frac{(20 \times 4,0 + 16 \times 4,2)}{\frac{100}{2}} \times 34 = 25 \text{ kg} \end{array}$$

Period credits are accumulated during the lactation.

- Calculation of production for the period from the calving date to that of the first test:

Milk, fat and protein yields of the first test are assigned to the period from the calving date to the date of the first test visit inclusively as follows:

- a) Milk credits:

For the first test, a correction factor approved by the Canadian Milk Recording Board is used to calculate milk credits.

- b) Component credits:

Butterfat and protein credits are obtained by multiplying the actual milk weights by the component percentages and these by the interval in days from calving to first test.

- Calculation of production for the end of lactation:

Production for the period from the last test visit and the final day of a lactation as reported by the herd owner will be calculated from the result of the last test. The final day of lactation used for computation shall be that reported by the herd owner as the day the cow was last milked twice daily. Her

production on that final day will be assumed as follows:

a) Milk credits:

The milk weights from the last valid test are multiplied by the appropriate last test correction factor approved by the Canadian Milk Recording Board, and this by the interval in days from last test up to and including dry date.

b) Component credits:

The component credits are obtained by multiplying the actual milk weights by the component percentages and these by the interval from last test up to and including dry date.

12. METHOD OF CALCULATING PRODUCTION IN SPECIAL CIRCUMSTANCES

A. Lost samples or missing weighings:

- If a sample of milk is lost or if the results of the weighing are missing, the average of the preceding test and the following test will be used to calculate milk, fat and protein production, on condition that the interval does not exceed 75 days.

- If, in the case of the "first test" of a new lactation, a cow's milk has not been weighed for valid reasons (milk spilled, cow suckled by accident, information lost, etc.), the milk and component productions of the following test are used to calculate credits since calving date. If a sample is lost or missing, the credits are calculated as follows:

a) If the milk yield for the first test is smaller than that for the second test, the butterfat production for the second test is used to calculate butterfat credits.

b) If the milk yield for the first test is greater than that for the second test, the percentage of butterfat for the second test is used to calculate butterfat credits.

c) The percentage of protein for the second test is used to calculate protein credits when the first test sample is lost.

- If, in the case of the last test of a lactation, the sample is lost or missing, the butterfat and protein percentages of the preceding test will be used. If, for a valid reason, the weight of the milk of a cow was not obtained at the last test of her lactation, the production shall be calculated from the last valid test for which data are available to the dry date by the procedure approved for the end of the lactation.
- If a cow enrolled for testing has missed being tested for longer than 75 days, the fourteenth day after the last test shall be considered to be her final day of lactation, unless she is taken off test before the said fourteenth day.

B. Adjustment for abnormal conditions (disease, injuries, cow in heat):

In the case of serious disease or of injury or if the cow is in heat on test day, except for the first test of a new lactation (see approved procedure for lost samples or missing weighings of first test), the production shall be considered abnormal if these conditions are entered on the barn sheet for the day of the test and if the decline in milk production (expressed as a percentage) from the yield at the preceding test exceeds the value determined according to the following formula:

Per cent decline in production = $27,4 + (0,4 \times \text{number of days between the two tests})$.

In such cases, the actual weight shall be reported and productions judged abnormal according to this formula shall be adjusted according to the approved procedure for lost samples or missing weighings (12-A).

C. New enrolments for testing:

- Newcomers to the herd and nurse cows:

If a lactating cow is brought into a herd which is on test, without having her production credits transferred with her, she will be credited with a production based on her first test for the number of days of lactation from the date she calved to the date of the said first test. However, if the interval between these two dates exceed 75 days or if the date she calved is not known, she will receive credits for a fixed interval only (period between two successive

tests of the herd) and, in such cases, the production will not be used for official calculations. This rule also applies to nurse cows which are starting a period of official production testing.

A cow, milking or dry, which enters a new herd with her credits, will have her production in it continued starting of the day after the one on which she left her previous herd. The supervisor must report the date of entry into the new herd as the last day on which the cow received production credits in the previous herd.

- Newly enrolled herds:

Cows in a herd which is newly enrolled for the official test will be given production credits for the number of days they have been milking if they calved less than 75 days previously. But those whose calving date is not known or which calved more than 75 days previously will be credited with not more than 30 days production.

D. Cow leaves herd, dies or is sold, or herd going off test:

- Cow leaves herd: the day on which a cow leaves the herd is considered as the last day she belonged to it and will be used in calculating her lactation. The procedure described under item 11-F is used to calculate milk and component credits.
- Cow dies on farm, in lactation: the date of death will be considered the last day of lactation. The procedure described under item 11-F is used to calculate the production credited for the period between the last test and the day of death. BCA's will be applied if days in milk are 240 or more.
- Cow sold for dairy purposes, in lactation: the production credits at date of sale will be transferred to the new owner. In such case, production credit calculation is the same as that made between two tests in the same herd. If the cow's lactation at time of sale exceeds 305 days, production records and BCA's will be credited to the seller. If the cow has not completed 305 days of lactation and is tested in the purchaser's herd, the production may be credited to the new owner, if he is enrolled on official testing.

- Herd taken off test: if the supervisor does not report any visit subsequent to the date of the last test, the 14th after that date shall be the herd's final day of lactation, unless the herd is taken off test before the said 14th day.

E. Abortion

If a cow aborts while in lactation, her current record will continue to completion. In case of abortion during her dry period, the cow's production shall be recorded as for a normal calving.

If a heifer aborts (and produces milk after abortion), it must be registered in the program. After examining the case, the Disciplinary Committee may grant exemption from BCA indexes, upon request.

F. Calving without a dry period, and new lactation without calving:

- If a cow calves without a dry period, the current lactation will end on the day preceding the calving date and a new lactation will start on the calving day.
- If a lactation starts without a calving, the cow's production shall be recorded starting with the first day of the new lactation.
- Lactation induced by hormone is not eligible for BCA.

13. ISSUING OF OFFICIAL PRODUCTION CERTIFICATES

Official production certificates will be issued only for cows whose production has been tested over a normal lactation period on official testing.

- A.** Certificates issued for cows which have completed a lactation of 120 days or longer before drying will show BCA's. These are calculated for the maximum production period of 305 days. The cumulative production of the lactation, results of previous lactations, and lifetime production will also be shown on the certificate.
- B.** Certificates will be issued for cows which are sent to slaughter or die before completing 240 days of lactation but these will not show BCA's, unless the owner requests application of the BCA.

N.B. No official certificate may be obtained for a lactation which started under unofficial testing, unless such lactation meets the requirements of official testing.

14. BREED CLASS AVERAGE (BCA'S)

The class average for a given breed (BCA) is an index published by official testing with a view to adjusting a cow's production. This index makes it possible to compare the productions of cows of the same breed at different ages, that calved at various periods during the year, and to readily assess the improvement of a given breed in time. The index was developed in the early 1950s, then improved in the 1970s.

Essentially, the BCA takes into account the breed, the age of the cow at the time of calving, and the month of calving. For each age bracket (between 18 and 200 months) and calendar month, there corresponds, for each breed, a milk, butterfat and protein reference standard to which the 305-day production of a given cow is compared. The reference standard corresponds to a BCA of 100. Normal lactation is compared to the reference standard and adjusted in relation to it.

15. ROLLING HERD AVERAGES (RHA'S), BCA DEVIATIONS

A. Rolling herd averages (RHA's):

The rolling herd average is calculated monthly and is based on the average BCA indexes of production records completed in the preceding 12 months. It is based on the official records with BCA's of all cows in the herd.

Rolling herd averages are calculated from a minimum of 10 completed lactations (with BCA indexes).

B. BCA deviations:

The difference between the BCA of each cow and the relevant rolling herd average is calculated and expressed as a deviation in BCA points. Such deviation is based on a minimum of 10 completed lactations.

16. ANNUAL HERD SUMMARY

Each owner of a herd enrolled on official testing will receive an annual report listing the lactations completed and certified during one year.

A separate annual average will be calculated for each breed represented in the herd.

17. OTHER SERVICES

Besides issuing official production certificates, the Official Testing System of the Quebec Dairy Herd Analysis Program will supply all useful information normally provided by the Regular QDHAP.

In addition, herd owners will receive monthly reports containing a complete analysis of the production, feeding and management of their herds. Specifically they will show, for each cow milk production on the day of the test, per cent butterfat content, protein content, the gross value of the milk produced and its net value less feeding costs, number of days since freshening and in calf, the amount of meal to be given each day, the individual production index in relation to the herd average, and the calving interval.

At the herd level, the monthly report will show the average milk production, average butterfat and protein percentages, average forage consumption, quantity of meal fed to the cows, average gross value of the milk, average net value less feed cost, the number of hours of labour per 100 kilograms of milk and the number of kilograms of milk produced per man.

18. EXCLUSION

Herd owners whose combined milk and butterfat index falls to or below 80% of the provincial BCA average during three consecutive years will have their names deleted from the list of participants in official testing and their application for re-enrolment may be refused for an indefinite period.

19. AMENDMENTS TO REGULATIONS

The ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec reserves the right to amend these regulations if need be or on the recommendation of the Canadian Milk Recording Board for dairy cattle and to accept, reject or stop at any time the testing of herds enrolled in the Official Program on the recommendation of the Disciplinary Committee.

APPENDIX

1. MILK MEASURING DEVICES APPROVED FOR OFFICIAL RECORDING (scales):

- Milk-O-Meter with fixed support, made by Technical Industries Ltd, Fort Lauderdale, Florida, U.S.A. Since January 1, 1987, these devices must be equipped with a plastic lid.
- Milk-O-Scope (regular model and MK II with fixed support), made by Foss Electric.
- True-Test model 102 lbs. - No. 26510 and 26520
model 68 lbs. - No. 26077 or 26087
- Waikatoo (Alfa-Laval and Bou-Matic). Equipped with a standard tube and fixed supports.
Mark II with inner tube and fixed support.
Mark III and IV with or without inner tube, and fixed support.
- Chore-Boy Rigid Mounted Roll-O-Measure, model 61124.
- De Laval Rigid Mounted Weigh Jar, models 8300719-01 and 8301064-01.
- Universal Rigid Mounted Weigh Jar, model 7491.
- Surge Rigid Mounted Weigh Jar, model 25177.
- Bou-Matic Rigid Mounted Weigh Jar, model 8517802.
- Sta-Rite Rigid Mounted Weigh Jar, model DE 31-100.
- Westfalia Systemat Weigh Jar.
- Babson Brother's Milk Manager electronic scale.
- Universal electronic scale.
- Alfa-Laval, Flo-Master.

These devices meet the requirements of the Canadian Milk Recording Board with respect to precision, installation and operation for official testing purposes. Their use for official testing must meet testing requirements at all times.

2. EQUIPMENT USED FOR ANALYSIS BY THE QDHAP LABORATORIES:

The following devices have been approved by the Canadian Milk Recording Board for laboratory analysis of milk samples.

A. Butterfat and protein:

- Milk-0-Scan (300 and 605), by Foss Electronic, Denmark
- Multi-Spec

B. Somatic Cells counts:

- Fossomatic by Foss Electronic, Denmark.

The use of these devices has been approved by the Canadian Milk Recording Board for official testing purposes.

3. OFFICIAL MILK RECORDING

A. Definition:

A milk recording program that includes: (1) supervision of the milking by an approved supervisor, (2) rotation of supervisors to the extent of at least two visits per calendar year performed by a supervisor other than the regular supervisor, (3) retesting of herds in conformity with the article on "Additional testing visits", (4) approval by the Canadian Milk Recording Board.

B. Programs officially recognized by the Canadian Milk Recording Board:

In Canada:

- a) The Quebec Dairy Herd Analysis Program, official option, (QDHAP-0);
- b) Canadian Record of Performance (ROP);
- c) Supervised dairy herd improvement programs for the provinces whose standards meet the Canadian Milk Recording Board requirements (New Brunswick, Prince Edward Island, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia).

In United States:

Dairy Herd Improvement Registry (DHIR).

4. BREED CLASS STANDARDS FOR MILK, FAT AND PROTEIN

There are lactation standards for each month of freshening but, in the following reference table, only the low (July) and high (December) months are shown. Values for the other months fall between these extremes. There are standards for each month of age, starting at 18 months through 200 months of age.

BREED CLASS STANDARDS FOR MILK, FAT AND PROTEIN

AYRSHIRE

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	2 497	103	82	2 707	114	89
21	2 646	109	87	2 861	120	94
24	2 783	115	92	3 004	126	99
27	2 908	120	96	3 136	131	103
30	3 023	125	99	3 258	135	107
33	3 128	129	103	3 369	139	111
36	3 222	133	106	3 471	143	114
39	3 307	137	109	3 564	147	117
42	3 384	140	111	3 648	150	120
48	3 514	145	116	3 794	155	125
54	3 616	148	119	3 911	159	129
60	3 693	151	121	4 003	162	132
72	3 786	155	125	4 124	166	136
84	3 819	155	126	4 179	168	137
96	3 812	154	125	4 188	168	138
108	3 781	152	124	4 167	166	137
120	3 738	150	123	4 125	164	136
132	3 688	147	121	4 074	161	134
144	3 637	145	120	4 017	159	132
156	3 583	142	118	3 954	156	130
168	3 520	139	116	3 886	152	128
180	3 439	136	113	3 806	149	125
192	3 325	131	109	3 703	144	122
200	3 222	126	106	3 617	141	119

BROWN SWISS

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	2 795	112	98	3 030	125	106
21	2 962	119	104	3 203	131	112
24	3 115	126	109	3 363	137	118
27	3 255	131	114	3 510	142	123
30	3 384	136	118	3 646	147	128
33	3 500	141	123	3 771	152	132
36	3 607	145	126	3 885	156	136
39	3 702	149	130	3 989	160	140
42	3 788	152	133	4 084	163	143
48	3 933	158	138	4 247	169	149
54	4 047	162	142	4 378	174	153
60	4 133	165	145	4 480	177	157
72	4 238	169	148	4 616	182	162
84	4 275	169	150	4 678	183	164
96	4 267	168	149	4 688	183	164
108	4 232	166	148	4 663	181	163
120	4 183	164	146	4 618	179	162
132	4 129	161	145	4 560	176	160
144	4 071	158	142	4 496	173	157
156	4 010	155	140	4 426	170	155
168	3 940	152	138	4 350	166	152
180	3 849	148	135	4 260	162	149
192	3 722	142	130	4 145	157	145
200	3 607	137	126	4 049	154	142

CANADIENNE

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	2 054	93	71	2 227	103	77
21	2 177	98	75	2 354	108	81
24	2 289	103	79	2 471	113	85
27	2 392	108	83	2 580	117	89
30	2 487	112	86	2 679	122	92
33	2 572	116	89	2 771	125	96
36	2 650	120	91	2 855	129	98
39	2 720	123	94	2 931	132	101
42	2 784	126	96	3 001	135	104
48	2 890	130	100	3 120	140	108
54	2 974	134	103	3 217	143	111
60	3 037	137	105	3 292	147	114
72	3 114	139	107	3 392	150	117
84	3 142	140	108	3 438	151	119
96	3 136	139	108	3 445	151	119
108	3 110	137	107	3 427	150	118
120	3 074	135	106	3 393	148	117
132	3 034	132	105	3 351	146	116
144	2 991	130	103	3 304	143	114
156	2 947	128	102	3 253	140	112
168	2 895	125	100	3 196	137	110
180	2 828	122	98	3 130	134	108
192	2 735	117	94	3 046	130	105
200	2 650	114	91	2 975	127	103

GUERNSEY

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	2 531	125	90	2 742	134	98
21	2 635	132	94	2 871	141	102
24	2 732	137	97	2 989	148	106
27	2 820	142	100	3 098	154	110
30	2 901	147	103	3 197	160	114
33	2 974	151	106	3 288	164	117
36	3 040	154	108	3 370	169	120
39	3 100	157	110	3 444	172	123
42	3 154	161	112	3 510	176	125
48	3 245	165	116	3 622	181	129
54	3 315	168	118	3 710	186	133
60	3 367	171	120	3 776	188	134
72	3 429	172	122	3 854	190	137
84	3 445	171	123	3 879	190	138
96	3 433	169	122	3 868	187	138
108	3 402	165	121	3 836	183	137
120	3 362	162	120	3 794	180	135
132	3 320	158	118	3 749	176	133
144	3 278	155	117	3 707	173	132
156	3 238	152	115	3 668	171	131
168	3 198	150	114	3 630	168	129
180	3 153	147	112	3 586	165	128
192	3 095	142	110	3 527	160	126
200	3 046	138	108	3 474	156	124

HOLSTEIN

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	3 377	124	110	3 448	124	118
21	3 612	132	117	3 794	138	123
24	3 823	140	123	4 092	149	129
27	3 999	147	128	4 308	157	134
30	4 136	152	133	4 450	163	138
33	4 247	157	138	4 564	168	143
36	4 324	160	141	4 639	171	147
39	4 409	163	145	4 722	174	149
42	4 503	167	148	4 821	177	153
48	4 699	174	152	5 045	186	158
54	4 869	180	156	5 241	193	162
60	4 944	183	158	5 457	197	165
72	4 984	185	161	5 463	201	169
84	5 032	186	161	5 500	202	169
96	4 984	183	158	5 485	201	167
108	4 911	180	154	5 399	197	163
120	4 824	176	150	5 294	192	158
132	4 689	170	146	5 160	188	154
144	4 554	165	141	5 026	183	150
156	4 419	160	138	4 893	178	149
168	4 284	155	138	4 759	173	149
180	4 284	155	138	4 759	173	149
192	4 284	155	138	4 759	173	149
200	4 284	155	138	4 759	173	149

JERSEY

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	2 168	115	82	2 373	125	90
21	2 290	122	87	2 511	133	95
24	2 402	129	91	2 638	141	100
27	2 506	136	95	2 754	148	104
30	2 600	142	99	2 861	154	108
33	2 687	147	102	2 959	160	112
36	2 765	151	105	3 048	165	116
39	2 837	156	108	3 129	170	119
42	2 901	160	110	3 201	174	121
48	3 011	166	114	3 326	181	126
54	3 098	170	117	3 423	188	130
60	3 164	173	120	3 499	189	133
72	3 245	176	123	3 591	192	136
84	3 274	176	124	3 626	192	137
96	3 268	174	124	3 620	191	137
108	3 237	171	123	3 589	187	136
120	3 194	167	121	3 544	184	134
132	3 144	164	119	3 494	181	132
144	3 093	161	117	3 443	178	130
156	3 043	159	115	3 393	175	129
168	2 991	156	113	3 343	172	127
180	2 934	153	111	3 288	170	125
192	2 865	149	109	3 216	165	122
200	2 807	145	106	3 155	161	120

SHORTHORN

AGE	JULY			DECEMBER		
	MILK (kg)	FAT (kg)	PROTEIN (kg)	MILK (kg)	FAT (kg)	PROTEIN (kg)
18 months	1 985	80	65	2 152	89	70
21	2 104	85	69	2 275	93	74
24	2 213	89	72	2 389	98	78
27	2 312	93	75	2 493	101	81
30	2 404	97	78	2 590	105	84
33	2 488	100	81	2 678	108	87
36	2 561	103	83	2 759	111	90
39	2 629	106	86	2 833	114	92
42	2 690	108	88	2 900	116	95
48	1 794	112	91	3 016	120	98
54	2 874	115	94	3 109	124	101
60	2 936	117	96	3 182	126	104
72	3 010	120	98	3 279	131	108
96	3 031	120	99	3 330	131	109
108	3 006	118	98	3 313	129	108
120	2 971	117	97	3 280	127	107
132	2 932	114	96	3 239	126	106
144	2 892	112	94	3 193	123	104
156	2 849	110	93	3 144	121	102
168	2 798	108	91	3 089	118	101
180	2 734	105	89	3 025	116	99
192	2 643	102	86	2 944	112	96
200	2 562	98	84	2 876	109	94

(English version of the official French document)



Gouvernement du Québec
Ministère de l'Agriculture,
des Pêcheries et de l'Alimentation

89-0174

Bibliothèque Cécile - Rouleau



QMC A 433 037