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Dairy Club Manual

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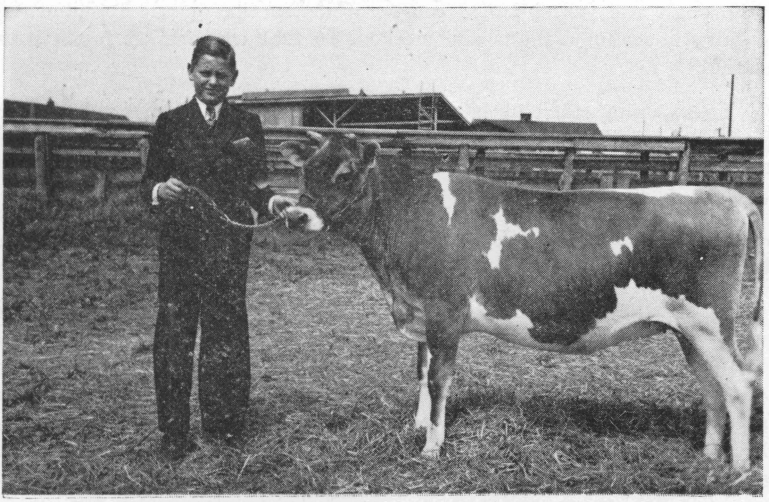

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DAIRY CLUB MANUAL

for

County Agricultural Agents and Boys' 4-H Club Leaders

by E. R. Eudaly, Extension Dairyman

This manual has been prepared for the use of county agricultural agents and boys 4-H club leaders in an effort to encourage the development of dairy calf club work along uniform lines, and to supply those desiring it with a concise outline that will deal with the organization and maintenance of a calf club. It is possible through meetings, shows, tours, demonstrations, and other activities for the membership to secure a thorough and well planned course of instruction in the fundamentals of dairy husbandry. Plans and methods to that end are set forth in the manual.

Every dairy calf club is urged to hold as many meetings during the year as possible and to take up those subjects which will be of greatest interest and value to the membership.

Ten meetings for each year's club work are here outlined. There may be local factors which suggest other subjects than those outlined which could be incorporated with profit.

In starting new dairy calf clubs it should be understood that this work is a long time demonstration which should continue for at least four years if every member is to secure the most benefit and instruction. During this period, constant supervision and special leadership are essential. This supervision may come from local leaders, dairy cattle breeders or business men. In this connection, it is generally the part of wisdom to approach the problem of organization as follows:

1. The dairy calf club should be discussed first locally with dairymen, bankers, business men, boys and their parents.

2. If possible, and the interest justifies, a meeting should be called so that prospective club members and their parents, cattle breeders, business men and other agencies can be present when the county agricultural agent presents the possibilities of calf club work.

3. During the meeting or immediately following, the names of the boys interested should be secured on a signed application blank. The parents should also sign this blank, thus signifying their interest in and sanction of the project.

4. Following this preliminary meeting, a regular organization meeting should be held. At this meeting the club can be organized, the local leader selected and arrangements perfected for securing the heifers. The organization may be by communities or county-wide, depending upon

the number of boys who are interested. A well planned year's program of work should include

(a) The individual work of the member
(b) Public demonstrations
(c) Exhibits
(d) Contests
(e) Tours
(f) Achievement days
(g) Regular club meetings:

Securing The Dairy Heifer:

1. A substantial man who has the confidence of the community should be secured to assist in buying the heifers.
2. Methods of finance should be settled individually either at home, with a banker, or through a civic organization.
3. If possible, secure young calves so that the first year's experience will be with a calf; the second with a bred heifer; the third with one milk cow; and the fourth with two or more milk cows.
4. Secure calves locally, if possible. However, be sure to select good calves, otherwise the boy will lose interest. Remember that the original heifer is intended to start a profitable herd, and as a foundation animal, she should be outstanding in individuality and inheritance.

Suggestions for Calf Club Meetings for First Year Members

Meeting No. 1. (February)

Outline of work for county agricultural agent:

1. Distribute record books and subject matter material such as bulletins.
2. Set club goals for the year:
   Every member will turn in complete record books.
   Every member will learn to judge.
   Every member will fit and show his animal.
   Every member will take part in the club tour.
3. Check whether all members have secured their calves or have made arrangements to secure them.
4. Assign work.
   Agreement on topic to use in answer to roll call of next meeting, (such as each boy giving name and age of calf; also name of sire and dam.)
   Assignment of subject to study before next meeting.
   (Suggested subject: "Feeding and Care of Dairy Calves up to Six Months of Age." References: Extension bulletin B-69, USDA bulletin 1723.)
   Prepare and hand out list of questions about this subject for the boys to answer at the next meeting.

Suggested Questions:

1. Q Why should a new born calf have its mother's milk?
   A Because the first milk has necessary purgative properties which clean out the digestive system.
2. Q What is the name of the cow's first milk?
   A Colostrum.
3. Q How long should a calf be fed whole milk?
   A About six weeks.
4. Q How much whole milk should be fed the calf per day?
   A One pound to each 10 pounds of live weight.
5. Q How long should a calf be fed skim milk?
   A Until the calf is at least six months of age. Club calves can be fed skim milk with good results until they are a year old.
6. Q How much skim milk should be fed a calf per day?
   A From one gallon to two gallons, depending upon size of calf.
7. Q At what age should the young calf be fed grain?
   A As soon as it will start eating, which will be when it is two to three weeks of age.
8. Q What is a good grain mixture for young calves?
   A Equal parts by weight of corn and oats.
9. Q How much of the grain mixture should be fed the young calf per day?
   A All that it will eat.
10. Q Should the grain for young calves be ground?
    A Not until the calves are four to five months old.
11. Q At what age should hay be fed to young calves?
    A As soon as they will eat hay.
12. Q What is the best hay for young calves?
    A A mixture of alfalfa and prairie or good quality sudan grass hay.
13. Q Should young calves be fed silage?
    A Not until the calves are five or six moths old.
14. Q Should drinking water be where young calves may drink at at all times?
    A Yes.
15. Q What are six causes of common scours?
    A (1) Overfeeding (2) dirty feeding vessels (3) irregular feeding (4) sudden change in feed (5) feeding cold milk (6) dirty pens.
16. Q How can common scours be remedied?
    A Cut down on feed and give light laxative and remedy the cause.
17. Q Should young calves be turned out on pasture?
    A Calves may be turned into small pasture provided they have access to shelter shed, water and feed.
18. Q When should blankets be put on young calves?
    A At least three months prior to show.
19. Q Should fly spray ever be used on club calves? If not, why?
    A No. Liable to blister the skin and also ruin the looks of the hair.
20. Q How can flies be kept off calves?
    A Keep calves in darkened stall during the day.

Meeting No. 2 (March)

Ask questions given the members at the previous meeting.
Assign subject for study before next meeting: (Suggested subject: "Judging Dairy Heifers." Reference Extension bulletin B-66; USDA circular 99.)

Suggested questions to hand out:

1. Q What are the six main essentials of a good dairy heifer?
   A (1) Indication of constitution (2) Feed capacity (3) Dairy character (4) Size (5) Good health (6) Good mammary system.
2. Q What do you understand "constitution" to mean in a dairy heifer?
   A Ability to carry on the functions for which she was bred and maintain good health and vigor.
3. Q What are the indications of constitution?
   A An open and well distended nostril. A well sprung rib. Deep heart girth. Reasonable breadth of chest.
4. Q What are the indications of feed capacity?
   A Large mouth and strong jaws. Long, broad and deep barrel. Good digestive system as indicated by loose pliable skin.
5. Q What do you understand "dairy character" to mean?
   A Indication of an especially strong development of the nervous system, plus good dairy conformation.
6. Q What are the indications of dairy character?
   A Bright, prominent, alert eyes, broad forehead, long refined neck, prominence of spinal column, and open jointed vertabrae.
7. Q Why is size important?
   A Other things equal, the larger cows of a given breed will produce more milk and have stronger constitutions because they have more capacity to handle feed and more heart and lung space.
8. Q What are some requirements for good health of dairy calves?
   A Good, clean feed and water. A clean, well ventilated stall. Avoidance of contact with infectious diseases and a clean attendant.
9. Q What are the indications of a well developed mammary system?
   A Large, well developed udder, large teats and far apart; udder of good texture and attached high behind and well forward.
10. Q Why should a dairy heifer have a long, straight and square rump?
    A Indicates length and form of udder and permits ease in calving.
11. Q Why should the skin be soft, loose and pliable?
    A It indicates good digestive system, good health and refinement throughout the body.

Meeting No. 3. (April)

Ask questions given members at last meeting. Assign subject for study before next meeting. (Suggested subject: "Fitting and Showing Dairy Calves." Reference USDA circular 99 and Farmers bulletin 1443.)

Suggested questions to hand out:

1. Q What is the first step in fitting a dairy calf for the show ring?
   A Teach it to lead.
2. Q Give the best method to use in teaching a dairy calf to lead.
   A Put a halter on it and lead around for a few minutes each day, preferably to something it wants, such as water.
3. Q While teaching the calf to lead, what further steps should be undertaken for fitting?
   A Train the calf to stand or pose.
4. Q In what position should a calf be taught to stand?
   A In the position in which it looks best. The top-line should be straight and its feet should be squarely under the body, if possible, and not too close together.
5. Q Should a dairy calf be clipped over its entire body?
   A Yes, if the hair coat is long and coarse.
6. Q At what time during the fitting period should a calf be clipped over the entire body?
   A At the start of the fitting period, or a day or two before the show.
7. Q Should a dairy calf be washed?
   A Yes, and always blanket after washing.
8. Q Why should calves be blanketed immediately after washing?
   A To keep the calf from catching cold and to sweat out the hide.
9. Q Should a dairy calf's horns be polished?
   A Yes.
10. Q What equipment is necessary for polishing horns?
    A Wood rasp, wood scraper or glass emery cloth or steel wool, pumice stone or tripoli powder, sweet oil, and a flannel cloth or chamois skin.
11. Q How would you make up a paste for polishing horns?
    A Mix sweet oil or olive oil with pumice stone into a creamy paste.
12. Q How often should dairy calves be groomed or brushed?
    A At least once per day.
13. Q Should a curry comb be used on a calf's body?
    A No. Use only a brush and cloth or hands.
14. Q Why is it desirable to blanket dairy calves?
    A It hastens the arrival of the handling qualities desired in the hair and hide and helps to keep the calf's body clean.
15. Q Is it necessary to buy a blanket?
    A. No. Gunny sacks sewed together with a light flannel blanket underneath so made that it will remain on the calf will be all right.

16. Q Should the calf's switch be washed and braided?
A Yes. Several times before show day and just before showing, it should be washed and if yellow, bleached with bluing and braided while wet in about six small tight braids. Before entering the ring, the braids should be opened and well combed out.

17. Q Besides combing out the switch, what should be done to a dairy calf just before entering the ring?
A Put on a show halter. Brush and smooth hair down with oiled cloth.

18. Q When entering the ring, on which side of the calf should the showman walk?
A On the left hand side.

19. Q When showing a calf, how should the showman stand?
A Facing calf, with lead strap in left hand, unless you have to stand on the right side to keep from being between the judge and the calf.

Meeting No. 4 (May)

Ask questions given the members at last meeting.
Announce next meeting place where three or four heifers will be available for a judging contest. Hand out mimeographed sheet with the likeness of two calves drawn upon it and below write a set of reasons for placing one of them over the other, so the boys will learn how to give reasons by the time of the next meeting.

Meeting No. 5 (June)

Line up three or four dairy heifers and have the boys place the calves and then give their reasons for placing. After this is done, give the boys the correct placing and reasons. Announce that the next meeting will be a tour to see the club calves owned by the various members. Announce the time and place to start the tour, and that, while on the tour, another judging contest will be held if sufficient calves are available at any point enroute.

Meeting No. 6 (July)

Make tour and have judging contest. Announce the next meeting place, where it will be possible to have a dairy calf and the equipment for giving a demonstration in fitting and showing the calf.

Meeting No. 7 (August)

Give demonstration in fitting and showing, including clipping, polishing the horns, leading and posing the calf. Announce the next meeting place, where it will be possible to have another judging contest.

Meeting No. 8 (September)

Line up three or four dairy heifers and have the boys place them, giving their reasons. Then give the correct placing and reasons.

Announce the next meeting at regular meeting place. (Suggested subject for discussion: "Feed and Care of Dairy Heifer During Winter Months". Reference: Extension bulletin 69, Farmers bulletin 1723.)

Suggested list of questions to give the boys on this subject, are as follows:

1. Q After the club show, should the heifer be fed as heavily as before the show? Why?
   A No. Dairy heifers should not be kept fat. They should have all the roughage they will eat but only enough concentrates to keep them in good growing condition.
2. Q What are some good roughages to feed the dairy heifer during the winter?
   A Legume hay, along with good pasture, is the best.
3. Q What is a suitable grain mixture for carrying heifers through the winter?
   A The grain mixture will depend upon the kind of roughage fed. If legume hay and pasture are used, feed equal part of corn and oats. If a non-legume hay is used, feed equal parts of corn, oats and cottonseed meal.
4. Q How much of the grain mixture should be fed per day?
   A One pound for each 200 pounds of live weight.
5. Q What is a concentrate feed?
   A It is a feed with very little bulk, low in fiber and high in digestible matter. Corn, oats, wheat bran and cottonseed meal are concentrated feeds.
6. Q What is a roughage feed? Name some.
   A It is a feed with lots of bulk, high in fiber and low in digestible matter as compared to a concentrate. Hay, grass and silage are roughages.
7. Q Name the feed nutrients of feed.
   A Protein, carbohydrates, fat, minerals, and water.
8. Q Name some of the legume hays.
   A Alfalfa, cowpeas, soy beans, clover, and peanuts.
9. Q Name some carbonaceous hays.
   A Sorghum, sudan grass, bermuda grass, and prairie grass.
10. Q When a legume hay is fed, what would be a good grain mixture for heifers?
    A Corn, oats and bran.
11. Q When a carbonaceous hay is fed, what would be a good grain mixture for heifers?
    A Corn, oats, bran, and cottonseed meal.
12. Q At what age should dairy heifers be bred?
    A They should be at least 15 months of age.

13. Q Should dairy heifers be housed all the winter?
    A No. They need some exercise.
14. Q What is the best basis for selecting a bull for a dairy herd when a proven bull is not available?
    A Get the son of a proven bull whose sisters have proven to be good producers.
15. Q What is a proven bull?
    A A bull that has at least six daughters that have production records and out of cows with production records. A comparison of these records will prove the bull good or bad.

Meeting No. 9 (October)

Ask questions given boys at previous meeting.
Assign subject for the next meeting. Suggested subject. "Making Report on Project". Have boys bring their record books to the next meeting.

Meeting No. 10 (November)

Have each boy go over his dairy club record for the year. Suggest changes where necessary. If any boy showed his heifer at the State Regional Fair, have him make a report of his trip and experience. Outline of meetings for dairy calf club meetings for second year members.

Outline of Programs for Dairy Calf Club Meetings

For Second Year 4-H Club Members

Meeting No. 1 (February)

Set club goals for the year. Distribute record books and subject matter bulletins. Assign work for next meeting. (Suggested subject for discussion at next meeting: "Feed and Care of Dairy Heifer, One to Two Years of Age." References: Extension bulletin B-69, Farmers bulletin 1723.)
Suggested list of questions to be mimeographed and handed out to members to be answered at next meeting:

1. Q What is the chief difference between feeding a heifer one to two years of age, and one six to 12 months of age?
   A A heifer from one to two years of age should have more roughage and less concentrates per 100 pounds live weight than heifers from six months to one year of age.
2. Q Why is plenty of good roughage so important?
   A It develops the middle of the heifer and thereby increases her ability to handle lots of feed.
3. Q Do dairy heifers need minerals?
   A Yes, especially if no legume hay or pasture is available.

4. Q How can you tell if the animal needs minerals?
   A They will usually chew on sticks and bones.
5. Q How should minerals be fed?
   A Bone meal may be fed with salt, using two or three parts bone meal to one of salt.
6. Q Do heifers need to be fed when they are on pasture?
   A Yes, unless the pasture is exceptionally good and contains some legumes. Even then they should be fed some during the last four or five months of the gestation period.
7. Q Why is it more important to feed the heifer than the dry mature cow?
   A The heifer must be kept growing to make the best cow possible.
8. Q What is the length of the gestation period for dairy cows?
   A Nine months is the average. It varies from 260 to 285 days.
9. When is the best time for dairy cows to freshen?
   A In the fall. Records show that cows will produce more in 12 months when they freshen in the fall. Also, the greater production comes at a time when the price is usually better.
10. When should dairy cows be bred so they will freshen in the fall?
    A December and January.
11. Q Should the bull be allowed to run with the cows? Why?
    A No. Some heifers may be bred too young. There will be no record of when to expect the cows to freshen. If there are very many cows in the pasture the bull breeding life will be shortened.
12. Q What is a good grain mixture for heifers on bermuda pasture?
    A Equal parts by weight of corn, oats, wheat bran, and cottonseed meal.

Meeting No. 2 (March)

Ask questions given out at previous meeting.
Assign subject for next meeting. (Suggested subject: "Rate of Growth of Dairy Heifers". Reference: Farmers bulletin 1723.)

Suggested questions to be mimeographed and handed out to members.

1. Q Is the rate of growth the same for all breeds of dairy cattle?
   A No. The heavier breeds grow faster.
2. Q What is the normal weight of a Jersey calf at birth? At six months of age?
   A At birth, 51 pounds; at six months, 256 pounds.
3. Q What is the normal weight of a Holstein calf at birth? At six months of age?
   A At birth, 90 pounds; at six months, 360 pounds.
4. Q How much milk is required to raise a Jersey calf to six months of age?
   A About 25 gallons of whole milk, and 200 gallons of skim milk.

5. Q How much grain feed is required to raise a Jesey heifer to six months of age?
   A Grain mixture, 225 pounds.
6. Is it necessary to feed dairy heifers grain when they are on good pasture?
   A Yes, especially up to 12 months of age.
7. Q How many months during the year do we have good pasture in Texas?
   A Three months on an average.
8. Why is it important to keep dairy heifers growing at a normal rate?
   A To get the greatest size possible.
9. Q Why is silage a good feed for a dairy heifer over one year of age?
   A Dairy heifers need a succulent feed.
10. Q Why is the feeding of cottonseed meal necessary for dairy heifers that are getting nothing but carbonaceous roughages?
    A To provide sufficient protein for proper growth.
11. Q How much cottonseed meal should a 15 months old heifer be fed per day?
    A Two pounds.
12. Q Is it necessary to feed dairy heifers cottonseed meal when they are on good sudan pasture? Why?
    A No. Sudan is high in protein.

Meeting No. 3 (April)

Ask questions given out at previous meeting.
Assign subject for next meeting. (Suggested subject: "Feed and Care of Dairy Heifers Before and After Calving." Reference: Farmers bulletin 1470.)

Suggested questions to be mimeographed and handed out to club members:

1. Q When is it not advisable to allow heifers to run in the pasture with the remainder of the herd up to calving time?
   A When there are a large number of cattle in the pasture and some of the females are not bred.
2. Q What is a good grain mixture to feed the last two weeks before freshening?
   A Equal parts of ground oats and wheat bran.
3. Q When is grain feed not necessary?
   A When you have a luxuriant pasture that contains a variety of grasses and clovers.
4. Q What is a good grain mixture to feed after calving?
   A Ground oats and wheat bran.
5. How much should be fed per day for the first few days?
   A Three to four pounds.

6. Q How long should elapse after calving before a cow is put on full grain feed?
   A About three weeks.
7. Q How many days should the calf be allowed to suck? How many times per day?
   A Two days and three times per day.
8. Q Should the cow ever be milked immediately before calving? calving? Why?
   A No. Sometimes causes udder trouble.
9. Q Should the cow ever be milked immediately after calving?
   A Only in extreme cases.
10. Q How can you tell if it is necessary to milk the cow immediately before calving?
    A She will have no appetite and walk with difficulty.
11. Q When the weather is cold why is it important to see that the water is warm for cows immediately after calving?
    A The cow becomes chilled and the afterbirth may not pass readily.
12. Q Does it take as long to get a two gallon cow on full feed after calving as it does a four gallon cow?
    A No. Because the two gallon cow is not entitled to as much feed.

Meeting No. 4 (May)

Ask questions given out at the previous meeting.
Assign subject for the next meeting. (Suggested subject: "Fitting and Showing Demonstration." Reference: USDA circular 99 and Farmers bulletins 1443, and 1412.)
Suggested things to do at the demonstration. Meeting should be held where a heifer is available for the demonstration.

1. Give halter making demonstration.
2. Give blanket making demonstration.
3. Give clipping demonstration.
4. Give washing and grooming demonstration.
5. Give horn polishing demonstration.
6. Give showing demonstration.

Meeting No. 5 (June)

Give fitting and showing demonstration as outlined at the May meeting. Announce next meeting where you can give judging demonstration. Hand out Extension bulletin B-66 which tells how to judge dairy cattle.

Meeting No. 6 (July)

Give judging demonstration as outlined at the June meeting. Make arrangements for tour and judging contest for the next meeting.

Meeting No. 7 (August)

Make tour and have judging contest. Announce subject for next meeting. (Suggested subject: "Selecting the Herd Sire." Reference: USDA bulletin 1412 and 1604.)

Suggested list of questions to have mimeographed and handed out to club members:

1. Q Why is the herd sire called "half the herd"?
   A Because the herd sire affects each calf in the herd 50 percent.
2. Q To what kind of sire should you breed your club heifer?
   A To one that will improve the offspring.
3. Q How can you determine the kind of sire to which your calf should be bred?
   A By studying the type of bull; the pedigree; the production of his daughters and sisters.
4. Q What is a pedigree?
   A A record of the ancestors of an animal for at least three generations.
5. Q What is a registration paper?
   A A record of ancestors of an animal issued by the breed association.
6. Q What is meant by a proven bull?
   A A bull is proven by comparing the production records of at least five of his unselected daughters with the production of their dams.
7. Q If a proven bull is not available what is the most important thing to consider in selecting the herd bull?
   A The production record of his sisters.
8. Q Should the herd bull be allowed to run with the herd? Why?
   A No. In the first place it is dangerous. In the second, it taxes the vitality of the bull and thereby shortens his breeding life.
9. Q How large should the bull pen be?
   A At least one-half acre.
10. Q Should the bull be fed grain? How much?
    A Yes. From four to 10 pounds depending upon the size and condition of the bull and the kind of roughness fed.
11. Q Should the bull have some green feed? Why?
    A Yes. The green feed furnishes the vitamins necessary to maintain health and vigor.
13. Q What is the best substitute for green grass?
    A Peagreen alfalfa hay.

Meeting No. 8 (September)

Ask questions given out at previous meeting. Announce subject for next meeting. (Suggested subject: "Breeds of Dairy Cattle." Reference: USDA bulletin 1443.)

Suggested list of questions to have mimeographed and handed out to club members.

1. Q Name the five principal breeds of dairy cattle in the United States.
   A Jersey, Holstein, Ayrshire, Guernsey and Brown Swiss.
2. Q Rank the five breeds according to size.
   A. Holstein, Brown Swiss, Ayrshire, Guernsey, Jersey.
3. Q Rank the five breeds according to milk production.
   A Holstein, Brown Swiss, Ayrshire, Guernsey and Jersey.
4. Q Rank the five breeds according to fat test.
   A Jersey, Guernsey, Brown Swiss, Ayrshire and Holstein.
5. Q Why are Jerseys popular in Texas?
   A Small in size, therefore require less feed and have high fat test.
6. Q Name three factors that should be considered by the dairymen in deciding which breed of dairy cattle is best suited to his farm.
   A (1) Breed of cattle most prevalent in county (2) Form in which product is to be marketed (3) Preference of the dairyman.
7. Q Name two other breeds of cattle that are used for milk producduction.
   A Shorthorns and Red Polls.
8. Q What is of more importance to the dairyman than the breed he selects?
   A Economy of production.
9. Q In what two ways is it possible to increase profit in keeping dairy cattle?
   A Lower the cost of production and increase the selling price.
10. Q Over which one of these does the individual dairyman have more control?
    A Cost of production.
11. Q Why does a cow that produces 400 lbs. of butterfat per year make about four times as much profit as does one that produces 200 lbs. of butterfat?
    A Because the amount of feed required for maintenance of the two cows is practically the same and other items of cost such as labor, interest, and taxes are the same.
12. Q Why is a registered cow worth more than a grade, even though the grade gives the same amount of milk?
    A There is more likelihood of the registered cow transmitting her likeness to the offspring than there is of the grade. Therefore, the offspring of the registered cow is worth more.

Meeting No. 9 (October)

Ask questions given out at previous meeting.
Announce subject for next meeting. (Suggested subject: "Making Reports." Have club members bring record books.)

Meeting No. 10 (November)

Go over individual record books and make suggestions about making out reports.

Programs for Dairy Calf Club Meetings for Third Year 4-H Club Members

Meeting No. 1 (February)

Set the club goals for the year. Distribute record books and subject matter bulletins. Assign work for next meeting. (Suggested subject: "Discussion of Feeds." References: USDA bulletins 1626, 1723, and Extension bulletin B-69. The answers to questions for third and fourth year club members are not given. Third and fourth year members should be able to read the bulletins and find the answers.) Suggested list of questions to have mimeographed and distributed to club members:

1. What are the general uses to which a dairy cow puts her feed?
2. What is a feed?
3. What is a feed nutrient?
4. Name the feed nutrients.
5. What is the protein in a feed used for by the dairy cow?
6. For what are carbohydrates and fats used?
7. For what are minerals used?
8. For what is water used?
9. Into what two general classes are feeds divided?
10. What is a concentrate?
11. What is roughage?
12. What is the cheapest roughage for dairy cows? What second cheapest?
13. Can silage be had by any dairyman in Texas?
14. What is the cheapest method for putting up silage?
15. What determines the width and depth of the trench?
16. At what stage of growth should the crop be cut for making silage? Why?
17. What is meant by "balancing the feed for dairy cows"?
18. What would be a good grain mixture to use when cows are getting hegari silage?

Meeting No. 2 (March)

Ask questions given at previous meeting.

Assign subject for next meeting. (Suggested subject: "Feed and Care of Dairy Cows in Summer." References: USDA bulletins 1626, leaflet 7 and Extension bulletin B-69.)

Suggested list of questions to have mimeographed and handed out to club members:

1. Why is it necessary to feed some concentrates to good dairy cows on good pasture?
2. How much concentrates would one feed a cow producing 35 pounds of milk per day when grazing good bermuda grass pasture?
3. Why is it necessary to feed some hay to dairy cows when on early spring grass?
4. Why is it necessary to have the pasture for good dairy cows near the barn?
5. Should dairy cows have shade in pasture? Why?
6. Name four causes of bad flavors and bad odors in milk?
7. How can objectionable odors caused from weeds be controlled?
8. What is the best temporary pasture to use during summer with which to supplement the permanent pasture?
9. What feed should be available when it is too dry for either temporary or permanent pasture?
10. How often should cows have access to water? Why?
11. Why are corrugated iron water troughs objectionable?
12. Why should water troughs have shade over them?
13. How should dirt tanks be constructed in order that the water be kept clean and cool?
14. How often should a water trough be cleaned?

Meeting No. 3 (April)

Ask questions given out at previous meeting.

Assign subject for next meeting. (Suggested subject: "Diseases of Dairy Cattle." References: USDA bulletins 1470, 1723 and 1422).

Suggested list of questions to be mimeographed and handed out to club members:

1. What diseases are liable to attack a very young calf?
2. How can naval ills be prevented?
3. How can white scours and calf penumonia be controlled?
4. How can infectious abortion be eradicated from a dairy herd?
5. Why is it important to eradicate infectious abortion from the dairy herd?
6. What causes milk fever? How could milk fever be prevented?
7. Name five causes that predispose cows to garget or mammitis.
8. What is cow pox?
9. How should lice on cattle be killed?
10. Name three kinds of flies that annoy cattle. Can they be controlled in the same manner? Why?
11. How would you remove warts from cow's teats?
12. Should dairy cows be dehorned? Why?
13. Why should every dairyman have his dairy cows tuberculin tested?
14. What causes "creeps" in cattle?
15. How would you prevent cattle from having creeps?

Meeting No. 4 (May)

Ask questions given out at previous meeting.

Assign subject for next meeting. (Suggested subject: "Construction and Filling Trench Silos." Reference: Extension bulletin B-84.)

Suggested list of questions to have mimeographed and handed out to club members:

1. Where should trench silos be located, if possible? Why?
2. What kind of soil is best in which to dig a trench silo? Why?
3. Will any kind of soil do for this purpose?
4. What determines the width and depth of the trench silo?
5. How wide and how deep should a trench silo be for a 10 cow dairy herd?
6. What determines the length of the trench silo?
7. How much silage should be put up for each cow?
8. Why should the walls of the trench silo be sloping?
9. Does the feed have to be chopped in filling a trench silo?
10. Should bundled feed be placed lengthwise or crosswise in the trench? Why?
11. Should water be put on the silage as the trench is being filled? Why?
12. Is it possible to add too much water?
13. At what stage of growth should the crop be cut for silage? Why?
14. Name six crops that are most commonly used for silage.
15. Can silage be made from alfalfa, cowpeas and soy beans? What has to be added in order the keep these crops in a silo?
16. What is the relative value per acre of a crop made into silage and into hay?
17. How full should the trench silo be filled?
19. How should the trench silo be covered?
20. How soon can the trench be opened for feeding?

Meeting No. 5 (June)

Ask questions given out at previous meeting.

Assign subject for next meeting. (Suggested subject: "Feed and Care of Herd Sire." References: USDA bulletins 1412, 1604 and 1723).

Suggested list of questions to be mimeographed and handed out to club members:

1. How old should a bull be before he is used?
2. Should the bull be allowed to run with the herd? Why?
3. Should a herd bull have exercise?
4. Should the herd bull have a shelter shed?
5. How should the shelter shed be constructed?
6. How large should the bull paddock be?
7. Why is green feed important for the herd bull?
8. Should the herd bull have grain? What kind and how much?

9. Should the herd bull be fed silage?
10. Why is it important to have a breeding chute in connection with the bull paddock?
11. Make a drawing showing the arrangement of a breeding chute.

Meeting No. 6 (July)

Ask questions given out at previous meeting.
Announce meeting place for the tour which will take place at the regular meeting.

Meeting No. 7 (August)

Make the tour as planned at last meeting.
Assign subject for next meeting. (Suggested subject: "Keeping Production Records." References: USDA bulletins 1604, 1610, 1532 and miscellaneous circular 26).
Suggested list of questions to be mimeographed and handed out to club members:

1. Does the dairyman have to pay for the milk his cows produce? How?
2. When keeping a herd of dairy cows, how does one figure the profit?
3. Give the only accurate way in which a dairyman can tell the best cows in the herd?
4. What is the best way to get individual cow records?
5. How can a dairyman in Texas get cow testing done?
6. What item of cost of producing milk is kept in a cow testing association?
7. What other items make up the dairyman's cost of producing milk? Why are they not kept by the tester?
8. In what two ways is it possible to increase profits in keeping dairy cows?
9. Over which one of these methods, does the individual dairyman have most control?
10. Why does a cow that produces 400 lbs. of butterfat per year make about four times as much profit as does one producing 200 lbs. of butterfat yearly?
11. What is the average butterfat production of all dairy cows in Texas?
12. Name five reasons for getting rid of low producing cows.
13. If the average butterfat production of the dairy herd is raised higher than the average of the best cows, what else is necessary besides culling?
14. What is meant by a proven bull?
15. If no proven bull is available, what is the next best means for selecting the herd bull?

Meeting No. 8 (September)

Ask questions given out at previous meeting.
Assign subject for next meeting. (Suggested subject: "Feed and Care of Dairy Cows in Winter". References: USDA bulletins 1470, 1610, 1626; Extension bulletin B-69).
Suggested list of questions to have mimeographed and handed out to club members:

1. Name four crops that may be used for fall and winter pasture. When grazing these crops, should dairy cows have some hay or bundle feed? Why?
2. Why is succulent feed so essential in winter months?
3. Why is a shelter shed important in Texas?
4. What is the best kind of roughage for dairy cows when they are kept under shelter sheds on wet, cold days?
5. Why is it important to give the cows warm water in cold weather?
6. How may warm water be provided in Texas?
7. Give a good grain mixture for milk cows when they are getting silage. How much of this grain mixture should a Jersey cow receive when she is producing 25 pounds of milk?
8. Give a good grain mixture for milk cows when they are getting oat pasture. How much of this mixture should Jersey cows receive when producing 25 pounds of milk?
9. Why should the ground under the shelter shed be kept dry?
10. Why is it objectionable to feed silage in the milking barn?

Meeting No. 9 (October)

Ask questions given out at previous meeting.
Assign subject for next meeting. (Suggested subject: "Making Club Reports". Have club members bring record books to meeting.)

Meeting No. 10 (November)

Go over the individual record books of club members. Call attention to errors so that the records will be turned in on time and good reports made.

Programs for Dairy Calf Club Meetings for Fourth Year 4-H Club Members

Meeting No. 1. (February)

Set club goals for the year. Distribute record books and subject matter bulletins. Assign work for next meeting. (Suggested subject: "Planning the Year's Feed Requirement". References: USDA bulletins 1723, 1740, 1470 and Extension bulletin B-69).

Suggested list of questions to be mimeographed and handed out to club members:

1. How many acres of permanent pasture will be required per cow in your locality?
2. What is the best way to improve your permanent pasture?
3. How many acres of temporary pasture will be required per cow in your locality?
4. What is the best temporary pasture for summer grazing in your locality?
5. When should the summer temporary pasture be planted in your locality?
6. How many pounds of ground ear corn or grain sorghum heads will be required for your cows per year?
7. How many acres of corn or grain sorghum will be required to produce the necessary amount of feed needed for your cows?
8. How much cottonseed meal will be required for your cows per year?
9. If oats can be grown successfully in your locality, what would be the advantages of using some ground oats in place of some of the ground corn or grain sorghum heads?
10. If you use a mixture of ground corn, ground oats, wheat bran and cottonseed meal for your grain mixture, how much of each will you need with hegari silage?
11. How many acres of oats will be required to produce the oats needed?
12. How much silage should you put up per cow for a year?
13. What is the best crop to use for silage in your locality?
14. How many acres will be required to produce the necessary amount of silage?
15. How much hay or bundled feed should you put up per cow for a year? How many acres will be required to produce the dry roughage requirement?
16. How many acres, all told, will be required to take care of your herd?

Meeting No. 2. (March)

Ask questions given out at previous meeting.

Assign work for next meeting. (Suggested subject: "Herd Management". References: USDA bulletins 1604, 1723, 1470 and 1532).

Suggested list of questions to have mimeographed and handed out to club members.

1. Give four reasons why a cow should be dry for a period before calving.
2. As a rule, how long should a cow be dry before calving?
3. At what time of the year is it best for cows to freshen? Why?

4. Should dry cows be fed?
5. Why is it important to milk cows regularly?
6. Why should the pasture be near the barn?
7. Why should a good shade be available in the pasture?
8. Why should a good supply of pure water be available for cows, both in the pasture and at the barn lot?
9. If water troughs are used, how often should they be cleaned?
10. What is the objection to metal water troughs?
11. How can water in the trough be kept cool in summer? Warm in winter?
12. Why should a cow be kept away from the herd during the period of heat?
13. Why should dairy cows be dehorned?
14. What is the best time of the year to dehorn cows in your locality?

Meeting No. 3. (April)

Ask questions given out at previous meeting.
Assign work for next meeting. (Suggested subject: "Dairy Herd Improvement." References: USDA bulletins 1604, 1532, miscellaneous circular 26).
Suggested list of questions to have mimeographed and handed out to club members:

1. What is a dairy herd improvement association?
2. What is the purpose of dairy herd improvement work?
3. When and where was the first association organized?
4. How often does the tester visit each herd?
5. How does the tester calculate the production for the month?
6. How do the dairy herd improvement association records help in the sale of young stock from the herd?
7. Name the things necessary for a tester to have in order to do cow testing work.
8. What is a herd record book?
9. What is a barn book?
10. What is the proper procedure to follow when a milk sample is lost?
11. How soon after freshening may a cow's milk be tested?
12. What is meant by "proving" a bull?
13. If a proven bull is not available, what is the next best means of selecting the herd bull?
14. Why is the herd tester better for the breeder than the register-of-merit testing?

Meeting No. 4 (May)

Ask questions given out at previous meeting.
Assign work for next meeting. (Suggested subject: "Herd Sire Management." Reference: USDA bulletin 1412).

Suggested list of questions to have mimeographed and handed out to club members:

1. What is the minimum age at which a bull could be proven?
2. What equipment is necessary to handle a mature bull safely?
3. What is the chief advantage of a bull association for dairymen with small herds?
4. If the bull is properly fed and cared for, how long on an average may a proven bull be used?
5. What is the advantage in proving a bull even though he has died?
6. Why is it better not to have a herd bull fat?
7. Is it possible to keep a bull in good breeding condition and still feed all that he will eat? How?
8. Is it necessary to feed the herd bull minerals?
9. Why is it advantageous to feed the herd bull a few pounds of pea-green alfalfa hay each day when no pasture is available?
10. Why is it necessary to keep water before the herd bull at all times?
11. Why is it necessary to trim a bull's hoofs when they grow out long?
12. What is meant by re-proving a bull? What is the advantage of re-proving a bull?

Meeting No. 5 (June)

Ask questions given out at previous meeting.
Assign work for next meeting. (Suggested subject: "Production of Clean Milk." References: USDA bulletins 1610, 602, 1675 and leaflet No. 3).
Suggested list of questions to be mimeographed and handed out to club members:

1. What are the chief financial advantages of producing good, clean milk?
2. What is the first prerequisite for producing good, clean milk? What is the second?
3. Why is it necessary to clean the cow's udder and belly and wipe with a damp cloth before milking?
4. Why is it necessary to milk with dry hands?
5. Why are strainer cloths objectionable?
6. What is the proper way to wash and sterilize milk utensils?
7. To what temperature should milk be cooled? How soon after milking should this be done?
8. What is the advantage of hood capping bottles of milk?
9. How would one cool cream and keep it cool where ice refrigeration is not available?
10. What is meant by dry cleaning a milking barn? How is this done?
11. What are the advantages of dry cleaning over that of washing?
12. What is the best way to prevent flies around the milking barn?

Meeting No. 6 (July)

Ask questions given out at previous meeting.

Assign work for next meeting. (Suggested work: Have group visit several of the club member's projects. Announce place of meeting when starting the tour.)

Meeting No. 7 (August)

Make tour as planned at previous meeting. Assign subject for next meeting. (Suggested subject: "Construction of Milking Barn and Shelter Shed." References: USDA bulletins 1342, 1393 and 1214).

Suggested list of questions to have mimeographed and handed out to club members:

1. Name some of the most important factors to consider in selecting the type of milking barn to use.
2. Why should the barn be placed so the length extends north and south?
3. Is it better to have a small size milking barn and milk the cows in relays, or have a barn that will hold all the cows at one time? Why?
4. How many cubic feet of air space per stanchion should the milking barn have?
5. What is the usual width from the center of one stanchion to the center of the next?
6. What is the usual length of the cow platform?
7. Why is a swinging stanchion superior to a rigid stanchion?
8. When building a milking barn with two rows of stanchions, is it better to face the cows in or out? Why?
9. Which is better, a floor that slopes from the stanchion to the passageway behind the cows, or one that has a gutter behind the cows? Why?
10. How far should the milk room be placed from the milking barn?
11. Is it advantageous to have stanchions or other means of tying cows in the shelter shed? Why?
12. What length and width shelter shed would you build for a herd of 20 milking cows? Why?

Meeting No. 8 (September)

Ask questions given out at previous meeting.

Assign work for next meeting. (Suggested subject: "Herd Sanitation". References: USDA bulletins 1723, 1626 and leaflet No. 3).

Suggested list of questions to have mimeographed and handed out to club members:

1. What is the first prerequisite to a healthy herd?
2. Describe how a barn on level land may be well drained.

3. How would you control mammitis? Bang's disease? Cow Pox?
4. How would you control common scours in calves?
5. Why is it best to put calves in stanchions to feed them their milk?
6. Give two reasons for picking up the manure each day from the barn lot.
7. In Texas, is it necessary to have special stalls for cows to calve in?
8. Why is it better to have small water troughs?
9. Does a lack of vitamins effect the health of the herd? How?
10. What is the best source of vitamin "A"?

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