

# 4-H

## Dairy Cattle Proficiency Program

### A Member's Guide

#### OVERVIEW

The 4-H Dairy Cattle Proficiency program helps you learn what you need to know about your 4-H project. Your project leader will assist you in setting and achieving your goals. Through your project, you will learn animal care basics, good management practices and record keeping. You will also learn about the size and scope of the animal industry as it relates to your project.

There are many resources to help you learn more about your project:

- The University of California Davis has free resources available online by visiting: <http://anrcatalog.ucdavis.edu/4HYouthDevelopment/>. This site lists a variety of project materials and resources recommended for use in your project.
- The Solano County 4-H Resources and Lending Library at our county 4-H Office includes other books, videos, and reference materials that can be checked out by members and leaders.
- Check to see if there is a breeder's organization in your community that conducts educational activities and shows. Local breeders are excellent sources of help and information.

There are five levels in the Project Proficiency Program. You may choose how many levels you wish to complete:

- ◆ Level I – “Explorer”, you begin to learn about many different aspects of raising animals.
- ◆ Level II – “Producer”, you practice and refine the many skills involved in learning about and raising animals.
- ◆ Level III – “Consumer”, you become an experienced animal raiser.
- ◆ Level IV – “Leader”, allows you to show your own leadership potential.
- ◆ Level V – “Researcher”, you carry out a demonstration or experiment on some aspect of the dairy cattle project, and prepare a paper or portfolio.

As you work through the proficiency program, your leader will date each skill item as you complete it. When all items in a proficiency level are completed, your leader will sign the Certificate of Achievement.

# DAIRY CATTLE

## Level I - Explorer

Date  
Completed

- \_\_\_\_\_ 1. Enrolled in an active dairy cattle project.
- \_\_\_\_\_ 2. Identify at least 5 dairy cattle breeds.
- \_\_\_\_\_ 3. List the 4 main characteristics used to judge a dairy cow or heifer.
- \_\_\_\_\_ 4. What is colostrum and what is its function?
- \_\_\_\_\_ 5. Explain the proper feeding of your dairy heifer at least for its first three months.
- \_\_\_\_\_ 6. To show a dairy heifer or cow, the animal must be grade or registered. Please describe each of these terms and their differences.
- \_\_\_\_\_ 7. What are the three different ways you can mark your dairy heifer or cow?
- \_\_\_\_\_ 8. Identify animal parts.
- \_\_\_\_\_ 9. Knowledge of the following for showmanship:
  - Washing and grooming animal
  - Enter showmanship contest
  - Halter breaking and leading animal
  - Identify and discuss use of supplies and equipment needed
- \_\_\_\_\_ 10. Know the normal animal body temperature and respiration rate.
- \_\_\_\_\_ 11. Know characteristics of healthy versus sickly animals.

Member Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DAIRY CATTLE**  
**Level II - Producer**

Date \_\_\_\_\_  
Completed \_\_\_\_\_

1. Lactation relies heavily on the reproductive cycle of the dairy cow. What is the period of receptivity to breeding called? And how often does it occur?  
\_\_\_\_\_
2. There are distinct states to a cow or heifer's heat cycle. One of the most obvious signs that a cow or heifer is in heat is \_\_\_\_\_ heat. How long does this period last?  
\_\_\_\_\_
3. What are some secondary signs that a cow is in heat?  
\_\_\_\_\_
4. When is the egg released?  
\_\_\_\_\_
5. When is the best time to breed a cow during its heat cycle?  
\_\_\_\_\_
6. What is the function of the cow or heifer's ovaries?  
\_\_\_\_\_
7. What separates the uterus from the vagina?  
\_\_\_\_\_
8. To avoid disease transfer, which type of breeding technique is preferred?  
\_\_\_\_\_
  - a) Natural breeding by a bull
  - b) Artificial Insemination
9. Name some advantages and disadvantages of artificial insemination for dairy cows and heifers.  
\_\_\_\_\_
10. Name some advantages and disadvantages of natural breeding for dairy cows and heifers.  
\_\_\_\_\_

Member Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## DAIRY CATTLE

### Level III - Consumer

Date \_\_\_\_\_  
Completed \_\_\_\_\_

- \_\_\_\_\_ 1. The most important showing period of a dairy heifer's life is usually her first two years. To grow properly and to be safe, a heifer needs to be immunized against disease and medicated to remove parasites. Please answer the following questions about disease and parasite control in the first 2 years of a dairy heifer's life:
  - a) At 2 months of age your dairy calf should receive her first inoculations. What are they and explain briefly each of the diseases they prevent.
  - b) What is brucellosis and when and why should a calf be vaccinated for it by a vet?
  - c) Discuss deworming and when it should be done. With what? Why?
  
- \_\_\_\_\_ 2. Cattle are called ruminants. How many stomach compartments do ruminants have? Please name each stomach compartment and its function in the cow.
  
- \_\_\_\_\_ 3. The mammary system is the most important characteristic of the dairy cow. It is the one element that makes the dairy cow so different and valuable compared to other bovine. Please discuss in detail what happens during the milking process that allows the milk to come from the cow.
  
- \_\_\_\_\_ 4. Report on the history of your breed to your project group or club.
  
- \_\_\_\_\_ 5. Make a chart that explains how good selection can improve your stock. Explain inbreeding, line-breeding, out-breeding, and the advantages and disadvantages of each.
  
- \_\_\_\_\_ 6. Invite a guest speaker to one of your meetings and introduce them to the group.

Member Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DAIRY CATTLE**  
**Level IV - Leader**

Date \_\_\_\_\_  
Completed \_\_\_\_\_

- \_\_\_\_\_ 1. Serve as Junior or Teen leader in this project for one year.
- \_\_\_\_\_ 2. Assist younger members in designing and constructing needed equipment.
- \_\_\_\_\_ 3. Prepare teaching materials for use at project meetings.
- \_\_\_\_\_ 4. Develop and put on a demonstration or judging event, or train a junior team for a judging activity.
- \_\_\_\_\_ 5. Speak on a project-based subject before an organization other than your 4-H group.
- \_\_\_\_\_ 6. Assist at a show as a clerk, secretary, recorder, assistant to the judge, or ring master, or assist with set up, registration, etc.
- \_\_\_\_\_ 7. Teach younger members about learning a specific topic in the project.
- \_\_\_\_\_ 8. Develop your own special project-related activity. Chart your progress, plan the activities, analyze successes and problems, and report on your accomplishment to your club.

Member Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DAIRY CATTLE**  
**Level V - Researcher**

Date  
Completed

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
1. Complete all requirements for levels 1-4.
  2. Put on a judging contest of dairy cattle project members.
  3. Complete either alternative 1 or 2 below:
    1. Have a breeding project involving at least four animals, and demonstrate knowledge of line breeding, breed characteristics, performance reports, marketing channels, artificial insemination, registration papers, breeding procedures, tagging and tattooing.
    2. Complete a research project involving some aspect of the dairy cattle industry such as breed associations and promotions, current legislative programs, current industry trends, career exploration, and current medical research projects.

Member Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# Certificate of Achievement

*This certifies that*

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*has completed the Dairy Cattle Proficiency*

*in Solano County.*

*Explorer*

*Producer*

*Consumer*

*Leader*

*Researcher*

\_\_\_\_\_  
*Date*

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