

South Carolina 4-H

Dairy Advancement Program



South Carolina 4-H Advancement Programs

An introduction for leaders, parents, and members

4-H advancement programs consist of a series of steps that provide a framework for progressive learning within a specific project area. Advancement programs encourage 4-H members to learn at their own speed based on their interests and abilities. Advancement programs are self-paced, and age- and skill-level appropriate. Advancement programs can also be a tremendous help to members as they set their goals each year. In addition, advancement programs are useful to Junior Leaders and more experienced 4-H members who wish to work with younger or less experienced members.

Benefits of 4-H advancement programs

Advancement programs:

- Make projects more interesting
- Assist members in setting and achieving goals
- Encourage self-paced learning
- Help members learn more about their projects
- Encourage age-appropriate skill level building
- Provide new, enjoyable experiences
- Help prepare members for participation in certain activities and events
- Provide recognition for work done well
- Provide incentive to members to stay in a project over a longer period of time

Life skill development and 4-H advancement programs

Participating in 4-H advancement programs is instrumental in the development of life skills, a major emphasis of 4-H programming. Young people who participate in 4-H are not just gaining knowledge about their project area, they also develop skills they will use throughout their life. Specifically, the 4-H advancement programs are designed to develop life skills in:

- Learning to learn
- Making decisions
- Keeping records
- Planning and organizing
- Achieving goals
- Completing a project or task

- Communicating
- Being responsible
- Developing self-esteem

About the advancement program steps

The advancement steps are written to provide a learning sequence for all members. Although all members should start with Step 1, the advancement program is designed so a 4-H member may advance as fast as he or she desires based on interest, effort, and ability. A fourth- or fifth-grade 4-H member may take 2 or 3 years to complete Step 1; an eighth- or ninth-grade member may complete one or two steps in a year.

Members should work on one step at a time. There are, however, times when a member may accomplish an activity in another step before completing the step on which he or she is working. Recognize that if there is considerable difference in the level of skill within a group, members may be working on several levels of the program at one time. Much of the information leaders and members need to complete advancement steps can be found in project materials. In advanced steps, members will need to refer to other sources.

Recording progress in the advancement program

Leaders should encourage members to keep the advancement program with their records. Doing so allows leaders and members to evaluate the 4-H experience, review progress, and establish goals for the future. Upon completing an activity, the member fills in the date and has the leader initial the record.

Reviewing advancement progress

Once a member has completed an advancement step, the leader should then arrange for a review of the experience. This review often is conducted through an interview process.

If it is feasible, the interview can be conducted by someone other than the leader. It is a valuable experience for members to be interviewed by others who have expertise in a particular area. Such

interviews help prepare members for job interviews and other life experiences.

Leaders also may want to arrange for an advancement chairperson or committee to review each member soon after he or she has completed the step requirements.

The review is also an excellent opportunity to involve parents in club activities. Several parents can serve on the committee and two or three of them can conduct the interviews. The interviewers should be familiar with the 4-H program, its objectives, and the project area.

The advancement chairperson or committee should approve the advancement only when they are satisfied the member is ready to continue to the next step.

How to use the advancement program

The advancement program should be presented at the beginning of the 4-H year.

Review what was done last year

Before deciding on specific things to include in the club program, leaders should review what the members and club did previously. A review will allow discussion on the following questions:

- "What did we do?"
- "What did we like?"
- "What needs improvement or expansion?"
- "Was everyone involved?"

Review the member's present interests

Encourage members and parents to express their interests, needs, and goals. This allows them to feel important and to be committed to the final club program.

Share county/statewide special programs.

Tell your members about activities available to them through your county or the state. Share your special interests with members and parents. This allows members and parents to learn about new opportunities and helps determine whether the club should set specific goals related to them

Develop your program.

If your group of 4-H participants is small, all the members should be involved in determining the group goals for the year. If the group is large, a special committee may identify the goals for the year's program.

Base your goals on the current year members' range of grades, levels of achievement, and interests. Design the program to meet the needs and interests of each member. Establish goals to meet the interests and needs of youth, to allow individual achievement for each member, and to be within range of accomplishment for each member.

If your club has a wide range of grades, interests, and abilities, divide the club into small groups to work with a junior leader. This enhances the learning and satisfaction of all members.

Recognizing advancement

The National 4-H Recognition Model outlines five different ways to recognize 4-H members.



1. Participation

This type of recognition program emphasizes the importance of acknowledging young people who have been involved in 4-H educational experiences. For some youth, participation in a 4-H learning experience is an accomplishment.

2. Progress toward self-set goals

Parents and other adults can help youth set realistic goals. Recognition for progress toward self-set goals, no matter how small, is an integral part of this type of recognition.

3. Achievement of standards of excellence

Experts in a given area establish standards of excellence. By measuring personal progress against standards of excellence, youth can gain insight into their own efforts and abilities.

4. Peer competition

Peer competition is a part of the model for recognition. This type of recognition subjectively identifies, in a concrete time and place, the best team or individual. It is a strong motivator for some youth but is inappropriate for youth under age eight.

5. Cooperation

Learning and working together promotes high achievement. Cooperation may take advantage of all the skills represented in the group, as well as the process by which the group approaches the learning task/goal. Everyone is rewarded.

Advancement certificates

The 4-H Advancement Program is an excellent way to promote and recognize member's efforts in progressing toward self-set goals and achieving standards of excellence through learning. Advancement certificates that are customized for each project area are available from your local

S.C. Extension office. Contact a county 4-H staff member to request advancement certificates in your project area.

Earning an advancement certificate deserves recognition. When members have completed a level of advancement, recognize it. This could be done at an achievement meeting or other community event. Extension 4-H staff members also can help leaders prepare pieces for newspaper and radio releases on the members' achievement.

This section written by Mary Arnold, Extension 4-H youth development specialist, Oregon State University.

South Carolina 4-H Dairy Advancement Program

The South Carolina 4-H Dairy Advancement Program will:

- Make your project more interesting
- Help you learn more about animals for milk production
- Help you develop greater skill with animals
- Provide you new, enjoyable experiences
- Allow you to advance according to your ability, interest, and willingness to work
- Provide you recognition for work well done

The 4-H dairy advancement program can be an important part of your livestock project. It should be included as part of your project records.

Most of the answers to the questions asked in the advancement program can be found in your project manual. For more information about your project, you will need to study many pamphlets and books.

As you do each option, fill in the date and have your leader or parent initial it. When you have

completed the required number of options for a step, tell your leader that you are ready to be tested to qualify for that step. You will be asked questions on the work you have done. When each step is completed, you will receive an attractive advancement certificate from your leader.

When you have passed Step 1, go on in turn to Steps 2, 3, 4, 5, and 6. You can do options for higher steps while you are working on a lower step, but you cannot qualify for the higher step until you have qualified for all preceding steps.

Study each option carefully. Good luck.

Prepared by H.R Adams, Extension dairy specialist emeritus; Don A. Anderson, former Extension dairy specialist; and Duane P. Johnson, Extension specialist emeritus, 4-H youth development; Oregon State University; with the assistance of the 4-H Development Committee for Animal Science Projects.

Step 1

This is the first step in the South Carolina 4-H Dairy Advancement Program. When you have completed any 10 skill options and three personal development options, you are qualified to complete Step 1.

Skill Options	Date passed	Approved by
1. Identify and describe two important characteristics, and be able to spell the names, of five breeds of dairy cattle or four breeds of dairy goats.	_____	_____
2. Name, locate, and be able to spell the names of the following parts of a cow or goat: muzzle, withers, back, pin bones, rump, hock, pastern, teats, flank, chest, heart girth, udder, barrel, loin, wattles.	_____	_____
3. Learn correct spelling, definition, and pronunciation of the following: artificial insemination, brucellosis, colostrum, dairy character, dam, sire, heifer, kid, mammary system, purebred, grade, crossbred, registered, yearling, lactation, gestation period, freshen.	_____	_____
4. Describe six of the following desirable characteristics and tell how they may aid productive ability: strong back, width and length of rump, wide between pins, long deep barrel, wide deep chest, strong legs, leanness, sound udder, uniform teat size and placement, strong head, depth of flank.	_____	_____
5. Describe six of the following undesirable characteristics and tell why they are undesirable: meatiness, undersize, narrow shallow chest, weak pasterns, weak udder attachments, strutted teats, tilted udder, overshot or undershot jaw, pendulous udder.	_____	_____
6. Teach an animal how to lead.	_____	_____
7. Learn how to show your animal.	_____	_____
8. Make a rope halter.	_____	_____
9. Provide adequate shelter for your animal. Keep pens and yards clean and free of wire, nails, boards, and other materials that may injure your livestock. Explain why it is important.	_____	_____
10. Explain the term "forage" and name four types of forage.	_____	_____
11. Explain the term "concentrates" and name four high-energy feeds and three high-protein feeds.	_____	_____
12. Name at least three safety practices in caring for livestock, and tell why each is important.	_____	_____
13. Explain Brucellosis vaccination—why and at what age it is recommended.	_____	_____
14. _____	_____	_____

Personal Development Options

(Fill in options selected from page 11 of this advancement program.)

1. Give a demonstration to your club.	_____	_____
2. _____	_____	_____
3. _____	_____	_____

_____ (Name of club member) is qualified and has completed all requirements for Step 1 of the South Carolina 4-H Dairy Advancement Program.	_____ Age _____ Date
_____ Approved by club advancement chairperson or committee	_____ Approved by club leader

Step 2

This is the second step in the South Carolina 4-H Dairy Advancement Program. When you have completed 10 skill options and three personal development options, you are qualified to complete Step 2.

Skill Options	Date passed	Approved by
1. In addition to the parts of a dairy cow or goat learned in Step 1, learn, locate, and be able to spell the following parts: ribs, thurls, crops, thigh, brisket, knee, heel, switch, hoof, crown.	_____	_____
2. Learn the meaning of and how to spell 10 of the following terms: bacteria, chlorine solution, conformation, contagious, infectious, contaminated, dehorn, inheritance, mastitis, milkfat, navel, offspring, progeny, scours, vaccination, antibiotics.	_____	_____
3. Learn the meaning of and how to spell five of the following terms: carbohydrates, green chop, legume, protein, silage, succulents, T.D.N., crude fibre.	_____	_____
4. Clip an animal for clean milk production or for showing.	_____	_____
5. Describe two methods of removing horns from a dairy animal. Assist with dehorning one or more animals.	_____	_____
6. Know the purpose and recommended use of six of the following pieces of equipment: nipple bucket, strainers, filter discs, strip cup, hoof knives, hoof nippers, balling gun, magnets.	_____	_____
7. What is a parasite?	_____	_____
8. Describe the recommended methods for control of any three of the following: heel flies, horn flies, stable flies, house flies, lice, stomach worms, lung worms.	_____	_____
9. Undertake control of one parasite, and report results and methods.	_____	_____
10. Learn the average T.D.N. and protein values of five of these common dairy feeds: millrun (wheat mixed feed), linseed oil meal, barley, oats, corn, wheat, cottonseed oil meal, soybean oil meal, beet pulp, bran.	_____	_____
11. Where can you get information on feed values?	_____	_____
12. Learn the names of four common forages grown in your area and describe their value.	_____	_____
13. Name and learn to spell two legumes and two grasses commonly grown in your area for dairy feed.	_____	_____
14. Name and tell the advantages of three different methods of harvesting forages for dairy animals.	_____	_____
15. Help trim hooves or remove extra teats of one or more dairy animals.	_____	_____

Personal Development Options

(Select from page 11.)

1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____

_____ (Name of club member) is qualified and has completed all requirements for Step 2 of the South Carolina 4-H Dairy Advancement Program.	_____ Age	_____ Date
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_____ Approved by club advancement chairperson or committee	_____ Approved by club leader
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Step 3

This is the third step in the South Carolina 4-H Dairy Advancement Program. When you have completed 10 skill options and four personal development options, you are qualified to complete Step 3.

Skill Options	Date passed	Approved by
1. Keep monthly milk and/or fat production records on at least one animal for at least 1 year.	_____	_____
2. Visit a goat dairy or commercial dairy farm and learn some of the things the operator is doing to make his or her operation successful. Report your observations to a club meeting.	_____	_____
3. List five livestock sanitation practices the dairy operator should observe and why.	_____	_____
4. List five milking sanitation practices to follow.	_____	_____
5. Learn to recognize four of the following sicknesses and diseases and at least one recommended treatment for each: hoof rot, milk fever, pink eye, ringworm, shipping fever, scours.	_____	_____
6. List four practices a dairyman should observe in preventing and controlling mastitis.	_____	_____
7. Make a collection of four pressed or mounted forage plants (grasses or legumes) grown in your area.	_____	_____
8. Name and describe three methods of pasture utilization. Give benefits or advantages of each, or limitations that may be apparent in your area.	_____	_____
9. Explain the value of livestock transportation slips, where you get them, and how to fill them out.	_____	_____
10. Learn the length of gestation and intervals of heat periods of goats or cattle and how to figure freshening dates.	_____	_____
11. Name the usage classes of milk marketed in South Carolina. Tell for what use each class is intended.	_____	_____
12. Take a soil sample, have it analyzed, and report the nutrient levels.	_____	_____
13. List five major products from dairy cows or goats.	_____	_____

Personal Development Options

(Select from page 11.)

1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

_____ (Name of club member) is qualified and has completed all requirements for Step 3 of the South Carolina 4-H Dairy Advancement Program.	_____ Age _____ Date
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_____ Approved by club advancement chairperson or committee	_____ Approved by club leader
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Step 4

This is the fourth step in the South Carolina 4-H Dairy Advancement Program. When you have completed two skill options and five personal options, you are qualified to pass Step 4.

Skill Options	Date passed	Approved by
Complete two of the following three items:		
1. Formulate a ration for a 1,500-pound Holstein cow producing 50 pounds of 3.5% milk per day, or a mature doe milking 10 pounds milk daily.	_____	_____
2. Plan a waste disposal system for a dairy farm.	_____	_____
3. Write a report on one of the following topics:		
a. Housing arrangement for a herd of dairy cows or goats.	_____	_____
b. Nutritional requirements for a milking cow or doe.	_____	_____
c. Reproduction, breeding, and genetics.	_____	_____
d. Prevention and control of a disease common to dairy animals.	_____	_____
e. Records needed for improving livestock income.	_____	_____

Personal Development Options

(Select from page 11.)

1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

_____ (Name of club member) is qualified and has completed all requirements for Step 4 of the South Carolina 4-H dairy advancement program.	_____ Age _____ Date
_____ Approved by club advancement chairperson or committee	_____ Approved by club leader

Step 5

This is the fifth step in the South Carolina 4-H Dairy Advancement Program. Complete all four skill options and four personal development options, and you are qualified to pass Step 5.

Skill Options

1. Name the four compartments of the cow's or goat's stomach.
2. What is the function of the rumen?
3. Describe traumatic gastritis ("hardware disease")
4. Choose one of the projects:
 - a. Make a drawing of the udder of a cow or goat and explain milk secretion and milk let down.
 - b. List the nutritional values of milk.
 - c. Explain the nutrients that milk-producing animals need for growth, maintenance, and milk secretion.
 - d. Explain reproduction in the dairy female.

Date passed

Approved by

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Personal Development Options

(Select from page 11.)

1. _____
2. _____
3. _____
4. _____

_____	_____
_____	_____
_____	_____
_____	_____

 (Name of club member)
 is qualified and has completed all requirements for Step 5 of the
 South Carolina 4-H Dairy Advancement Program.

 Age

 Date

 Approved by club advancement chairperson or committee

 Approved by club leader

Step 6

This is the sixth step in the South Carolina 4-H Dairy Advancement Program. When you have completed all five skill options and five personal development options, you are qualified to pass Step 6.

Skill Options	Date passed	Approved by
1. Most South Carolina Grade A milk producers have been assigned an South Carolina quota. Explain how quota milk is gained or lost.	_____	_____
2. Grade A milk is marketed in three classes. Explain which dairy products come from each class.	_____	_____
3. Indicate which of the following functions are performed by the Federal Milk Order Administration, the Milk Stabilization Division of the State Department of Agriculture, or the producer marketing cooperative.	_____	_____
a. Determines the Class III price of milk	_____	_____
b. Collects money from the milk processor-handlers	_____	_____
c. Determines the price of quota milk	_____	_____
d. Performs butterfat testing service for producers	_____	_____
e. Determines the percent of parity at which to support manufactured products	_____	_____
f. Collects and processes surplus milk	_____	_____
g. Coordinates movement of milk to its logical destination of highest value	_____	_____
h. Provides the trucking to move producer milk	_____	_____
i. Determines the amount of base and excess milk for each producer	_____	_____
j. Determines the amount of quota and surplus milk for each producer	_____	_____
4. Describe the functions of the following agencies:		
a. South Carolina Dairy Products Commission	_____	_____
b. South Carolina Dairy Council	_____	_____
c. South Carolina Dairymen's Association	_____	_____
d. Dairy and Consumer Service Division of the State Department of Agriculture	_____	_____
e. Milk Stabilization Division of the State Department of Agriculture	_____	_____

Personal Development Options

(Select from page 11.)

1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

_____ (Name of club member) is qualified and has completed all requirements for Step 6 of the South Carolina 4-H Dairy Advancement Program.	_____ Age _____ Date
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_____ Approved by club advancement chairperson or committee	_____ Approved by club leader
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Personal Development Options

(Select different options at each level.)

1. Lead the Pledge of Allegiance and 4-H Pledge at 4-H Meetings.
2. Lead a song or a game at a 4-H meeting.
3. Preside at a meeting of your 4-H club.
4. Write a news story for a local paper.
5. Participate in a radio or television program.
6. Present a demonstration or illustrated talk to your club.
7. Present a demonstration or illustrated talk to a group other than your 4-H club.
8. Serve as host for a 4-H meeting. See that everyone is welcomed and made comfortable.
9. Participate in a community service project.
10. Serve as chairperson of a club committee.
11. Participate in a judging contest.
12. Serve as a junior leader.
13. Serve as a teen leader.
14. Attend 4-H camp.
15. Serve as clerk, chairperson, or apprentice judge at a 4-H show.
16. Develop and exhibit a science display which is related to dairy animals or goats.
17. Serve as a camp counselor.
18. Make arrangements for a tour by your club.
19. Arrange for a film to be shown at your club meetings.
20. Secure a speaker to talk at your club meeting.
21. Develop some options of your own with your leader's approval.
22. Prepare and give a public demonstration on one recommended practice in dairying.
23. Report on how to register a purebred animal.
24. Attend a livestock tour or field day and give a report at your club meeting. Participate in a judging contest and give oral reasons for at least one class. Give a dairy demonstration at a club meeting.
25. Make a report on one dairy management practice to your 4-H club. Examples: control of flies; control of grubs; how to detect mastitis; why I chose my dairy animal; sanitation; how to keep milk clean; rations for calves; preventing navel infection; raising goat kids.

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