

## For more on dairy goats ... look for these other guides in this set.



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#### Acknowledgments

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### SHOWING THE WAY

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# WELCOME TO SHOWING THE WAY

#### **Great Goating!**

Congratulations—you've made it! Welcome to Level 3 of the dairy goat project. If you've completed Levels 1 and 2, you should be proud of yourself for accomplishing and learning so much! If you are starting with Level 3, you may need to refer to the Level 1 or 2 activity guides or the *Helper's Guide* for information now and then. Your helper can help you decide if you need to do this.

Because youth development programs help build tomorrow's leaders, leadership is a strong theme in Level 3 activities. You'll be asked to organize events, investigate complicated issues, give presentations, make decisions and teach others because those are some of the skills good leaders have. You'll delve deeper into some topics from Dairy Goat 1 and 2 and meet new topics as well. Here is what you'll do as you work through *Showing the Way*:

- Demonstrate the importance of parasite control
- Explore biosecurity
- Determine body condition scores
- Identify a herd's strengths and weaknesses
- Develop a breeding program
- Read and evaluate pedigrees
- Investigate differences between natural and artificial breeding methods
- Assist with problem births
- Plan a judging contest
- Organize a goat event
- Consider careers with goats
- Research goat associations
- Investigate proper medication use
- Appreciate the international importance of goats in human nutrition

HAVE FUN AND ENJOY THESE ACTIVITIES AS YOU LEARN MORE ABOUT DAIRY GOATS!

#### **Showing the Way Project Guidelines**

- Set your goals and record project highlights
- Do at least seven activities in the Showing the Way Achievement Program each year and complete the program within three years
- Practice and develop the life skills of decision making, leadership, communication, record keeping and planning and organizing
- Increase your knowledge about goats and improve your skills needed to be a good goat caretaker

#### Showing the Way Achievement Program

As you work through *Showing the Way*, you will see the activities encourage you to practice life skills as well as goat project skills. For example, because this is an activity guide and not a resource manual, you will need to research other sources of information to complete a particular activity. The goat resources on page 56, your project helper and the Internet will be good sources of information.

This is your personal activity guide – use it to record your thoughts and ideas. Most questions will not have a "right" answer. The questions will help you explore the subject and your own ideas in more depth. Additional activities are included in the Dairy Goat *Helper's Guide*. Many of these are fun experiences for you to use with other youth as you develop your leadership skills.

#### Your Project Helper

Choose your own helper. Your helper might be a project leader or advisor, teacher, family member, neighbor, friend, or anyone who has the interest to work with you to complete *Showing the Way*. Meet with your helper to set goals, plan and complete activities in this guide. Discussing each activity with your helper and having this special person date and initial your achievement program will make this project more interesting and fun. Write the name, phone number and E-mail address of your project helper here:

Write your project helper's contact information here:

My project helper:
Phone:
E-mail:

# SHOWING THE WAY PLANNING GUIDE

# My Dairy Goat Project Goals My name \_\_\_\_\_\_ My animal's name or number \_\_\_\_\_ Breed \_\_\_\_\_ What I want to do and learn in Showing the Way: 1. \_\_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5

Dairy Goat Pro	ject High	lights
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Date and list the exciting things you do and learn.

#### My Brain Gain

Here's an easy way to tell if you learned something new and developed important project skills. **BEFORE** you do the activities in this guide, circle the number that is the best measurement of what you know before the activity, then circle the number that is the best measurement of what you know **AFTER** you complete the activity. You may be surprised how much you learned! Share the results with your helper.

Begin each statement with the words "I know how to ..." then circle: 1 (not at all), 2 (somewhat) or 3 (a lot).

I KNOW HOW TO	BEFORE	AFTER
Explain the economic and health impacts of parasites	1 2 3	1 2 3
Describe ways to prevent and control disease outbreaks	1 2 3	1 2 3
Determine body condition scores for goats	1 2 3	1 2 3
Evaluate herd production and type	1 2 3	1 2 3
Select genetic traits to improve through a breeding program	1 2 3	1 2 3
Interpret goat pedigree information to make a decision about breeding	1 2 3	1 2 3
Explain differences between natural and artificial breeding methods	1 2 3	1 2 3
Explain how to assist with problem births	1 2 3	1 2 3
Provide leadership for a judging contest	1 2 3	1 2 3
Organize a Goat Field Day	1 2 3	1 2 3
Keep a career reflection journal for one week	1 2 3	1 2 3
Describe benefits of membership in a goat association	1 2 3	1 2 3
Describe legal uses of medications in goats	1 2 3	1 2 3
Explain the worldwide role of goats in human nutrition	1 2 3	1 2 3

# SHOWING THE WAY ACHIEVEMENT PROGRAM

#### **Directions**

- 1. Do at least seven of the *Showing the Way* and/or "Udder Ideas" activities each year.
- 2. Complete at least 21 of the *Showing the Way* and/or "Udder Ideas" activities within three years to complete the Achievement Program.
- 3. Have your project helper date and initial the activities as you complete and discuss them.
- 4. Complete the "My Brain Gain" survey before and after you do the activities in this book.

#### **Showing the Way Activities**

ACTIVITY	DATE COMPLETED	HELPER'S INITIALS
CHAPTER 1 HEALTH AND MANAGEMEN	NT SKILLS	
Getting Parasites Out of Sight		
One Fish, Two Fish, Red Foot, Blue Foot?!		
What's the Score?		
Two, Four, Six, Eight, Now It's Time to Evaluate!		
CHAPTER 2 GENETICS AND REPRODUC	TION	
Breeding Up		
Hip Hip Hooray for DNA		
Thaw the Straw or Truck the Buck?		
Twist and Shout, Get That Kid Out!		
CHAPTER 3 LEADERSHIP		
Goat for the Gold		
Y'all Come!		
Are Goats in Your Future?		
CHAPTER 4 NATIONAL AND INTERNATI	ONAL ISSUES	
Up, Up and Away!		
Putting Your Best Hoof Forward		
Global Greatness of Goats		

#### **Udder Ideas**

Select and do any of the "Udder Ideas" activities in *Showing the Way* or make up your own. Record the page and number of each one you complete and get your helper's initials.

PAGE	NUMBER	DATE COMPLETED	HELPER'S INITIALS

Write your ov	vn activity her	<u> </u>	
write your ov	vii activity ner	<b>5</b> •	
DateHelper's Initials			
Write your ov	vn activity her	2	
vviite your ov	vii activity nero	<b>:</b> .	
Date	Helpe	er's Initials	
M/wite week ex			$\overline{}$
vvrite your ov	vn activity her	e.	
Date	DateHelper's Initials		

CHAPTER

# HEALTH AND MANAGEMENT SKILLS



#### **Dairy Goat Skill:**

Demonstrating the importance of parasite control.

#### Life Skill:

Leadership

#### **Education Standard:**

NPH.K-12.3 Physical activity

#### **Success Indicator:**

Explains the economic and health impacts of parasites.

# **Getting Parasites Out of Sight**

As an older and experienced youth goat producer, you've discovered that parasites are a principal health concern of goats. In this activity, you'll share your knowledge with younger children as you lead them through an exercise to help them comprehend the potential impact of parasites on goat health. By helping younger youth learn how important it is to control their goats' parasites, you will be helping to ensure their animals will receive good care for years. Time to get started; remember the early bird gets the worm!

# NOTE: read the entire activity before the younger participants arrive.

Optimally, this activity should be conducted outside on a hot day. Youth should either wear waterproof clothing or old clothing and footwear they won't mind getting wet and dirty.



You'll need one paper cup per person, one bucket per person, a water supply and various-sized things to poke holes in the bottom of the cup (pins, pencils, thumbtacks, etc.). Put a varying amount of different-sized holes in the bottom of the paper cups before handing them out; make sure some cups have many holes and some have very few; some holes should be large and some should be small. [Alternatively, you could give control to the participants and let them poke holes in the bottoms of their cups.]

Give each participant a cup. Instruct them that their task is to fill up the bucket with water, one cup at a time. Place each person's bucket about two yards away from the water source. Tell the youth this is not a competition so there is no need to race; they are all working together to demonstrate a concept. If the youth become tired or interest wanes, you may stop when the buckets are half full. When finished, lead the youth through the discussion questions on the right and record their answers.

FEEDING ABOVE GROUND HELPS REDUCE PROBLEMS WITH INTESTINAL PARASITES.

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Record Your Answers Who finished the task first?
Who finished last?
How many holes did both of these people have in their cup?
How many large holes were there?
How many small holes were there?
If the bucket represents all the meals a goat needs to grow to mature size and each cup represents one meal, which person's goat would have required the fewest meals to reach mature size?
The most meals?
Why?
Which person's goat would have grown fastest or produced the most milk?
Some parasites cause more harm than others; these are like the big holes in the cups. Other parasites do not cause as much trouble; these are like the small holes in the cups. What are some examples of very harmful and less harmful parasites of goats?

# **RUMINATIONS**

Discuss the answers to these questions with your helper.

#### SAY CHEESE! (Share what you did)

- How did the activity go?
- How do you feel when you assume responsibility for leading an activity?

#### THE BUCK STOPS HERE (Process what's important)

- Explain how the holes in the cup are like intestinal parasites.
- How did this activity require you to demonstrate leadership?

#### SPREAD IT AROUND (Generalize to your life)

- What other opportunities do you have for leadership at school, home or elsewhere?
- What types of parasite problems have you witnessed or heard about in goats?

#### BROWSE FOR MORE (Apply what you learned)

- As a consequence of what you learned, how will you change your parasite control program?
- How can you measure the effectiveness of a parasite control program?

Written by Susan Kerr.



Proper grazing management will also help control parasites. Some parasite larvae live in the moisture film on the bottom few inches of plants, so grazing plants too low increases the likelihood that goats will ingest parasite larvae. Grazing this low also damages plants. Divide pastures into smaller sections and rotationally graze goats through each section in sequence. Let each section rest for at least 21 days to give plants time to recover and parasite larvae and eggs time to dehydrate and die.



SHOWING THE WAY

# WHEY COOL FA

#### Parasites Are a Pain

Parasites are an enormous concern for goat owners. Internal and external parasites cause stress and worry for animals, decrease production and rates of gain, cause animals to injure themselves, increase feed costs and are responsible for various illnesses and even death. Although the development of new anthelmintics has made worming safer and more effective, parasites remain a major threat to goats' health.

Here is a list of the major parasites of goats:

#### **INTERNAL**

- Ascarids (roundworms)
- Nasal bots
- Lungworms
- Coccidia
- Parelaphostrongylus tenuis
- Cryptosporidium parvum
- Nematodes (<u>Haemonchus</u> contortus, Nematodirus, Ostertagia, many others)
- **Tapeworms**
- Liver flukes

#### **EXTERNAL**

- Flies
- Lice
- Ticks
- Keds
- Mites

#### PARASITE CONTROL PLAN ACTION STEPS:

- Remove manure promptly
   Use approved fly control from goats' environment
- Compost all manure on a solid base with a cover
- Apply composted manure to hayfields, not pastures
- Remove or harrow manure in pastures
- Feed above the ground
- Use above-ground, chesthigh waterers
- Use fecal examinations to assess herd parasite status
- Use anthelmintics based on fecal examinations. animal health or the recommendation of your veterinarian

- products regularly
- Fence off wetlands
- Provide goats with access to sun
- Deworm new goats before introducing them to your property
- Deworm goats before turning them out onto clean pastures
- Rest pastures for as long as possible before re-grazing
- Graze pastures after moisture has evaporated
- Do not graze pastures shorter than three inches

As part of your quality assurance program, remember to use only approved medications on your goat, or other medications with your veterinarian's permission; abide by all meat and milk withholding times. Work with your veterinarian to develop an effective parasite control plan for your farm.



- Create an educational poster on parasite life cycles and display it at your county fair or other exhibition.
- Work with your veterinarian to develop a preserved collection of various goat parasites.
- Create educational games to help younger youth learn about other goat diseases like C.A.E., Abscesses, Milk Fever, White Muscle Disease, etc.



Discover over 180 National 4-H Curriculum titles in mission areas of Science, Engineering and Technology; Healthy Living; and Citizenship. Youth activity guides are filled with fun, engaging experiences that cultivate abilities youth need for everyday living as they progressively gain knowledge about subjects that interest them.

All titles have been reviewed and recommended by the National 4-H Curriculum Jury Review process, signifying their excellence in providing hands-on learning experiences for youth.

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#### PHOTO CREDITS

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## THE 4-H PLEDGE

I pledge
my Head to clearer thinking,
my Heart to greater loyalty,
my Hands to larger service, and
my Health to better living,
for my club, my community,
my country, and my world.



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Dairy Goat Level 3 Showing the Way