National 4-H Curriculum BU-08145



# I.E.ADING THE

Beef



**Beef Youth Activity Guide** 





f you were a project helper for one or more youth involved in completing Beef 1 or Beef 2 you know what a great experience this important role is. If not, expect a memorable time. As a helper you are in the perfect position to help youth grow and develop in positive ways as they learn about beef and about themselves. You nurture and cultivate their interest in this project by guiding their planning, helping them carry out their activities and recognizing them for a job well done.

#### Your Role

- Become familiar with the material in this activity guide and the Helper's Guide
- Support youth in their efforts to set goals and complete each achievement program
- Date and initial the activities on the Beef Achievement Program as the youth completes them
- Help them to get to know themselves, including their strengths and weaknesses
- Encourage the use of the experiential learning cycle described on this page

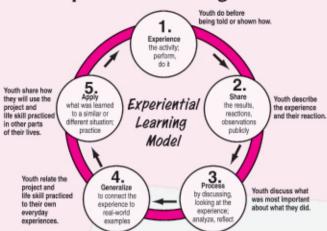
#### The Beef "Skills for Life" Series

This guide, Leading the Charge is the third in the series of three for youth, which also includes Beef 1 Bite into Beef, Beef 2 Here's the Beef and the Beef Helper's Guide. The three youth guides have been designed to be developmentally appropriate for grades 3-4, 5-7 and 6-9 respectively, but may be used by youth in any grade based on their project skills and expertise.

All activities in the guides have several parts: A description of the skills to be practiced, discussion questions, suggestions for additional activities and additional helpful information. The "Success Indicator" listed for each activity is an excellent way to evaluate the youth's success. Each of the guides also includes an achievement program to encourage youth to learn more about beef while developing important life skills.

The fourth publication in this series, Beef Helper's Guide, provides additional learn-by-doing activities that can be adapted to the family, the classroom, after school child care, 4-H project groups, clubs or other groups. You'll also find helpful hints about characteristics of youth, life skill development, teaching experientially, meeting ideas, answers to many of the activities in the youth guides and another evaluation piece titled "Evaluating the Impact." Complete this before the youth begins each level and after completing each level.

#### Experiential Learning Model



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals® © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.

This five-step model is included in each activity in this series. As you can see, the youth first attempt the activity on their own. After the youth do as much as they can and answer the questions with the asterisks, you then meet together and discuss: What they did? What was important about what they did? How does what they did relate to their lives? And finally, how might they use the life and project skills practiced in the future? Sample questions are included following each experience. Your ability to ask additional thought-provoking questions and to clarify and expand the youth's ideas will add to the educational experience.

#### Good luck in your role as Project Helper!

## Acknowledgments

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

#### Bite Into Beef - Level 1 BU-08143



#### Chapter 1 - Know Your Beef Identifying Beef Brands Locating Beef Parts Doing the Right Thing IS the Right

Planning Your Work, Working Your Plan

### Chapter 2 - Animal Health

Recognizing a Healthy Animal Picking Feed Ingredients Where, Oh Where Is My Calf?

#### Chapter 3 - Beef and Beef Products

Judging Beef Shopping for Beef Recognizing Beef By-products

#### Chapter 4 - It's Showtime! Halter Breaking Your Calf Fitting a Steer Showing Beef Cattle

#### Here's the Beef - Level 2 BU-08144



#### Chapter 1 Animal Health

Beef Quality Assurance Nutritional Needs Following Feed through the Digestive System Mange on the Range

Chapter 2 Safety and Ethics Live Long and Prosper Becoming Ethically Enlightened Forever Beef Communication

#### Chapter 3 Judging Beef

Evaluating Leg Structure Judging Breeding Heifers Presenting Oral Reasons Determining Frame Scores

#### Chapter 4 Grading Beef

Locating and Identifying Beef Cuts Making the Cut

#### Beef Helper's Guide - BU-08146



Youth Learning Characteristics Developing Life Skills Teaching and Learning Experientially

#### Chapter 1 Front and Center

Producing a Beef Commercial Planning the Beef Project Year Show What You Know Demonstrating Filting Equipment

#### Chapter 2 Word Games

Playing BEEFagories Beef Talk Games Fun with Beef Pyramid Playing STEAK Bingo

Chapter 3 Beef Management Practices Keep it Clean Moo-rades Investigating Medications Tying the Knot Accepting the End

Chapter 4 Skill Building Conducting a Beef Quiz Bowl Identifying Beef Parts Practicing Sportsmanship

The 4-H Recognition Model Answer Key Beef Project Meeting Ideas

## Leading the Charge Contents

Note to Project Helper

Leading the Charge Contents  Having Fun with the Beef Project  Goals and Highlights  Leading the Charge Achievement Program
Chapter 1 Animal Nutrition and Health
Surf 'N Turf
Balancing a Beef Ration
Let's Talk Hay
Read It on the Label10
Blocking Bovine Bugs
Chapter 2 Showing Beef Fitting for Show
Chapter 3 Meat Evaluation Evaluating a Beef Carcass
Yielding the Grade
Chapter 4 EPDs
Selecting a Sire
Chapter 5 Reproduction
Exploring Beef Reproductive Systems
The Heat Is On
A Womb with a View
The LaMOOze Method
Chapter 6 Exploring Careers
Looking Ahead
Beef Talk 3
Beef Resources



Inside Cover

# Having Fun with the Beef Project

y now you are probably an expert on beef, or certainly know more than you did when you started this project. Whether you raise one or several project animals, you are in an excellent position to share your experiences with others. Leading the Charge provides several opportunities for you to develop your leadership skills as you strive to complete Level 3 of the Beef Achievement Program. You'll also find activities to help you develop a business, explore careers and teach others. Here are some of things you'll do:

- · Determine the frame score of a calf
- · Decide what bull to recommend
- Present a set of oral reasons on a heifer class
- · Judge hay and present reasons
- · Calculate a ration for a beef animal
- Develop a feed tag
- Interview people in five agricultural careers
- · Identify common beef diseases
- Label the parts of the male and female beef reproductive systems
- · Detect heat in beef cattle
- Demonstrate how to detect pregnancy in cattle
- · Demonstrate how to deliver a calf
- Decide which carcasses are most desirable
- · Conduct a beef promotional event



#### **Beef 3 Project Guidelines**

- Do a minimum of seven activities of the Leading the Charge Beef Achievement Program each year and complete Level 3 within three years
- Practice and develop the life skills of leading others, making decisions, planning and communicating, while you learn to take risks, think creatively, use community resources, explore careers and take responsibility
- Complete the Before and After—What Do You Know?
   Evaluation
- · Keep the Goals and Highlights page current
- · Share your beef knowledge and skills with others
- Have fun!

#### Leading the Charge Achievement Program

If you have completed levels 1 and 2, you know each chapter contains beef-related activities that encourage you to practice a certain life skill while doing the activity. In many cases, 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 page of beef resources in the back of this guide is a good place to start, but you'll also want to work closely with your project helper. You'll find an abundance of information on the Internet with literally thousands of sites containing information on beef cattle and beef products.

Remember this is your own personal guide. Feel free to 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 *Beef Helper's Guide*. Many of these are fun experiences for you to use with other youth as you develop your leadership skills. The person you choose to be your project helper needs to be willing to support your efforts to complete Level 3 of the Beef Achievement Program.

#### Your Project Helper

Choose your own helper. This person might be a project leader or advisor, teacher, family member, neighbor, friend, or anyone who has the interest to work with you to complete Level 3. 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:

My project helper: _	
Phone number:	
F-mail address:	

# Goals and Highlights

DESCRIPTION OF THE PROPERTY OF

Му	Beef	Proj	ect	Goal	S
----	------	------	-----	------	---

Name
What I want to do and learn in Beef 3.
1.
2.
3.
1

### Before and After -What do you know?

Here is a great way to see if you learn something new and develop important skills in this project. Before you start doing the activities in this guide indicate what you know **NOW**. Then when you complete the *Leading the Charge* Achievement Program write down here what you know **AFTER**. You may be surprised to see what you learn! Share the results with your helper.

Begin each skill with the words "I know how to..."
Then circle 1 (not at all), 2 (somewhat) or 3 (to a great extent).

I know how to:	Before	After
Locate beef information on the Internet	1 2 3	1 2 3
Calculate a ration for a beef animal	1 2 3	1 2 3
Judge hay and present reasons	1 2 3	1 2 3
Develop a feed tag	1 2 3	1 2 3
Identify common beef diseases	1 2 3	1 2 3
Determine the amount of red meat in a carcass of a beef animal	1 2 3	1 2 3
Calculate the yield grade for each animal	1 2 3	1 2 3
Figure the correct live animal price and carcass value	1 2 3	1 2 3
Decide which carcasses are most desirable	1 2 3	1 2 3
Give a beef fitting demonstration	1 2 3	1 2 3
Decide what bull to recommend	1 2 3	1 2 3
Identify beef reproductive system parts	1 2 3	1 2 3
Detect heat in beef cattle	1 2 3	1 2 3

## Beef Project Highlights

Date and list the exciting things you do and learn.

A picture of my project animal and me.





# Leading the Charge Achievement Program

#### **Guidelines**

- Do at least seven of the Leading the Charge and Beef's Future Achievement Program activities each year.
- Complete at least 21 of the Leading the Charge and Beef's Future activities within three years to complete this achievement program.
- Have your project helper date and initial the activities as you complete them.

#### Leading the Charge Activities Date Helper's Activities Completed Initials **Chapter 1 Animal Nutrition and Health** Surf n' Turf Balancing a Beef Ration Let's Talk Hay Read It on the Label Blocking Bovine Bugs Chapter 2 Showing Beef Fitting for Show **Chapter 3 Meat Evaluation** Evaluating a Beef Carcass Yielding the Grade Chapter 4 EPDs Selecting a Sire Chapter 5 Reproduction Exploring Beef Reproductive Systems The Heat Is On A Womb with a View The LaMOOze Method **Chapter 6 Exploring Careers** Looking Ahead





Select and do any of the Beef It Up activities in *Leading the Charge* or make up your own. Record the page and number of each one you complete.

you complete.						
Page	#	Date Completed	Helper's Initials			
Write your own activity here.						
Dat	e	Helper's Init	tials			
Write you	ur own a	ctivity here.				
Dat	e	Helper's Init	tials			
Write you	ur own a	ctivity here.				
Dat	e	Helper's Init	tials			



#### **Animal Nutrition and Health**



### Surf 'n Turf

Beef Project Skill: Expanding beef knowledge

Life Skill: Acquiring and evaluating information:

researches information sources

Education Standard: NT.K-12.5 Technology research tools

Success Indicator: Locate beef information on the Internet.

**S**ure, you know how to chat and play games using the Internet, but do you know how to find answers to specific cattle-related questions? This activity will help you sharpen your web searching skills while you look for answers to unusual questions about beef cattle. And who knows? You just might learn a fun fact or two along the way!



By yourself or as a team member, look for answers to the questions below. If you choose to, you can make it a fun competitive activity by racing against another team to see who finds all the answers first. Write the answer in the space provided.

- At what age does a beef animal's permanent molars come in?
- How many chromosomes does Bos taurus have?
- How many sesamoid bones are in the bovine skeleton?
- · How many vertebrae are in the tail?
- What is freemartinism and how is it caused?
- What can you observe through a rumen fistula?
- What is a fish teat?
- What is the annual cost of wildlife damage done to livestock each year in the U.S.?
- What is the correct medical terminology for hardware disease?
- What is the TDN of bakery waste? \_\_\_\_\_

#### **BarnTalk**

#### Shooting the Breeze

265200655200005552006555505555050506666000006666000000

What was the oddest new thing you learned about cattle?

#### Show Me the Beef

Why is it important to develop good researching skills?

#### Where's the Beef?

 What problems have you encountered while using the Internet?

#### Beef's Future

 How can you improve your ability to find the information you need?



### Surf the Web

Internet search engines help you find the information you need. Be as specific as you can to help narrow

down the number of search results you will receive. When you find helpful web sites, be sure to bookmark them so you can find them again. Save your bookmarks in files with names that will help you find them. Internet software filters will help prevent youth from viewing web sites that are inappropriate for minors.

Remember that just because something is on the Internet doesn't make it true! Before you trust what you find, try to find the same information in multiple places, look up references, compare new information to what you already know to be true and ask a trusted adult whenever you find new information that confuses you. Consider the source of the information, too—does it come from a trustworthy source, such as a research university?

For **Safety's Sake**, NEVER give out personal information to someone you don't know, especially over the Internet!

- Create a resource
   notebook of beef-related
   information from web sites
   for your group's resource library.
  - Develop a web site for your beef group.





## Balancing a Beef Ration

Beef Project Skill:

Selecting feed ingredients

Life Skill: Decision making

Education Standard: Success Indicator:

NS.9-12.1 Science as Inquiry Calculate a ration for a beef

animal.

Feed costs are the major expense when raising beef cattle. In order to produce the most desirable product in the shortest time at the lowest possible cost, you'll want to know what is included in a beef ration. This activity will help you decide which feeds may be a good choice for your animal's ration.



Pretend you purchased a medium frame 600 lb. steer calf on November 1. You want to place him on a grower ration to gain 2.0 pounds per day until January 1. After that time, you plan to feed him a finishing ration to gain 2.5 lbs./day. Your target weight is 1225-1250 lbs. Will the feeds shown make a complete, balanced ration for your calf from November 1 until January 1? Remember that a calf will eat approximately 2-2.5% of its body weight per day.

Select one or more of the concentrates and roughages listed in the tables. Use the information provided to complete the four worksheets.

Animal:	Beef Ration Worksheet Weight:	Age:
Worksheet 1 - Composition		
Feed	Crude Protein %	T.D.N.%

2.	Worksheet 2 – Quality of Nutrients in Feeds Being Used							
	Feed	Lbs. Fed	Crude Protein (Lbs.)	T.D.N. (lbs.)				
(	Total							
				0.1				

lbs. fed X % C.P. = C.P. lbs. lbs. fed X % T.D.N. = T.D.M. lbs.



				_					
Concentrates									
CP% DM T.D.N. % Calcium % Phosphorus 9									
Corn Grain	9.8	93	.13	.35					
Barley	13.2	84	.05	.38					
Oats	12.6	77	.07	.38					
Soybean Oil Meal	52.9	84	.33	.71					
Cottonseed Whole	23.0	95	.16	.75					
Beet Pulp	10.0	74	.69	.10					
	Rougha	ages							
Daniel Ocean III				40					
Brome Grass Hay	10.0	56	.4	.10					
Alfalfa Mid Bloom	22.0	58	1.4	.24					
Timothy Hay Mid-bloom	9.7	57	.48	.14					
Crested Wheat Grass hay	9.0	53	.33	.21					
Prairie Hay	5.3	48	.43	.15					

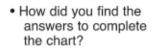
	ა.			
/		sheet 3 – D	aily Nutrient Requirements	
	Size of Beef Animal	Lbs. Fed	Crude Protein (Lbs.)	T.D.N. (lbs.)
_				
_				
/	Total			

Worksheet	Worksheet 4 - Balancing Ration & Meeting Requirements  I From Section 2 Lbs. Fed Crude Protein (Lbs.) T.D.N. (lbs.)  n Deficiency replus		
Total From Section 2	Lbs. Fed	Crude Protein (Lbs.)	T.D.N. (lbs.)
Ration Deficiency or Surplus			
Supplement			
Balanced Ration			

### **BarnTalk**

Shooting the Breeze

 What feed ingredients did you use in your ration?



#### Show Me the Beef

- What kinds of problems would keep you from using some of the feeds in a calf's ration?
- What are some byproduct bargains that your family could buy to save money?

	Nut	rient Requireme (Nutrient Cor	nts for Growing ncentration in Di	and Finishing C et Dry Matter)	attle	
Weight (b)	Daily Gain (lb)	Dry Matter Intake (lb)	Protein (%)	TDN (%)	Ca (%)	P (%)
Medium-frame	steers					
600	0.5	13.2	8.2	54.0	0.23	0.18
	1.0	14.1	9.0	58.5	0.28	0.19
	1.5	14.7	9.8	63.0	0.35	0.21
	2.0	15.0	10.5	67.5	0.40	0.22
	2.5	14.9	11.4	73.5	0.46	0.24
	3.0	13.5	12.9	85.0	0.57	0.29
700	0.5	14.8	7.9	54.0	0.22	0.18
	1.0	15.8	8.6	58.5	0.27	0.18
	1.5	16.5	9.2	63.0	0.31	0.20
	2.0	16.8	9.8	67.5	0.34	0.21
	2.5	16.7	10.5	73.5	0.40	0.22
	3.0	15.2	11.7	85.0	0.49	0.26
800	0.5	16.4	7.7	54.0	0.22	0.17
	1.0	17.5	8.3	58.5	0.24	0.19
	1.5	18.2	8.8	63.0	0.28	0.19
	2.0	18.6	9.2	67.5	0.31	0.20
	2.5	18.5	9.8	73.5	0.35	0.21
	3.0	16.8	10.8	85.0	0.42	0.25
900	0.5	17.9	7.6	54.0	0.21	0.18
	1.0	19.1	8.0	58.5	0.23	0.18
	1.5	19.9	8.4	63.0	0.25	0.19
	2.0	20.3	8.8	67.5	0.28	0.20
	2.5	20.2	9.3	73.5	0.31	0.20
	3.0	18.3	10.1	85.0	0.37	0.23
1000	0.5	19.3	7.5	54.0	0.21	0.18
	1.0	20.7	7.8	58.5	0.21	0.18
	1.5	21.5	8.1	63.0	0.24	0.18
	2.0	22.0	8.4	67.5	0.25	0.19
	2.5	21.9	8.8	73.5	0.27	0.19
	3.0	19.8	9.5	85.0	0.32	0.22

Nutrient

Requirements for Growing and Finishing Cattle

#### Where's the Beef?

 Why is getting several opinions important in forming your own ideas?

#### Beef's Future

 What are some times when asking others questions will help you learn about an issue?



This beef animal is equipped with a Global Information System. (GPS) to monitor feed intake



1. Look up more feeds in the Nutrient Requirements of Beef Cattle table and develop a ration that would meet the requirements for finishing a steer.



Beef Project Skill: Selecting quality forage

Life Skill: Relating through communicating

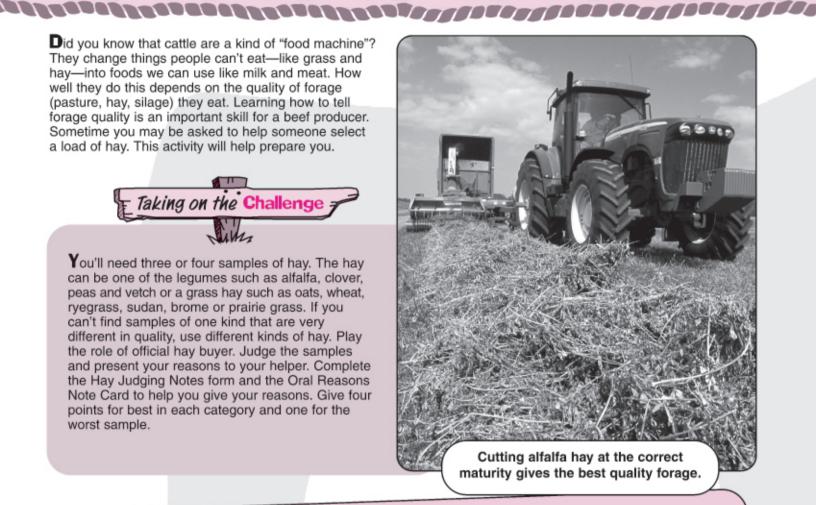
Education Standard: NS.5-8.3 Life Science

Success Indicator: Judge hav and present reasons.

Did you know that cattle are a kind of "food machine"? They change things people can't eat-like grass and hay-into foods we can use like milk and meat. How well they do this depends on the quality of forage (pasture, hay, silage) they eat. Learning how to tell forage quality is an important skill for a beef producer. Sometime you may be asked to help someone select a load of hay. This activity will help prepare you.



You'll need three or four samples of hay. The hay can be one of the legumes such as alfalfa, clover, peas and vetch or a grass hay such as oats, wheat, ryegrass, sudan, brome or prairie grass. If you can't find samples of one kind that are very different in quality, use different kinds of hay. Play the role of official hay buyer. Judge the samples and present your reasons to your helper. Complete the Hay Judging Notes form and the Oral Reasons Note Card to help you give your reasons. Give four points for best in each category and one for the worst sample.



Hay Judging Notes							
	Sample 1	Sample 2	Sample 3	Sample 4			
Color							
Leafiness							
Odor							
Maturity (how old)							
Foreign Material							
Texture							
Total Points							
My Placing							



#### Shooting the Breeze

- Where did you find the hay samples?
- · What kind of hay did you judge?

#### Show Me the Beef

- Why is selecting good hay for beef cattle important?
- What can a person do to grow quality hay?

#### Where's the Beef?

- Why is being able to clearly tell others what you believe important?
- How could you provide the best quality hay to your cattle?

#### Beef's Future

- What can you do to improve your speaking skills?
- How can you apply what you learned about selecting hay to your beef project?
- What quality of hay will you purchase in the future?

	Reaso	ns Note Card
Class		
	is class of _	
I placed _	over	in the top pair because
I grant	was	than
		ir, I placed over because
		than
I placed _	over	in the bottom pair because
I realize _	was	Abon
However,	I faulted	than and placed it last because



### **Hay Quality**

#### Affects the Quality

- · kind of hay (alfalfa vs. prairie hay)
- · fertilizers
- · age or stage of maturity
- · how well it dried after being cut
- · storage and handling

#### Storing Hay

Store baled hay inside a shed, or on dry, level, well-drained sites. Stack the bales to avoid wasted space and permit easy handling. Even large round bales must be set on a well-drained site. Crushed rock makes a good base for those bales. The bales will act like a sponge and soak up moisture from wet soil. More spoilage can occur on the bottom side of the bale than the top.

#### Crude Protein and Stage of Growth Percent Stage of Growth Crop Crude Protein Early Bloom Alfalfa 18 Full Bloom 14 Wheat Boot 18 Full Bloom 8.5 Sudan Early Boot 17 8 Full Bloom Brome Late Boot 17 Full Bloom 12.5 Prairie Grass Early Boot 13 Mature

 Participate in a hay-judging contest.



- Give an illustrated talk on selecting high quality hay.
- Attend a hay show and observe the different qualities of hay.
- Give an illustrated talk on producing quality hay.



## Read It on the Label

Beef Project Skill: Read

Reading a feed tag/label

Life Skill:

Making decisions NS.9-12.1 Science as inquiry

Education Standard: Success Indicator:

Develop a feed tag.

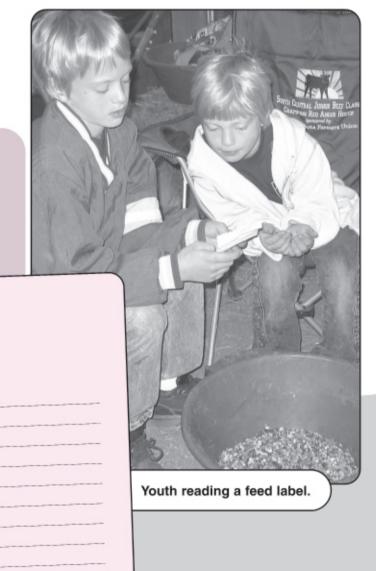
How do you know what ingredients are in the feed you give your calves? Does the feed meet your animal's needs? The feed tag or label will help you answer these questions. Labels tell you what is in a feed and help you decide which feeds provide the amounts of protein, energy, minerals, vitamins and water your project animal needs.



Put yourself in business as the owner of a feed mill. Your challenge is to develop a feed tag for a ration you would feed a 1000 pound steer. See if you have put all of the required items on your feed tag by comparing it to what is listed in Beef Facts.

Feed Tag

for a 1000 Pound Steer





#### **BarnTalk**

#### Shooting the Breeze

· What did you include on your label?

#### Show Me the Beef

٠	How	doe	es y	our/	la	bel	con	ιра	re	to	wha
	must	be	inc	lude	ed	aco	cord	ing	to	la۱	w?

#### Where's the Beef?

 How do you use label information to select or mix feed?

#### Beef's Future

 How will this activity change the way you feed your cattle?

## 50 lbs Net Weight Chewy Beef Receiving Ration

(for ruminants only)

#### Medicated

Feed for 28 days as an aid in the maintenance of weight gains in the presence of respiratory diseases such as shipping fever.

Warning: Feed only as directed on this label. Discontinue use 7 days prior to slaughter.

Active Drug Ingredient Chlortetracycline - 70 grams/ton

#### **Guaranteed Analysis**

Crude protein, not less than 12% (this includes not more than 1% equivalent crude protein from non-protein nitrogen.

Crude fat, not less than 1.0% Crude fiber, not more than 22%

#### Ingredients\*

Ground corn, ground grain sorghum, dehydrated alfalfa meal, cottonseed hulls (37%), cottonseed meal, salt and limestone.

#### Feeding Directions

Feed at the rate of 10 pounds per head per day.

#### Manufactured By

The Cow Feed Company White City, Kansas



#### Feed Label Information

A commercial law requires each bag or bulk load to be accompanied by a label showing several key items:

- · Net weight
- Product name and brand name
- · Drug additives
- Guaranteed analysis of the feed Crude protein, crude fat and crude fiber must be guaranteed on all feeds except straight mineral or vitamin supplements, molasses or drug compounds.
- Minimum percentage of crude protein, percentage of equivalent protein from non-protein nitrogen, if any. The amount of crude or total protein in a feed is guaranteed. Crude protein is determined by multiplying the nitrogen content of a feed by the factor 6.25.
- When non-protein nitrogen (NPN) is added to feedstuffs, a statement "for ruminants only" must appear underneath the name of the feed. Additionally, it must also have a guarantee for crude protein which has been supplied from non-protein nitrogen.
- Minimum crude fat content Fat has an energy value approximately 2.25 times the value of carbohydrate feedstuffs.
  - Maximum crude fiber content Crude fiber is a measure of the indigestible, or non-useful portion of a feed. Feeds having low fiber values tend to be higher in digestible energy or total digestible nutrients than those feeds having high fiber values.
  - Minerals feeds containing 6.5 percent or more minerals must show a guarantee of:

Calcium - minimum and maximum

Phosphorus - minimum

Salt - minimum and maximum

- · Vitamins, only if guaranteed
- Common and usual name of each ingredient or the collective term for each grouping of feed ingredients
- Directions for use and cautionary statements
- Name and principal mailing address of the manufacturer

 Visit feed stores and read feed tags. Compare labels.



- Visit feed mills and see how they provide information to customers.
- Give an illustrated talk on how to read a feed tag.

Original material from John Kuykendall with adaptation by Gerry L. Kuhl, and James P. Adams, Kansas State University.