Your 4-H DISCARD BEEF PROJECT

Oregon State System of Higher Education
Federal Cooperative Extension Service
Oregon State College
Corvallis

Club Series H-19

September 1950
ACKNOWLEDGMENTS

The author thanks the following persons for their counsel and help in the preparation of this bulletin:

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COVER PICTURE by R. G. Fowler, Jr.

Grant County 4-H beef-club members and cooperatively owned registered Hereford bull used to improve 4-H beef breeding projects.
Selecting the Feeder Calf

Select a calf of a beef breed. The beef breeds are Shorthorn, Hereford, and Aberdeen Angus. Choose a calf of the breed you like best, if possible. No matter which breed you choose, try to select a good feeder type. Here are some of the things to look for in picking your calf. Consider all of them:

1. He should have a deep body, both front and rear.
2. He should have a strong constitution as shown by width of chest and spring of rib.
3. He should have natural fleshing. No matter how thin he may be, he should have muscle.
4. A short neck is desirable.
5. A deep full round (rear quarter) is very important.
6. His rump should be level.
7. A wide thick loin is especially valuable.
8. He should have a good head showing a wide muzzle and wide between the eyes. The head should not be too long from top of head to tip of nose.

Avoid a leggy calf—that is, one with long legs and a shallow body. The hide of the calf you select should be pliable. Avoid an animal whose hide clings tight to the ribs because he will not be a good feeder.

Ask the advice of your parents, club leader, or a livestock feeder and consult your county extension agent when selecting your calf.

Probably you will pick your calf at time of weaning. After selecting him, it is important that he be handled quietly to keep him from getting wild or losing confidence in you. Try to get him on feed so that he will not lose his milk fat. Remember that the selection of the right type of calf has much to do with the success of your project. The proper type of calf will look much better to the person who buys the animal when it is
finished. If the calf likes you and you like the calf, you will have a better chance of doing a good job. Brushing the calf with a stiff brush each day will help to make him tame.

**Feeding the Calf**

Calf feeding may be a new experience for you. It takes older people some time to learn how to feed cattle successfully. You will need to know what your calf requires in the way of feed in order to make him fatten quickly at the least possible cost. Remember that high grade feeds are most satisfactory for feeding. Your calf should have hay or other forage which we call roughage.

The Grain, Protein, Green Leafy Hay, Rock Salt, and Fresh Water are important.

He also requires grain which is called concentrates. Oats is a very valuable feed with which to start the calf in the feeding program. It is not as valuable for fattening as corn, barley, or wheat. It is a good feed, however, to use in getting your calf accustomed to grain feeding. Once he learns to eat grain the oats can be removed and wheat, barley, or corn fed in its place. All grain should be fed coarsely ground. You will be fortunate if you have alfalfa or clover hay, as these are high in protein.

What is protein? It is that portion of the feed that puts on growth, develops hair, hide, meat, and bone. We must have some of this in every ration for a growing or fattening calf. Practically all grains and other feeds have protein in them. You will learn more about this as you go along. You probably have heard of linseed meal, cottonseed meal, or soybean meal. These feeds are high in protein. Sometimes they are added to the ration to increase the amount of protein.
You know about starch and sugar. These materials in feeds are called carbohydrates. Most feeds have starch and sugar in them. This is the part of the feed that fattens your calf. So when you feed various kinds of feeds, you supply your calf with carbohydrates and protein. Not all feeds contain the same proportion of protein and carbohydrates. For that reason it is necessary to mix feeds in order to feed what we call a "balanced" ration.

Suggested rations

For the first two or three months a mixture of grain such as follows is suggested:

<table>
<thead>
<tr>
<th>Pounds</th>
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<tr>
<td>Coarsely ground barley</td>
</tr>
<tr>
<td>or wheat or a mixture of the two (half and half)</td>
</tr>
<tr>
<td>Coarsely ground oats or dried beet pulp</td>
</tr>
<tr>
<td>Cottonseed meal, soybean meal or linseed meal</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

This is a grain mix. It should be fed in the amount necessary for the daily feed. In addition to the grain mixture, feed either alfalfa or clover hay.

Second period, three to four months:

<table>
<thead>
<tr>
<th>Pounds</th>
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<tbody>
<tr>
<td>Coarsely ground barley</td>
</tr>
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</tr>
<tr>
<td>Cottonseed meal, soybean meal or linseed meal</td>
</tr>
<tr>
<td>Total</td>
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</tbody>
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You may find it necessary to use other mixtures. Consult your 4-H club leader about this. Use the feeds that will supply the calf what he needs, and at the lowest possible cost.

As before, feed alfalfa or clover hay with this grain mixture. The amount to feed your calf each day must be left to your judg-
ment and management. Remember, care should be taken not to throw the animal "off feed." Here are a few hints on feeding your calf:

1. Do not disturb the calf too much. He fattens best when lying down.

2. Have regular hours of feeding. He likes to eat regularly and soon learns to know his feeding time. If you fail to feed him, he becomes nervous and loses some of the gain he has already put on.

3. Do not make sudden changes in the kind of feed. Make a change slowly. Remove one kind of grain gradually and at the same time increase the feed you wish to change to at the same rate.

4. If your calf is on a dry feed ration too much exercise is not desirable, although he does need some.

5. Keep the feed trough clean. Left-over feed should be taken away within an hour after feeding.

6. If the calf leaves some grain, feed a little less grain at the next feeding.

7. Be careful not to feed moldy, dusty, or spoiled feeds. Such feeds will upset the calf's digestion.

8. The calf should have access to salt and water so that he can help himself whenever he wants it.

9. When your calf is on full feed, he should be gaining 2 pounds or more each day.

10. Calves like a variety of feeds rather than one feed alone.
Starting your calf on feed

Maybe your calf has not learned to eat grain when you get him. It is therefore wise to start with a small amount each day, say a pound of ground grain in the morning and a pound in the evening. Increase this after 10 days or 2 weeks. Increase the grain at the rate of ½ pound each week or ten days, not all at once but a little gradually each day. If your calf eats too much, he will refuse his feed. We call this "off feed." You should avoid this condition if possible. If your calf is "off feed," do not give him grain for a day or two and when he gets hungry start in very slowly just as you did at first until he gets back his appetite. If the calf does not eat all his grain in 45 minutes, take it away from him.

While you are feeding you can soon learn to tell how your calf is feeling. His eyes should be bright, his hair glossy, and his hide loose and pliable. He should have a good appetite. If so, you will know that the calf is thrifty and doing well. You are safe in allowing the calf to eat all the hay he wants. The care should be in feeding grain.

Minerals

The most important mineral to supply your calf is half-ground salt. Your calf needs several other minerals, but these are usually found in the grain and hay he eats. It is not necessary to feed a "shot gun" mixture of a lot of minerals when your calf does not need it. If he gets sick, call a veterinarian to advise you.

Calf disorders

Bloat: Bloat is caused by improper feeding. Some animals bloat more easily than others. Some feeds cause bloat more than others. If your calf is only slightly bloated stand him so that the front feet are higher than the hind feet. Put a stick in his mouth the same as you would a bridle bit. A teacup to a pint of mineral oil is very helpful in slight cases. You can give this using a long-necked bottle carefully. In emergency cases where the animal is severely bloated and it is a matter of life or death, a clean sharp knife may be used to stick the left side about halfway between the hip and the last rib. Remove the knife immediately.

Lice: Lice commonly infest cattle. When this happens, ask your county extension agent or your club leader what to do. He will tell you about using DDT or Cube powder to remove the lice.

Warts: Warts may be removed by using sweet oil, castor oil, or olive oil on affected parts. Treat the animal every day. It may take two or three weeks to remove the warts.
RINGWORM: Ringworm on cattle may be contracted by human beings. It is best to wear gloves when treating it. Remove all scabby material and paint with tincture of iodine. Another treatment that has proved satisfactory in many cases is the use of flowers of sulphur in vaseline or lard. Mix to a thick paste and apply to affected spots. A second or third treatment in two or three days may be necessary.

“He hasn’t gained an ounce all month.”

SCOURS: Scours are usually caused by overfeeding. They are also caused by irregular amounts of feed. They are sometimes caused by partly spoiled feeds and filth either in the feed or feeding utensils. Reduce the grain ration when scours occur and use some non-legume hay, such as grass or grain hay instead of alfalfa or clover, for a few days. If this fails to stop the trouble, call a veterinarian.

SANITATION: Sanitation is very important in the handling of livestock. Most ailments of calves are caused by (1) improper feeding and (2) unsanitary conditions.

Never allow your calf to stand in a dirty wet stall. Have a dry well-bedded stall for him at all times. Your calf will do better when he has a dry bed. Keep him comfortable. It is a waste of time and money to let a calf stand around in mud and manure, and he will not put on weight under such conditions.
As mentioned before, keep the feed trough or pan clean. Be especially careful when wet feed is fed. If wet feed is allowed to stay and sour in the feed box, it may cause scours, bloat, or other digestive trouble.

Exercise, such as leading your calf a short time daily, is helpful in keeping him healthy. He also may be allowed to run in a small lot. Sunshine, pure air, abundance of fresh water, and a variety of feeds help. Always remember to provide a good supply of fresh water.

**FLIES:** Flies disturb your calf and it is so easy to keep them away. Spray him every few days, also the stall in which he stands, using a DDT solution recommended by your club leader or county extension agent.

**Training the calf**

Teach your calf to lead as soon as you get him. Never put this job off until your calf is too big for you to handle. After he has been tied up for a few days and tamed down, teach him to learn the pull of the halter. Have patience in doing this. By all means, never allow your calf to get away from you. If he gets loose once, he has learned a new trick and will try it again.

Calves like to be brushed. Brush the calf for a few minutes each day with a stiff brush. This will help you to gain his confidence. Calves are naturally wild at first because they are afraid, especially when being placed in a stall where it is necessary to handle them in close quarters. They will get over their fear if you are kind to them.

When your calf is well trained to lead, train him to stand with all feet squarely under him. Use a showstick or a cane to move his
feet into position. Scratch your calf with the cane or showstick—this will teach him not to be afraid of it. Never strike your calf as this will cause him to lose confidence in you.

Most club members prefer to dehorn their beef animals. Those fed for market always should be dehorned. Dehorning should be done as soon as you get your calf. If you raise your calf, the best time to dehorn is when he is a few days old. You can use dehorning paste at that time.

Showmanship

Showmanship is one of the very important features in your beef project work. There are two phases of showmanship. The fitting comes first. The showing follows next.

I. Fitting.

A. Management.
   1. Regular feeding and fresh water are very important in fitting.
   2. In winter, have a dry place out of the wind for your animal.
   3. In summer, shade and freedom from flies are important.

B. Training.
   1. Your animal should be trained to lead easily, to walk slowly with his head up, to stop at your command, and to stand quietly with his feet set squarely under him.
   2. Get your animal used to other animals, to crowds and noise, and to being handled.
   3. Train your animal to change positions by use of halter, show stick, or pressure with hands on shoulder.
   4. Train your animal to hold its head up and look alert.
   5. Training should start several months before show time. A few minutes each day is better than several hours once a week.

C. Washing.
   1. Beef animals should be washed at least once each month prior to the show (not oftener than once a week). Curl after each washing.
   2. Beef animals should be washed at the show the day before showing.
   3. Do not wash your animal during cold or stormy weather.

D. Clipping.
   1. Clip heads of dehorned and polled animals back to a point behind the ears where the head joins the neck.
   2. Usually the ears are not clipped. Sometimes the backs of the ears are clipped.
   3. Clip the tail from even with depth of the twist (where legs start to divide) to tail-head. Blend tail-head smoothly with rump.
E. Curling.

Beef animals are usually shown with the coat curled to give the appearance of greater depth, thickness, and smoothness. The hair over the withers and back to the loin is parted in the middle and combed out smooth to give appearance of greater width. The hair over the loin and rump is curled to show thickness. The twist is combed out smooth to show width. The three most common types of curl are: (1) parallel curl, generally used on Shorthorns and Angus; (2) wave curl, used on Herefords; and (3) fluffy curl, which can be used on any animal with extra-long hair. If the hair is too short to curl, it may be lined or waved but not combed up or the animal may be shown smooth. Use the type of curl that makes your animal look its best. Angus are sometimes shown with the front and rear quarters curled and the middle smooth.

1. Parallel curl: Brush or comb dampened coat down smooth, make parallel lines about one inch apart from front to rear, or vice versa. Start lining where the back breaks over the side and continue down to the knees and hocks. Comb or brush hair upward, leaving a definite parallel pattern. Loin and rump may be left smooth or curled by lining over the back and combing up from rear to front.

2. Wave curl: Comb down as for parallel curl but make pattern with the tip of a round curry comb starting at the top of the side and working down in close zigzag lines. Comb or brush upward leaving a distinctive wave pattern. Curl loin and rump by waving from front to rear, then comb up from rear to front.
3. **Fluffy curl**: Start with parallel or wave curl or variations, then continue upward combing or brushing until the hairs stand up separately and the effect of the pattern is lost. This curl is especially attractive on animals with extra-long hair.

II. Showing

A. The Club Member.
   1. Be neat and clean.
   2. Be prompt in entering show ring.
   3. Be alert, give attention to the judge, and follow his instructions promptly.
   4. Keep animal under control and well posed at all times.
   5. Be courteous to other exhibitors.
   7. Look and be pleasant.

B. The Animal.
   1. Clean and well groomed.
   2. Show evidence of training.
   3. No excess oil or excess water on the animal. (Judge does not enjoy handling an animal that is wet or oily.)
   4. Switch clean and fluffed.
   5. Hooves and horns clean.
   6. Hooves should be trimmed so that animal will stand squarely on his feet.
   7. Steers should be dehorned. Cows and heifers may be dehorned.
      a. Steers should be fat, ready for market (should grade good or better).
      b. Cows and heifers should be in good flesh but not overly fat for breeding animals.

C. Equipment.
   1. Halter should be clean and adjusted to fit animal.
   2. Halter may be of rope or leather (a leather show halter is preferred).
   3. A staff or show stick may be carried to help pose animal correctly.
   4. A straight comb may be carried to smooth coat when necessary. Use sparingly.

D. Showing the Animal.
   1. Lead strap or rope should be folded or coiled neatly and held in the right hand or in both hands when leading. Hold lead to keep the animal under control at all times. Usually an animal will show better when the lead is held a foot or more from the halter.
   2. Always lead from the left of the animal. Be sure your lead strap comes out on that side.
   3. Lead with the animal's head at your right side.
   4. Lead slowly, walk forward, keep animal's head up.
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5. Turn animal to the right by leading around the animal. Lead in a circle large enough to keep the animal well posed. Never turn animal on heels.

6. Do not back animal more than two steps. If necessary, lead forward and around to position.

7. Do not lead ahead of position or cover other animals, keep enough distance to start, and stop without disturbing other exhibitors or animals.

8. Never lead up against other animals either in circle or when forming line side by side.

9. Pose animal when possible with front feet on higher ground than hind feet. Never with front feet in a hole or on lower ground.

10. Show beef animal with feet squarely under it. Never stretch or allow animal to stand with front feet back and hind feet forward.

11. Give the judge full view of your animal at all times. You may step to the front so the judge can get a good side view, but do not get on opposite (right) side. As the judge moves around to the front you can quietly step back to the left of your animal's head.

E. Other Points to Remember.

1. Know the age of your animal, its weight, how long it has been on feed, points in fitting, etc.

2. Move animals clockwise in ring unless otherwise instructed. (Clockwise places leader on outside of circle.)

3. Line animals from left to right with rear of animals toward major part of audience, if possible.

4. Line up in straight line on right of animal that the judge places in position first.

5. If judge instructs you to show some other animal move promptly.

6. Reset or pose animal when asked to change.

7. If animal gets tired or begins to sag, move it or change pose.

8. Do not over-show or fuss with your animal if it is standing correctly.

9. When animal is being posed, change lead to left hand, show stick in right. You can keep the animal in better position.

10. Know where the judge is at all times.

11. Above all pay attention to your job of showing. Do not divide your interest beyond the judge and your animal.

12. If judge disturbs the coat of your animal or another animal brushes against it, use a scotch or straight comb or brush sparingly to smooth up.

13. Be a good sport (win, lose, or draw).
YOUR 4-H BEEF BREEDING PROGRAM

You may be interested in raising a purebred beef heifer as a 4-H project. You may be interested in selecting a cow, for this would help you establish a purebred herd in a shorter time. If you are interested in raising purebred cattle, you will find this an interesting and profitable project. This is true if you have access to six or eight months good pasture each year.

Selection of breed

Selection will depend to quite an extent on your personal likes. Remember there isn't a "best" beef breed. There is a difference between the good and the poor ones in any breed. You may like one beef breed better than another. Usually your personal likes will influence you in what you select. If your father has a herd of beef cattle, it may be of more advantage for you to select the same breed that he has so that your breeding project can follow along with your father's.

Selecting the heifer or cow

Conformation and pedigree should be your guide in selection. Select about the same type that you would in a beef steer. You want the same low-set, blocky, and compact form, with straight lines and balance. By balance we mean the animal should be as good in front as it is behind or any other part of the body. Pay particular attention to the head. The head should be broad, short with wide muzzle, and with a strong jaw the same as the steer. The heifer or cow should look like a female not like a bull. The head is an indication or breed type and for that reason should be given careful study. It is suggested that you write to the breed association for pictures of ideal types so that you can study them.
Constitution of the heifer, the same as of a steer, is indicated by depth of the heart girth. There should be a good spring of ribs directly back of the shoulder. There should be plenty of width between the front legs. Constitution is important in breeding animals and should be carefully studied by the 4-H club member. If your cow or heifer is weak in constitution, it is likely to show up in her calves, and therefore they will not appeal to the buyer when you are ready to sell calves from her.

The bone of the breeding cow or heifer should possess quality; it should not be coarse. The bone should have substance enough to stand the strain of the weight placed on the legs. The legs of the breeding heifer or cow should be placed squarely on the corners of her body. Do not select a heifer that has bow knees or buck knees. The hind legs should not be too straight at the hocks, but they should not be sickle hocked; that is, the feet should not be placed too far under the body so that the legs remind you of a snowshoe.

The back should be straight from top of shoulder to the base of the tail. The rump should be level and straight. The round should be well developed, extending well down to the hock. The top line of the animal and the bottom line should be parallel.

In selecting your heifer or cow from a herd, have a good look at the bull and if possible the cow that are the sire and dam of the animal. This will help you in deciding whether the heifer or cow is better than the sire and dam. She should be better. If she is better it shows good breeding and is important in making your selection. You may wish to go farther back in the pedigree and study the grandsires and granddams for several back generations.

**Feeding**

Feeding a 4-H club heifer the first year is not much different from fattening a calf. The heifer should be given feeds that will develop her size. It is not necessary to fatten her as much as you would a club steer. The kind of feeds to give would be such as to develop bone and size. If you have good alfalfa or clover hay for wintering, this would probably be enough. However, a small amount of grain would improve this ration.

In the summer time good pasture with a little grain daily would be enough. The amount of grain to feed would be about 3 to 4 pounds per day. The grain may be oats, or a mixture of wheat, oats, and barley. Do not allow your heifer to get too fat as this might affect her breeding ability.
Feeding the cow

The cow has reached her maturity but needs feed to keep her in satisfactory condition. For wintering, cows will do well on alfalfa or clover alone. In summer, they will be kept fat enough on good pasture.

Do not forget to keep salt before the animals at all times.

If you do not have alfalfa or clover for winter feeding, feed your animal about 1 pound of protein feed, such as linseed meal, every day. This will take care of the protein lacking in the hay.

Breeding

Your purebred heifer should not be bred until she is about 18 months of age. Breeding a heifer that is not well developed sets her back or stunts her.

Training and showing

Training and showing of your heifer or cow is no different from showing a 4-H steer. Your animal does not need to be as fat, however, as in the market classes.

IMPORTANCE OF PASTURES IN CONNECTION WITH 4-H CLUB BEEF PROJECTS

Livestock owners have learned that the cheapest meat can be made on grass. You, as a prospective livestock grower, would do well to remember this. For that reason, the importance of pastures in connection with your beef project should not be forgotten. If you have pasture such as is irrigated, or pasture that will provide good feed for 6 to 8 months during the year, you should consider using it in connection with your beef club projects.

Breeding animals on pasture

Your breeding heifer can be carried on good pasture during the summer with little other feed. From 2 to 4 pounds of grain each day
I. OR 4-H BEEF PROJECT

will keep your heifer in excellent condition. This will give her the proper development for breeding and should keep her in fairly good show condition for the Fair season.

On good pasture the mature cow will probably need no grain and should keep in good condition.

In certain parts of Oregon, particularly the western part, good pasture grasses will furnish some feed during the winter months. During the winter, however, the breeding animals should have in addition some hay or grain. This is because the grass does not have as much strength during the winter months.

Pasture for beef production

You can fatten your calf economically on good pasture during the summer months. In addition to the pasture the calf should probably receive four pounds of grain daily. This will give you a more economical gain on your calf. The calf may not be quite as highly finished as one getting a full grain ration, but your project, on the other hand, will show you a better profit.

Cattle running on pasture should receive salt. They should have free access to water. They should be provided with shade so that they can protect themselves from the hot sun. They should be sprayed frequently with DDT solution to ward off flies.

OREGON 4-H CLUB BEEF PROJECT REQUIREMENTS

Age: Nine to 21 years. You must be nine years old before January 1 to be a 4-H Club member and may continue in 4-H Club work including the year you become 21.

You may exhibit in 4-H Club classes at your county and State Fair, up to and including the year you become 19.

To exhibit at the Pacific International Livestock Exposition you must be 10 years old before January 1 of the year you intend to exhibit, but may exhibit at that show up to and including the year you become 21.

When you are 20 and 21 years old you are eligible for judging, demonstration, and certain other 4-H contests; but you should exhibit your animals in the open classes. You may, however, exhibit your animals in the 4-H classes at the P.I.L.E., the pen classes at the Oregon Wheat League 4-H Fat Stock Show or in certain other special classes provided for older club members.

Ownership: You must own one or more beef type heifers, cows, or steers for a period of at least six months during the club year. Registered animals are to be registered in your name.
If your animal should die, you will not be dropped from the 4-H Club. You may purchase another animal or you may continue without an animal and still be eligible for judging and demonstration contests and may take part in other 4-H activities. You may get credit for completing your project by turning in a complete record book. Tell in your story just what happened.

**Work:** You are to be responsible for the care of your animals and should do most of the work yourself. If you are too young or too small to handle and care for a beef animal, you should carry a pig or sheep project for a year or two until you are large enough to handle a beef animal. You should do all of the grooming and training for exhibition.

**Exhibits:** Make at least one exhibit at a community or county fair. If you own several beef animals, you are not required to exhibit all of them, but you should make your exhibit as good as possible.

**Record Book:** Keep a neat and accurate record of your project in a 4-H livestock record book. Turn your completed record book in to your 4-H Club leader or your county extension agent at the end of the club year. Your record should start November 1, or when you get your first animal, and should continue to October 31, or until your last animal is sold. A minimum of six months’ record is required for a beef project. All of the beef animals you own should be included in your record book.

**THINGS TO DO AND LEARN**

- **Join a Club**—Belong to a standard beef club if possible. If not, you can be an associate member of a dairy, sheep, or pig club. Or, belong to a mixed livestock club. If there is no opportunity for you to join a club, you can enroll for the beef project as an individual member.

- **Beginning report card**—When you start your project, at the beginning of the club year or when you get your animal, fill out the report card that was sent to you and give it to your leader or send it to your county extension agent.

- **Judging**—Learn to judge livestock and try to make your club’s livestock judging team.

- **Demonstrations**—Learn how to tell and show your fellow club members how to do or make something. Work up a demonstra-
tion with one of your club mates to present at club or community meetings. Enter the demonstration contest at your county fair.

- Showmanship—Groom and train your animal and enter the beef showmanship contest. You must show your own animal in showmanship contests. Study the 4-H Beef Showmanship Guide.

- Tours—Attend judging or livestock and crops tours whenever you have the opportunity.

- Breeding project—Develop a breeding project if your farm is suited to beef production. Raise your own feeder steers.

- Grow your own feed—When you are 13 or 14 years old, start a cereal or forage project to raise grain, hay, or pasture for your animals.

- Be thrifty—Don't pay too much for your 4-H animals. Don't pay high prices for prepared feeds when you have home-grown feeds that are just as good when properly mixed.

- Insurance—If you have to borrow money to buy your animal or if you have all of your money tied up in your animal and feed, you should have your animal insured. You may want to carry insurance on them anyway.

- Feeding—Learn how to mix a balanced ration and how to feed for rapid, economical gains.

- Kindness—Be kind to your animals. Teach them to trust and respect you.

- Management—Make your animals comfortable. Be sure they have shade, fresh water, salt, a dry place to lie down, and freedom from flies, lice, and other pests. Steers should be dehorned.
Cooperative Extension Work in Agriculture and Home Economics

Wm. A. Schoenfeld, Director

Oregon State College, United States Department of Agriculture, and State Department of Education, Cooperating

Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914