4-H Poultry Production: Raising Broilers

Name ___________________________ Age ________

Address __________________________ County ________

Advisor's Name ____________________ Club Name ________
Copyright © 2004, The Ohio State University

Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, sexual orientation, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA.

Keith L. Smith, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension; and Gist Chair in Extension Education and Leadership.

For Deaf and Hard of Hearing, please contact Ohio State University Extension using your preferred communication (e-mail, relay services, or video relay services). Phone 1-800-750-0750 between 8 a.m. and 5 p.m. EST Monday through Friday. Inform the operator to dial 614-292-6181.

9/13—2.7M—P758560

The material in this publication was adapted and prepared for use in Ohio by Allen W. Auck, Extension Associate, State 4-H Office, the Ohio Cooperative Extension Service, The Ohio State University.

Information in this publication is used by permission from several state Extension poultry bulletin: 4-H Poultry Production I, The Ohio State University; Raising Chickens for 4-H, Purdue University; Growing Blue Ribbon Pullet, University of Tennessee; Showing Poultry, The Ohio State University

Reviewed By Dr. Gerald havenstein, former chair, Poultry Science Department, The Ohio State University, and Bill Karcher, FFA Instructor.
Table of Contents

Member's Project Guide

Introduction

Raising baby chicks for broilers is a popular 4-H project. You can have fun taking care of chickens, and your family will enjoy the good tasting and nutritious food you produce.

Commercial meat chickens are ready to market as broilers at 6-8 weeks of age. There are several types of broilers that are recommended. The most common type is a cross between a synthetic dominant white Cornish cock and a synthetic dominate White New Hampshire hen. This cross produces an all-white, fast-growing meaty bird.

Project Objectives

This project will help you:

... develop poultry management skills
... produce healthy broilers
... develop an awareness for business management
... realize the pride of accomplishment

Project Background

This beginning level project is recommended for members ages 9-11. Older members with no experience or with some knowledge of poultry also should begin at this project level. There is no time limit to complete this project, and it may be repeated up to three (3) times. This guide may be reused when repeating the project. For further challenges, members should select 4-H 365, Self-Determined.

Be sure to check county project guidelines (if any) for additional requirements; especially if the member chooses to take the project to the county fair. Please note that a member does not have to take part in the county fair to complete this project. Participating in the county fair judging is simply a way to enhance a member's project experience.

General Project Guidelines

1. Complete the "Planning Your Project" section of this guide.
2. Members new to this project must explore Interest Areas 1-3. When repeating this project, explore any five (5) Interest Areas.
3. Within each Interest Area select at least one (1) of the "Things to Do."
4. Take part in at least two (2) Learning Experiences.
5. Become involved in at least two (2) Citizenship/Leadership Activities.
6. Write a one-page summary telling what was done and learned through this project.
7. Complete the record keeping section on pages 12-15 of this project manual.
Planning Your Project

This planning section (steps 1-4) is designed to be reused when repeating this project.

Step 1: Interest Areas

Review your project guidelines and select the recommended number of Interest Areas to explore. Interest Areas may be repeated. As you begin to explore or re-explore an Interest Area, place the current date (mo/yr) next to it.

<table>
<thead>
<tr>
<th>Date Started (mo/yr)</th>
<th>Interest Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Getting Started, page 4</td>
</tr>
<tr>
<td></td>
<td>2. Poultry Nutrition, page 5</td>
</tr>
<tr>
<td></td>
<td>3. Getting Ready for Chicks, page 6</td>
</tr>
<tr>
<td></td>
<td>4. Marketing Broilers, page 7</td>
</tr>
<tr>
<td></td>
<td>5. Selecting, Preparing and Showing Poultry, page 8</td>
</tr>
<tr>
<td></td>
<td>6. Keeping Records, page 11</td>
</tr>
</tbody>
</table>

Step 2: Things To Do

Within each Interest Area find the “Things To Do” section. Plan to perform one of the activities listed. Additional activities may be planned on a separate sheet. Have your parent or advisor initial and date (mo/yr) what you complete.

Step 3: Learning Experiences

Take part in at least two (2) of the Learning Experiences listed below. Plan your involvement in the chart (Report of Learning Experiences) provided. Before you start your project, enter your two (2) choices in the section labeled “Plan To Take Part In.” Then, once you have taken part, record what you did and when. Learning Experiences may be added or changed at any time.

Sample Learning Experiences

<table>
<thead>
<tr>
<th>Demonstration</th>
<th>Speech</th>
<th>Country Project Judging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustrated Talk</td>
<td>Poultry Show</td>
<td>Project Meetings</td>
</tr>
<tr>
<td>Exhibit</td>
<td>4-H Camp</td>
<td>Field Trip</td>
</tr>
<tr>
<td>Radio &amp; TV</td>
<td>Project Tour</td>
<td>Workshop</td>
</tr>
<tr>
<td>Poultry Judging Contest</td>
<td>Poultry Judging Clinic</td>
<td>Livestock Youth Conference</td>
</tr>
</tbody>
</table>
Report of Learning Experiences

<table>
<thead>
<tr>
<th>Plan to Take Part In</th>
<th>What You Did</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(example) Demonstration</td>
<td>Presented to 4-H Club to distinguish between market and breed types of birds.</td>
<td>4/10</td>
</tr>
</tbody>
</table>

Step 4: Leadership/Citizenship Activities

Check off (✓) the activities you wish to do, or plan your own in the space provided. Plan to do at least two (2). Keep track of your progress by dating (mo/yr) what you complete. Leadership/Citizenship Activities may be added or changed at any time.

<table>
<thead>
<tr>
<th>Date Completed (mo/yr)</th>
<th>Plan to Do (✓)</th>
<th>Leadership/Citizenship Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Teach members of your club about poultry judging.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have someone visit your club and talk about poultry care.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encourage someone to take a poultry project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Help another member with his/her poultry project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plan a fun activity for your club or project group that is separate from a regular meeting.</td>
</tr>
<tr>
<td>Or, plan your own activities below:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project Completion and Awards

Once you have completed what you planned, write a one-page report telling what you did and learned. Be sure to complete the record keeping section on pages 12-15 of this manual. Then have your parent or project advisor review your experiences with you. For your efforts, you can then receive a special 4-H project award. Advisors should refer to 4-H publication #955, Advisor's Guide to Ohio's 4-H Project Planning and Incentive Program for details.
Getting Started

Getting Chicks

Get your chicks 6-8 weeks ahead of when you want to sell or exhibit them. Buy your chicks from a reputable hatchery that participates in the National Poultry Improvement Plan (NPIP). These chicks will be from NPIP-approved flocks thus certified as being free of Pullorum disease. A list of NPIP cooperating hatcheries can be obtained from your county Extension office. Place your order for chicks a month or so in advance to guarantee that you will have them when you want them.

Housing and Equipment

Housing for broilers does not need to be extensive unless you intend to make your mark in the broiler industry. You will need a clean, dry area that can be well ventilated, a brooder or heat lamp that will warm the chicks, and feeding and watering equipment.

Heating

Heating a small poultry house is not difficult or expensive if the building is well insulated. Plastic draped on the walls helps insulation and is an inexpensive way to cut drafts.

Floor Space

Each chick should have a minimum per-bird space of 3/4 square foot for broilers. If the broilers are to be raised indoors until ready for market, 1 square foot of floor space is needed.

Litter

The floor should be covered with about 4 inches of a material that will absorb moisture and will not compact or cake. If the litter cakes or compacts, broilers run the risk of developing breast blisters and developing coccidiosis. The best type of litter is wood shavings. Other types of litter include straw, ground corn cobs or rice hulls. Dry sawdust tends to stay too wet and can cause problems for your flock.

Feeders

When selecting feeders and waterers, keep in mind that broiler chicks grow fast, therefore feeding and watering space and the size of the equipment needed to increase to meet their needs. For the first few days feed can be scattered on an egg, flat or egg carton as well as in the feeders to get the chicks started eating sooner. After four days use just the small feeder and switch to the larger feeder as soon as possible.

Provide 1 inch of feeder space per chick through four weeks of age. For example, if your chick feeder is 12 inches long, then it can handle 24 chicks. After four weeks of age, provide at least 3 inches of feeder space per bird. Use both sides of the feeder in this calculation.

Hanging-type feeders work well with broilers because they can be used as the chicks mature. They are suspended from the ceiling and can be raised as the chicks grow. There is usually less feed loss, and the feed usually stays cleaner in hanging type feeders.

Feeders for larger chicks. For chicks up to six weeks of age.
Waterers

Chickens need plenty of clean, fresh water at all times. Use two 1-gallon size gravity fed jugs for each 100 chicks up through one week of age. Switch to two 5-gallon fountains per 100 birds after the first week. It is a good practice to place the water fountains upon frames 2 feet square made of 1 x 2 inch boards covered with 1/2 inch mesh hardware cloth. This will help to keep the waterers clean and the birds away from the damp litter around the water fountain.

Lighting

For the first 48 hours, artificial light is recommended so the chicks can find the feed and water at all times. This also helps keep them from becoming frightened. For broilers, provide 23 hours of light from the day of hatch until they are ready for market. This increases feeding time, which increases growth rate. An automatic timer can be purchased to turn the lights on and off so that you do not have to get up in the middle of the night to shut the lights off.

Poultry Nutrition

Today's commercial poultry feeds are the results of years of research. The rations contain all the needed nutrients. To insure top production and the provision of all of the necessary nutrients for your chicks, use a commercial broiler-starter ration for your chicks. Do not feed an egg-type chick starter to broiler chicks or a broiler starter to egg-type chicks.

Commercial growers feed a starter ration to broilers up to 3 weeks of age and a grower-finisher ration to 7 to 71/2 weeks. The starter contains 23-24 percent protein. The grower provides 21-22 percent protein.

Insufficient feed, water or a deficiency of an essential nutrient can lead to growth problems. Insufficient feed causes birds to gain weight at a slower-than-normal rate. Without feed, chicks could die after a few days. This could happen if the birds cannot get to the feed because the feeders are too high or clogged with feed.

Most nutritional problems in small flocks are the result of feeding something other than what should be fed. For example, a flock owner may buy a complete grower ration, then dilute it with corn, oats or wheat. So instead of the 16 percent that was purchased, the birds are being fed perhaps a 12 percent ration that now contains less vitamins and minerals than they need. These kinds of changes result in poor growth and development of the broilers.

Chickens fed diluted feeds grow slowly, start picking each other, pull and eat their feathers, become unthrifty and may develop leg problems.
Insufficient water causes birds to reduce their feed consumption, dehydrate or grow at a suboptimal rate. Often lack of water is caused by not checking on the birds at least twice a day. Water consumption increases with increasing temperatures, so the birds should be checked more often during hot weather. Fresh water should be offered daily.

For best results, wash the water fountains at least once each week with soapy, hot water and follow with a rinse of chlorine water to control slime and bacteria build up in the water. An effective rinse solution would be 1 teaspoon of chlorine to 1 gallon of water.

---

**Getting Ready for Chicks**

**Before Chicks Arrive**

Before the baby chicks arrive, remove all equipment from the building and thoroughly clean and sanitize the house. Sweep down the walls and ceilings to remove cobwebs and dust, then wash with warm water and a detergent. Remove and haul away old litter. Disinfect the entire building with a commercial disinfectant (the hatchery where you purchased your chicks should be able to recommend one).

The feeders and waterers should be washed clean, sanitized and placed in the sunshine to dry. Allow both the facility and the equipment to stand unused for several days before putting your new chicks in place. Place and level the litter material about one week before the chicks arrive.

Set up and operate brooders one or two days before the chicks arrive. It may be necessary to make adjustments in temperature and also to check to see that the thermostats are working properly. Set the thermostat for 95 degrees. Reduce the heat 5 degrees each week until it reaches 70 degrees Fahrenheit. If using an infrared heat lamp, adjust the height and make sure that the lamp does not fall into the litter and cause a fire.

The chicks will indicate if they are comfortable by moving toward or away from the heat. You will have to watch your chicks to see that they are comfortable.

When the chicks are comfortable, they will bed down evenly under the light or they will form a doughnut-shaped ring under the light.

If they crowd under the light, they are cold. If they scatter away from the light, they are too hot. For more heat, lower the lamp, for less heat, raise the lamp.

Place a brooder guard around the brooder. A brooder guard is a circular fence designed to keep the chicks from wandering from the heat and getting chilled. It also eliminates corners to avoid piling and shields the chicks from drafts. After seven to 10 days, the guard may be removed. There is no set rule as to the size of the pen made by the chick guard. It should be large enough so that the chicks can spread out if they wish and yet get back to the heat if they want to.

**When the Chicks Arrive**

Feed and water should be put out several hours before the chicks arrive. Feeders should be full and additional feed should be spread on new, clean egg flats or egg cartons under the brooder. Start the chicks drinking when they are placed under the brooder by dipping their beaks in the water. This will attract the others to drink.

To get the best growth from your birds, give them plenty of TLC (tender loving care). Make sure they

---

**Things to Do**

- Identify five feed ingredients you feed your birds.
- Keep feed consumption records for your birds.
- Explain one function of each of five nutrients (protein, energy, minerals, vitamins, water).
- Outline and explain the nutrient requirements of market broilers.
As birds grow, they need less heat.

are warm, dry and are never hungry or thirsty. Never let the feeders or waterers become empty. When putting out fresh feed, fill the feeders only half full. If you put too much feed in the feeders, the birds will scratch the feed out onto the floor.

Sanitation is important. Clean your water fountains everyday with warm water and a brush. Check both the feeders and waterers and remove any litter, or any other foreign matter that gets into them. Chicks need feed to eat and fresh, clean water to drink.

Check the birds and the temperature of the house before you go to bed each night. Reduce brooder temperature as necessary to make the chicks comfortable.

Do not allow dogs or other animals in or near the chicken house. Be sure that birds cannot get into the chicken house because they may carry diseases harmful to your broiler flock. Be sure the chicken house is bird and animal proof.

**Things to Do**

- Point out and describe eight characteristics of a healthy bird.
- Report to your 4-H group the medications currently being used to cure or control poultry diseases.
- Prepare a report on a common poultry disease.

**Marketing Broilers**

The broilers that you have raised can be marketed at six to eight weeks of age, when the birds should average about four to five pounds each. If you wish to do so, you can keep the birds longer and make roasters out of them.

Small flocks of broilers can be dressed for home use or sold to friends, neighbors and relatives. Many people will pay a premium for a plump, freshly dressed bird.

The 4-H member who is outgoing, is not afraid of work, and likes to meet people, can do well financially by selling dressed chickens.

**Things to Do**

- Trace the marketing of a broiler from the farm to the consumer.
- Cook and serve a chicken—barbecue or some other method.
- Explain good points and faults of a market carcass.
- Explain the U.S. Grades of poultry carcass.
Selecting, Preparing and Showing Poultry

Some of the related activities to choose from in meeting your poultry project requirements involve showing chickens competitively, and most members do exhibit at least once during their years in the project.

Showing adds an important dimension to your total experience. Exhibiting at the fair teaches you a lot about poultry breeds and what determines quality. Showing also helps you develop the personal qualities of teamwork, cooperation, patience, confidence and sportsmanship.

Two keys to successful exhibiting are 1) selecting the right birds to show and 2) preparing them correctly. In this section, we will discuss how to do both and give some tips on how to put your birds in the best light when they are judged.

Selecting Birds to Show

Here are suggested steps for picking the prize birds of your flock. In this process, first eliminate those birds that probably are not winners and second choose the best from among those that remain. The following steps also include various breed defects and disqualifications used in poultry showing.

1. Ten days to two weeks before the show, make a preliminary selection from your entire flock. To do this, examine all birds for defects that could cause them to be downgraded.

Eliminate those that clearly show any of the following:

General defects

- Cuts and tears  
- Broken or disjointed bones  
- Skin or flesh bruises anywhere other than on the wing tip  
- Breast blisters or cysts

Breast blisters vary from a thickening of the skin over the front of the breastbone to a large sac-like bubble covering most of the breastbone. Contents of the bubble may range from a clear, watery fluid to thickened, dark blood or even pus-like material with a very hard core. Breast blisters reduce carcass market quality because the affected part must be cut away. A trimmed carcass is still wholesome, but a cut or tear in the breast prevents the carcass from being "Grade A."

- Insect bites  
- External parasite damage  
- Black or green shanks
Shapes of Broiler Breasts

Feathering defects
- Pin feathers, particularly those just coming through the skin
- Discolored areas of skin due to broken feathers, sunburn or barebacks

Finish Defects
- Lack of fat cover in the skin between the heavy feather tracts, in the collar of the wishbone, where thigh skin joins the breast or around the tail or abdominal region.

Conformation defects
- Breasts that have dented, crooked or knobby breastbones, are v-shaped or are slab-sided (that is, much deeper than they are wide)
- Narrow, crooked, humped or hunched backs
- Deformed legs and wings
- Wedge-shaped bodies

Fleshing defects
- Breasts that do not carry the width well back to the end of the keel or are v-shaped or concave rather than full and rounded.
- Thin drumsticks and thighs
- Backs poorly fleshed along the vertebrae and around the hip bones

Defects such as crooked toes or beaks do not disqualify broilers from being used as meat birds; neither does feather color, although today's market birds are generally light colored.

2. Of the birds that pass this initial "inspection," select two for every one that you want to show on the basis of the following factors:

Conformation - shape including length, width, and depth.

Fleshing - amount of muscle or meat (Breast, drumsticks and thighs should carry the bulk. To determine breast development, place your palm on the breastbone with your thumb on one side of the breast and fingers on the other; then slide your palm up and down, letting thumb and fingers follow the curvature of the breast. Classify the bird into one of the groups shown. The more nearly the breast resembles a giant U, the better.)

Uniformity — an important factor when more than one bird is shown in a pen; all birds in the entry should be alike.

3. Separate those chosen from the rest of the flock or band them so they are easily identified.

4. Two days before the show, weigh each bird selected. Eliminate those that do not meet contest weight requirements.

5. Then select your entries from group of finalists, and put them in a separate pen or coop until show day.

Preparing Birds to Show

A day or two ahead of when you will be exhibiting, give your prize birds a special beauty bath so they will show at their very best. Cleaning them as outlined here will also rid them of any external parasites. (Tip: Practice bathing an earlier-eliminated bird.)

As a rule, birds with colored feathers do not need much feather cleaning. However, birds with white plumage are a different matter. Even the lightest soiling will show on them.

Many of the soiled spots showing on white birds can be cleaned simply by sponging with a solution of shampoo. You can stand the bird in a shallow pan for cleaning; or, if the bird is soiled over a large area of its body, you may find it easier to immerse it in water up to the head. In any case, you will want to keep two things in mind: 1) always sponge and rub with the feathers, not against them; and 2) rinse the bird completely after shampooing—several times with warm water—to remove all soap residue, which can leave a "stickiness" on the feathers. After rinsing, damp dry the wet bird with a towel, then "blow dry" with a hair drier.

After the feathers are cleaned, the feet and shanks should be washed with shampoo, rinsed, and then dried. (When it is necessary to immerse or stand birds, this step can be accomplished at the time the plumage
<table>
<thead>
<tr>
<th>Procedure</th>
<th>How Done</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Remove bird from exhibition coop.</td>
<td>Always head first, with one hand over back, the other under body with fingers around legs.</td>
<td>Prevents excitement and struggle of bird to get away.</td>
</tr>
<tr>
<td>2. Hold the bird.</td>
<td>Pick up bird by spreading your fingers and placing your hand palm up under the bird’s breast as it faces you. As your palm touches the breast, you will find that the bird’s legs will be between your fingers. As you lift the bird, gently grasp the legs by closing the fingers. You can now lift the bird without having it squirm and fight.</td>
<td>Makes the bird feel at ease. Isn’t so likely to struggle. The bird is easy to handle.</td>
</tr>
<tr>
<td>3. Examine head.</td>
<td>Hold head of bird alert by prodding at the region of the wattles.</td>
<td>To note comb, eyes, shape of head, and any defects present.</td>
</tr>
<tr>
<td>4. Examine wings.</td>
<td>Open either wing with free hand. To open the other wing, merely pass hand, palm up, over to that side. Grasp wing bow and fan out wing. (There is no need to transfer bird to the other hand.)</td>
<td>To note color, absence of feathers, slipped wings, split wings, and twisted feathers.</td>
</tr>
<tr>
<td>5. Examine body plumage.</td>
<td>Over back, on breast and body.</td>
<td>For color and quality, presence of lice.</td>
</tr>
<tr>
<td>6. Examine tail plumage.</td>
<td>Give the tail piece a quick flip up and down.</td>
<td>For color and feather quality. To detect tail defects.</td>
</tr>
<tr>
<td>7. Examine shanks and feet.</td>
<td>Place free hand on back of bird. Turn bird upside down. Back of the bird should rest in the palm of the hand.</td>
<td>To note color, crooked toes, feather stubs between toes and on shanks.</td>
</tr>
<tr>
<td>8. Examine body.</td>
<td>Hold as in No. 7.</td>
<td>To note width and depth of body and amount of fleshing on body—also body defects.</td>
</tr>
<tr>
<td>9. Hand bird to judge.</td>
<td>Head first.</td>
<td>To let him check and verify and points he desires.</td>
</tr>
<tr>
<td>11. Return to position by the coop.</td>
<td>Keep your bird on the alert until judge has made a decision.</td>
<td>Give judge better opportunity to see the bird.</td>
</tr>
</tbody>
</table>

is prepared.) Birds that carry stubborn dirt on their toes and shanks are best treated by soaking the area for several minutes, then scrubbing it with an old tooth brush.

After cleaning, the bird should be placed on fresh clean litter or in a wire-bottomed cage to keep the feet, shanks and feathers clean. In the few days before the fair, chickens will recoc their feathers with the natural wax produced by the preen gland. You may find it necessary to bathe your birds 2 or 3 times prior to the show.

### Showing Poultry

Several hours before judging, give the birds a final check. However, care must be taken not to over-handle the birds and cause them to be tired at the time of judging. Small, soiled spots on the feathers and feet can be wiped with a damp facial tissue. A bright luster can be added to the comb, wattles, ear lobes, and feet and toes by applying a sweet oil, such as olive or cooking oil with a small piece of cloth. Use just enough oil to provide a very light coating.

### Judging Day

When showing your birds, be proud of a job well done. You want to demonstrate to the people watching and to the judge that you have learned a lot from your experience with your project.

### Handling the Bird

Always put a bird into or take it out of the cage head first. This prevents the wings from becoming caught in the door.
Give your bird a sense of security by holding it on your arm. Grasp the bird’s legs, and with your left hand situate the legs between your fingers. Let the breast bone lie on your wrist and lower arm. Handle each show bird often so it becomes used to being grasped, held and examined. Train your bird to show itself off best by using a thin, long stick or rod to get it to stand alert, head up and chest out. This takes practice.

**Things to Do**

- Explain what you look for when selecting birds for show.
- Give a demonstration on selecting birds for show.
- Give a set of oral reasons on judging a class of four broilers.
- Demonstrate how you would show your birds in a showmanship contest.
- Attend a major poultry exhibition.
- Conduct a poultry judging contest for members in your club.
- Show a pen of broilers at the county/state fair.

**Keeping Records**

Are your feed production records in one place? Can you find all of your feed bills? Can you calculate the cost per pound of meat produced? Can you determine your feed conversion ratio?

Accurate records of income and expenses are important so that you know your financial situation. Records inform you of progress and accomplishment. Records also give experience and training that will be useful in adult life.

Accurate records help you make decisions about where you can cut costs to increase your income.

Records needed include the following:

1. Expenses
2. Income
3. Weight
4. Death/mortality

**Computerizing Your Records**

If you have access to a computer, you may want to computerize your records. Computerized records can be used no matter what your flock’s size. Learning how to program and keep records on your computer will help you better understand the workings of a computer. And, it will better prepare you for a variety of jobs later in life.

Each type of computer is different. If you decide to computerize your records, your task will be to design and use a computer program to keep all of the records that you require. The record forms in this book are good places to begin. You will probably want to revise them to better meet your needs and the ability of your computer.

Due to the variety of computers on the market, we cannot give you specific instructions on programming the records. However, the following may help.

1. Your computer’s program manual can provide language instruction.
2. There may be a data base management software package available for your computer that will perform the required functions.
3. There are three 4-H computer projects available. This could be a good companion project for your poultry project. Ask your advisor for more information.

**Things to Do**

- Keep feed consumption records weekly.
- Keep a broiler production record on 10 or more broilers.
- Keep pounds of feed fed, cost of feed, income and determine cost per-pound.
- Help a younger 4-H member with record keeping.
Profit or Loss Statement

**Income**
Poultry on hand at end of project year at current value $______
Income (birds or projects sold or used) $______
Other income (name the source:__________________________) $______
Total Income $______

**Expenses**
Poultry you started with or bought during project year $______
Feed cost $______
Other expenses $______ $______
Total Expenses Profit or Loss $______
(Income—Expenses)

### Project Inventory

<table>
<thead>
<tr>
<th>What I have on hand</th>
<th>Beginning of Year</th>
<th>End of Year</th>
<th>Birds Removed</th>
<th>Birds Added</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Value</td>
<td>Number</td>
<td>Value</td>
</tr>
<tr>
<td>Chicks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mash</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooder Stoves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Litter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dressing Supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Weight Record

<table>
<thead>
<tr>
<th>Identification of broiler</th>
<th>Beginning weight</th>
<th>Final weight</th>
<th>Total lbs. of gain</th>
<th>Date Started on feed</th>
<th>Date sold</th>
<th>Total days fed</th>
<th>Average daily gain (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Total lbs. of gain ÷ total days fed.
## Expenses

<table>
<thead>
<tr>
<th>Month</th>
<th>Kind of Feed or Item (Grain, mash, milk, grit, litter, etc.)</th>
<th>Feed Purchased</th>
<th>Home Grown Feed</th>
<th>Other Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lbs.</td>
<td>Cost</td>
<td>Lbs.</td>
</tr>
<tr>
<td>Month</td>
<td>No. of Birds</td>
<td>Sex</td>
<td>Weight</td>
<td>Price per lb.</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-----</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sold</td>
<td>Used Home</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Date &amp; Time</td>
<td>Animal ID - Name - Species - ID Number - Description</td>
<td>Condition Being Treated For</td>
<td>Estimated Weight</td>
<td>Treatment Given (Medication Dispensed, Amount and Route)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------</td>
<td>----------------------------</td>
<td>------------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Goals and Objectives

✧ Increase the awareness of the issues of animal well-being, quality assurance, and show animal ethics.

✧ Encourage you, the 4-H member, to reflect on your values concerning these issues.

Privileges, Responsibilities, and Rewards

Everyone associated with livestock—either on the farm or in the show ring—is responsible for the well-being of their animals. As a 4-H member, you need to learn to care properly for your projects and develop acceptable livestock husbandry skills.

Your duty as a 4-H member is to properly care for your animals. As a 4-H animal owner, you need to understand the privileges, responsibilities, and rewards that you can expect from the 4-H program.

Responsibilities

✧ to humanely treat all livestock projects in your possession
✧ to be sincere and believe in the value of a job well done
✧ to be loyal to the values and ideals of the 4-H program
✧ to accept the guidance and decisions of the program coordinators
✧ to be willing to learn and participate in training programs and meetings
✧ to continue learning throughout your years of 4-H membership
✧ to follow good practices insuring a safe, wholesale product of the highest quality

Rewards

✧ to enjoy satisfaction from a job well done
✧ to receive both public and personal recognition
✧ to learn new skills, receive special training, and experience personal growth
✧ to make new friends and have fun
✧ to feel good about producing a wholesome, consumable product
✧ to know you are special and you can make a difference
As a 4-H member, you need to be aware of the things you can do with your own animal to promote animal well-being. The image of the agricultural industry and the 4-H program are affected by the decisions you make and actions you take in the care of your animal. You need to set goals and develop a plan that will positively impact your animal’s well-being; either on the farm, in your backyard, or at the county fair.

You can complete some tasks before you even obtain your animal. First, think about the size your animal will be as it grows to maturity. Are your facilities large enough for the animal to exercise in? Are there hazards where you are going to keep your animal such as protruding nails, broken boards, or exposed wire? Can the animal reach any potentially dangerous objects? (For example, an electrical box or a poisonous plant.) Think about the type of bedding you will be using and the quantity it will take to keep your animal dry and warm. You should have an ample supply of clean water available to your animals at all times. A designated feeding area should be kept free of manure, urine, and bedding.

Once your animal arrives and is in your care, providing it with a balanced ration is an important first step. Many processed feeds, supplements, and pre-mixes are available. Be sure your animal is receiving the nutrition it needs in relation to its age, growth cycle, and purpose. Your animal also needs special consideration if it is in gestation, in lactation, or at stud.

When questions or concerns arise, involve your veterinarian. Develop a veterinarian-client-patient relationship (VCPR). This relationship requires that the veterinarian has seen and has knowledge of the animal (patient) and has discussed a health plan or any treatments with the owner (client). Your veterinarian can be very helpful in developing a health care program for your animal. Your plan should include an appropriate schedule for vaccinating, castrating, dehorning, tail docking, internal/external parasite control, etc. You should check with your veterinarian before administering treatments, especially if there is any question about the diagnosis and the medication you are planning on using. If injections are necessary, give them in the proper location using good technique. Injection sites in the neck are recommended to avoid possible damage to high priced meat cuts such as the ham and round. Use subcutaneous (SQ) injections (under the skin) whenever allowed by the label directions.

A withdrawal time may be indicated on the label of certain medications. This is the period of time that must pass between the last treatment and the time the animal may be slaughtered. For example, if a medication with a 14-day withdrawal period was last given on August 1st, the first day the animal could be slaughtered would be August 15th. It is important that you follow withdrawal time directions as given by the label or as prescribed by your veterinarian.
In addition to the withdrawal time, the label of a drug lists the animal species for which the drug is approved, the dosage to be administered, how it is to be given, and for what diseases/conditions it can be used as a treatment. Any use, other than that printed on the label, can only be directed or prescribed by your veterinarian. For example, a neighbor’s animal is sick and a veterinarian has treated it using twice the dose listed on the label of an OTC (over-the-counter) product. Your animal becomes ill and is showing the same symptoms as your neighbor’s. You may not use the neighbor’s double dose for your animal without a veterinarian examining and prescribing the specific treatment. Any deviation from the label directions when using a drug is referred to as extra-label drug use. Unless directed by a veterinarian who has established a VCPR, extra-label drug use is illegal.

Each animal in your care needs to be permanently identified. Individual animal identification enables good recordkeeping, from which you can measure your progress. If your animal becomes lost, stolen, or needs medical attention when you are not available, the only way to know the animal’s identity and health history is by permanent identification. This is most commonly done by tattooing or ear tagging. Your county 4-H program may identify all 4-H animals through county-wide tagging or tattooing. If not, you are responsible for identifying all of your animals.

Training animals and acquainting yourself with them needs to begin at an early age or as soon as you acquire your animal. If at all possible, you should spend time with your animal daily. As you walk, stand, and set-up your animal, you both develop trust and become accustomed to each others’ movements. You also become aware of what sounds or sights bother your animal and in which direction it tends to jump or shy away from. Handling your animal daily also helps you to recognize abnormal behavior in your animal that could signal illness, stress, or pain. The longer you avoid working with your animal, the more difficult training and preparation for show becomes. The two P’s—practice and patience—usually pay off.

From the day you acquire your animal until the day it leaves your care, you should maintain feed and treatment records. This is important for the continual care of your animal and for whomever might later purchase your animal. This is also the best way to keep track of the kinds and amounts of expenses you have incurred with your project.

Finally, if you plan to exhibit your animal for show or sale, continue the same quality care program throughout the exhibition as you did at home. This starts by loading and hauling your animal safely and with concern for its well-being. The exhibition facilities should be prepared and checked ahead of time, just as you prepared your facilities at home when you first acquired your animal. Continually watch your animal for signs of stress, pain, or illness. Exercise your animal daily. Clean, feed, and water your animal regularly.

Above all, enjoy your animal project experience. You should feel good about the knowledge you gain and the quality care program you develop and implement with your animal project.
Care That You Are Giving Your Animals

Check the ways in which you are already caring for your animal. If you want to improve how you care for your animal, check that column too.

<table>
<thead>
<tr>
<th>Care</th>
<th>I am already doing</th>
<th>I want to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare facilities before I get my animal</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Provide adequate housing and bedding</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Control internal and external parasites</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Castrate animals when they are young</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Train animals to be handled at a young age</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Have a planned health program to prevent disease</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Observe animals daily and immediately treat those who need care</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Identify animals (tag, tattoo, ear notch, etc.)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Keep feed and treatment records</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Be aware of animal comfort at all stages of production</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Use proper techniques for vaccination and treatment</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Observe drug residue avoidance rules</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Observe label directions including withdrawal times on medications as well feed tags</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Sort and load animals safely and with concern for them</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

(adapted from Iowa State University Extension V1-1042Djh Oct 1991)

After deciding in which areas you want to improve, list your specific goals for the year.

Goals

________________________________________________________________________

________________________________________________________________________

Questions

Did you accomplish your goals? ________________________________

What worked well? ____________________________________________

________________________________________________________________________

________________________________________________________________________

What would you change? _________________________________________

________________________________________________________________________

________________________________________________________________________
Quality Assurance and the Livestock Industry

With your livestock project comes new responsibilities. You are now a member of the livestock industry. The livestock industry, just like any industry, provides a product to the consumer. Even producers of breeding stock are providing seed stock for future food and fiber production.

Think back to some time when you bought a toy or other product and were disappointed in it. Would you buy it again? Consumers will choose to buy or not buy a product from their perception of the value of that product. What would happen to a business if no one purchased its products?

Many businesses have quality assurance departments to make sure that their products are of the highest quality. Businesses pay attention to quality assurance because that helps to assure consumer satisfaction. When quality is high, consumers will buy again. Livestock products must be safe, wholesome, and produced in a manner that meets consumer approval.

Who is in charge of quality assurance in the livestock industry? When you feed a pig and sell it to the market, who is responsible for assuring that the pork eaten by the consumer is a high-quality product? The retailer? The packer? You? The breeder? Everyone involved in the livestock industry is obligated to do their part to provide a safe, wholesome product to the consumer.

Quality assurance in the livestock industry begins with providing the right genetics and continues with the proper husbandry of the live animal, a good packing house, and good retailing. Every action you take as a livestock producer will reflect on the quality of the livestock industry as a whole.

Quality assurance in raising livestock means providing for the animal’s needs to produce a healthy, wholesome animal. Basic animal needs include water, food, shelter, and care. Proper attention to animal husbandry helps assure a high-quality, marketable product.

Good animal husbandry requires an understanding of many different sciences, including nutrition, environmental design, genetics, veterinary health, production, and economics. These topics all contribute to a quality livestock product. To learn more, consult your project book, a 4-H advisor, an Extension agent, FFA instructor, a veterinarian, or a livestock production expert.

Evaluating quality assurance of your project is something like looking into a mirror. Reflect on your project for a moment. Do you like what you see? More important, will the consumer like it?

<table>
<thead>
<tr>
<th>Quality Assurance Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics Important to Livestock Quality Assurance and the Producer</td>
</tr>
<tr>
<td><strong>Nutrition</strong></td>
</tr>
<tr>
<td>Essential nutrients, feed and forage analysis, ration balancing</td>
</tr>
<tr>
<td><strong>Environmental Design</strong></td>
</tr>
<tr>
<td>Space requirements, ventilation, freedom from hazards and injury, feeding systems, handling and loading, feeding facilities, manure handling, image</td>
</tr>
<tr>
<td><strong>Genetics</strong></td>
</tr>
<tr>
<td>Consumer preferences, producer needs, suitability to livestock production systems</td>
</tr>
<tr>
<td><strong>Veterinary Health</strong></td>
</tr>
<tr>
<td>Disease prevention, proper drug usage, drug residues and withdrawal times, injection technique, records</td>
</tr>
</tbody>
</table>
BROILER STARTER
MEDICATED

COMPLETE FEED FOR STARTING BROILERS

For the prevention of coccidiosis in poultry flocks; growth promotion and feed efficiency, and improving pigmentation.

ACTIVE DRUG INGREDIENT

Nicarbazin ................................................................. 0.0125%
Bacitracin Methylene Disalicylate .................................. 50 G/TON
Roxarsone ................................................................. 0.005% 45.4 G/TON

GUARANTEED ANALYSIS

CRUDE PROTEIN .................................................. MIN 22.00%
LYSINE ................................................................. MIN 1.13%
METHIONINE ........................................................... MIN 0.54%
CRUDE FAT ............................................................. MIN 3.00%
CRUDE FIBER .......................................................... MAX 5.00%
CALCIUM ................................................................. MAX 0.75%
CALCIUM ................................................................. MAX 1.25%
PHOSPHORUS ........................................................... MIN 0.60%
SALT ........................................................................ MIN 0.30%
SALT ........................................................................ MAX 0.80%

INGREDIENTS

GRAIN PRODUCTS, PLANT PROTEIN PRODUCTS, ANIMAL PROTEIN PRODUCTS, HYDROLYZED ANIMAL AND VEGETABLE FAT, CALCIUM PHOSPHATE, GROUND LIMESTONE, SALT, METHIONINE SUPPLEMENT, PROPIONIC ACID (ADDED TO RETARD MOLO GROWTH), VITAMIN A ACETATE, VITAMIN D-3 SUPPLEMENT, VITAMIN E SUPPLEMENT, MENADIONE DISMETHYL PYRIMIDINOL DISULPHITE, CHOLINE CHLORIDE, RIBOFLAVIN SUPPLEMENT, CALCIUM PANTHEINATE, NIACIN, VITAMIN B-12 SUPPLEMENT, PYRIDOXINE HYDROCHLORIDE, THIAMINE MONONITRATE, FOLIC ACID, BIOTIN, ZINC OXIDE, MANGANOUS OXIDE, MANGANOSE SULFATE, FERROUS SULFATE, COBALT CARBONATE, CALCIUM IODATE, SODIUM SELENITE.

FEEDING DIRECTIONS

For broilers and tryer chickens only, feed continuously as the sole ration.

SEE BACK OF TAG FOR WARNING

MANUFACTURED BY:
SKILLATHON FEEDS

NET WEIGHT 50 POUNDS (22.7 KILOGRAMS)
OR AS SHOWN ON WHIPPING DOCUMENT

WARNING

Do not feed to laying hens. Withdraw 5 days before slaughter. Use as the sole source of organic arsenic. Feed continuously as the sole ration from time the chicks are placed on litter until past the time when coccidiosis is ordinarily a hazard; do not use as a treatment for coccidiosis; do not use in flushing mashers.

DO NOT FEED TO CATTLE OR OTHER Ruminants.

FEED TAG QUESTIONS

1. What is the main ingredient in this feed?

2. What is the crude protein level?

3. For how many days prior to slaughter should this feed be removed?

4. How many pounds of ingredients are included in this bag?

5. Should this diet be fed to laying hens?

6. What is the crude fat level of this diet?
Veterinary-Client-Patient Relationship (VCPR) is established when a veterinarian, who knows about an animal's health by having seen it or other animals in the same herd, takes charge of the medical decisions about the animal's treatment. The veterinarian has to be available for follow-up, in case the animal does not respond as expected and the caretaker of the animal has to agree to follow the veterinarian's instructions regarding the treatment program.

Withdrawal Time is the time needed to allow the residue to diminish to a safe tolerance level. It is the period which must elapse after the last treatment and before slaughter of meat animals, the use of milk for human consumption from dairy animals, or use of chicken eggs for human consumption.

Extra-label drug use is using a medication in a way other than that stated on the label by the manufacturer. For instance, using a medication as a treatment for a disease not listed on the label for that type of animal is extra-label use. Extra-label use, if not directed by a veterinarian with an established VCPR, is illegal.

Veterinary drugs are available in two categories, over the counter (OTC) and prescription (Rx). To be an OTC product, the medication must meet certain criteria for safety to both the animal and the person handling the product. If simple directions can adequately be written on the label by the manufacturer, a product can be classed as a OTC. The OTC medications may be sold through retail outlets such as farm supply stores in the same manner as aspirin is sold at a grocery store.

When human and animal safety, proper diagnosis, and special directions are concerns, medications are classed as prescription (Rx) products. A prescription product can be identified because the exact following statement will appear on the container: Caution: Federal Law restricts this drug to use by or on the order of a licensed veterinarian. Just as veterinarians are not allowed to authorize extra-label drug use without a valid VCPR, neither are they permitted to prescribe Rx medications for animals where a valid VCPR has not been established. Rx medications are available only from or on the order of a veterinarian much as prescription drugs for people are only available from physicians and from a pharmacist by prescription.
Medication Label

Name of Drug ____________________________  OMNIBIOTIC (hydrocillin) ____________________________  Active Ingredients

Directions for use: See package insert

Warning: The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food. Exceeding the highest recommended dosage level may result in antibiotic residues in meat or milk beyond the withdrawal time.

Store between 2° and 8° C (36° and 46° F) ____________________________  Storage
Keep dry and away from light

Quantity of Contents ____________________________  Net Contents: 100 ml

Distributed by
USA Animal Health, Inc. ____________________________  Name of Distributor

Quality Assurance and Animal Care: Youth Education Program
This material is based upon work supported by Extension Service,
United States Department of Agriculture, under special project number 93-EFSQ-4096
Product distribution through the Ohio Agricultural Curriculum Materials Service
OMNIBIOTIC
(hydrocillin in Aqueous Suspension)

For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep

Read Entire Brochure Carefully Before Using This Product

Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.

Indications: Cattle - bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. Swine - erysipelas, pneumonia. Sheep - foot rot, pneumonia, mastitis; and other infections in these species caused by or associated with hydrocillin-susceptible organisms.

Recommended Daily Dosage
The usual dose is 2 ml per 100 lb of body weight given once daily. Maximum dose is 15 ml/day.

<table>
<thead>
<tr>
<th>Body Weight</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 lb</td>
<td>2 ml</td>
</tr>
<tr>
<td>300 lb</td>
<td>6 ml</td>
</tr>
<tr>
<td>500 lb</td>
<td>10 ml</td>
</tr>
<tr>
<td>750 lb or more</td>
<td>15 ml</td>
</tr>
</tbody>
</table>

Continue treatment for 1 to 2 days after symptoms disappear.

Cautions and Warnings
1) Omnibiotic should be injected deep within the fleshy muscle of the neck or thigh. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. 2) If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3) Treated animals should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines. 4) Omnibiotic must be stored between 2°C and 8°C (36°F to 46°F). Warm to room temperature and shake well before using. Keep refrigerated when not in use.

Warning: Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.

How Supplied: Omnibiotic is available in vials of 100 ml.

This material is based upon work supported by Extension Service, United States Department of Agriculture, under special project number 93-EFSQ-4096

Product distribution through the Ohio Agricultural Curriculum Materials Service

LEARNING LABORATORY KIT

25
Guide to Reading Drug Label on Outside of Container

- **Active Ingredients:** Chemical name(s) of what is in the drug.

- **Withholding/Withdrawal Times:** The time it takes for the drug/chemical to be used up by the animal's body after it has been administered (or the time it takes a drug/chemical to wear off). A residue is a substance that remains in an animal's body tissues after the animal has been exposed to that substance. The substance can enter the animal's body as a feed or water additive, as an injection or external treatment, or simply by accident.*

- **Cautions and Warnings:** Tells things to be cautious about when using the product. Examples: a) Do not give to certain kinds of animals, b) do not give too much, c) pay attention to withholding times (see above).

- **Storage:** You may not obtain the performance you expect from the drugs and chemicals you have if the expiration date has passed, if the storage temperature is too hot or too cold, or if the products have been exposed to air or light.

- **Quantity of Contents:** Tells how much is in the container. Usually in metric units [liquid measure: 1 fluid ounce = 29.6 milliliters (ml); dry measure: 1 pint = 551 milliliters (ml)].

* Remember, you are responsible for everything your animal consumes even if it is an accident.
Guide to Reading Medication (package) Insert Label
(sometimes found on outer label)

✦ **Species and Animal Class:** The species and animal class in which the drug is to be used.

✦ **Approved Uses:** The situation for which the drug is to be used. Indicates the particular type of animal, condition, illness, etc.

✦ **Dosage:** How much to give and how often/how many times given.

✦ **Route of Administration:** How is the product given to the animal? Basically, there are three routes of administering medications:

1. **Oral Route.** Administering drugs through the mouth. Tablets, pills, capsules, and liquid medications are easily administered orally. A drenching tube, balling gun, or oral dosage syringe is usually used to place the liquid or pill at the base of the tongue at the back of the mouth. Make sure the medication goes down the throat and the animal swallows it. Take care the animal is not choked by the medication going down the trachea (windpipe). You can also administer medication in the animal’s feed or water.

2. **Topical Route.** Applying the medication to the skin or to the mucous membranes of the eyes, ears, nasal passages, or reproductive tract. Such medications are available as ointments, aqueous solutions, powders, and aerosols. Do not allow these products to come in contact with the animal’s eyes, nose, reproductive tract, or mouth unless it is specifically formulated for that use.

3. **Injectable Route.** Administering the drug directly into an animal’s body with a syringe and needle. Injections are the most common method to administer medications. The label will specify which of the following injection methods to use.

   **Subcutaneous (sub Q) injections** are accomplished by inserting the needle just under the skin and not into the muscle. This is important because sub Q injectables are designed for a slower rate of absorption or are highly irritating to muscle tissue.

   **Intramuscular (IM) injections** are the most commonly used. This is accomplished by inserting the needle straight into the skin and deep into the muscle.

   **Intravenous (IV) injections** are sometimes used. Some medications are labeled for intravenous injection only, because they are strong irritants to muscle tissue and can cause damage. The IV route of administration provides a rapid means of getting the medication into the system of a sick animal as well as eliminating the chance of tissue damage. IV injections are given directly into the bloodstream.
<table>
<thead>
<tr>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TREATMENT DATE &amp; TIME</strong></td>
</tr>
<tr>
<td>Oct 10</td>
</tr>
<tr>
<td>Oct 11</td>
</tr>
<tr>
<td>Oct 12</td>
</tr>
<tr>
<td>March 3</td>
</tr>
<tr>
<td>August 2, morning milking</td>
</tr>
<tr>
<td>August 15</td>
</tr>
<tr>
<td>April 30</td>
</tr>
<tr>
<td>May 1</td>
</tr>
<tr>
<td>April 9</td>
</tr>
<tr>
<td>April 10</td>
</tr>
<tr>
<td>April 11</td>
</tr>
<tr>
<td>Nov 15</td>
</tr>
<tr>
<td>May 15</td>
</tr>
</tbody>
</table>
Today is May 12. You notice several of the flock of 20 White Leghorn pullets you purchased 3 weeks ago have a discharge today from their nostrils, watery eyes and are coughing. These are the only chickens you have. The flock did not eat nearly as much feed the past day as usual. Because you could tell your chickens are sick, you take two to the local veterinarian for diagnosis and treatment of the illness. The veterinarian diagnoses the condition as a respiratory infection called air sacculitis and tells you that, while he does not carry the needed medication, Superbiotic™, it is available as an over-the-counter (OTC) drug at the nearby farm supply center. He tells you to medicate the chickens’ drinking water starting today, continue for a total of 4 days, and replace the medicated water with clear water on the morning of May 16th. The label on the packet of medication can be seen below. Complete the treatment record for May 15 showing the medication of the drinking water.

**PACKET LABEL**

Superbiotic
(10% Hydrocycline Tartrate)
A broad spectrum antibiotic for oral administration in the treatment and prevention of respiratory diseases of poultry caused by susceptible bacteria.

**Directions:** Mix the contents of this packet in 10 gallons of drinking water. This medicated drinking water should be the sole source of drinking water during the period of medication which must not exceed 14 days.

**WARNING:** Discontinue use in poultry 5 days before slaughter.

Store below 77°F. Keep packet dry.
Net Contents: 25 grams
Distributed by USA Animal Health, Inc.

<table>
<thead>
<tr>
<th>MAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>29</td>
</tr>
</tbody>
</table>

**TREATMENT RECORD**

<table>
<thead>
<tr>
<th>Treatment Date &amp; Time</th>
<th>Animal ID</th>
<th>Condition Being Treated For</th>
<th>Estimated Weight</th>
<th>Treatment Given (Medication Dispensed, Amount and Route)</th>
<th>Instructed Milk/Meat Withdrawal</th>
<th>Results</th>
<th>Date &amp; Time Withdrawal Complete</th>
<th>If this is an extra label or Rx drug, list the licensed veterinarian's name, address &amp; phone number who prescribed or directed the treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X= This information was not supplied in the situation, therefore you do not need to complete this box.
### ANSWER KEY

#### TREATMENT RECORD

<table>
<thead>
<tr>
<th>Treatment Date &amp; Time</th>
<th>Animal ID</th>
<th>Condition Being Treated For</th>
<th>Estimated Weight</th>
<th>Treatment Given (Medication Dispensed, Amount and Route)</th>
<th>Instructed Withdrawal</th>
<th>Results</th>
<th>Date &amp; Time Withdrawal Complete</th>
<th>If this is an extra label or Rx drug, list the licensed veterinarian’s name, address &amp; phone number who prescribed or directed the treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 15</td>
<td>20 white Leghorn Pullets</td>
<td>Air Saccultis</td>
<td>X</td>
<td>Superbiotic 1 packet/10 gallons of drinking water</td>
<td>5 days</td>
<td>X</td>
<td>May 20</td>
<td>(This block should be left blank or indicate that no extra-label or Rx drug was given.)</td>
</tr>
</tbody>
</table>

X = This information was not supplied in the situation, therefore you do not need to complete this box.

### Explanation of the answers for the treatment record:

**Treatment Date:** MAY 15 — The directions tell the participant to fill out the treatment chart for “May 15th showing the medication for the drinking water.” The treatment period starts on May 12 and continues for 4 days. The medication period will extend until the medicated water is removed on the morning of May 16th. We would expect the producer to update the treatment chart tomorrow with the information for May 16 recording the time medicated water is actually removed.

**Animal ID:** 20 White Leghorn pullets — In a small flock like the one described, the chickens often are not individually identified. The medication was administered to the entire group so the group can be described. If there were more than one group on the farm, an additional identifier, such as the location, would be appropriate.

**Condition being treated:** Air Saccultis — This is the problem as diagnosed the veterinarian. While less specific, “respiratory disease” could also be an acceptable answer.

**Estimated weight:** This information was not given in the problem and hence can’t be answered.

**Treatment given:** Superbiotic, 1 packet per 10 gallons of drinking water — Other acceptable answers could include Hydrocylone tartrate in place of Superbiotic, 25 grams in place of 1 packet.

**Instructed Withdrawal:** 5 days — This is stated in the WARNING section of the medication label.

**Date Withdrawal Complete:** May 20 — For the medication the chickens receive on May 15 (the day for which the Treatment Record was filled in), the withdrawal period would be completed on May 20. Following the last of the medicated water on May 16, the date completed would be May 21. The owner should update the treatment record on a daily basis as the treatment period continues. The time withdrawal is completed would be the same hour as when the medicated water was removed on May 16.

**If this is an extra-label or Rx drug:** This block should be left blank or should indicate no extra-label or Rx drug given. While the owner had consulted the veterinarian, the veterinarian directed the use of an OTC product in a way consistent with the label directions; therefore, credit can be given for an empty square. The problem did not give the veterinarian’s name nor does it appear on the label of the product. Producers should write down all treatments given to their food-producing animals and poultry, not just the one prescribed by veterinarians.
Questions

1. What are special quality assurance issues that relate to your project? 

2. Why is it important that your animal be permanently identified? 

3. What is the difference between a prescription and over-the-counter medication? 

4. What is extra-label drug usage? When is it allowed? 

5. What is a medication withdrawal time? Why is it important? 

6. Explain what is meant by a Veterinarian Client Patient Relationship (VCPR). 

7. What information should be recorded when an animal is given medication? 

8. How do you think the consumer would view the way your project is housed? Fed? Handled?
Show Ring Ethics

One of the most visible components of 4-H is livestock shows. Much of the public’s contact with 4-H is at the county fair where show ring events draw large crowds. What the audience sees reflects on the total 4-H program and the entire livestock industry. How are you contributing to that image?

The desire to win at any cost has tarnished the record of 4-H members personally and livestock shows in general. Why have YOU chosen to show an animal? What motivates some to act dishonestly in the show ring?

Competition, if you keep it in perspective, can be a positive too! to help develop important skills in your life. Many 4-H alumni who showed animals during their 4-H years attribute successes in their careers to the diverse skills gained as a 4-H member. You use decision-making skills and critical thinking techniques to select your animal and choose a feeding program. Answering the judges’ questions in a confident manner helps you gain poise, which is beneficial in many other situations. Good sportsmanship is a characteristic we all need. Certainly self-esteem is affected in the show ring when people watch and applaud your performance!

Is your only goal to win—or do you want to get more out of it than that? Your ability to think while paying attention to the judge, your animal, and other exhibitors is an important skill. Keeping a level head and staying composed will be good practice for other challenges in your life. Many long lasting friendships are developed from showing animals.

Proper training of your animal for the show ring should only include techniques that offer no risk of injury or pain to the animal. If a TV camera was present when you were working with your animal, would you do anything differently than you normally do? Putting in many long hours of practice with your animal is the only way to achieve that polished, confident look with the animal giving complete response to your commands.

The effects of unethical practices on animals can be harmful or even fatal. If your animal goes to slaughter and residues are found in the tissue, the animal will be rejected. How does this reflect on you and the animal industry?

Even if you do win, your moment in the spotlight with a champion is short lived. Think about what will stay with you after the thrill of winning has worn off. What image of the meat industry did consumers perceive while watching you present your animal?

Using unethical techniques to train, feed, or show your animal is wrong. If you see it happening, don’t turn your back. Tell a committee member or show official.

Pillars of Character

✦ Trustworthiness
✦ Respect
✦ Responsibility
✦ Justice and Fairness
✦ Caring
✦ Civic Virtue and Citizenship

Source: Josephson’s Institute of Ethics
Questions

1. List the six pillars of character.

2. List some proper techniques that you can use to prepare your animal for the show ring.

3. a. What have you seen or heard about that you think was an unethical practice in relationship to showing an animal?

   b. Why do you feel that it might have been wrong?

4. List the benefits you have gained from your past show ring experiences.

5. Describe what you feel is appropriate behavior when you win. What behavior is appropriate when you don’t place where you had hoped?

6. Can you be a “winner” showing an animal without getting a purple or blue ribbon? What are your reasons?

7. What are some ways to recognize exhibitors for skills gained other than winning in the show ring?
Policy Statement

The Ohio Farm Animal Care Commission (OFACC) was organized in 1990 to provide leadership on matters related to farm animal care. In 1997 the organization changed its name to the Ohio Livestock Coalition (OLC) to provide leadership and lend support to the recommendations made by the Ohio Livestock Industry Task Force which released its report in late 1996. The Ohio Farm Animal Care Commission was then designated as a vital part of the Ohio Livestock Coalition.

The commission has dedicated itself to the promotion of sound animal husbandry practices in the care and efficient production of animals used for food and fiber. The use of proper animal husbandry practices minimizes stress, improves animal efficiency and profitability for the farmer and insures a safe, healthy and wholesome product to the consumer at a reasonable price.

The Ohio Farm Animal Care Commission believes animals play a vital part of human existence and therefore, deserve our protection and compassion. Humans have had an inseparable relationship with animals and nature, as man has served as their sole caretaker for centuries. Yet, humanity is answerable to another set of laws and concepts that is uniquely a product of human society. Animals cannot be made subject to the laws that we as human beings are governed by and therefore, do not have the rights of humans.

The Ohio Farm Animal Care Commission firmly believe that all animals use other animals for their existence. Thus, the responsible use of animals by humans is natural and appropriate.

The Ohio Farm Animal Care Commission believes that farmers take pride in their responsibility to provide proper care for their animals and endorse the following Code of Practices.

Code of Practices

The following describes general responsibilities of the farmer and all persons in his or her authority in the proper care and handling of animals raised for food and fiber.

- To provide food, water, and care necessary to protect the health and welfare of my animals.
- To provide a safe and healthy environment for my animals that is clean, well ventilated, and provides ample space.
- To provide a well-planned disease prevention program to protect the health of my herd or flock. This includes a strong veterinarian/client relationship.
- To use humane and sanitary methods when it becomes necessary to dispose of my animals.
- To make timely inspections of all animals to evaluate the health and insure that all basic requirements are being met.
- To insure proper handling techniques are used to eliminate any undue stress or injury when manual manipulation is necessary.
- To provide transportation for my animals that avoids undue stress or injury caused by overcrowding, excessive time in transit, or improper handling when loading or unloading.
- The willful mistreatment of my animals or the mistreatment of any animal will not be tolerated. In cases of mistreatment, I will notify the proper authorities.
- To make management decisions based on scientific fact and to consider the welfare of my animals.
- We encourage livestock producers to complete species-specific quality assurance programs.
YEAR __________

It is important for every producer to know what they are feeding.

ATTACH ONE FEED TAG, SUPPLEMENT TAG OR FEED MIX RECEIPT TO THIS PAGE FROM RATIONS YOU FED DURING YOUR PROJECT.
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.