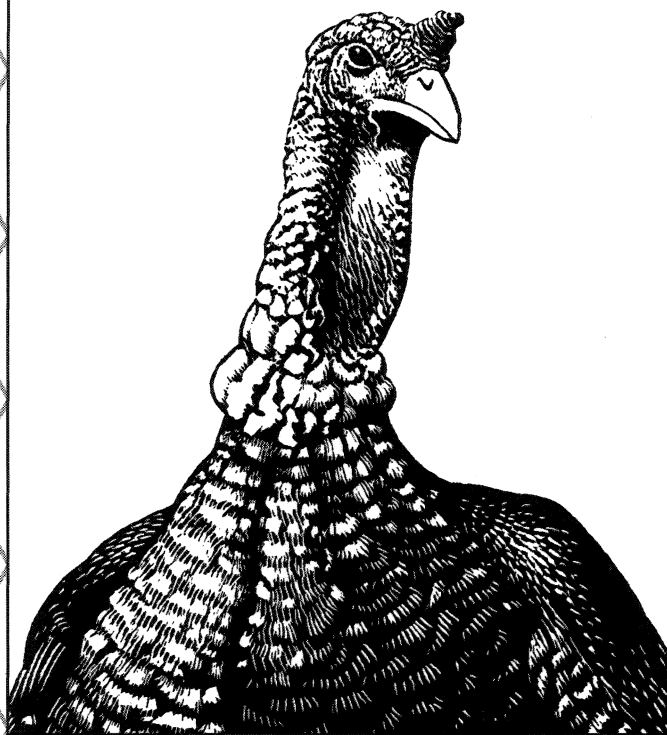


4-H Turkey Project

MEMBER'S GUIDE AND RECORD



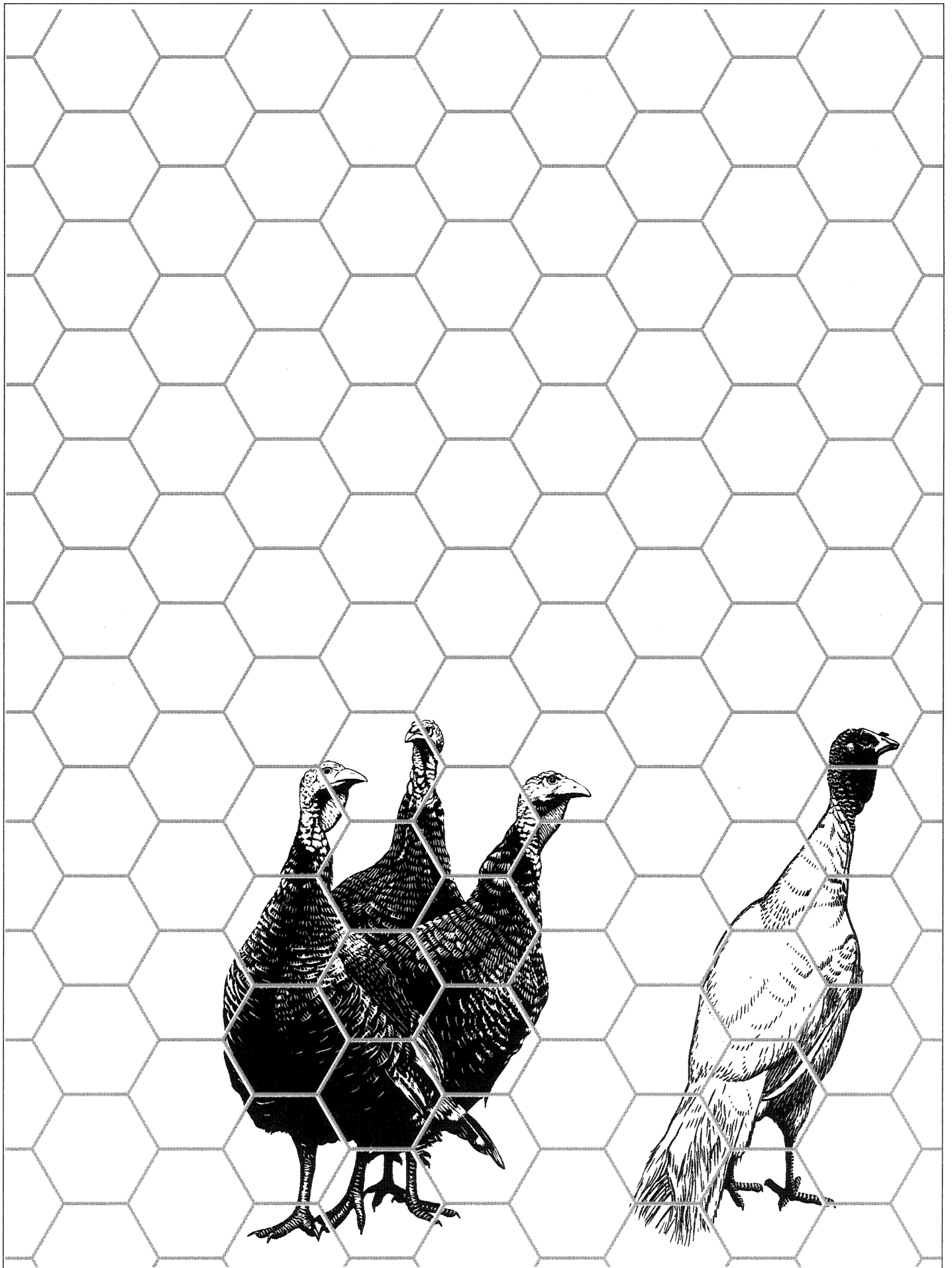


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OBJECTIVES

Welcome to Poultry Science 4-H. Like all other 4-H activities, the purpose of this project is to help you learn by doing. You will learn to select a breed and strain of bird suitable to your situation. You will discover the importance of proper feeding and management. You will gain an appreciation of turkey habits, instincts, and behavior. You will also develop the skills necessary to dress and market a quality food product. If the need arises, you will deal with disease, parasites, and predators. You will need to keep accurate records of your expenses and receipts so you can discover the financial outcome of your enterprise in the end.

YOUR MEMBER'S GUIDE AND RECORD

This member's guide contains information about turkeys. It lists the things you should do and learn to complete your project. It also has places to record your project plans and accomplishments. Use it to check off the project activities as you complete them.

Write your project plans in this record at the beginning of the year. When you spend or receive money or do something with your turkeys, write it down. Compare your accomplishments with your plans at the end of the year.

Your project leader should visit the place where you keep your poultry at least a month before the project ends. Your leader will make suggestions for improving the way you care for your birds. Your leader will also score the Care and Management section of your Total Project Score page. Try to score yourself, too.

At the end of the project year, turn in this book for scoring. If you wrote a report or answers to questions as project activities, turn them in, too.

SUGGESTIONS TO MEMBERS

New members may start with as few as two or three turkeys. We suggest you care for 12 to 25 birds. Never start more turkeys than you can properly manage, process, and market.

You may buy poults and care for them until they reach market size. Expect to spend three to five months planning, organizing, and working with them. If you breed and raise your own turkeys, the project will be a year around activity.

Study this guide and other references on the care and management of turkeys.

- Be ready for your poults when they arrive.
- Carefully complete the project record so you will know the financial outcome of your resource management.
- Begin early to find buyers for your surplus birds. Commit them for sale several weeks ahead of the time they will be ready for market.
- Actively participate in the functions of your 4-H club. Assume a leadership role, if possible.
- Have fun. Enjoy your 4-H experience.

SUGGESTIONS TO PARENTS AND LEADERS

We suggest that 4-H members learn to care for other poultry before enrolling in the 4-H turkey project.

Turkeys beyond the poult stage are strong. Four-H members may need some help from adults to do some of the suggested management procedures. We encourage the involvement of other family members, where appropriate. Expect the 4-H member to assume the main role of manager and caretaker.

People risk becoming injured when they work with animals. Discuss the advisability of giving tetanus immunity shots to persons having direct contact with the turkeys with the family doctor. Encourage 4-H members to be careful and practice safety when working with turkeys.

THINGS TO DO TO COMPLETE YOUR PROJECT

Year 1

Show by quiz or practical demonstration that you know or do all the following during your first year in the 4-H turkey project.

- _____ 1. Plan your project with your parents and leaders.
- _____ 2. Order your poults and have everything ready for their arrival.
- _____ 3. Provide proper care for your turkeys.
- _____ 4. Keep your project record up to date. Be especially careful to record expenses and receipts.
- _____ 5. Know and recite the 4-H pledge, motto, and colors.
- _____ 6. Lead the Pledge of Allegiance, 4-H pledge, a song, or a game at a 4-H club meeting.
- _____ 7. Give a short presentation to your club on something you learned through 4-H. It does not have to be about turkeys.
- _____ 8. Prepare an exhibit about your project for the club or county fair or round-up.
- _____ 9. Name four major causes of cannibalism in turkeys.
- _____ 10. Find out the normal weight of a well-grown market turkey at 12 weeks of age. Write your answer here:
tom: _____ hen: _____
- _____ 11. Show the proper way to handle a live turkey. Do this with a turkey appropriate for your size, age, and physical ability.
- _____ 12. Name four important predators of turkeys on range.
- _____ 13. Find out how much feed one rat will eat and destroy during a year.
- _____ 14. Show your leader how you clean and sanitize your turkeys' water fountains each week. Tell why doing this is important.

Years 2 through 5.

- _____ 1. Plan your project with your parents and leaders.
- _____ 2. Order your poults and have everything ready for their arrival.
- _____ 3. Provide proper care for your turkeys.
- _____ 4. Keep your project record up to date. Be especially careful to record expenses and receipts.
- _____ 5. Give a presentation to your club on something you learned through 4-H. It does not have to be about turkeys.
- _____ 6. Prepare an exhibit about your project for the club or county fair or round-up.
- _____ 7. Do at least five life skills activities from the list of suggested activities
- _____ 8. Do at least five turkey knowledge and skills activities from the list of suggested activities.

Life skills activities

Do at least five of these each year.

- _____ 1. Serve as an officer of your club.
- _____ 2. Serve as the chairperson of a committee.
- _____ 3. Serve as a member of a 4-H committee.
- _____ 4. Give a demonstration or speech about something you have learned with your turkey project to your club.
- _____ 5. Give a speech or demonstration at your county's speech and demonstration contest.
- _____ 6. Participate in a community service project.
- _____ 7. Attend a 4-H camp.
- _____ 8. Write a news story about your club or project for the local newspaper.
- _____ 9. Help another 4-H member with his or her project.
- _____ 10. Teach another 4-H'er a skill you have learned through your turkey project.
- _____ 11. Help with a club exhibit.
- _____ 12. Help with a 4-H fund raiser.
- _____ 13. Bring a prospective new member to a 4-H club meeting.
- _____ 14. Make a poster to advertise a 4-H event or to promote your turkeys or turkey project.
- _____ 15. Help with your club's parents' night or other program.
- _____ 16. Help your 4-H leader clean up after a 4-H meeting or event.
- _____ 17. Volunteer to spend time at a 4-H booth or display at a fair, shopping center, or other location.

- _____ 18. Take pictures at 4-H functions. Help prepare a club scrapbook.
- _____ 19. Make a scrapbook of your own ribbons, awards, news clippings, and pictures of your 4-H experiences.
- _____ 20. Attend a poultry meeting, workshop, or clinic.
- _____ 21. Develop an idea to improve yourself with the help of your parents and leaders.
- _____ 22. Prepare a turkey recipe and compete in a local, state, or national turkey cooking contest.
- _____ 23. Prepare for and compete in an avian bowl contest.
- _____ 24. Interview someone now working in the turkey industry to find out what kinds of jobs are available.

TURKEY KNOWLEDGE AND SKILLS ACTIVITIES

Choose which of these activities you want to do. Show by quiz or practical demonstration that you know or have done at least five each project year. You may include those marked with an asterisk (*) more than one year if you are making additional progress.

- _____ *1. Exhibit one or more of your turkeys at a county fair or 4-H roundup.
- _____ 2. Ask ten different homemakers what weight they look for when selecting a dressed turkey for holiday meals. Report your findings at a 4-H meeting.
- _____ 3. Visit a turkey farm, hatchery, or someone else that grows turkeys. Compare their management with yours.
- _____ 4. Ask a local turkey hunter to let you examine a freshly harvested wild tom. How does he differ from a domestic tom?
- _____ 5. Develop a new market for your birds. Examples are: live versus dressed birds, parts, feathers, expanded sales, and wholesale versus retail sales.
- _____ 6. Be able to name and identify five breeds of turkeys.
- _____ 7. Survey your friends and family (representing at least eight households) to find out the number of meals each year that they eat turkey in some form.
- _____ 8. Obtain and incubate 8 to 20 fresh fertile turkey eggs. Raise the resulting poults to market age. Read incubator instructions and refer to the Penn State guide *From Egg to Chick*.
- _____ 9. Incubate and candle some turkey eggs. Make a report of their development. Use the Penn State guide *From Egg to Chick* as a reference.
- _____ 10. Prepare a main dish meal which includes turkey meat for your family .

- _____ 11. Improve your turkey range through soil testing, re-seeding, or by adding lime and fertilizer.
- _____ 12. Visit two supermarkets. List all the ways, such as whole, parts, or products, that you find turkey sold. Report your findings at a 4-H club meeting.
- _____ 13. Ask a home economist or other human nutrition expert to help you list four or more advantages of including turkey meat in your diet.
- _____ 14. Attend a poultry show. If possible, ask a poultry judge to explain how he or she judges a turkey.
- _____ 15. Prepare a report on the predators of turkeys.
- _____ 16. Show how to oven dress a turkey.
- _____ 17. Describe the signs of a sick turkey. Find out the address and phone number of your nearest poultry diagnostic laboratory.
- _____ 18. Review turkey feeds and feeding schedules with at least two different feed mills. Ask for any hand-out material that they may have on feeding turkeys.
- _____ 19. Go to your library and review reference materials on the structure of a feather. Report your findings at a 4-H club meeting.
- _____ 20. Describe the actions of turkey poults that are: too hot, too cold, in a draft, content.
- _____ 21. Discover at least four different commercial uses for turkey feathers.
- _____ 22. Assume you want to raise 100 turkeys next year and prices stay the same as they are now. How much will it cost you to: a) buy the poults, b) buy the feed, and c) buy other supplies, such as grit and vitamin-mineral-electrolyte mix?
- _____ 23. Pennsylvania produces about eight million turkeys a year. Calculate how many pounds of feed it would take and what it would cost to feed them all to 16 weeks of age. Use information from your own records for your calculations.
- _____ 24. Find out the turkey's country of origin, the color of the original birds, and the reason it is a symbol of our Thanksgiving Day.
- _____ *25. Start your own library of books, leaflets, and magazine articles about turkeys. Include a scrap book of pictures and other data of value to your project. Update and add to it each year.
- _____ 26. Do a complete picture story of your project. Take pictures of your developing turkeys when they arrive and at least every two weeks until you market them.
- _____ 27. Make a set of turkey driving flags.
- _____ 28. Explain the difference between an internal parasite, an external parasite, and a disease.
- _____ 29. Put your project records on a home computer.

WORDS YOU SHOULD KNOW

POULT—baby turkeys of both sexes

TOM—male turkey of any age

GOBBLER—also a male, but usually used to describe a mature tom

HEN—female turkey of any age

RANGE—a field of grasses, legumes, or other plants used as a pasture for turkeys

DRY LOT—an area where turkeys are outside on soil without vegetation; not recommended

RANGE SHELTER—a building where turkeys find shelter from sun, rain, and snow, and protection from predators; often moveable

FOUNTAIN—a metal, glass, or plastic device used to water turkeys; it dispenses water from a storage area as it is consumed.

BREAST BLISTER—a sore or calloused area on the bird's breast

PIN FEATHER—a small immature feather

FINISH—the quality of carcass perfection; it includes freedom from blemishes and pin feathers, and having neither too much or too little fat

DOWN—the fuzzy fur-like covering on a baby bird

CROP—a temporary holding area for food and water in the turkey's digestive system. Its location is over the wish bone in the upper breast of a turkey, chicken, or other bird. It stores and prepares food for further digestion

GIZZARD—the part of the bird's digestive system which receives the contents of the crop and grinds the food into small particles as an aid to digestion

CROP BOUND—a condition where food (usually long cut grass, litter, or other dry bulky feed) becomes impacted (stuck) in the crop; this condition can extend to the gizzard

PARASITE—a creature that lives inside or on another organism. There are internal parasites, like worms, and external parasites, like lice and mites. Both can affect the health and well-being of turkeys

VITAMIN MINERAL ELECTROLYTE MIX—a combination of essential vitamins and minerals added to the water supply to help meet the need for them in the turkeys' diet; this is very important when feed supplies aren't fresh enough or turkeys are undergoing stress

CANNIBALISM—an abnormal behavioral condition usually started by stress. Turkeys may pick toes, feathers, vents, or other body parts until they bleed. It can result in severe damage or death, and is difficult to stop.

EVICERATION—the removal of the internal organs (entrails) of a bird slaughtered for market

DRESSED—refers to the process involved in preparing a live bird for the oven or other means of cooking; fresh dressed birds have not been frozen or otherwise preserved

BROODING—supplying the proper conditions necessary to grow turkey poults, chicks, or other young birds from hatching until they are feathered

HOVER—a device used to cover and supply heat to baby poultry

COMPLETE RATION—a mixture of feed ingredients which supplies correct amounts of all the nutrients needed by the animal or bird. It usually contains grains and other plant parts, food processing by-products, vitamins, minerals, and sometimes medications. It could include pasture plants, commercially prepared feeds, or home mixes of grain.

Feed Form Terms:

PELLET—a compressed, rod-like unit of ground feed for older birds

BITS OR CRUMBLES—broken or crumbled pellets used for starter and grower rations

MASH—finely ground grains and other food most often used for baby chick starters

GRAIN—a seed such as wheat, corn, or oats

SELECTING A BREED OR STRAIN

Most 4-H members must choose from day old or started turkey poults available in their area. There are several varieties, popularly called breeds, of domesticated turkeys. The American Poultry Association recognizes eight in their current "American Standard of Perfection." They are: Bronze, Narragansett, White Holland, Black, Slate, Bourbon Red, Royal Palm, and Beltsville Small White. There are also several commercial strains. They include the Broad Breasted Bronze and White. Commercial turkey breeders seldom use standard breeds in their pure form. Through selection they develop strains instead. Strains show the unique characteristics for which they are selected. These might include color, speed of feather growth, or final weight. The current popularity of the Broad Breasted White is probably because, when dressed, its pin feathers are inconspicuous. All the breeds and strains evolved from wild turkeys. Wild turkeys are also bred in captivity.



Turkeys typical of a popular commercial strain.

PLANNING YOUR MANAGEMENT SYSTEM

Most people raise turkeys under one of two basic management systems. Those who have the space may choose to grow their birds on range. Others prefer to confine their turkeys to a building.

Range rearing is a good way to raise turkeys under relatively natural conditions. Advantages include feed cost savings of from 15 to 25 percent. When given the opportunity turkeys will eat insects and green plants. People favoring range rearing often claim their turkeys are easier to keep healthy. They also claim they have fewer foot, leg, and breast problems.

Losses from stray dogs, foxes, raccoons, hawks, owls, and other predators can be costly. A range management system must include a building to keep the turkeys safe from dusk until mid-morning.

Range can support turkeys from eight weeks of age until they are ready for market. One-half acre of a well managed alfalfa or ladino clover range will support 25 to 50 turkeys. Granite grit must be available to birds on range. It aids in the grinding of forage plants by the digestive system.

Confined rearing shelters must have space to hold large toms for 20 weeks or more. They must allow up to 6 square feet of pen space per bird. Most growers find that wire or slatted floors in combination with a solid floor with litter work best. Heavy turkeys kept on wire or wooden slats may develop sore feet and breast blisters. Solid floor areas should have a covering of four or more inches of chopped straw, wood shavings, or other suitable litter. A well managed confinement system will produce excellent results. Loss to predators is seldom a problem. Turkeys can't stray into a neighbor's garden or flower beds where they could damage valuable plants.

TURKEY HOUSING

All sorts of structures house turkeys raised as 4-H projects. Some 4-H'ers house their turkeys in specially designed turkey shelters. Others use remodeled tool sheds or abandoned truck bodies. The birds don't seem to care as long as the shelter meets their basic needs. Some people start their poults in one place, like a house basement. They move them to another building for growing and finishing. Birds moved to range at eight weeks of age will have different requirements than those grown in confinement.

Basic housing essentials for the brooding period include a good roof to keep out rain or snow. Also needed are plenty of fresh air without drafts and a solid floor covered with 4 inches of clean dry litter. Construction features must keep out mice, rats, weasels, cats, and other predators. Electrical service is convenient but not necessary, depending on the heat source for brooding. Provide at least 3 square feet and preferably 4 square feet of floor space per bird to prevent overcrowding problems. If you plan to start 25 poults, you'll need an area about 10 feet by 10 feet. Allow 6 square feet of floor space per bird if you will keep them in the same building until they are ready for market. In that case, a building 12 feet by 12 feet will be about right. If you will grow your turkeys on range after the eight weeks brooding period, they will need a shelter at night. It must be strong enough to keep out stray dogs, foxes, coyotes, owls, and



Automatic hanging waterers (center and left) provide water for turkeys in a commercial turkey house.

other predators. It should also provide shade and protection from storms. It can have wire sides during warm weather. The range shelter should allow at least 2 square feet of floor space per turkey. Most have 1-inch by 2-inch welded wire floors raised a foot or more off the ground. They have 2-inch by 4-inch lumber slats (narrow side up) every 18 inches as roosts. Turkey fence should be 6 feet high. Some people add a welded-wire floored sun porch to their turkey house. It gives birds some of the advantages of outdoor rearing without its problems.

FEEDING AND WATERING EQUIPMENT

Feeders and water fountains should be in place before putting the poults into the brooding area. For the first few days, you may use clean cardboard box tops or shallow pans as introductory feeders. Use them while the baby turkeys learn to eat from regular feeders. The best watering devices are standard one gallon poultry water fountains. Two 1-gallon water fountains and two 3-foot feeders will provide enough feed and water space for 25 poults for the first three weeks. They should allow poults to feed from both sides. Add feeder and fountain capacity as the poults grow. At least half the birds should be able to eat and one-fourth should be able to drink at any time. It is best to start with too much feeder and watering space with growing poults because they soon outgrow space. Like watering equipment, feeders should be cleaned regularly and disinfected between flocks.

THE BROODING PERIOD

You should begin preparing for your baby turkeys several weeks before they will arrive. The building that is to house them must be in good repair, thoroughly cleaned, and carefully disinfected. Cover the floor to a depth of 4 inches with clean fresh litter such as wood shavings or chopped straw. Do not use sawdust because your poults may eat it, become crop bound, and die.

The size of your brooder coop will determine how many turkeys you can successfully start. By allowing the recom-

mended 4 square feet of floor space per bird, a brooder house 10 feet by 10 feet will hold 25 birds.

You may brood an average project of 20 to 25 turkey poults under an infrared bulb (250 watts). Suspend it at least 18 inches above the litter. For larger flocks you may need to buy a commercially made hover with built-in temperature controls. Whatever the heat source, turn it on 18 to 24 hours before you expect the baby turkeys so the coop has a chance to warm up.

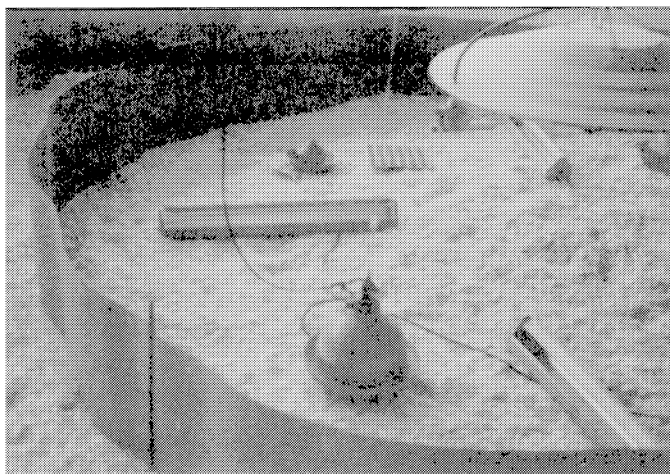
The temperature under the light or hover should be about 90° F during the first week. Reduce the temperature by 7° F per week until you reach 70° F by raising or otherwise adjusting the heat source. Once the poults are well feathered or the weather is warm you may stop providing heat. It is very easy to tell if brooding temperatures are correct. If it is too warm, the poults will move away from the heat source and pant. Cold poults gather in the warmest area and chirp loudly. Happy youngsters will spread out over the floor area feeding, drinking, and resting, and making soft chirping sounds. If they all gather to one side, check for a draft.

Make sure that your brooder coop or shelter will keep out rats, weasels, cats, and snakes.

FEEDING TURKEYS

If your turkey project is to be successful, you must pay close attention to feeds and feeding. A good quality fresh commercial turkey ration is usually the most economical. You must, however, know what the turkeys require at each stage of their development and make ration changes as necessary. To prevent crop binding, feed granite grit of an appropriate size from 12 days of age to marketing. This is especially true for birds on range or pasture.

Be careful to avoid wasting feed. Adjust feeding equipment properly, and keep it in good repair. Don't ignore the damage rats and mice can cause. Just two rats can eat or destroy 100 pounds of feed in a year. Since it takes less than 50 pounds of feed to produce one 18-pound turkey, it is easy to see the need for rat control. Turkeys will waste very little feed if you fill the



This brooding area is ready for new poults. A brooder guard prevents drafts from reaching poults and keeps them near the heat source (hover, top right corner). Feeders and automatic hanging waterers are arranged in a wheel pattern.

hoppers often, but never more than half full. Adjust self feeding equipment to produce similar results.

The following schedule will serve as a feeding guide. Be sure to keep fresh feed and water in front of your flock always.

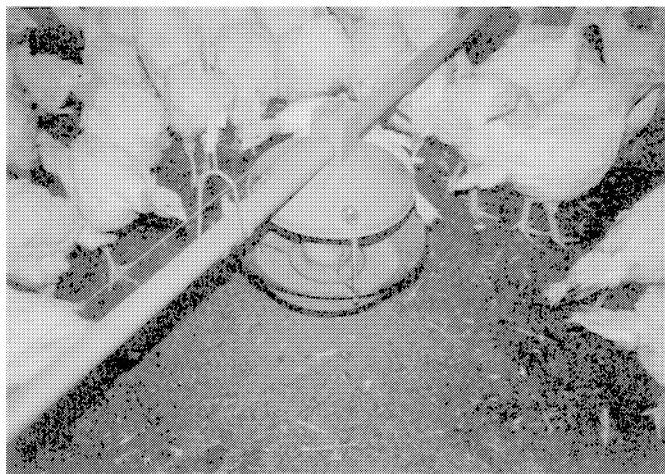
<i>Age of turkeys</i>	<i>What to feed</i>
1 day to 7 weeks	Turkey starter with 26 to 30% protein
7 to 14 weeks (At the end of this period hens should be ready for market)	Turkey grower or developer with 16 to 24% protein
More than 14 weeks	Stay with the grower-developer or change to a finisher of 14 to 16% protein. Finisher is not recommended if the birds tend to fatten easily. Substitute whole oats for up to 20% of the finishing ration if the turkeys are getting too fat

Note: Rations vary. Adjustments may be necessary if the turkeys are not responding properly. Your 4-H leader, county agent, or feed dealer can advise you.

Water is as essential as feed. A flock of 25 turkeys may need the following amount of water each day. The amount needed depends on their size, feed source, and the weather.

<i>Age of turkeys</i>	<i>Amount of water needed</i>
0 to 4 weeks	1/2 to 1 gallon
4 to 8 weeks	1 to 2 1/2 gallons
8 to 12 weeks	2 to 3 gallons
16 or more weeks	3 to 5 gallons.

Note: Turkeys may double their water consumption if being fed salts or electrolytes in water.



An automatic feeder dispenses feed to turkeys in a commercial house.

Give day-old turkeys water immediately upon entering the brooder. Give feed a few hours later.

Keep water cool, fresh, and clean. Scrub water utensils at least once a week with a brush and detergent. Make a sanitizing solution by adding a teaspoon chlorine bleach or its equivalent to each gallon of water. Use it to rinse fountains or the water utensils after you wash them. Too much chlorine will be harmful and could prove fatal to your turkeys.

MANAGEMENT TIPS

Turkeys are fragile and can be difficult to raise. Learn all that you can about their needs and behavior. Be ready to react to problems before they get out of hand. The following will give you some background information.

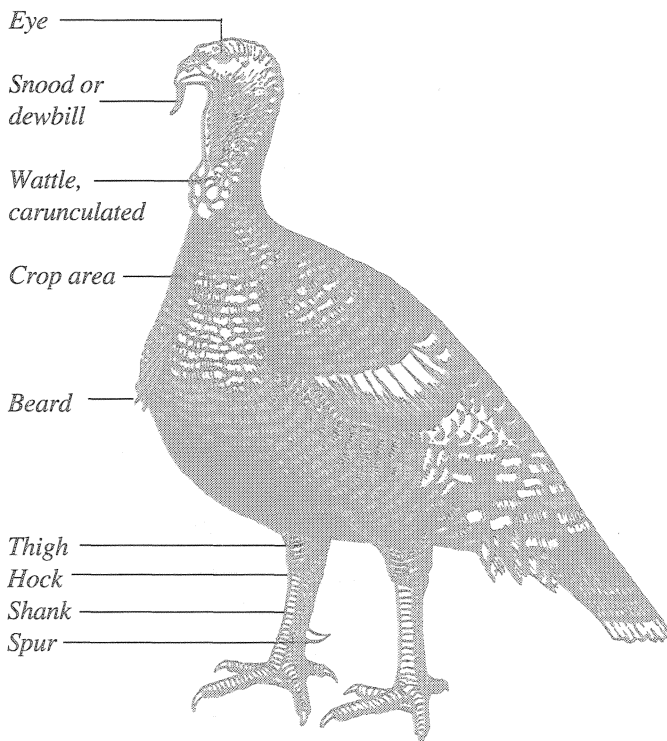
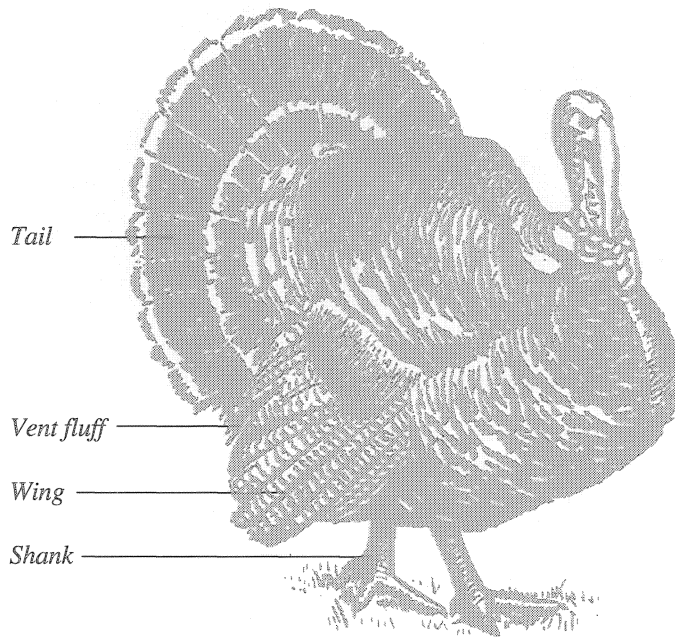
- Without help, young turkeys may have difficulty learning to eat and drink. Some growers put large shiny marbles in feed to attract the babies and cause them to begin pecking. During the first day or two you may also gently lift each poult and dip its beak in the water fountain. When poults have a beak full of water they will lift their head and let it run down their throats. Poults that do not eat or drink for more than 36 hours after hatching may have to be force fed to live. Make a thin mixture of turkey starting mash and milk. Put it in a squeeze-type mustard or ketchup dispenser with the tip of the spout removed. Open the poult's mouth and insert the tube into the gullet below the entrance to the windpipe. Gently force out enough of the mixture to fill the crop comfortably. Doing this once is usually enough, but repeat the procedure after the crop empties in cases of severe dehydration.
- Turkey feeding programs differ. Follow the manufacturer's recommendations closely. Where feed supplies are not strictly fresh or the turkeys are under stress, a water soluble vitamin-mineral electrolyte mix may be useful. Never exceed the manufacturer's recommendations. Sometimes half the recommended amount added to the water two or three days a week is enough to boost ration levels of these supplemental nutrients.
- Suspect disease or parasites when your turkeys stand "humped up" with loosely held feathers and a sleepy appearance. Other signs include sneezing and soft, watery, or bloody droppings. At the first sign of trouble, isolate sick birds in a hospital pen and seek help. Your club leader or county extension agent can probably direct you to a local veterinarian or poultry diagnostic laboratory. The two or three birds usually requested for diagnosis should show the major symptoms. The laboratory will probably not return them to you. Send a brief written history of the flock, feed tags, and other information about your management to aid in the diagnosis.
- Be sure to follow all precautions when medicating birds before slaughter. Drugs pass through the system at different rates. You want to be certain that the birds' flesh is drug-free before processing for market. This applies to feed additives as well as medications for specific illness situations. Read the label and follow directions!



Put on clean clothing and disinfect clean boots in a foot bath before working with turkeys to reduce the risk of introducing or spreading disease.

PARTS OF THE TURKEY

Learn the parts of a turkey so you can describe and locate problems or understand instructions.



HANDLING TURKEYS

It is easy to drive turkeys of all ages with light poles or sticks several feet long. A cloth tied to the end of each driving stick helps to control and guide the flock. Move slowly and deliberately using the sticks as guides only. When you must pick up individual turkeys, darken the room if possible. Under semi-dark conditions, turkeys will let a careful handler pick them up without confusion or injury. To carry a bird, first get hold of both legs. You may control a young turkey easily by holding both legs in one hand and cradling the breast in the other. With older turkeys, hold both legs in one hand and reach across the back to grasp the base of the wing farthest from you. Fold both wings back to the sides of the bird. Next, put your arm over the far wing. Hold the near wing close to your body just above the belt line. If you work closely with your birds as poults, they will learn to trust and accept your presence and be easier to handle. Large turkeys have powerful wings and sharp claws, so use caution with them.

BEHAVIORAL TRAITS

Cannibalism can be a very difficult problem to solve. An outbreak may begin with toe and feather picking. It may develop to a point where several birds are attacked and killed. Prevention is the best way to handle this condition. It may start with one or several stress factors. Examples are overcrowding, too much heat, poor ventilation, and high light intensity or excessive day length. Empty feeders, a rat problem, and adding or mixing birds are also stress factors. Trimming beaks, reducing light to a minimum, or expanding floor space may stop an outbreak. Other suggestions are moving the whole flock to new quarters or out on range, or transferring victims to a recovery area. Some growers hang flakes of excellent quality alfalfa by twine so the turkeys have to reach up to pick at leaves. This provides a diversion and reduces stress. Poor feed or feeding practices may trigger an outbreak. If you must resort to beak trimming and an electrical cutting and cauterizing device is not available, you may use heavy duty human nail clippers. Trim the upper beak back about one-third of the way between the tip and the nostril. Trim less for birds on range. There is some danger of bleeding and infection.

Turkeys will seek shade in hot weather. Place a range shelter or platforms at least 5 feet above ground level. Shelters will protect turkeys from the sun if trees, shrubs, or tall leafy crops, such as corn or sunflowers, are not available.

Stampeding can be a problem with turkeys, especially when something disturbs them on moonlit nights. Occasionally, even low flying aircraft will cause a serious daytime stampede. Stampeding birds run or fly wildly, crashing into fences, trees, buildings, and other objects. They may also pile up in a corner and smother.

Turkeys have a strong sense of hearing. They also see and distinguish color very well. Watch your birds on range and you will see they can spot high flying birds and airplanes.

Some people say turkeys have the power to predict weather. They may eat extra feed and become nervous several

hours before a major storm arrives. Turkeys may also be nervous and difficult to handle at sundown. Sometimes normal turkeys will go without eating for a day under certain weather conditions.

Like most other creatures, turkeys thrive on regularly scheduled and appropriate care.

CHART YOUR TURKEYS' GROWTH

Weigh a few of your toms (males) and a few of your hens (females) every four weeks. Compare their weights with industry standards. If your birds aren't as heavy as the average for their age, you may need to adjust your management system. The dressed weight of mature market toms should be about 80 percent of their live weight. Hens may dress out at between 75 and 80 percent of their live weight.

<i>Weeks of age</i>	<i>Average hen</i>	<i>My hens</i>	<i>Average tom</i>	<i>My toms</i>
4	2 lb	_____	2 1/2 lb	_____
8	6 1/4 lb	_____	10 lb	_____
12	11 lb	_____	17 lb	_____
16	16 lb	_____	24 lb	_____
20		_____	30 lb	_____

Note: Turkeys on range may not be able to achieve the above weights but their growth still may be economically competitive.

PROCESSING AND MARKETING

Most dressed turkeys are marketed when they are 13 to 20 weeks of age and weigh 8 to 16 pounds. Heavier turkeys cost more to produce. If the demand is there and the price is right, they can be profitable. Some experienced 4-H turkey growers earn extra money by starting extra poults and marketing them at five or six weeks of age.

Modern turkeys have the genetic potential to mature early and have a high ratio of meat to bone. They are bred to have enough finish without being fat and be relatively free of pin feathers and blemishes. White feathered turkeys are more popular than dark feathered turkeys because dark pin feathers detract from the appearance of dressed carcasses.

Most 4-H'ers start their turkeys near the end of July. This gives them market ready birds for the Thanksgiving and Christmas trade. Properly dressed turkeys weighing from 8 to 16 pounds usually sell very well. They must have the right amount of finish and be dressed carefully, chilled quickly, and packaged attractively.

Take orders before slaughter so you can offer fresh dressed turkeys only a day or two before cooking. Chill them properly and keep them between 29° and 34°F. Do not hold fresh birds more than five days before cooking. If the market is poor at the time your turkeys are ready, you may freeze them and wait for a better price. However, fresh birds at holiday time often bring a premium of from 10 to 50 cents per pound. Study the Penn State videotape entitled "How To Slaughter and Process Poultry." It will help you learn how to prepare your birds for market.

TURKEY BREEDING

Some 4-H members may wish to keep their best tom and a few hens as a breeding flock. Such an experience can be interesting and educational. However, it will probably end in disappointment for several reasons.

The turkeys you have are probably inbred (closely related). Their offspring may be weak and inferior. The size difference between commercially bred male and female turkeys is so large that normal mating may be unsuccessful. The high cost of feed and the loss of a return (income) on each turkey saved for breeding purposes may offset the savings you expect. Breeding turkeys demand special feeds and handling. They should be blood tested yearly. Breeding toms may become cross and hard to handle. You will probably need an incubator because commercial turkey hens are not selected for their mothering and brooding ability.

Despite these potential problems, some people are breeding small flocks of turkeys successfully. If you choose to breed turkeys in spite of the potential problems, you may wish to prepare yourself with the following references.

REFERENCES

You may wish to obtain or consult these references in addition to your dictionary or encyclopedia.

Poultry Management Reference Manual, Penn State College of Agricultural Sciences

Home Processing of Poultry, Penn State College of Agricultural Sciences

From Egg to Chick, Penn State College of Agricultural Sciences
Poultry Production Task Sheets, Teacher Education Series,
Volume 23, Number 2, Penn State College of Agricultural Sciences

Order from:

Publications Distribution Center
College of Agricultural Sciences
The Pennsylvania State University
112 Agricultural Administration Building
University Park, PA 16802-2602

Correspondence Course 5177 (formerly 106), Turkey Production, Penn State College of Agricultural Sciences

Order from:

Independent Learning
University Division of Media and Learning Resources
The Pennsylvania State University
Mitchell Building
University Park, PA 16802.

A free packet of information on poultry manure conversion to energy, fertilizer or feed.

write to:

Department of Poultry Science
The Pennsylvania State University
213 Henning Building
University Park, PA 16802

The following publications were printed by the United States Department of Agriculture. These publications are no longer available from the US Government Printing Office, but a copy may be obtained from an original in the historical file at Penn State by contacting the Department of Poultry Science, 213 Henning Building, University Park, PA 16802.

Farm Poultry Management, Farmers' Bulletin No. 2197, U.S.D.A.

Small Poultry Flocks, Farmers' Bulletin No. 2262, U.S.D.A.

Turkey Production, Ag Handbook No. 393, U.S.D.A.

PLANS FOR YOUR PROJECT

How many and what kind of birds will you care for? (example: 25 turkeys)

How will you pay for your birds and their feed, equipment, housing, and other expenses? (example: I will buy birds with money I have saved. My parents will pay for feed and housing.)

What kind of management system will you follow? (example: I will confine birds in a brooder house for six weeks then grow them out on range.)

What is the size and type of available housing? (example: a 12-foot by 12-foot brooder coop and a 20-foot by 30-foot barn basement for growing)

How will you market your birds? (example: I will auction dressed birds at the county round-up.)

PLANS FOR YOUR PROJECT (CONTINUED)

Who will you talk to for advice or help with this project? (example: Mom and Dad, my 4-H leader)

What are your goals for this project? (example: I hope to market 15 turkeys at Thanksgiving.)

What skills do you hope to learn? (example: I want to learn to handle turkeys properly.)

COOP RECORD

A record sheet tacked on the coop or feed room wall will help you to keep your records. Just mark the date and write down briefly what happened. By the way, keep a sharpened pencil beside the chart. This information can then be transferred from this record sheet to your record book once a week. The following examples will give you some ideas, but you should design a system that works for you and your situation.

Sample coop work sheet

Date	Transactions or things to be recorded	Cost or value
8/10	cat killed 3 chicks	value \$4.50*
8/13	bought 100-pound bag grower bits	\$14.85
8/20	sold Joe Brown 10 started capons	\$30.00
8/24	took 2 live birds to poultry lab (sick)	value \$6.00*
8/27	sold 5 live broilers to the Smith's	\$20.00
8/30	won first prize turkey at the fair	\$5.00

*Note: Losses should be noted and given a value, if possible. Losses can indicate where you have problem situations and where you could make changes to correct them in the future.

Coop Record

Date	Things to be recorded	Cost or value

FEED FOR MY FLOCK

The cost of feed will be your greatest expense when raising meat birds. Feed your birds fresh feed formulated for turkeys and their stage of growth for the best results. Turkeys will waste feed if feeders are not properly designed, adjusted, and filled. Charge home grown feeds to your project at the current market price. Ask what it would cost at the feed store.

Record all of the feed you use on the chart below:

Feed use chart

Date	Kind (starter, grower, finisher, etc.)	Amount (weight)	Cost (\$)
	Totals	(a)	(b)

Divide the total cost of feed (b) by the total weight (a) to find out the average cost of feed per pound.

Record your answer here \$ _____ (c).

EXPENSES

Cost of poults or started birds

Date	Number	Description	Cost (\$)
		Total	(d)

Other cash expenses

All other cash expenses (litter, medication, marketing and processing supplies, custom dressing, grit, vitamin and mineral mix, etc.)

Date	Description	Cost (\$)

Note: Buildings, equipment, and land are not considered cash expenses.

RECEIPTS

Receipts from sales of live or dressed birds

Record the sale of live or dressed birds here. If you dress them for use in your own home, assign a value based on the current market.

Date	Description (started poult, dressed, bird, etc.)	Price per lb. or each	Number or lb. sold	Total value (\$)
			Total	(f)

Value of birds still on hand

(example: turkeys kept for breeding)

Date	Number	Description	Estimated value (\$)
			Total value \$ (g)

Other receipts

(examples: prize money, sponsor funds, sales of unused feed, litter, or manure)

Date	Description	Value (\$)
Total value \$		(h)

FINANCIAL SUMMARY FOR MY PROJECT (CASH BASIS)

Expenses	Feed cost item (b) page 16	\$ _____
	Bird cost item (d) page 17	\$ _____
	All other cash expenses item (e) page 17	\$ _____
	Total cash expenses (add items b, d, e)	\$ _____ (i)
Receipts	Value of all birds sold or used at home item (f) page 18	\$ _____
	Value of birds still on hand item (g) page 18	\$ _____
	Other receipts item (h) page 19	\$ _____
	Total cash receipts (add items f, g, h)	\$ _____ (j)

The difference between the total cash receipts and total cash expenses tells you how much money you have earned or lost. If line (j) is greater than line (i), subtract line (i) from line (j) to find the amount of your profit. If line (i) is greater than line (j), subtract line (j) from line (i) to calculate your cash loss.

Profit or loss record

Record your figure here in the appropriate box.

Profit	\$ _____
Loss	\$ _____

MY PROJECT EXPERIENCES

Things I learned this year

Things I did to care for my birds and keep them healthy

What I enjoyed most

My biggest challenge

What I plan to do in this project next year

PROJECT STORY

Write a story about the things that happened with your project this year. Include the things you did and day-by-day or weekly developments. Include a photo if you wish.

TOTAL PROJECT SCORE

	High score	Score yourself	Score from your leader
Care and management of the birds			
Do birds have clean suitable housing?	5	_____	_____
Are feeders, fountains, and other equipment clean and well kept?	5	_____	_____
Are birds being fed recommended kinds and amounts of feed?	5	_____	_____
Is fresh, clean, unpolluted water available?	5	_____	_____
Is floor space, range condition, and feeder and fountain space adequate?	5	_____	_____
Are the project birds kept separate from other fowl?	5	_____	_____
Are birds protected from predators?	5	_____	_____
Subtotal for care of birds	35		
Project record book			
Is the book neat, up-to-date, and complete?	5	_____	_____
Are the plans and goals clearly stated?	5	_____	_____
Are the feed, management, and financial records complete and accurate?	10	_____	_____
Are project experiences described adequately in answers to questions and the story?	10	_____	_____
Subtotal for project record book	30		
Performance of the member			
Did the member do what was planned?	5	_____	_____
Did the member care for the project flock when possible?	5	_____	_____
Did the member complete the skills and knowledge activities recommended for project completion?	10	_____	_____
Did the member actively participate in normal club and county 4-H activities?	5	_____	_____
Subtotal for performance of member	25	_____	_____
Project exhibit			
(Live or dressed bird, poster, or educational display. If no round-up was scheduled, give full credit.)	10	_____	_____
Total points for the project	100	_____	_____
Date _____ Project scored by _____			

4-H ACTIVITIES REPORT

This report will help you keep a better record of your club activities. Fill it in as you complete each assignment. Refer to this record when you are entering county, state, and national programs. Ask your local leader to explain these programs to you.

My 4-H Activities Report for the 19 _____ Club Year

Projects taken _____

Offices held _____

Club _____

County _____

“Show-and-tells” given to

Family _____

Friends _____

Local club _____

County _____

Regional _____

State _____

News articles _____

Radio _____

TV _____

Things done to improve my health _____

Community service or citizenship work done

By myself _____

With club _____

Number of meetings my club(s) held this year _____

Number I attended _____

Number of new members I encouraged to join 4-H _____

Number of boys and girls I helped with projects _____

In what way? _____

Check those attended and tell how you helped

_____ 3- or 4-day camp

_____ 1-day camp

_____ Club or county tours

_____ Club picnic

_____ Countywide picnic

_____ 4-H Sunday

_____ County fair

_____ Achievement programs

_____ Roundup

_____ Teen Leader Retreat

_____ State 4-H Capital Days

_____ Camp Leadership Training

_____ Penn State 4-H Achievement Days

_____ Pennsylvania Farm Show

_____ National 4-H Week

_____ State Ambassador Conference

_____ Judging training

Others:



Name _____

Address _____

Name of club _____

Leader's name _____

4-H Club Motto

“To make the best better”

4-H Club 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.

4-H Club Colors

Green and White



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Trade names are used in this manual solely for the purpose of providing specific information. Mention of a trade name does not constitute a guarantee or warranty of the product named; nor does it signify approval of the product to the exclusion of other comparable products.

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