



Name: Grade:



Introduction To The University of Tennessee 4-H Poultry Record Book

What is the University of Tennessee 4-H Poultry Record Book?

The University of Tennessee 4-H Poultry Record Book is designed to help youth participants develop essential skills in poultry care, farm management, and record-keeping. This book serves as a tool to track flock growth, egg production, feed usage, expenses, health care, and overall progress throughout the project. By keeping accurate records, participants gain hands-on experience in responsible animal management, biosecurity, and financial tracking, all while having fun learning about poultry farming.

Why is Record-Keeping Important?

Maintaining a record book allows you to set goals, track progress, and evaluate the success of your poultry project. Keeping records helps in monitoring flock health, managing feed efficiency, tracking costs and income, and improving decision-making for future projects. Additionally, well-maintained records showcase your hard work and learning experience, making it easier to reflect on achievements and areas for improvement.

What Should Be Included in Your Record Book?

Your record book is a reflection of your dedication and progress. Be sure to document:

- Flock & Poultry Management – Record details about your birds, including breed, number, purpose, and purchasing details. Track daily and weekly care activities such as feeding, watering, cleaning, lighting, temperature control, and predator protection to ensure proper flock management.
- Feed & Production Records – Keep track of feed purchases, weekly feed consumption, daily and monthly egg production, and broiler growth performance to monitor efficiency and productivity.
- Health & Mortality Records – Document illnesses, treatments, medications, and causes of death to maintain flock health and biosecurity.

- Work & Financial Records – Track time spent on poultry-related tasks, as well as expenses and income from egg or bird sales. Include records of household consumption to calculate the value of home-used products.
- Performance & Profitability – Maintain records on feed conversion ratio (FCR) and a final profit & loss statement to evaluate the financial success of your project.

Getting Started with Your Record Book

- Set Goals – Decide what you hope to achieve with your poultry project.
- Stay Organized – Use tables, charts, and clear sections to keep records neat.
- Be Consistent – Record data regularly to track trends and improvements.
- Include Photos and Notes – Document key milestones with pictures and personal reflections.

Goals & Learning Outcomes

Setting goals is an important part of any project. Before you begin, think about what you hope to achieve with your poultry project. Your goal might be to raise healthy chickens, track egg production, improve your management skills, or learn about poultry nutrition. Whatever your goal is, write it down and outline the steps you will take to reach it. At the end of the project, reflect on your progress and what you have learned.

- What do I want to achieve in this project?
Example: Raise healthy hens that lay eggs regularly
- What steps will I take to achieve my goal?
Example: Feed my chickens on time, keep their coop clean, track egg production
- How will I know if I have reached my goal?
Example: If my hens lay at least 5 eggs per day by the end of the project
- What challenges might I face, and how will I overcome them?
Example: If my chickens stop laying eggs, I will check their diet and housing conditions

Tips for a Successful Record Book

Creating a well-organized and detailed record book will help you get the most out of your poultry project. Here are some key tips to ensure your record book is accurate, complete, and engaging:

- ✓ Be Detailed and Accurate – Record all important information, including feed amounts, egg production, flock health, and expenses. Keep track of weights, dates, and any changes in your flock.
- ✓ Stay Consistent – Fill out records regularly to maintain accuracy. Set a schedule for recording data so you don't forget important details.
- ✓ Keep It Neat and Organized – Use tables, charts, and clear headings to make your book easy to read. A well-structured book helps judges and others quickly understand your project.
- ✓ Use Real Data and Proof – Save receipts, track costs, and include actual weight records. Real data will make your book more valuable and provide a clear picture of your project's progress.
- ✓ Include Photos and Visuals – Pictures of your birds, coop setup, feeding process, and project activities help document your experience. Label your photos with dates and descriptions.
- ✓ Make It Personal – Share reflections about your experience. Write about what you have learned, the challenges you faced, and how you solved problems. This makes your record book unique.
- ✓ Review and Double-Check – Before submitting your book, go through all entries to ensure accuracy. Make sure all sections are completed and free from errors.
- ✓ Show Creativity and Effort – Your record book should reflect the time and effort you put into your project. Use colored headings, creative layouts, or even personal touches like drawings to make your book stand out.
- ✓ Have Fun and Learn! – This book is not just about records—it's about learning and growing. Enjoy the process, and be proud of your achievements in your poultry project!

Biosecurity

Biosecurity is critical to protecting your flock from the ongoing avian influenza outbreak. Biosecurity is all the practices, procedures and protocols used for the prevention of disease. This is important to prevent the spread of disease, maintain healthy flocks, and increase income if meat or eggs are sold to the public.

Components of Biosecurity

Isolation

- Confine your birds within a controlled environment for maximum protection.
- Keep wild birds (especially waterfowl) away from your flock.
- Separate birds by age and species.

Traffic Control

- Control traffic on and around your farm.
- Know who comes and goes and why.
- Keep a visitor's log with names and dates.
- Use dedicated footwear and footbaths at your coop/pen.

Sanitation

- Disinfect material, equipment, and people with access to your flock.
- What precautions do you take after visiting other poultry or feed stores that may have chicks for sale?
- How are eggs handled. washing? cleaning? candling? refrigeration? monitoring shelf life? size/uniformity?

Avian influenza is a serious threat to backyard flocks and the commercial poultry industry. The most important things you can do to protect your flock is 1) consistently practice a strong biosecurity program, 2) prevent contact between your birds and wild birds (particularly waterfowl), and 3) immediately report sick or dying birds to the proper officials.

Reporting Sick Birds

Help is available if you suspect something other than normal everyday mortality in your flock:

- Your local county Extension agent
- Your local veterinarian
- Tennessee State Veterinarian's office (615-837-5120)
- C. E. Kord Animal Health Diagnostic laboratory (615-837-5125)
- Tennessee State University Extension Poultry Specialist (615-963-5823)
- Tennessee Department of Agriculture Poultry Program Coordinator (615-361-4997)
- University of Tennessee Extension Poultry Specialist (931-486-2129)

Predator Protection

Chickens are prey animals, and a long list of predators can threaten your flock, both young chicks and adult birds. Our pets (cats and dogs) may see chickens as a food source without proper supervision. Numerous other predators are also a threat to our flocks including:

- Rats
- Snakes
- Hawks and Owls (protected by the Migratory Bird Treaty Act of 1918)
- Numerous wild animals
 - Skunks, opossums, raccoons, coyotes, foxes, minks, weasels, etc.

Most predation occurs at night so make sure your birds are in their coop and that it is shut tight and safe before it gets dark. If a predator makes it to your flock, the problem will only worsen over time once the predator knows you have chickens. It will keep returning for meals as long as you still have birds unless you provide better protection.

Supplemental Lighting

Chickens are quite sensitive to changes in photoperiod or daylength. Unless supplemental lighting is provided, hens will often stop laying by Thanksgiving because the days have grown short. They may not start back again until near Easter when the days are growing long again. You may wish to document when they stop and start laying for your records. During this time, they may molt and then grow new feathers. You can avoid this by providing supplemental lighting throughout the winter. If you provide enough supplemental light to make the daylength 15-16 hours long, the hens will continue to lay through the winter. The supplemental light level does not need to be bright. Many individuals use a 40-watt lamp or even a stove or refrigerator lamp. The brightness is not what makes the difference, the length of the light period makes the difference.

Equipment and Supply Inventory

Record all equipment and supplies used in your poultry project, including purchase date, cost, and quantity. Keeping track of your inventory helps with budgeting and long-term planning.

Purchase ID	Equipment	Date Purchased	Quantity	Price per Unit (\$)	Total Cost (\$)	Purchased At	Condition	Notes
<i>Ex: P001</i>	<i>Feeders</i>	<i>01/01/2025</i>	<i>2</i>	<i>25.00</i>	<i>50.00</i>	<i>Tractor Supply</i>	<i>New</i>	<i>Needs Weekly Cleaning</i>

Poultry Purchasing Inventory

Document details of birds acquired, including breed, purpose, purchase date, quantity, and cost. This helps track your initial investment in poultry.

Flock ID	Breed	Flock Purpose	Date of Hatch	Date of Purchase	Age	Purchased From	Number of Roosters	Number of Hens	Number of Broilers	Total Number of Birds	Purchase Price per bird (\$)	Total cost (\$)	Notes
<i>Ex: F001</i>	<i>Rhode Island Red</i>	<i>Eggs</i>	<i>12/01/2024</i>	<i>01/01/2025</i>	<i>30 days</i>	<i>Local Hatchery</i>	<i>0</i>	<i>5</i>	<i>0</i>	<i>5</i>	<i>50</i>	<i>250</i>	<i>Vaccinated</i>

Feed Purchase Inventory

Keep a record of the type, quantity, and cost of feed purchased for your flock. This will help monitor feed expenses and ensure proper nutrition management.

Purchase ID	Date of Purchase	Supplier	Feed Type	Expiration Date	Quantity Purchased (lbs.)	Price (\$/lb.)	Total Cost (\$)	Total Stock After Purchase(lbs.)	Notes
<i>Ex: P002</i>	<i>01/01/2025</i>	<i>Farm Co-op</i>	<i>Layer Feed</i>	<i>01/01/2026</i>	<i>250</i>	<i>2</i>	<i>500</i>	<i>250</i>	<i>Purchased for F001</i>

Monthly Eggs Production Record

Summarize the total number of eggs collected, sold, stored, or consumed each month. Use this to evaluate overall flock performance.

Month	Flock ID	Number of Hens	Total Number of Eggs Collected	Average Number of Eggs per Hen	Number of broken eggs	Number of eggs sold	Number Eggs Consumed	Number of eggs stored for consumption	Number of eggs kept for hatching	Notes
<i>Ex: April 2025</i>	<i>F001</i>	<i>5</i>	<i>125</i>	<i>25</i>	<i>5</i>	<i>60</i>	<i>40</i>	<i>20</i>	<i>0</i>	<i>Needs Extra Calcium</i>

Weekly Broiler Growth & Production Record

Record the weight of broilers weekly to monitor growth trends and ensure efficient feed-to-weight conversion.

Week Number	Flock ID	Number of Broilers	Age	Start Date	End Date	Total Broiler Weight (lbs.)	Average Weight per Bird (lbs.)	Number of Birds Lost	Number of Birds Sold/Processed	Meat Yield per Bird (lbs.)	Notes
<i>Ex. 05</i>	<i>F002</i>	<i>10</i>	<i>10 days</i>	<i>02/01/2025</i>	<i>02/07/2025</i>	<i>35</i>	<i>3.5</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>Steady Growth Rate</i>

Weekly Feed Consumption Record

Track the total feed used each week and compare it to flock size and production data to assess feed efficiency.

Week Number	Flock ID	Number of Birds	Start Date	End Date	Feed Type	Feeding Schedule	Total Feed Used (lbs.)	Avg Feed per Bird (lbs.)	Notes
<i>Ex: 01</i>	<i>F001</i>	<i>5</i>	<i>01/01/2025</i>	<i>01/07/2025</i>	<i>Layer Feed</i>	<i>Twice Daily</i>	<i>7.5</i>	<i>1.5</i>	<i>Birds Adapting to Feed</i>

Poultry Care & Management Record

Document daily, weekly, monthly and yearly care routines such as feeding, cleaning, lighting, ventilation, and health checks to ensure proper flock management.

Category	Daily	Weekly	Monthly	Yearly
Feeding & Water Provision	<i>Ex.</i> – Check and refill feeders & drinkers. – Observe abnormal feeding & drinking behaviors.	– Deep clean feeders and drinkers. – Adjust feed quantity if needed.	– Adjust feed formula if needed. – Restock bulk feed supply.	– Review nutrition plan based on growth & production data.
Biosecurity & Housing				
Cleaning & Sanitation				
Repairs & Maintenance				

Veterinary Care & Health Monitoring				
Behavioral Observations				
Lighting & Temperature Management				
Predator Prevention & Security				
Dust & Ammonia Control				
Molting & Seasonal Management				

Egg Handling & Storage Practices (For Layers)				
Record of Deaths & Causes				
Waste Management Plan				
Transportation & Handling				
Emergency Preparedness & Disaster Planning				

Work Record

Log the time spent on poultry-related tasks such as feeding, cleaning, and health checks. This helps measure effort and time commitment.

Date	Work Category	Description	Time Spent (min/Hrs.)	Work done by	Notes
<i>Ex. 01/07/2025</i>	<i>Feeding & Water Provision</i>	<i>Refilled Feeders & Drinkers</i>	<i>1hr</i>	<i>Myself</i>	<i>Increased Water Consumption</i>

Health Record

Record symptoms, treatments, medications, and veterinary visits for each bird. Keeping track of flock health ensures early detection of diseases.

Flock ID	Bird ID	Identification Method	Breed & Type	Age	Date Observed	Isolated?	Symptoms/ Illness	Vet Consulted?	Diagnosis	Treatment Given	Treatment Start Date	Dosage & Frequency	Treatment Duration	Treatment Outcome	Notes
Ex. F001	B001	Leg Band with ID	Rhode Island Red - Layer	3 months	03/01/2025	Yes	Lethargy, Nasal Discharge	Yes	Respiratory Infection	Antibiotics	03/02/2025	1 ml/day	5 days	Recovered	Other Birds Monitored for Similar Symptoms

Mortality Record

Document any bird losses, including date, suspected cause of death, and disposal method. This helps analyze health issues and prevent future losses.

Flock ID	Bird ID	Breed & Type	Age	Date of Death	Observed Symptoms Before Death	Suspected Cause of Death	Isolated Before Death?	Vet Consulted Before Death?	Disposal Method	Notes
<i>Ex. F001</i>	<i>B004</i>	<i>Rhode Island Red - Layer</i>	<i>4 months</i>	<i>04/01/2025</i>	<i>Lethargy, Pale Comb, Stopped Laying Eggs</i>	<i>Internal Parasites</i>	<i>Yes</i>	<i>Yes</i>	<i>Buried</i>	<i>Deworming Schedule Adjusted for Remaining Flock</i>

Miscellaneous Expenses

Track additional costs not covered in other categories, such as farm repairs, biosecurity supplies, or transportation expenses.

Date	Expense Category	Description	Quantity	Unit Cost (\$)	Total Cost (\$)	Purchased At	Notes
<i>Ex. 02/01/2025</i>	<i>Equipment Repair</i>	<i>Drinker Replacement Parts</i>	<i>2</i>	<i>10</i>	<i>20</i>	<i>Local Poultry Supply Store</i>	<i>Fixed Leaking Drinkers</i>

Income Record

Record earnings from egg or bird sales, including buyer details. Keeping track of income helps evaluate the financial success of your project.

Date	Income Source	Description	Quantity Sold	Price per Unit (\$)	Total Income (\$)	Buyer Name	Notes
<i>Ex. 04/01/2025</i>	<i>Eggs Sale</i>	<i>Large Brown Eggs from F001</i>	<i>12</i>	<i>0.5</i>	<i>6</i>	<i>Local Grocery Store</i>	<i>Paid by Money Order</i>

Household Consumption Record

Log eggs and meat consumed at home to calculate the value of what you produced and saved in food costs.

Date	Flock ID	Product	Quantity Consumed	Market Price per Unit (\$)	Total Saved Cost (\$)	Notes
<i>Ex.</i> 04/01/2025	F001	Large Brown Eggs	6	0.5	3	Used for Family Meals

Weekly Feed Conversion Ratio (FCR) Record

Calculate how efficiently birds convert feed into weight gain or egg production. A lower FCR indicates better feed efficiency.

Week Number	Flock ID	Number of Birds	Age	Start Date	End Date	Total Feed Consumed (lbs.)	Total Final Weight of Broilers (lbs.)	Total Initial Weight of Broilers (lbs.)	Total Weight Gain (lbs.)	Total Eggs Collected	Feed Conversion Ratio (FCR)	Notes
Ex. 01	F002	10	10 days	02/01/2025	02/07/2025	40	35	10	25	N/A	1.6	Good Growth Rate

Profit & Loss Statement

Summarize total expenses and income to determine the overall financial outcome of your poultry project.

Category		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Total Expenses	Equipment and Supply													
	Poultry Purchasing													
	Feed													
	Miscellaneous	Repairs & Maintenance												
		Utilities												
		Veterinary Care												
		Labor & Operational Costs												
		Other												
Total Income	Eggs Sale													
	Meat Sale													
	Fertilizer Sale													
	Other													
Total Saved Costs	Eggs Consumed													
	Meat Consumed													
	Fertilizers Used													
	Other													
Net profit														

Summary of Accomplishments and Goals

At the end of your poultry project, take some time to reflect on your experiences, what you achieved, and what you would like to improve in the future. This section will help you evaluate your progress and recognize your successes.

1. What did I achieve in my poultry project?

2. What challenges did I face, and how did I overcome them?

3. How did my poultry management skills improve?

4. What did I learn about record-keeping?

5. How did I manage my time and responsibilities in this project?

6. What was my biggest success in this project?

7. What advice would I give to someone starting a poultry project for the first time?

8. What would I do differently next time?

Pictures

Use this space to paste pictures taken throughout your poultry project. Include images of your birds, coop, feeding, egg collection, and any key moments to document your progress.

Poultry Science Resource Personnel



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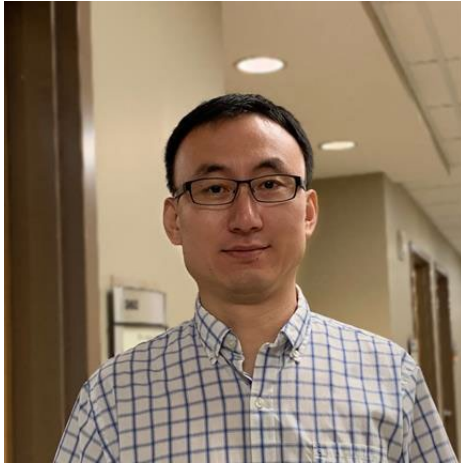
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Dr. Tom Tabler is the Statewide Poultry Extension and Research Specialist at the University of Tennessee, with over 40 years of experience in poultry production, research, and Extension. He holds B.S., M.S., and Ph.D. degrees from the University of Arkansas at Fayetteville and has worked extensively in the poultry industry as a broiler service technician, grower, researcher, and specialist. Based at the Middle Tennessee AgResearch and Education Center (MTREC), he plays a key role in the NextGen Poultry Houses project.

Dr. Tabler specializes in poultry housing, environmental management, water quality, biosecurity, and antibiotic alternatives. He works with Tennessee integrators, primary breeders, and backyard flock owners, providing research-based solutions to enhance production efficiency and flock welfare. He collaborates with organizations like Farm Bureau, NRCS, the Tennessee Department of Agriculture, and the Tennessee Poultry Association to support poultry producers statewide.

Dr. Tabler is a valuable resource for poultry producers, educators, and researchers in Tennessee.



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Dr. Yang Zhao is an Associate Professor in the Department of Animal Science at the University of Tennessee. His research in Precision Poultry Farming focuses on smart sensing, robotics, behavior monitoring, welfare assessment, airborne disease transmission, and environmental management to improve poultry production.

Dr. Zhao has contributed to the poultry industry by developing automated technologies for poultry health and behavior monitoring, advancing robotics for efficient flock management, and improving housing conditions for better welfare. His work in disease transmission helps mitigate pathogen spread, while his environmental management innovations enhance poultry sustainability.

His achievements have earned him awards such as the ASABE Sunkist Young Designer Award, AOC Early Career Award, and Gamma Sigma Delta Research Award, along with multiple recognitions for outstanding research. Dr. Zhao's expertise in precision poultry technology, poultry behavior monitoring, and environmental management makes him a key resource for advancing modern poultry farming.

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UTIA and Tennessee 4-H: Empowering Youth Through Poultry Science



The University of Tennessee Institute of Agriculture (UTIA), UT Animal Science, UT Poultry, and Tennessee 4-H provide young people with practical education, research opportunities, and hands-on experiences to help them succeed in poultry projects. Through 4-H activities, young poultry owners gain firsthand knowledge of record-keeping, flock care, and sustainable farming practices, preparing them for careers in agriculture or enabling them to raise healthy poultry.



4-H Poultry Programs guide participants through raising and caring for chickens and other poultry while tracking their progress. Projects such as the 4-H Chick Chain and Poultry Judging teach students how to maintain flock records, assess egg production, and ensure their birds' well-being. These programs build responsibility, attention to detail, and critical thinking skills in a fun and engaging way. UT Extension and UT Poultry equip 4-H youth with best practices in poultry management, including feeding routines, health checks, and egg production monitoring. The Master Backyard Poultry Producer Program trains young farmers in proper record-keeping to track flock performance, expenses, and productivity.



Hands-on learning is central to UTIA's mission. The Animal Science Department provides educational resources on poultry nutrition, health care, and housing. Through local Extension offices, young poultry producers learn to keep records, recognize disease symptoms, and implement biosecurity measures to protect their flocks.



Future careers in poultry science are fostered through UTIA's Extension and research programs. Many young participants develop an interest in poultry through 4-H and pursue poultry science at the University of Tennessee, exploring topics such as precision poultry production, welfare evaluation, and sustainability. The UT Poultry Science Club also offers additional opportunities for students interested in poultry careers.



By integrating education, research, and practical experience, UTIA, UT Poultry, and Tennessee 4-H empower youth to manage their poultry projects with confidence. Whether raising poultry for eggs, meat, or exhibition, 4-H poultry projects teach valuable life skills that extend beyond the farm into professional and personal success.

Poultry Industry Careers & Internship Opportunities

The University of Tennessee Institute of Agriculture (UTIA), along with its Department of Animal Science, UT Poultry, and Tennessee 4-H, provides students and young professionals with valuable industry internships and job opportunities in poultry science. These programs offer practical experience, skill development, and career growth in various areas of the poultry industry.

Industry Partners Offering Internship/Job Opportunities

Over the past years our graduates received intern and job offers from:



Getting Started

Students interested in poultry careers should:

- Meet the Faculty - Engage with professors for guidance on internships and job opportunities.
- Participate in 4-H Poultry Programs - Gain hands-on experience through poultry projects.
- Utilize University Resources - Take advantage of UTIA's career services, networking events, and industry connections.

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UTIA INSTITUTE OF
AGRICULTURE
THE UNIVERSITY OF TENNESSEE

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We extend our sincere gratitude to the U.S. Poultry & Egg Association (USPOULTRY) for their generous financial support through the Industry Education Recruitment Funding Program. Their dedication to advancing education and workforce development in the poultry industry has made this record book possible, providing valuable resources for students and educators.

About USPOULTRY

Founded in 1947, USPOULTRY is the world's largest and most active poultry organization, representing all segments of the poultry and egg industry. The association serves its members through research, education, technical services, and workforce development, ensure a strong and sustainable future for the industry.

Industry Education Recruitment Funding Program

The Industry Education Recruitment Funding Program is a key initiative of USPOULTRY, designed to attract and retain students in poultry-related careers. Through this program, the association provides grants to colleges, universities, and youth programs, supporting recruitment efforts, educational materials, and hands-on learning opportunities in poultry science.

Commitment to Student Development

USPOULTRY plays a crucial role in student outreach, connecting young professionals with industry leaders through programs like the College Student Career Program and recruitment grants. Their continued investment in education helps develop the next generation of poultry professionals.

This publication was made possible by the generous support of the U.S. Poultry & Egg Association's Industry Education Recruitment Funding Program. For more information, visit www.uspoultry.org.



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Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.