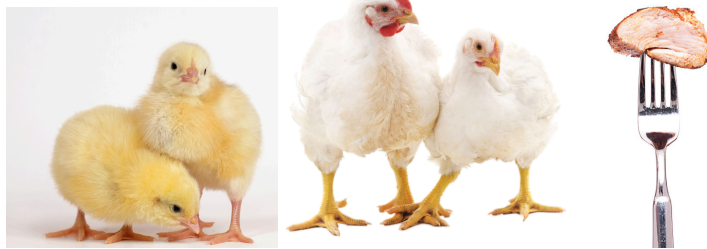




## Feather to Fork - Broiler Project Book



Name: \_\_\_\_\_ Age: \_\_\_\_\_

Member's Signature: \_\_\_\_\_

Parent/Guardian's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Record Keeping:

**Project Start Date:** \_\_\_\_\_ **Project End Date:** \_\_\_\_\_

Keeping daily records of broiler environment is important, and a standard industry practice. It can help track changes in mortality and/or morbidity, help you trouble-shoot issues later if a temperature change occurs, and help you determine the effects of weather on your birds. As a broiler producer, this data is especially important to track if you raise multiple flocks of broilers over time, as you can go back and reference the data when needed! Record keeping can be done by more than one person, so ensure whoever is checking your birds knows how to fill out the daily record check. If you forget to record data for a few days, it's completely okay! However, don't go back and make up the information - just skip the day and move on. It's better to have no data than false data on your record books.

### Daily Bird Record Book:

Date	Day of Age	Approx Temp	# of Mortalities (if none, put 0)	Reason for Mortality (Cull/Natural Death)	Tasks Done with Birds, Other Things to Note, Etc.	Initials of Person Checking
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					

Date	Day of Age	Approx Temp	# of Mortalities (if none, put 0)	Reason for Mortality (Cull/Natural Death)	Tasks Done with Birds, Other Things to Note, Etc.	Initials of Person Checking
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					

Date	Day of Age	Approx Temp	# of Mortalities (if none, put 0)	Reason for Mortality (Cull/Natural Death)	Tasks Done with Birds, Other Things to Note, Etc.	Initials of Person Checking
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

Date	Day of Age	Approx Temp	# of Mortalities (if none, put 0)	Reason for Mortality (Cull/Natural Death)	Tasks Done with Birds, Other Things to Note, Etc.	Initials of Person Checking
	41					
	42					
	43					
	44					
	45					
	46					
	47					
	48					
	49					

**Additional Notes:**

## Record Keeping:

### Expenses and Receipts:

Expense Type (Feed, Equipment, Etc)	Cost \$
<b>Total Cost</b>	

Receipts	Value \$
<b>Total Receipts</b>	

Total Expenses \$\_\_\_\_\_.

Total Receipts \$ \_\_\_\_\_.

Net Gain or Loss \$\_\_\_\_\_.

## How Much Feed Was Consumed During the Project?

Just as in other livestock species, feed is often the most expensive part of raising animals. Broilers consume a lot more feed than layers, since they have to spend most of their energy packing on the pounds. Let's investigate how much feed was consumed over the experiment, and compare it to that of other livestock species. Note: You're not tracking mortality weights in this project, which becomes complex. That will impact the feed consumption number you get, but this will still be a good estimate. **Feed conversion ratio (FCR)** is an important record keeping tool to estimate how well birds are performing. Feed conversion ratio is defined as the amount of gain an animal puts on based on the amount of feed the animal consumes. Bad feed conversion can indicate something is wrong - maybe they are sick, maybe the feed is lower quality, maybe there is a management issue, like birds wasting feed. Feed waste can be improved some by raising feeders to the proper height (the smallest bird's eye level) and placing approved dividers to reduce their ability to fling the feed out of the feeder. The lower the feed conversion ratio, the more efficient an animal is at converting feed to animal products. The higher the feed conversion ratio, the less efficient an animal is at converting feed to animal products. Although you won't be calculating feed conversion ratio for your project, you will still be able to estimate **how much feed each bird consumed** by tracking how much feed you offered the birds throughout the project.

Total Pounds of Feed Used for the Project: \_\_\_\_\_ lbs

Calculate the Pounds of Feed Used Per Bird (equation is below): \_\_\_\_\_ lbs/bird

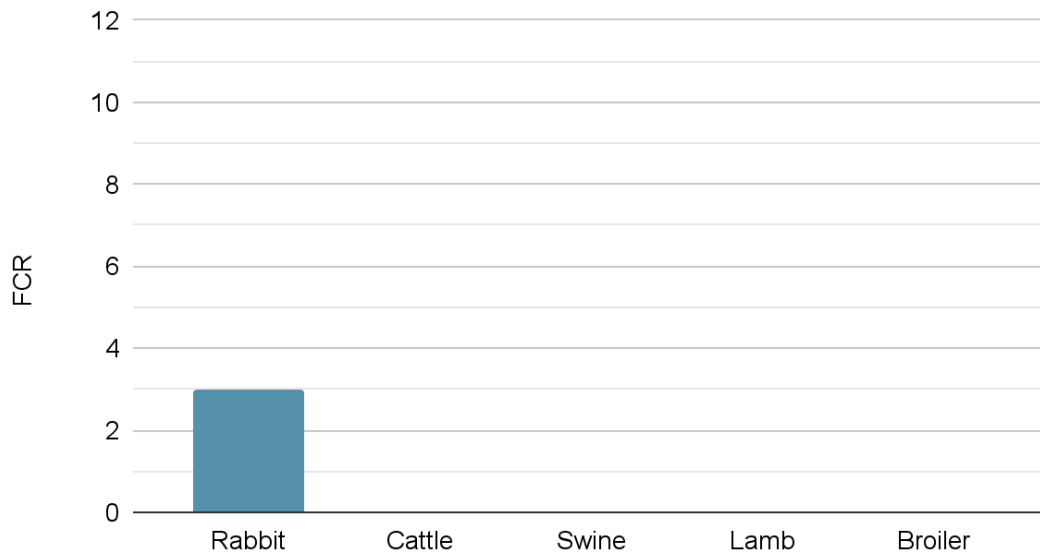
Pounds of Feed Consumed Per Bird = Total Pounds of Feed Used ÷ # of Birds at the End of the Project

## How Efficient are Broilers Compared with Other Animals?

Create a bar graph that shows the feed conversion ratio for broilers. This will allow you to see how feed conversion for broilers compares to that of other livestock species like cattle, swine, lamb, etc. Recall that feed conversion ratio is a number that shows you how much feed you put in to get a pound of weight gain. For example, rabbits use 3 pounds of feed to gain 1 pound of weight, so their feed conversion ratio is 3:1. You can divide 3 by 1 to say that rabbits have an FCR of 3. Although cattle will have a larger FCR, they are able to convert grass into useable product, which humans cannot do. Ruminants like cattle and sheep have a very important place because they can eat feed products that don't directly compete with human food and create high quality products humans can eat (like steak!)

Using a textbook, a parent or guardian, and/or the internet with an adult's approval, search for average feed conversion ratios (FCR) of each species on the X-axis. The first one, the rabbit, is done for you. Be sure to look for feed conversion ratio as pounds of weight gain dependent on pounds of feed given to the animal, not pounds of product produced.

Feed Conversion Ratio of Commonly Raised Meat Animals



After completing your bar graph, which animal is the most efficient at converting feed to weight gain?

Which animal had the largest FCR?



## Processing Broilers

Processing broilers is an expensive and time-consuming portion of the project to reach the final, delicious product. It's important to identify and understand the basic pieces of equipment that can help make processing day easier on a broiler processor. Can you describe the purpose of each piece of equipment commonly used (below)?

Equipment Name:	Describe the use and purpose of each:
<p>Chicken Killing Cone</p> 	
<p>Chicken Scalding</p> 	
<p>Chicken Plucker</p> 	

## **Reflecting on Your Broiler Project:**

- 1. How was the growth of broiler chicks different from layer chicks? What was different about their rate of growth and appearance compared to layers?**
- 2. How is the feed of broiler chicks different from (or similar to) layer chicks?**
- 3. What behaviors are different in broiler chicks compared to that of layers?**
- 4. What are some similar behaviors between broilers and layers?**
- 5. What was the easiest part of this project?**
- 6. What was the most difficult part of this project?**
- 7. What was your favorite part of this project?**