

# Raising Your Own Broilers!

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# Objectives

- What are Broilers?
- Acquiring Chicks
- Housing
- Feeding
- Potential Problems
- Exhibition
- Slaughter and Processing
- Retail Cuts
- Record Keeping



Feathersite.com

# What Are Broilers?

- Broilers are a hybrid (Crossbreed)



White Plymouth Rock Male

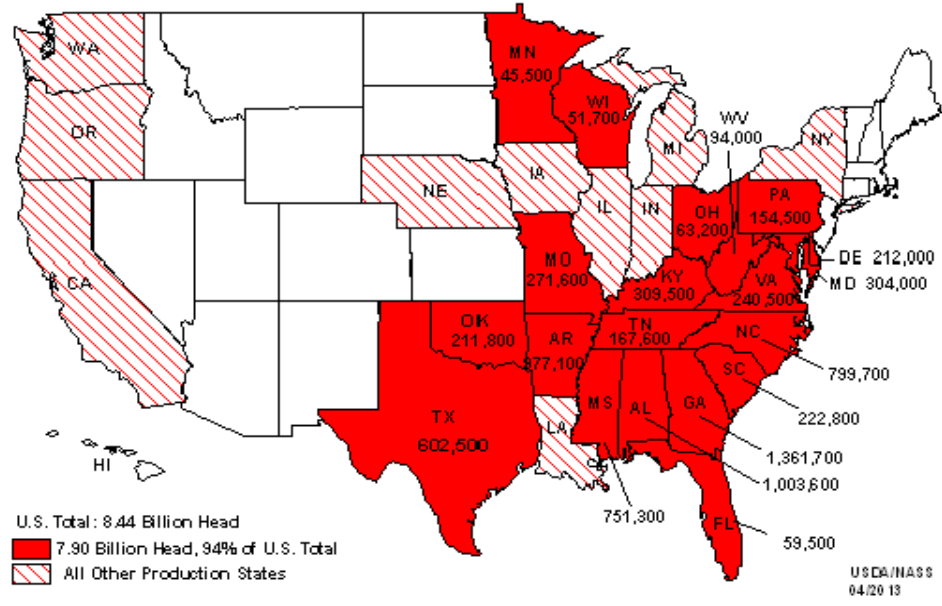
[Mypetchicken.com](http://Mypetchicken.com)

White Cornish Female

[Cacklehatchery.com](http://Cacklehatchery.com)

# Broiler Production

**BROILER PRODUCTION BY STATE  
NUMBER PRODUCED, THOUSAND, 2012**



<http://www.nass.usda.gov>



<http://www.european-business-journal.com>

# Broilers

4-8 mo, 5-9 lbs



**Capon**

3-5 mo, 5-7 lbs



**Roaster**

7-13 wk, 2.5-5 lbs



**Fryer/  
Broiler**

4-5 wk, 2 lbs



**Cornish  
Hen**

3-4 wk, 1 lb



**Poussin**

# Getting Started-Acquiring Chicks

- Chicks can be acquired from most hatcheries.
- Ordered in quantity increments of 25.
- Make sure the brooding area is set up ahead of your chick arrivals.



# Brooding Chicks

- **Equipment:**
  - **Brooder Guards, Livestock water tank, or box**
  - **Heat Lamp and 250 watt heat bulb (infrared)**
  - **Feeders and Waterers**
  - **Pine Shavings or other litter material**

# Chick Feeders and Waterers







*Jacque Jacob, University of Kentucky, extension.org*

# Brooding Chicks

- The goal of brooding is to ensure your chicks stay warm and are subjected to fresh food and water daily to grow properly.
- Temperature Requirements
  - Day 1: 95°F
  - Day 7: 90°F
  - Day 14: 85°F
  - Day 21: 80°F
  - Day 28-Day 49: 70-75°F

# Before Chick Arrival Checklist

- ✓ Clean and disinfect equipment
- ✓ Set up brooder ring, livestock tank or brooding box
- ✓ Place litter in brooding area. 2-3 inches in depth should suffice.
- ✓ Make sure the feed is purchased and placed in feeders.
- ✓ Make sure heat bulbs work (Always have a spare just in case one goes out)

# Space Requirements

- Broilers require more space as they get older.
  - Having the broilers too crowded could increase the time it takes to get up to market weight.
  - Space Requirements:
    - 0-4 weeks:  $\frac{1}{2}$  square feet/bird
    - 4-8 weeks: 1 square foot/bird
    - Show Birds: 2 square feet/bird
- \* Show birds require a little more space to ensure proper growth and feather quality.

# Brooding Chicks



**A. Temperature just right**



**B. Temperature too low**



**C. Temperature too high**



**D. Drafty**

University of Kentucky

# Housing

- **Broilers do not need elaborate housing**
- **Providing proper ventilation to prevent moisture build-up and ammonia production is key.**
- **Adhere to proper spacing requirements when setting up and planning your broiler housing facility.**
- **Allow for plenty of feeder and water space.**
- **Free from drafts**
- **Must be able to secure to prevent predation.**
  - **Raccoons, Opossums, Dogs, Cats, Foxes, etc.**

# Housing

- **Provide ample amounts of litter**
  - **Ideally for growing broilers, allow for 2-3 inches of litter.**
  - **Example: pine shavings, ground corn cobs, rice hulls, etc.**
  - **The goal is to maintain a dry environment to prevent disease and manure caking.**
  - **Frequently removed caked manure around waterers and feeders and stir the litter periodically.**

# Housing



Pennsylvania Historical and Museum Commission



# Feeding your Broilers

- **ONE OF THE MOST IMPORTANT ASPECTS OF RAISING BROILERS!!!!!!!!!!**
- **Bad Nutrition = Bad Broiler**
- **The most expensive aspect of raising any animal for food.**

The University of Maine



University of Nebraska–Lincoln



Wattagnet.com

# Feeding Regiments

- **Broilers should be fed in stages:**
  - **Starter ( 0-2 weeks)                      23-22% Protein**
  - **Grower (2-5 weeks)                        21-20% Protein**
  - **Finisher (5-8 weeks)                      19-17% Protein**
- **Each stage of growth should be accompanied by a reduction in % Protein.**
- **It may be beneficial to have a Cooperative mix your diets.**
- **If unavailable, maintaining a 20% Protein diet will suffice throughout the growing period.**

# Diets

	%	%	%
	Starter	Grower	Finsher
Ingredient	1-14 d	15-28 d	29-49 d
Corn	43.69	37.42	30.86
Soybean Meal	35.67	31.46	22.84
Wheat	15	25	40
Oil	1.83	2.35	2.37
Dicalcium Phos.	1.3	1.19	1.18
Limestone	1.23	1.31	1.37
Salt	0.3	0.3	0.3
Vitamin Premix	0.25	0.25	0.25
Mineral Premix	0.25	0.25	0.25
DL-Methionine	0.32	0.3	0.32
L-Lysine	0.17	0.18	0.26
Total	100%	100%	100%
Energy	2950	3000	3050
Crude Protein	22	21	18
Calcium	0.86	0.86	0.86
Av. Phosphorus	0.43	0.43	0.43
Sodium	0.14	0.14	0.14

# Feeding



0-8 weeks old

**MASH**

0-8 weeks old

**CRUMBLE**

4-8 weeks old

**PELLET**

Less Nutritious

Moderately Nutritious

Most Nutritious

# Feeding

- When your chicks first arrive, dip their beaks in water to get that first drink. A little sugar water will get them going.
- **Feeder Space:** Allow enough feeder space for the number of chicks you have.
- Place feed on a paper towel or newspaper to start.



# Feeding

- **Feeder Space**
  - **0-2 weeks: 2 linear inches of feeder space per bird**
  - **3-8 weeks: 4 linear inches of feeder space per bird**
- **Waterers:**
  - **Water is the most important nutrient for your broilers.**
  - **Use small fount waterers from 0-2 weeks of age then graduate to larger 3 or 5 gallon waterers for the remainder of the growing period.**
  - **One 5 gallon waterer is adequate for 100 birds.**

# Feeding

- **Broilers are extremely efficient at converting food to muscle.**
  - **Feed Conversion: 1 lb of muscle weight gain with only around 2 lbs of feed.**
    - **Broilers: 2:1 Feed:Gain Ratio**
    - **Swine: 4:1**
    - **Cattle: 8:1**

# Sources of Broiler Feed

- **Double K Feed- Papillion, NE**
- **South Omaha Terminal-Omaha, NE**
- **Northwest Feed and Grain-Omaha, NE**
- **Lakeside Country Store-Council Bluffs, IA**
  
- **Check with your local Farmers Cooperative about possible bagged feed or the possibility of custom-mixing.**



# Potential Problems

- Genetics and extreme muscle growth can cause a number of problems for broilers
  - Slipped Tendon (*Perosis*)
    - Vitamin Deficiency
    - Manganese
  - Pulmonary Hypertension (*Ascitis*)
    - Rapid growth causing heart attacks.



The Poultrysite.com



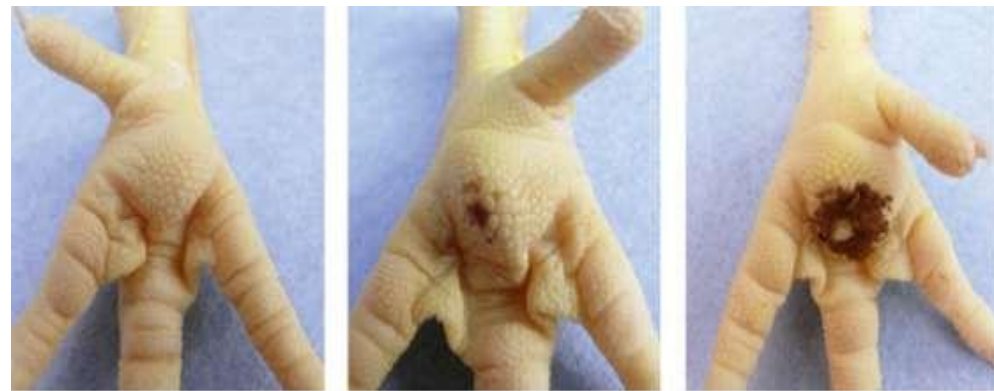
The Poultrysite.com

# Potential Problems

- **Crop Impaction:**
  - Impaction of fibrous feed material or litter
- **Footpad Dermatitis**
  - Caused by excessive exposure to wet litter.



Thepoultrysite.com



Score 0: No external signs of FFD.

Score 3: Small black necrotic areas.

Score 7: > 1/2 of foot pad is necrotic.

# Potential Problems

- **Breast Blisters**
  - **Caused by the lack of feather cover over the breast due to leg problems and dragging the breast on the ground.**

**Also increased by wet litter conditions.**



# Other Diseases

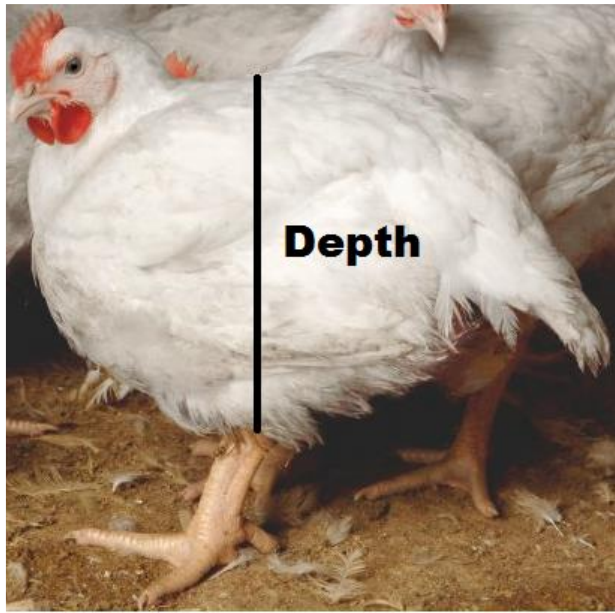
- **Bacterial**
  - **Salmonella and E-coli infections**
- **Viral**
  - **Newcastle, Marek's, Infectious Bronchitis, Pox**
- **Parasitic Infections**
  - **Coccidiosis**
  - **Intestinal worms**
- **Nutritional Deficiencies**
  - **Vitamin and Minerals**

# Exhibiting Your Broilers

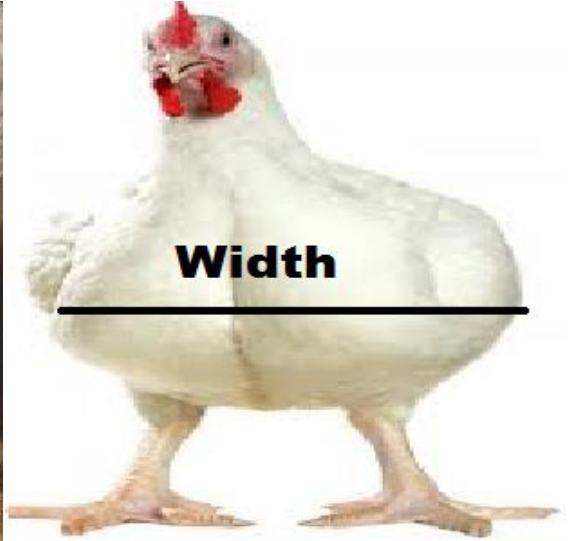
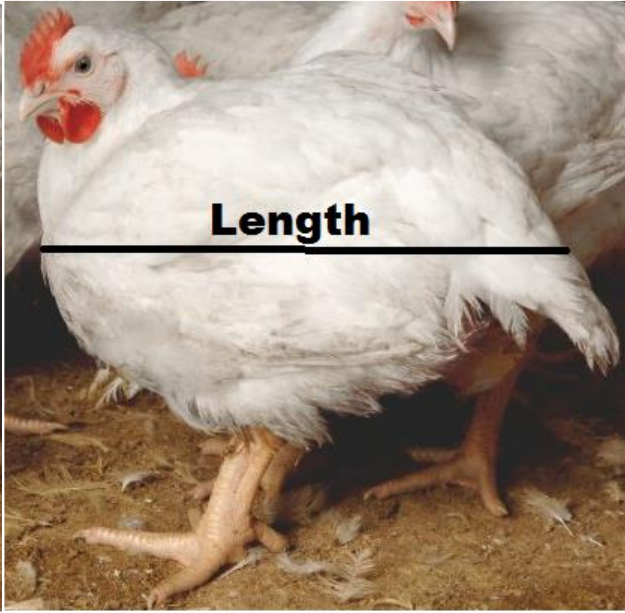
- **Target weight is 6 lbs**
  
- **Make sure the facility is clean**
  - **Clean facility = clean broiler**
  - **Wash your broiler as needed prior to show.**
    - **baby shampoo, warm water.**
    - **Clean legs and toes of manure and dirt**

# Exhibiting Your Broilers

- Know the Vocabulary!



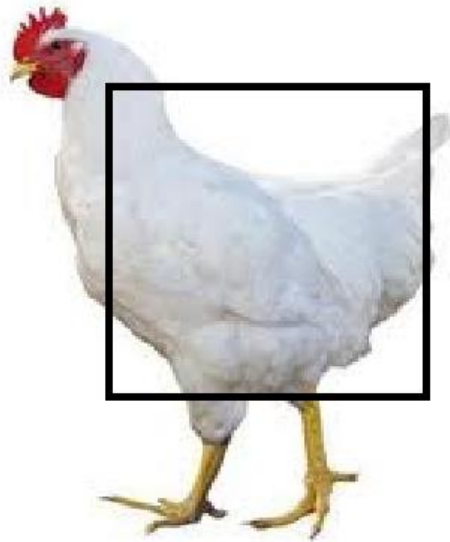
Chicken.org.au



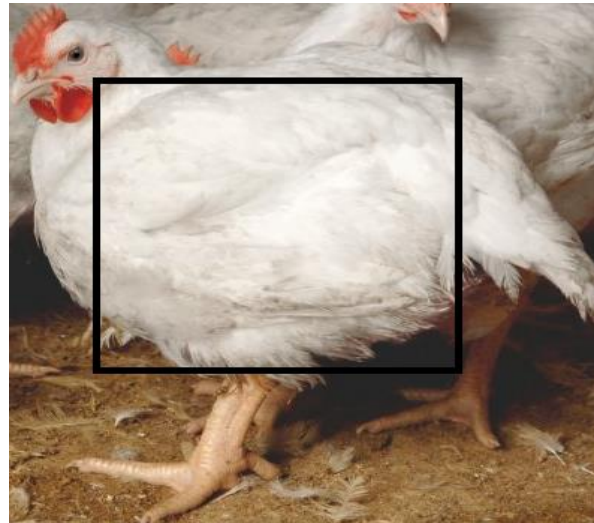
instablog.com

# Exhibiting Your Broilers

- **Conformation: Skeletal frame or shape of the bird.**



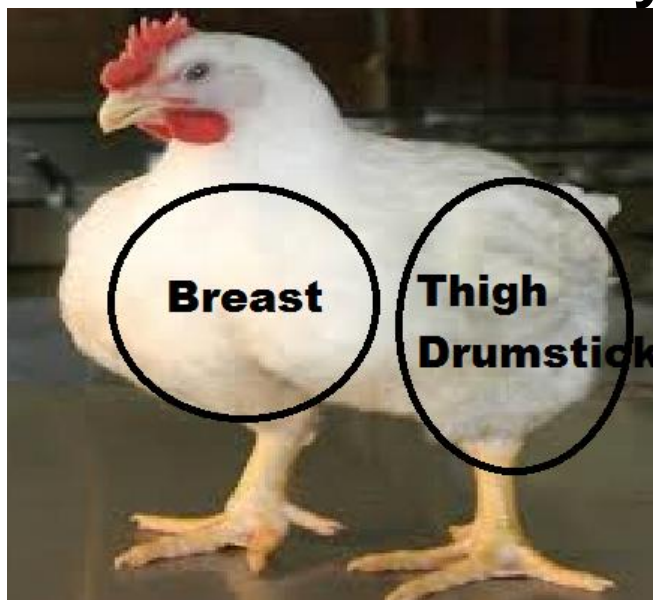
rightpet.com



chicken.org.au

# Exhibiting Your Broilers

- **Fleshing: The amount and distribution of muscle or flesh on the bird.**
  - **Breast, Thigh and Drumstick carry the most flesh.**



Thechickenofthefuture.com



# Exhibiting Your Broilers

- **Finish:** The amount of fat in and under the skin.
  - **Must have some fat on the bird. Less than 10%**



<http://chickenrescueandrehabilitation.wordpress.com>



Chickens101.com

# Exhibiting Your Broilers

- **Pigmentation: Degree of skin color; yellow or yellow-orange pigments**



White Chicken



Yellow Chicken

Aesfoods.com

- **Uniformity: Identically looking birds in a pen.**
  - **Pen of 3 exhibit (3 males or 3 females)**

# Exhibiting Your Broilers

- **Enhancing Skin Pigmentation**
  - **Increasing skin pigmentation give a healthy appearance and is appealing to potential consumers.**
  - **Recipe:**
    - **1 part corn gluten meal**
    - **3 parts whole yellow corn meal**
    - **4 parts broiler feed**
  - **Or 1 part whole yellow corn meal**
    - **1 part broiler feed**

# Defects

- **Cuts and tears**
- **Broken or disjointed bones**
- **Bruises**
- **Breast Blisters**
- **External Parasites**
- **Dirty Birds**
- **Narrow, crooked or dented breast bones**
- **Lack of uniformity in pen entries**
- **Lack of fleshing and finish**

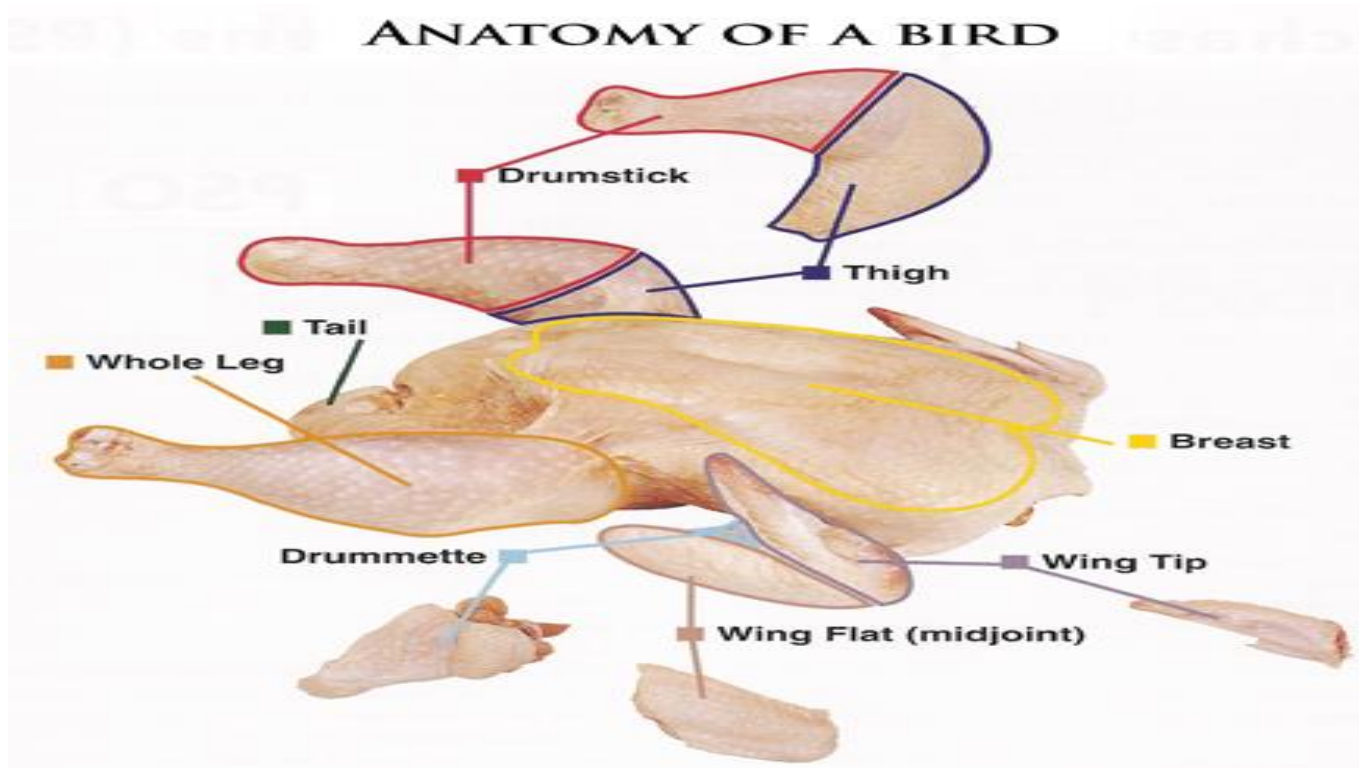
# Slaughter and Processing

- **Stunning**: Rendering the bird unconscious before bleeding
- **Bleeding**: Severing the jugular vein.
- **Scalding**: 140-180°F water immersion to aid in the removal of the feathers.
- **Picking**: Removal of all feathers (manual or mechanical)
- **Singeing**: Using a flame to remove pin feathers from carcass
- **Evisceration**: Removal of all internal organs, legs, and neck.

# Slaughter and Processing

- Processing your own birds at home:
  - <http://whatcom.wsu.edu/ag/documents/poultry/SmScalePoultryProcess.pdf>
  - <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2114/ANSI-8400web.pdf>
- Local Processors:
  - Duncan Poultry Processing, Missouri Valley, IA  
[www.duncanspoultry.com](http://www.duncanspoultry.com)

# Broiler Retail Cuts



# Keeping Records

- **Keep good records on your broilers to determine their progress.**
- **You can calculate Feed:Gain ratios and determine how well your birds are utilizing the feed you're feeding them.**
- **It would also be neat to determine, if you sell your birds, how much profit or loss your birds brought you.**
- **All of this information can be found in the 4-H Market Broiler Record Book.**



# Additional Resources

- 4-H Market Broilers (4H308)



- 4-H Market Broiler Project Record Book (4HF66)

# Questions?

# Contact Information

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