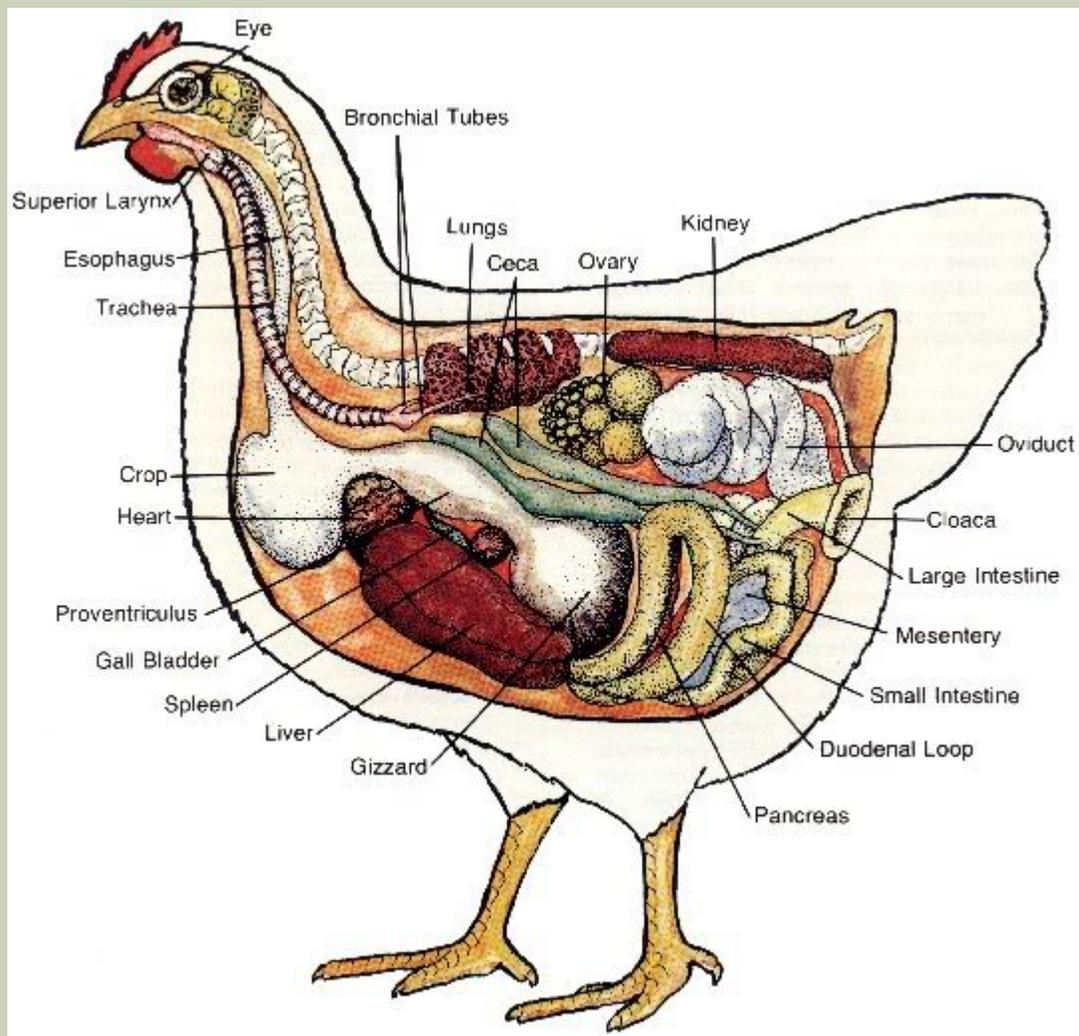




Poultry Basics 101

(Layers and Broilers)

CHICKEN ANATOMY



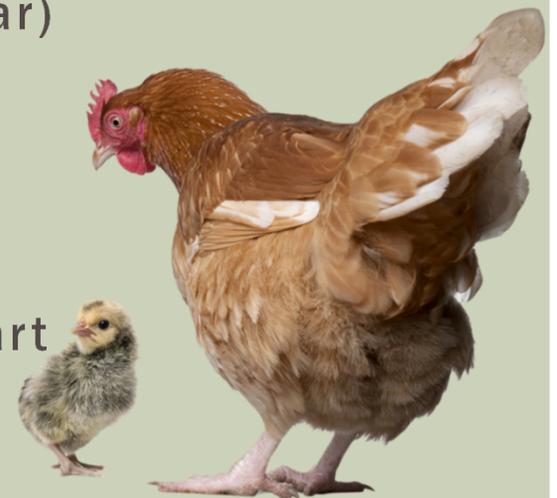
Picture courtesy of
backyardchickens.com

POULTRY BASICS

'Chicken' Refers to Males & Females

- Cockerel is a young male chicken
- Cockerel & Pullet refer to them being under one year old
- Cocks and Roosters are adult male chickens
- Cock & Hen refer to them being over one year old
- Capon - a male chicken which is castrated to encourage weight gain
- Pullet is a young female chicken (under 1 year)
- Hen is an adult female
- A Bantam is a small breed of poultry
- Waterfowl consists of heavy, medium, & light ducks & geese, & bantam ducks
- Most large chickens have a bantam counterpart

Fun Fact: Chickens are direct descendants of dinosaurs, and are the closest living relative to the T-Rex



TYPES OF CHICKENS & BUYING CHICKENS

Types of Chickens

- Broilers are chickens of either sex that are raised strictly for meat
- Layers are pullets or hens that will be raised for laying eggs
- A Broody Hen is a hen who insists on sitting on eggs to hatch them
- Free Range Chickens are allowed to roam freely with little to no confinement weather permitting
- Confined chickens have some sort of fencing or coop
- Exhibition Poultry consists of breeds of bantam and large chickens, ducks, geese, turkeys, and guinea fowl recognized by the American Poultry Association and the American Bantam Association Standards of Perfection

Buying Chickens

- “Straight Run” chicks: You will get both female and male chicks
- “Sexed” chicks: You will get either females or males
- Breeders of exhibition poultry may be located through the American Poultry Association and the American Bantam Association web sites

Fun Fact: Chickens can fly, but only short distances.

COOP OR SHED REQUIREMENTS

- Must protect birds from predators
- Must provide protection from the environment
 - Extreme cold & heat
 - Extreme heat will kill chickens
- Chickens love to roost
 - Provide a perch for them to roost
- Laying hens will need nesting boxes
- Chickens in an urban area will need to be confined by a fence or something similar
- Exhibition poultry will stay in peak condition of cooped separately on either shavings or wire

Fun Fact: There are more chickens on Earth than humans.

LAYERS VS. BROILERS

Layers

- Produce eggs
- Hens mature by 20 weeks of age and will be able to produce eggs
- Hens can live to be 8-10 years old
 - Egg production will decrease as they age

Broilers

- Consumed for their meat
- Typically harvested at 7-10 lbs
 - Takes 6-12 weeks



BEST BREEDS FOR LAYING EGGS

Rhode Island Reds

- Dual-purpose breed
 - Proficient egg layers
 - Males are large enough to eat (meat birds)
- Hens usually have easygoing personalities
 - Docile and friendly
 - Make good pets for children
- Lay brown eggs
 - Typically one per day

Barred Rock

- A Plymouth Rock breed
- Dual-purpose breed
 - Very hardy and a steady egg layer
- Less friendly than the Rhode Island Reds
- Ability to go broody
 - Incubate and hatch eggs

BEST BREEDS FOR LAYING EGGS

CONTINUED

Americaunas

- Have very colorful eggs
 - Shells colored various shades of blue and green
- Personality varies
 - Some are a bit standoffish
 - Some respond well to attention from humans
- Have facial features
 - Beard and muff
 - Gives them more character and makes them fun to look at

Orpington

- Hail from England
- Dual-purpose bird
 - Large enough for meat
 - Lay brown eggs in abundance
- Friendly hens
- Have a wide, low stature and a broad chest
- A great choice to add to your flock of laying chickens

BEST BREEDS FOR LAYING HENS

CONTINUED

Ancona

- A single comb, clean legged variety
- Originated in Italy
- Lays white eggs



Leghorn

- Best heritage egg laying breed
- Single comb, clean legged variety
- Originated in Italy
- Lays white eggs
- Good egg producer

Fun Fact: Alektorophobia is the fear of chickens.

FEEDING LAYING HENS

- All birds require a balanced diet containing all necessary requirements such as protein, fat, carbohydrates, vitamins, & minerals
- Feeds for Laying hens are higher in protein for chicks, but lower as the bird ages to maintain growth, health, and egg production
- Proteins (must have multiple sources)
 - *Starter* (fed until 6 weeks of age): 20-24% protein
 - *Grower*(fed 6 to 12 weeks of age): 16-20% protein
 - *Layer Feed* (this is fed from 12 weeks of age through production): 16-18% protein
- Minerals
 - Calcium, Phosphorus, Magnesium, Selenium, Copper, Zinc, Vitamins
- Water
- Energy

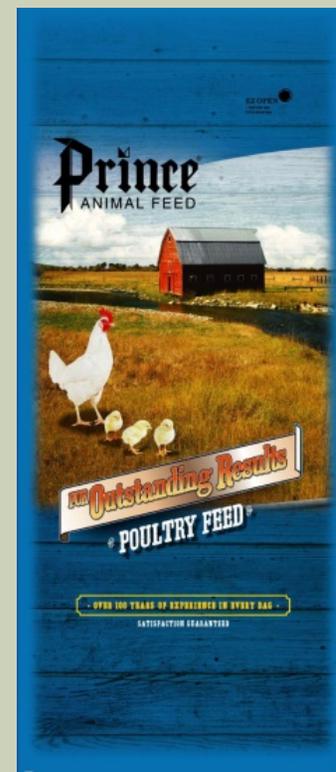
**Don't forget the most important nutrient of all, WATER!
Make sure the birds have access to clean water at all times**

HOW MUCH WILL LAYING BIRDS EAT?

- Starting chicks will eat approximately 3 lbs of starter (6 weeks)
- Growing chicks will eat approximately 15 lbs of grower (6 weeks)
- Laying hens eat approximately 2-2.5 pounds of feed per week
- Feeding rates may vary depending on type of birds and season

**Remember that overweight
hens are not happy or
productive birds!**

Fun Fact: Chickens can hear their mothers inside the shell.



Prince[®]
Premium Animal Feeds

SPACE & NESTING REQUIREMENTS

- Layers need 1 ½ square feet of space per bird
- For heavier brown-egg layers, increase the space requirement to 2-2 ½ square feet per bird
- There should be at least 1 nest per layer
- The nest should be kept a minimum of 2 feet above the floor or bedding
- Keep nesting material clean and dry
- Replace the material as needed
- Good nesting materials are straw, shavings, or paper
- Individual caging for exhibition birds may produce better results

Fun Fact: Chickens have 4-5 toes on each foot.

Fun Fact: A rooster can crow all day.

EGG PRODUCTION TIPS

- Gather eggs 2-3 times per day
 - Frequent gathering improves egg quality
 - Reduces the number of dirty eggs
 - Reduces the likelihood of the birds developing egg eating
- Shell quality may deteriorate when layers get well into the laying cycle or during periods of hot weather
- Feed oyster shells free choice
- Grit can also be fed free choice to aid in digestion
 - Grit is used in the gizzard to grind the food
- If saving eggs for incubation, they may be stored at 55° for up to two weeks. Storing eggs at room temperature will weaken the embryo

Fun Fact: The most yolks found in an egg is 9.

EGG PRODUCTION TIPS

CONTINUED

- Layers need to have light 15-16 hours per day to help stimulate production
- When there isn't enough sunlight available
 - Use 40-60 watt incandescent (or 7-13 watt compact fluorescent) bulbs to provide necessary light
 - Use a reflector to get the most efficient use of the lamps
 - Install one light fixture for each 200 square foot or less
- Don't forget to ventilate the poultry house adequately
 - Humidity and temperature affect production

Fun Fact: Hens produce larger eggs as they get older.

COMMON EGG QUESTIONS

- **Brown vs. White: Which is better?**
 - Really there is no difference
 - Chickens can lay brown, white, blue, green and pink colored eggs
 - Nutritionally, there really is no difference in the different colored eggs
- **Do I have to have a Rooster to get eggs?**
 - No, hens will lay eggs regardless of whether there is a rooster in the coop
 - A Rooster is needed if you want to incubate and hatch your own chicks
 - The Rooster will fertilize the eggs so the chicks will hatch
- **Do I have to get a cock or cockerel to get eggs?**
 - A cock or cockerel is needed if you want to incubate and hatch your own chicks
 - A male chicken is needed to fertilize the eggs so the chick will hatch

Fun Fact: Chickens with red earlobes lay brown eggs. Chickens with white earlobes lay white eggs.

COMMON EGG QUESTIONS

CONTINUED

- If I want to hatch my own chicks what do I need?
 - Hens will naturally nest and hatch eggs
 - More success if you incubate the eggs
 - There are many types of commercial incubators available in all sizes and price levels
 - Some include automatic egg turners and attachments for quail and pheasant eggs
 - The right one for you depends on your specific requirements
 - How often you will use it
 - How many eggs do you want to hatch



Fun Fact: Chickens are one of the largest growing animal species in the United States.

COMMON EGG QUESTIONS

CONTINUED

- If I am incubating eggs can I tell if there is a chick in the egg?
 - Yes, you can candle the eggs with special Egg Candles
 - Removing eggs that do not have a live chick in them helps prevent disease
- How long does it take for an egg to hatch?
 - A chicken egg (bantam or large) takes 21 days
 - A duck egg takes 28 days
 - Muscovy ducks take 35 days
 - A goose egg takes 28-32 days



INCUBATION & HATCHING QUESTIONS

- **My chicks have hatched, what do I do now?**
 - Leave the chicks in the incubator for about 12-24 hours till they are dried off
 - They will eat the fluid in the egg shells that they hatched from
 - No need to open the incubator and put food into the incubator
- **What do I do when I take the chicks out?**
 - Place them in a protected, clean area that is safe from predators
 - Make sure the chicks have ample, clean water, starter feed, and a heat source such as a heat lamp
 - Make sure the heat lamp is a safe distance from the chicks so they do not overheat
- **Do I need to provide a good starter feed or can I just use what I have?**
 - It is best to provide feed that is formulated for chicks
 - Prince Premium Chick Starters will provide them with the nutrition they need to grow
- **If I am raising broilers can I feed my layer chicks the Broiler Starter Feeds?**
 - Although it won't hurt them, Broiler Feeds provide nutrition that will cause the birds to grow fast
 - It is best to feed your layer chicks a feed designed for layers
- **What do I do when I take the chicks out?**
 - They must be kept at 98° the first week (decreasing by 5° each week) in order for their digestion systems to work properly

FEEDING BROILERS

- Feed on the ground, in feeders, once/twice/or more per day
- May want to feed scratch grain or grit
- Feed for Boilers is usually higher in protein to encourage fast growth
- Proteins (must have multiple sources)
 - *Starter Feed* (Fed until 6 weeks of age): 20-24% protein
 - *Grower/Finisher Feed* (Fed from 6-12 weeks of age): 16-20% protein
- Minerals
 - Calcium, Phosphorus, Magnesium, Selenium, Copper, Zinc, Vitamins
- Water
- Energy
 - Comes from grains included in feed

HOW MUCH DO BROILERS EAT?

- Starting chicks eat approximately 50 pounds of starter (6 weeks)
- Growing and finishing birds will eat between 25-50# of feed (6-10 weeks)



Fun Fact: Americans consume approximately 10 billion chickens yearly as meat, nearly the same number of eggs and egg products

BEST MEAT BREEDS

Cornish Cross or Cornish Rock

- A cross between the White Cornish and the Plymouth Rock
- Primary breed raised for meat
- Used by the commercial chicken meat industry today
- Grow fast
- Have a very broad, well-muscled body

Cornish

- Popular choice for those raising chickens for meat & not interested in hybrid crosses
- Known for having good meat quality as well as good flavor
- Fast growing breed that has a large broad body and wide set legs
- Cornish are great for broilers or fryers

Jersey Giant

- Dual-purpose
 - Decent egg laying capability
 - Excel at meat production as well
- A good choice for producing large, excellent capons
 - Capons-castrated rooster known for very tender and flavorful meat

SPACE REQUIREMENTS FOR BROILERS

- 1/2 square foot per chick until 2 weeks old
- 1 square foot per bird until 10 weeks old
- 2-3 square feet per bird until 16-20 weeks old

- Less light is desirable for meat birds in order to keep physical activity at a reduced level for the most efficient feed utilization

- Average 1 bulb watt per 8 square feet of floor space (assuming bulb has a reflector and is 7-8 feet above floor)

Fun Fact: Chickens can lose their feathers when they are stressed.

CHICKEN DISEASES

- **Chronic Respiratory Disease (CRD)**
 - Bacterial infection
 - Characterized by coughing, sneezing, nasal discharge, lethargy and weight loss
- **Beak Necrosis**
 - Condition caused by excessive mashed feeds
 - Leads to deformity of the beak.
- **Cannibalism**
 - Pecking at other birds, especially the feet
 - Can be so severe it causes death
 - Caused mainly by over crowding
 - If a bird is becoming cannibalistic, it needs to be removed from the flock
- **Coccidiosis**
 - Caused by a microscopic animal or protozoa and is characterized by diarrhea and lethargy
 - Feeding a medicated feed will help prevent Coccidiosis.
- **Scaly Leg**
 - The scaly-leg mite is 8-legged mite that lives under the scales of chicken legs
 - Causes the scales on the leg to lift and appear crusted and often double in size
 - Scaly Leg protector or vaccines are effective in treating Scaly Leg

CHICKEN DISEASES

CONTINUED

- **Mycoplasmosis**
 - Similar symptoms to a standard respiratory infection
 - Watery eyes, dirty nostrils, coughing and sneezing
 - Causes decreased egg production
 - Lowered fertility
 - Decreased hatchability
- **Pullorum**
 - Although not prevalent, many county fairs require testing for pullorum before you can show your chicken
 - Devastating disease that can wipe out a flock and quickly spread
 - Symptoms include
 - Droopiness, ruffled feathers, a chilled appearance with birds huddling near a source of heat, labored breathing, and presence of a white diarrhea with a "pasted-down" appearance around the vent
 - Eradication of the flock is the only way to treat Pullorum.
- Providing adequate space is vital to preventing diseases and parasites
- In addition, you can feed a medicated chicken feed (Prince has a wide variety of Premium Medicated Feeds for Poultry)
- Keep fresh, clean water available at all times and treat symptoms of parasites immediately.
- Clean your coop, and nesting boxes periodically, chickens can be messy
- The Northern Fowl Mite (a parasite) can be controlled with sprays or dusts
- If you exhibit birds (depending on your location) you may want to consider vaccinating for Fowl Pox and/or Laryngotracheitis

SUMMER & WINTER CARE

Summer

- Provide adequate ventilation in your coop in the summer
- Shade is a must for excessively hot days
- Make sure your chickens have plenty of clean water on hot days
- Excessive heat can kill chickens

Winter

- Provide a sheltered area for your chickens free from drafts, wind and snow
- It is not necessary to have a heat source
 - Some choose to provide a heat lamp during the coldest days and provide light which aids in egg production
- Provide plenty of fresh, available water
- A heated water dish can help prevent water from freezing

COMMON QUESTIONS

- **How many eggs does a chicken lay in a day?**
 - Most chickens will lay 1 or maybe 2 in a day
 - When it is very hot or cold, they will lay less
- **My chicken is loosing all its feathers! Should I be concerned?**
 - Chickens will molt or loose old feathers and grow new ones
 - Don't be too concerned unless you see other signs of illness
 - Hens will typically not lay eggs while they are molting
- **How often should I clean my coop?**
 - The nesting boxes can be cleaned weekly or monthly
 - Use straw or wood shavings
 - The entire coop can be cleaned 2-3 times a year
- **Is it better to free range my chickens or put them in a coop?**
 - If you live in an urban area it may be best to have your chickens confined
 - If you free range, you should provide some shelter from the weather and predators
 - Most people have a coop and a fenced in area for the chickens to sun themselves and "kick" up the dust
- **What is Grit and do I need to give it to my chickens?**
 - Chickens have gizzards and need grit or fine rocks to help break down the grains
 - If your chickens are confined, it is a good idea to put some grit in their feed

COMMON QUESTIONS

CONTINUED

- **Should I feed Organic or Regular Feeds?**
 - It is a personal preference
 - As long as the feed is properly formulated for the type of chicken you are feeding, you can choose either Organic or Regular Chicken Feeds
- **What is the difference between Medicated Feeds and Non Medicated Feeds?**
 - Medicated Feeds have medicine added that helps prevent certain common diseases, such as Coccidiosis
 - It is also a personal preference
- **How can I prevent Cannibalism?**
 - Make sure you provide adequate space for the number of chickens you are raising
 - Provide plenty of feed and water
 - Limit excessive heat
 - Remove those birds that peck on others from the flock
- **Where can I buy Chickens?**
 - Many stores have Chicks available in the spring, either Sexed or Straight Run
 - Many counties have Small Animal Swaps in the spring or fall
 - Contact your county extension office for reputable breeders in your area
 - Some are available to order on the internet, but always use caution when you are purchasing this way

WHAT GOES INTO A PRINCE PREMIUM FEED?

- Grains: Corn, Oats, Wheat, and Barley
- Protein Sources: Soybean Meal, and Corn Distillers Grains
- Roughage: Alfalfa Meal, Soyhulls, Wheat Midds
- Major Minerals: Calcium, Phosphorus, Magnesium, Potassium
- Trace Minerals: Copper (Cu), Cobalt (Co), Manganese (Mn), Iodine (I), Zinc (Zn), Iron (Fe), Selenium (Se)
- Vitamins: Fat Soluble (A, D, E) Water Soluble (B, C)
- Prince uses CitriStim (MOS) in all poultry feeds
- Good Manufacturing Practices
- Quality Control
- Locked Formulas and Ingredients

EZ OPEN
 1. Pull white top
 2. Pull bottom flap

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ANIMAL FEED

FOR Outstanding Results
 GAME BIRD FEED

- OVER 100 YEARS OF EXPERIENCE IN EVERY BAG -
 SATISFACTION GUARANTEED

EZ OPEN
 1. Pull white top
 2. Pull bottom flap

Prince[®]

ANIMAL FEED

FOR Outstanding Results
 POULTRY FEED

- OVER 100 YEARS OF EXPERIENCE IN EVERY BAG -
 SATISFACTION GUARANTEED

More information on raising chickens can be found by contacting your county extension office, obtaining books on raising poultry or by researching on the internet

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