

This presentation is part of an educational modular program designed to provide new and beginning farmers and ranchers with relevant information to initiate, improve and run their agricultural operations



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Beginning Farmer and Rancher
Development Program (BFRDP)**

USDA-NIFA-BFRDP 2010-03143



POULTRY BREED CHOICES FOR SMALL FARMS

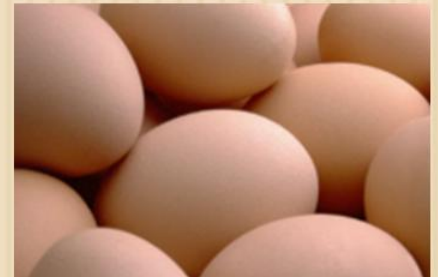


This project is partly sponsored by USDA-NIFA-BFRDP 2010-03143.



Before you start, have a goal!

- ❑ Select the breed that best fits your goals
 - ❑ Breed Preservation – keeping breeds from going extinct
 - ❑ Dual-purpose – both meat and eggs
 - ❑ Meat production
 - ❑ Egg production
 - ❑ Developing your own breed – when you just can't find a breed that meets your goals



Know your market

- If you are producing meat what do your customers want
 - ▣ Yellow or white skin
 - ▣ Large plump breast or lots of dark meat
- For egg production consider
 - ▣ Size of the eggs
 - ▣ Color of the eggs
 - White, green, brown, dark brown, tinted or blue



Introduction

- Chickens are traditionally classified into groups based on:
 - **Size**
 - **Place of origin**
 - **Shape**
 - **Color**



Introduction

- Chickens come in two sizes:
 - **Standard or Large fowl**
 - These are the normal size birds
 - **Bantam**
 - A miniature size chicken or duck, usually about $\frac{1}{4}$ of the regular size
 - Used mainly as ornamental birds
 - Most are miniature copies of the large breeds
 - Silkies have no large counterpart
 - Some do have good egg production
 - Eggs are smaller



Silkies

Terminology

Class

- Typically refers to groups of birds from a common geographical area
 - American, Asiatic, English, Mediterranean, Continental and All Other Standard Breeds

Breed

- Birds within a class that differ in body shape or size, skin color, the number of toes or feathering of the shanks

For example, the English breeds include:

Derbyshire Redcap	Orpington	Old English Game
Dorking	Rosecomb	Old English Pheasant
Ixworth	Scots Dumby	Sebright
Marsh Daisy	Scots Grey	Sussex



Orpington

Terminology

Variety

- ▣ Birds within a breed that differ in feather color or pattern, or in the type of comb
- ▣ For example, Orpingtons can have different varieties given by different colors



Black Orpington



Buff Orpington



Lavender Orpington

Terminology

Strain

- ▣ Birds within a variety that are developed for specific traits using breeder programs
 - Egg production
 - Meat production
 - Color of eggs



Layer hens



Broilers for meat production



Other Important Terms

Broody

- A hen is called “broody” when she wants to sit on the eggs and hatch them (also called maternal instinct)
- A hen lays only one egg every day or two, but she doesn’t start incubating until the whole clutch is laid
- This way all the chicks will hatch at the same time
- Some breeds show more “broodiness” than others, and it tells you that the hens will take care of the eggs, while others will not
 - If you plan on selling eggs, then it might be good not to have hens with high broodiness, because they lay less eggs, and they want to sit and mother the eggs
 - Other breeds, like the Leghorns and Minorcas, don’t go broody, so you will need an incubator if you want to raise your own chicks

Other Important Terms

Forage

- ▣ the ability to find their own feed
- ▣ Some breeds are more active and will forage in the grass for bugs and tender leaves, while others will wait until you feed them everyday
- ▣ This is important to know before choosing a breed for a pasture or free range production system



Other Things to Consider

Climate

- ▣ Some chickens do better in cold areas others do better in hot areas
 - Mediterranean breeds generally do well in hot humid areas
 - Most American breeds do better in cool area
- ▣ Usually birds with large combs will perform better in hot areas
 - Combs can get frost bite
 - Some breeds have varieties with different combs
 - Use a small comb variety in cold areas



Temperament

Easy to handle	Rosecomb Houdan Orpington Rhode Island Marans Naked necks
Friendly	Minorca Jersey Giant Dominique Australorps Delaware Java Cornish Araucana
Aggressive	Modern game Sumatra Aseel Ameraucana
Wild	Japanese Ancona
Flightly	Leghorn Polish Hamburg Fayoumis Ameraucana

Tools for Breed Selection

Ameraucanas can be aggressive

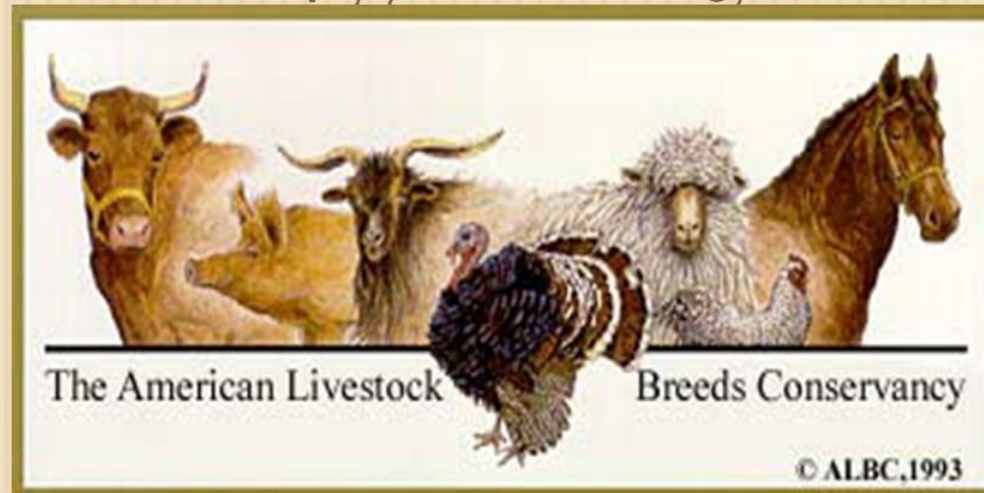


Breed Preservation

- If you are interested in raising a rare breed then this may be for you

The **American Livestock Breeds Conservancy** has a list of poultry that are disappearing at an alarming rate along with ways to find them

<http://albc-usa.org/>



Dual-purpose chicken

- These breeds were developed to lay a reasonable number of eggs and still produce a good carcass
 - ▣ Egg production and growth are negatively correlated, this means that when you select for meat production (growth), the birds will lay less eggs
 - ▣ Similarly, if you select your breed for good egg production and egg size, you are effectively selecting against body growth and meat production



Dual purpose breeds

- ❑ Rhode Island Red
- ❑ Plymouth Rock
- ❑ Dominique
- ❑ Delaware
- ❑ Wyandotte
- ❑ Brahma
- ❑ Orpington



Wyandotte

Rhode Island Red



- Developed in New England, Massachusetts and Rhode Island early 1900's
- Red or white color
 - ▣ Adult Size: 5.5-8.5 lbs.
- Egg shell color: brown to dark brown
- Used to produce many modern hybrids
 - ▣ Cinnamon queens, bovans, sex-links, etc.
- Used more for meat than for eggs
 - ▣ Will lay through moderate cold weather
 - ▣ Good foraging, docile, friendly, tough



Plymouth Rock

- ❑ Developed in America in the middle 19th century
- ❑ Different varieties
 - ❑ Barred, White, Buff, Partridge, Silver Penciled, Blue, Columbian
 - ❑ Adult Size: 4-7 lbs
- ❑ Egg shell color: brown
- ❑ Used to produce modern broiler strains
 - ❑ Some commercial broiler breeders still use Plymouth Rocks as their female line
 - ❑ Good general farm chicken, good mothering instincts (broodiness), calm but poor foragers



Barred Rock

Dominique

- Considered the oldest 'American' breed, possibly from Asiatic and Hamburg bloodlines
 - ▣ Adult Size: 4-7 lbs.
 - ▣ Egg shell color: brown
 - ▣ Dual purpose bird for meat and eggs
 - ▣ Good foragers, moderate mothering instincts (broodiness), calm birds



Delaware

- Developed in 1940 by crossing off-colored Barred Plymouth Rock males and New Hampshire females
- Egg shell color: brown
 - Adult Size: 6-9 lbs.
- Great for meat production, good layers
- Calm disposition, fast growing, good foragers



Wyandotte

- ❑ Originated in New York State in the late 1800's with the original Silver Laced Wyandotte known as 'American Sebrights' or 'Sebright Cochins'
- ❑ Varieties: Silver Laced, Golden Laced, White, Buff, Partridge, Silver Penciled, Columbian, Blue
- ❑ Adult Size: 5.5-8.5 lbs
- ❑ Egg shell color: very light to rich brown shell
- ❑ Does well in colder climates and does not do well in heat
- ❑ Relatively docile, good overall bird,
- ❑ Commonly bred for show



Brahma



- ❑ Asiatic breed originating from China in the mid 1800's
- ❑ Very large heads and loose feathers are consistent characteristics
 - ❑ Varieties: light, dark, buff
 - ❑ Adult size 8-12 lbs.
 - ❑ Egg shell color: light to dark brown
- ❑ Slow growing, but good meat producers
- ❑ They do well in cool climates, due to heavy feathering
- ❑ Slow moving, deep vocalizations, calm birds that forage well and can show mothering instincts (broodiness)



Orpington



- ❑ Originated in England in the late 1800's
 - ❑ Large frame, very loose feathering (fluff)
 - ❑ Varieties: buff, black, white, blue
 - ❑ Egg shell color: light to dark brown
 - ❑ Adult size 7-10 lbs.
- ❑ General purpose for heavy meat production and eggs
- ❑ Good mothering instincts (broodiness) and can be used as natural incubators
- ❑ Calm and docile, but don't forage well
- ❑ Extra feathering can cause breeding and cleanliness issues

Meat Breeds

- These birds produce a great carcass and will grow bigger and faster than egg laying breeds (because they have been selected for growth)



Orpington chick (left) and Cornish cross chick (right). They are both 5 weeks of age

- But, they will lay significantly less eggs than other chicken breeds

Meat breeds

- ❑ **Cornish**
- ❑ **Java**
- ❑ **Jersey giant**
- ❑ **Naked neck**
- ❑ **New Hampshire**
- ❑ **Broilers**
- ❑ **Freedom Rangers**





Hormones in chicken: **FALSE!**

- ❑ The fast rate of growth in meat chicken breeds is due to breed and strain selection
- ❑ Some people worry that hormones (particularly growth hormones and steroidal hormones are used to make the chickens grow so fast, but this is not true
- ❑ Hormones are not used in poultry production, for several reasons:
 - they don't work in chickens (they don't have the chemical receptors for them)
 - they grow fast enough without any type of chemical help
 - hormones are very expensive
 - hormones are not approved or authorized by FDA for any type of use in poultry production

Hormones in chicken

Because hormones are never used in poultry production (conventional or otherwise), producers that market their products as “Hormone free” or “No added hormones” are misleading their consumers by making them believe that other chicken producers use these hormones

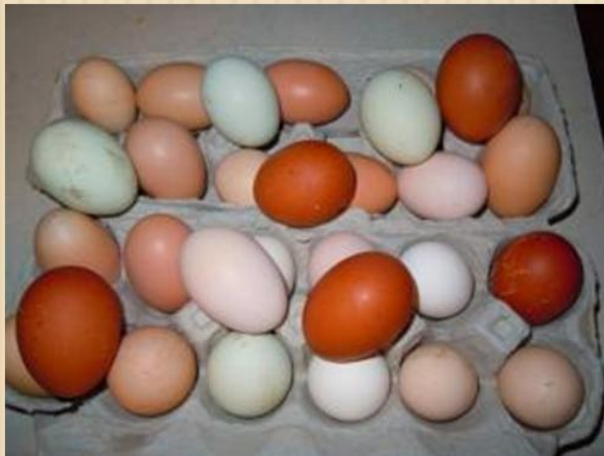
FDA can fine producers that use this claim

Be careful how you market your product!



Egg layers

- High egg production (200-360 eggs/ year!)
- Birds grow slowly and produce a carcass that lacks meat



Egg layers

Leghorn

Minorca

Ancona

Australorp

Hamburg

Houdan

Polish

Araucana

Ameracauna

Fayoumi

Sex-links



<http://www.triplespringacres.com/rareandfancychickens.htm>

Egg color



- Some people look for eggs with this color because they are fun, but other people will look for them because some believe that these eggs has less cholesterol than other eggs
- This is not true!
- The composition of the egg depends on the diet that the layers receive, and not on the color of the shell

Pastured or free ranged eggs can have a lower amount of cholesterol, but this difference is really not significant for your health





Egg color

- According to poultry farming publications from the early XX century, people from New York preferred white eggs, while people from Boston preferred brown eggs
 - Even today, many consumers assume that brown eggs are more “natural” or “healthier”
 - Brown eggs also tend to be more expensive, because the hens that lay the white eggs tend to be smaller, eat less and therefore preferred by commercial producers
 - However, the color of the shell has no effect on the nutritional content or taste of the eggs
 - The difference comes from the nutrition that the hens receive

Egg color	Breed
White	Leghorn Hamburg Polish Fayoumis Ancona Houdan
Light brown	Orpington Malay Cochin Rhode island Plymouth rock Jersey giant
Dark brown (chocolate)	Marans Welsummer
Brown	Wyandotte Dominique Cornish cross Rhode island Java Naked necks New Hampshire Delaware Australorp
Blue/green	Araucana Legbar Ameraucana



<http://chickenpic.blogspot.com/2008/03/maran-chickens-cuckoo-marans-chocolate.html>



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www.OrganicLife.com

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Chicken Causes Pollution
Demand policy that forces chicken farmers to clean up their act.
www.PeeEnvironmant.org/SigC...

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For each row, select **at least one** characteristic

Select Checkboxes: All / None

Choose a chicken breed size:	<input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Bantam
Choose the purpose of the chicken breed:	<input checked="" type="checkbox"/> Egg Layer <input checked="" type="checkbox"/> Dual Purpose <input checked="" type="checkbox"/> Meat Bird <input checked="" type="checkbox"/> Ornamental
Choose a rate of egg production:	<input checked="" type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input checked="" type="checkbox"/> High
Choose the egg size produced by your chickens:	<input checked="" type="checkbox"/> Small <input checked="" type="checkbox"/> Medium <input checked="" type="checkbox"/> Large
Choose the egg color(s) you want in your flock:	<input checked="" type="checkbox"/> White <input checked="" type="checkbox"/> Light Brown <input checked="" type="checkbox"/> Brown <input checked="" type="checkbox"/> Dark Brown <input checked="" type="checkbox"/> Blue/Green
Choose the chicken comb types you want:	<input checked="" type="checkbox"/> Buttercup <input checked="" type="checkbox"/> Cushion <input checked="" type="checkbox"/> Pea <input checked="" type="checkbox"/> Rose <input checked="" type="checkbox"/> Single <input checked="" type="checkbox"/> Strawberry <input checked="" type="checkbox"/> V-Shaped <input checked="" type="checkbox"/> Walnut
How often would your chicken be broody?	<input checked="" type="checkbox"/> Seldom <input checked="" type="checkbox"/> Average <input checked="" type="checkbox"/> Frequent
Choose a climate that your chicken breed will enjoy	<input checked="" type="checkbox"/> Cold <input checked="" type="checkbox"/> Heat
Check the temperaments you are looking for in your chicken breed:	<input checked="" type="checkbox"/> aggressive <input checked="" type="checkbox"/> friendly <input checked="" type="checkbox"/> wild / restless <input checked="" type="checkbox"/> not bear confinement well <input checked="" type="checkbox"/> flighty <input checked="" type="checkbox"/> easily handled <input checked="" type="checkbox"/> calm <input checked="" type="checkbox"/> bears confinement well <input checked="" type="checkbox"/> noisy <input checked="" type="checkbox"/> quiet <input checked="" type="checkbox"/> shy <input checked="" type="checkbox"/> docile

<http://www.backyardchickens.com/breeds/breed-search.php>



Make your own

- Modern broilers are crosses
- Almost all modern breeds were derived by crossing older breeds
 - Even older breeds have been crossed with other breeds to improve them
- Crossing improves performance
 - Many breeders cross egg laying breeds into their birds to improve egg production



Make your own

- Crossing breeds also allows for the use of traits from different breeds
- Look for the traits that you desire then breed those birds to produce the results that you want
 - That's how we got the breeds we have today



Make your own

- Want a fast growing bird?
- Purchase broiler breeder males and use on pure breed hens
 - Plymouth Rock
 - Rhode Island Red
 - Or whatever your favorite breed is
- F1 generation will have improved growth



Where to get your chickens?

- Usually best to get day-old chicks and raise them to fit the intended program
 - ▣ Improved biosecurity!
 - ▣ Purchase from commercial hatcheries,
 - NPIP
 - ▣ Purchase or trade from other local producers
- Or, maintain breeding stock to produce replacement stock in house



Where to get your chickens?

- An internet search will find dozens of hatcheries
- The following are just a few of the many available

PS. We don't endorse any of these hatcheries. It is important for you to find a hatchery that can fit your production goals

Ask around your area and give them a call



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This presentation is part of an educational modular program designed to provide new and beginning farmers and ranchers with relevant information to initiate, improve and run their agricultural operations

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Want more information?

ATTRA	http://en.aviagen.com/assets/Public-Relations-Images/ATTRAMeatChickenBreeds.pdf
Feather Site	http://www.feathersite.com/Poultry/BRKPoultryPage.html
American Livestock Breeds Conservancy	http://albc-usa.org/cpl/wtchlist.html
Backyard Chickens	http://www.backyardchickens.com/products/category/chicken-breeds
My pet chicken	http://www.mypetchicken.com/chicken-breeds/breed-list.aspx



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