



All About Chickens

03/03/24



The focus of this class

- Hens bred for egg-laying
- Housing them
- Feeding them
- Caring for their health



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Types & Breeds





I. Broilers

**Raised for
their meat**

Layers

**Raised for
their eggs**



More on broilers:

- Known for their fast growth and high meat yield
- Require a high-energy, high-protein diet.
- Typically harvested at a young age, usually around 6 to 8 weeks

It is not recommended to put broiler chickens and laying chickens together.



II. Categories of breeds to consider

Hybrids

- Those bred specifically for egg production from two different breeds with desired characteristics.

Heritage

- A Heritage Breed comes from an American Poultry Association Standard Breed, both parent and grandparent stock.
- Naturally mated through breed pairs of both parent and grandparent.
- Genetic ability for a long and vigorous life, thriving in pasture-based production.





Hybrid

- Hybrid chickens are a cross between two different chicken breeds.
- They are bred for specific characteristics, such as egg production or meat.
- Hybrid layers will usually lay more eggs than purebred chickens and will eat less because they're smaller.
- This is called having a good *feed conversion ratio* (FCR) which save you money.
- They're size also means they have less meat on them so they are not as good of a dual purpose bird.
- However they usually have a shorter life span and they can get sick easier.



Heritage Breeds

- Might lay fewer eggs (around 4-5 per week), but they can sustain this rate for many years. They also tend to be healthier, hardier, and more adaptable to foraging.
- However, heritage breeds also take longer to start laying, often 5-6 months, unlike commercial hybrids, some of which can begin as early as 16-18 weeks.
- The trade-off? Most heritage breeds suitable for egg-laying are also good for meat, but their larger size means more feed costs.



III. What to look for in a good egg laying breed

- High egg output
- High feed conversion ratio
- Not prone to many diseases
- Heat tolerant
- People-friendly (not too skittish) and play well with other chickens
- They are not broody
- Not too noisy
- Optional – That they are good at foraging





Leghorn



Type:	Standard, Bantam
Temperament:	Intelligent and noisy
Kid-friendly:	Not normally, can tolerate being held with socialization and training
Broody:	No
Heat Hardiness:	Yes
Space per bird:	4 square feet per bird (like most)
Eggs per year:	280-320
Egg Size:	Large to Extra Large
Processing Age Ready:	18-20 weeks



Rhode Island Red



Type	Standard
Temperament	Middle of the road
Friendliness	Friendly
Broody	No
Heat Hardiness	Good
Eggs per year	250
Egg size	Large
Age Ready	20 -22 weeks
Purpose	Dual



Red Star Sex link Hybrid



Egg Production	280-300 a year
Egg Size	Large
Broodiness	Low
Temperament	Docile to Dominate
People-Friendliness	Friendly
Heat Tolerance	Good
Purpose	Dual



What is a Sex link chicken?

- Sex link chickens are a specific type of hybrid chicken bred for easy identification. Upon birth the females have colored feathers and the males do not.





Plymouth Barred Rock



Primary Use	Dual Purpose (Meat & Eggs)
Egg Production (Annual)	250
Starts Laying	20 Weeks
Egg Size	Large
Egg Color	Brown
Size	7-7.5 lbs
Broody	No
Temperament	Docile
Origin	USA



Australorp



Primary Use	Dual-Purpose
Egg Production (Annual)	250-300
Starts Laying	24 - 28 Weeks
Egg Size	Large – Jumbo
Egg Color	Brown
Size	6.5 - 8 lbs & Up
Broody	Yes
Temperament	Calm
Origin	Australia



Azure Blue



Egg Production	295
Starts Laying	18 Weeks
Egg Size	Large
Egg Color	Blue
Size	4 lbs
Broody	No
Temperament	Curious, Flighty
Origin	USA



Housing



Terms to know

Coop – An enclosed space where the chickens roost (or perch) and lay eggs.

Run – A fenced in area

Free-Range – When chickens allowed to roam wherever they want. (USDA defines as “access to the outdoors”)





I. Housing Space Requirements

Q: How much space do chickens need?

A: It depends...





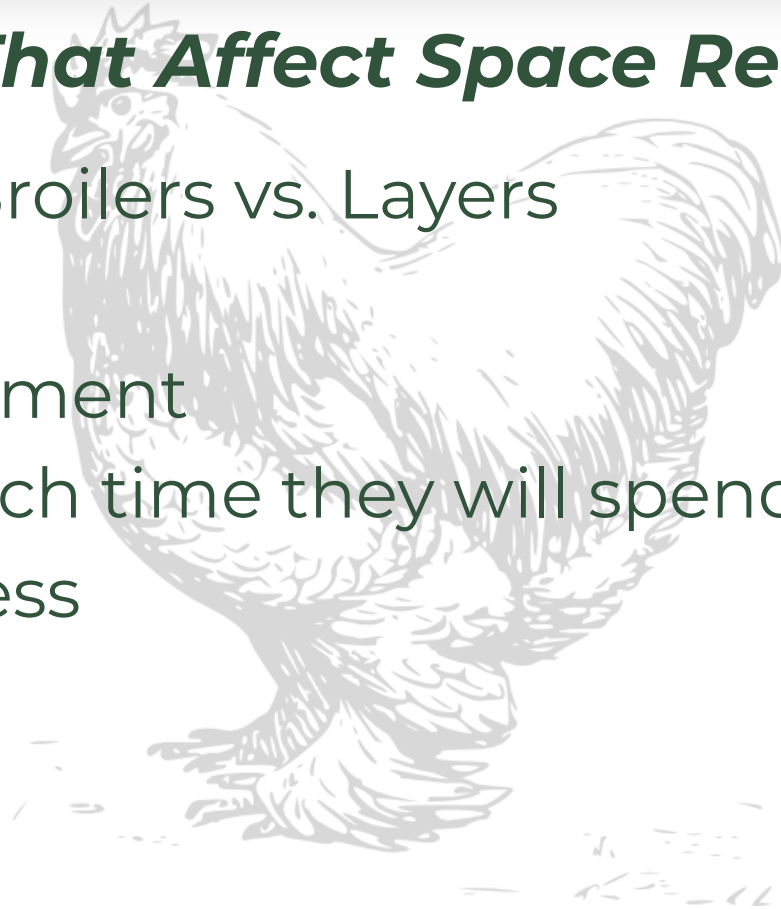
What is important is how much space is available when they need it

- **Winter weather**
- **Vacations**
- **Unforeseen circumstances**



II. Factors That Affect Space Requirements

- 1) Raising Broilers vs. Layers
- 2) Size
- 3) Temperament
- 4) How much time they will spend free-ranging
- 5) Broodiness





1) Raising Broilers vs Layers

- Broilers need less space than layers because they aren't very active due to their quick weight gain and short lifespan.

2) Size

- Standard sized hens require more space and their perches will need to be a bit lower to the ground.
- Larger breeds (such as Jersey Giants or Brahmas) require a lot of space to move around in.





3) Temperament

- More docile breeds can get by with less space whereas more aggressive and dominant breeds will need more room.

4) How much time they will spend free-ranging

- Chickens that are free-ranged require less coop space.
- If a flock's only housing is a coop, then they will require more space.

5) Broodiness

- If you will have hens that are known for broodiness, then they will hog nest boxes and you will need to add more boxes for the rest of the chickens.



General Space Requirements Per Hen

Size	Coop	Run
Bantam (decorative)	2 sq. ft.	5 sq. ft.
Standard	4 sq. ft.	8 sq. ft.
Large	6 sq. ft.	12 sq. ft.



III. Overcrowding & its Detrimental Effects

Health Impacts

- **Disease and Parasite Spread**
 - More prone to the spread of diseases and parasites.
 - Parasites like lice and mites also spread faster in crowded conditions.
- **Poor Hygiene**
 - Often leads to poor sanitation as the birds are living in close proximity to their waste, which can result in diseases.
- **Heat Stress**
 - Chickens produce a good deal of heat. When too many birds are packed into a small space, especially in warmer months, heat stress can occur, leading to decreased egg production and in severe cases, death.





II. Overcrowding & its Detrimental Effects

Behavioral Impacts

- **Aggression and Pecking**
 - Can lead to increased aggression and feather pecking as birds struggle for space. This can lead to injuries and in severe cases, cannibalism.
- **Stress and Decreased Productivity**
 - Will lay fewer eggs and may have decreased meat production.
 - Stress can also lead to other behavioral issues such as feather plucking.
- **Limited Access to Resources**
 - Lower-ranking chickens in the pecking order may not have enough access to food, water, or nesting areas, leading to malnutrition and reduced egg-laying.



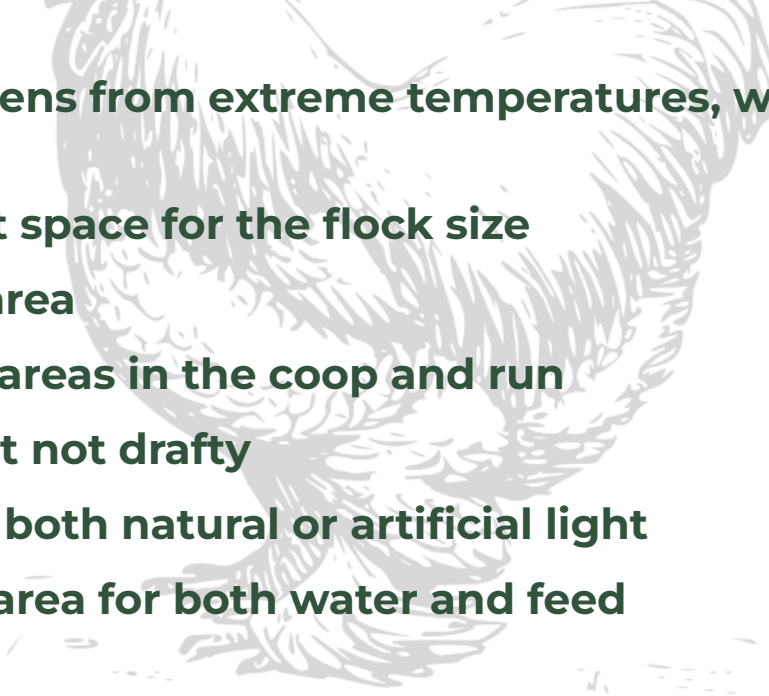
II. Overcrowding & its Detrimental Effects

Integration Issues

- The more space you have, the easier it is to integrate chickens.
- One method they use to take most of the danger out of establishing the pecking order is that the weaker runs away from the stronger when there is a confrontation or they just avoid the stronger to start with.
- They need room to run away if they don't have it they'll likely suffer physical harm.



IV. Ideal Housing Design

- 1) Be easy to clean**
 - 2) Protects the chickens from extreme temperatures, wind, sun, predators and wild birds**
 - 3) Provides sufficient space for the flock size**
 - 4) Provides nesting area**
 - 5) Provides roosting areas in the coop and run**
 - 6) Well ventilated but not drafty**
 - 7) Includes plenty of both natural or artificial light**
 - 8) Provides sanitary area for both water and feed**
 - 9) Predator-proof**
- 



1) *Easy to Clean*

- Use non-toxic bedding so the chickens are not pooping directly on the ground or floor.
- Avoid bedding that mats down easily
- Putting linoleum on the coop floor makes it easier to clean
- Consider how you will remove bedding out of the run or coop
- Coops with floors raised to hip level and outward opening double doors make it easy to scrape used bedding into a wheel barrow.
- Make run door wide enough for wheel barrow to fit through





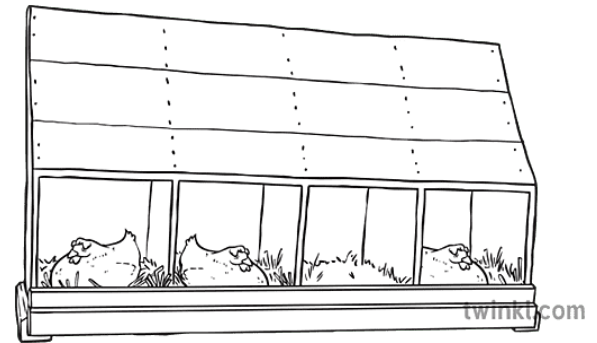
2) Protects from extreme temperatures, wind, and sun

- Place the run in an area where a section of the run will be in the shade or add shade.

3) Provides sufficient space for the flock size

4) Provides nesting area

- One box for every 4-5 hens. Each box should be about 12 inches deep by 12 inches wide by 12 inches tall.





5) Provides roosting areas in the coop and run

- Roosting poles give the birds a place to sleep (or a place to get away from a bully). Wood provides ideal footing.
- They not only need to have enough room to sleep on the roost, but they also need to have enough room for them to spread their wings and fly to the roost and to sort out who gets to sleep next to whom and who gets the prime spots once they get on the roost.
- Save space in the coop and place the water and feed in the run.



6) *Well ventilated but not drafty*

Chickens generate a lot of moisture through their breathing and droppings, and poor ventilation can lead to respiratory problems and the build-up of harmful ammonia.

Ventilation types:

- **Passive.** Air moves through openings, such as windows in walls or vents in gables, eaves or roofs.
- **Active.** Use electric fans to move air during especially warm or humid periods.

Passive ventilation is adequate for most backyard chickens coops. Build in as much ventilation as possible without creating drafts or access for predators.



7) Includes plenty of both natural or artificial light

Design and Implement a Lighting Program

- An artificial lighting program can be implemented by installing either led lights with a low lumen rating (around 50 lumens) or a red light in the coop to ensure the chickens get at least 14 hours of light each day. This will keep them laying through the winter.



8) Provides area for both water and feed

- During the hot season, do not put the waterer in sun. The chickens will not drink from it due to the high heat of the water, and they might become fatally dehydrated.
- Consider a feeding and watering system that doesn't require you to enter the run in order to refill. This will reduce the risk of chickens escaping when you open the door and it's low-maintenance.



9) ***Predator-Proof***

- Avoid chicken wire – It's just not strong enough and the holes are big enough for snakes to slip through
- Consider diggers – Just lay 1' – 2' of square foot pavers all around
- Put a roof on it - Predators that fly or climb can access the coop from above
- Batten down the hatches – Lock the coop at night well, racoons are very clever and can open latches. Inspect the coop and repair any small holes
- Install motion activated lights - Nighttime predators don't like well-lit areas.



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Feeding





Feeding

Chicks

Starter Feed up to 6 weeks old

Growing Feed 6 weeks to laying

Laying Feed when laying begins

Grit/sand

Water

Hens

Laying Crumbles/Pellets

Mash

Grit

Oyster Shells/Crushed Cleaned Egg Shells

Water



Treats

- Scrambled Eggs
- Cooked or Raw Corn
- Peas
- Cauliflower
- Strawberry Tops
- Dried Grubs



- Shrimp Tails
- Canned Tuna (no salt)
- Cooked unprocessed meats
- Whole Milk Yogurt
- Cultured Cottage Cheese
- Cooked Grains



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Health





When Disease Strikes and Emergencies Happen

Common Problems

- Starve Out
- Sneezes, Wheezes and Gurgles
- Pasty Butt
- Coccidiosis
- Worms
- Egg Bound
- Mites & Lice
- Over heating
- Bringing in a diseased hen to the flock



When Birds Are Sick REMOVE THEM FROM THE FLOCK

Sick Chick Protocol

R.E.S.T. Method

- R – Remove from Flock
 - E – Electrolytes, Vitamins, & Probiotics
 - S – Scrambled Eggs
 - T – Temperature Control
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- Sick Chick Slurry (recipe will be in online class materials)

Respiratory Protocol

- R.E.S.T. Method
- 1 cut up garlic clove/gal of water in flocks water
- Generous Sprinkling of Oregano & Thyme
- 2 drops of Essential Oils: Eucalyptus, Tea Tree, Peppermint, Lemon or Thyme on a paper towel
- Add Apple Cider Vinegar to flocks water OR add a couple drops of Bach Rescue Remedy to water



Preventative Care

- EVP (electrolytes, vitamins & probiotics) first 2 weeks then switch to ACV
- Grit every day to help digestive system and calcium to ensure strong bones and egg shells (no calcium before laying eggs)
- Cayenne Pepper in their feed to ward off parasites
- 1 tsp Apple Cider Vinegar/quart of water to boost immune system.
- Sprinkle Homegrown dried fresh oregano & thyme boost immunity
- Beginning at 2 weeks old add $\frac{1}{4}$ garlic clove/quart of water 3 times a week



Caring for Chickens During Molting

- Check for mites and lice often
- Be diligent with immune boosting supplements
- Offer a little extra protein
- Do a 2 week course of EVP
- Administer R.E.S.T. To struggling chickens.



Boredom Busters

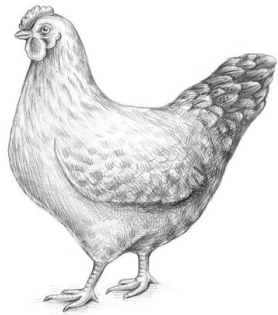
Keep your chickens busy and happy to prevent fighting amongst the flock.



- Build extra roosting bars to sit on
- Put toys out to play with
- Place a box with an opening for them to walk in and out of – birds like to hide
- Hang cauliflower from a large string and let them peck at it.
- Sprinkle hemp in clumps for them scratch
- Throw out chicken scratch or treats
- Make a trail of dried corn
- Toss out some cut up watermelon in the hot summer months or pumpkins in the fall and winter months



Coop Cleaning



Daily

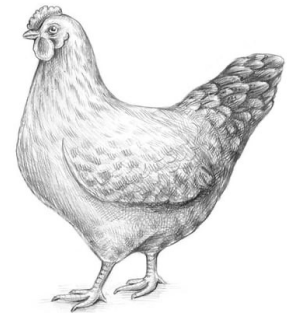
- Make sure water & feed are clean and full
- Remove fecal matter or other debris from nesting boxes
- Supply birds with correct feed for their stage in life
- Observe Chickens for abnormalities in behavior or appearance
- Spot clean as necessary
- Close it up at dusk.

Weekly

- Remove fecal matter from roosts and nesting boxes
- Replace nesting box material as needed
- Clean nipple and gravity waterers.
- Refresh dust baths as needed

Monthly

- Deep clean coop
- Check over chickens for external parasites





Deep Litter Method

Less work:

- Layer in 3" of hemp or bedding of your choice
- When the bedding gets soiled put another 3" layer on top it (usually 1 x per week)
- Rake the new bedding with the old or allow the flock to turn it for you.
- If it becomes compacted rake it to make sure it stays fluffy.
- In the Fall or Spring of the following year, remove most of the bedding leaving behind a sparse thin layer and add to your compost pile.
- Add fresh bedding and rake it in the remaining litter to start the process over again.
- NEVER ADD DIATOMACEOUS EARTH !! ❌



