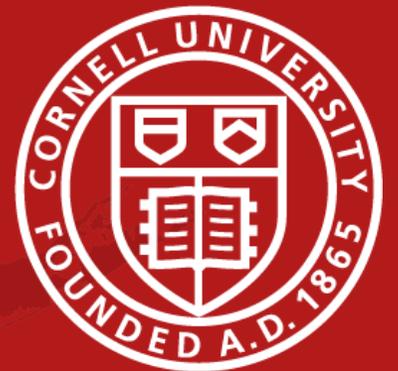


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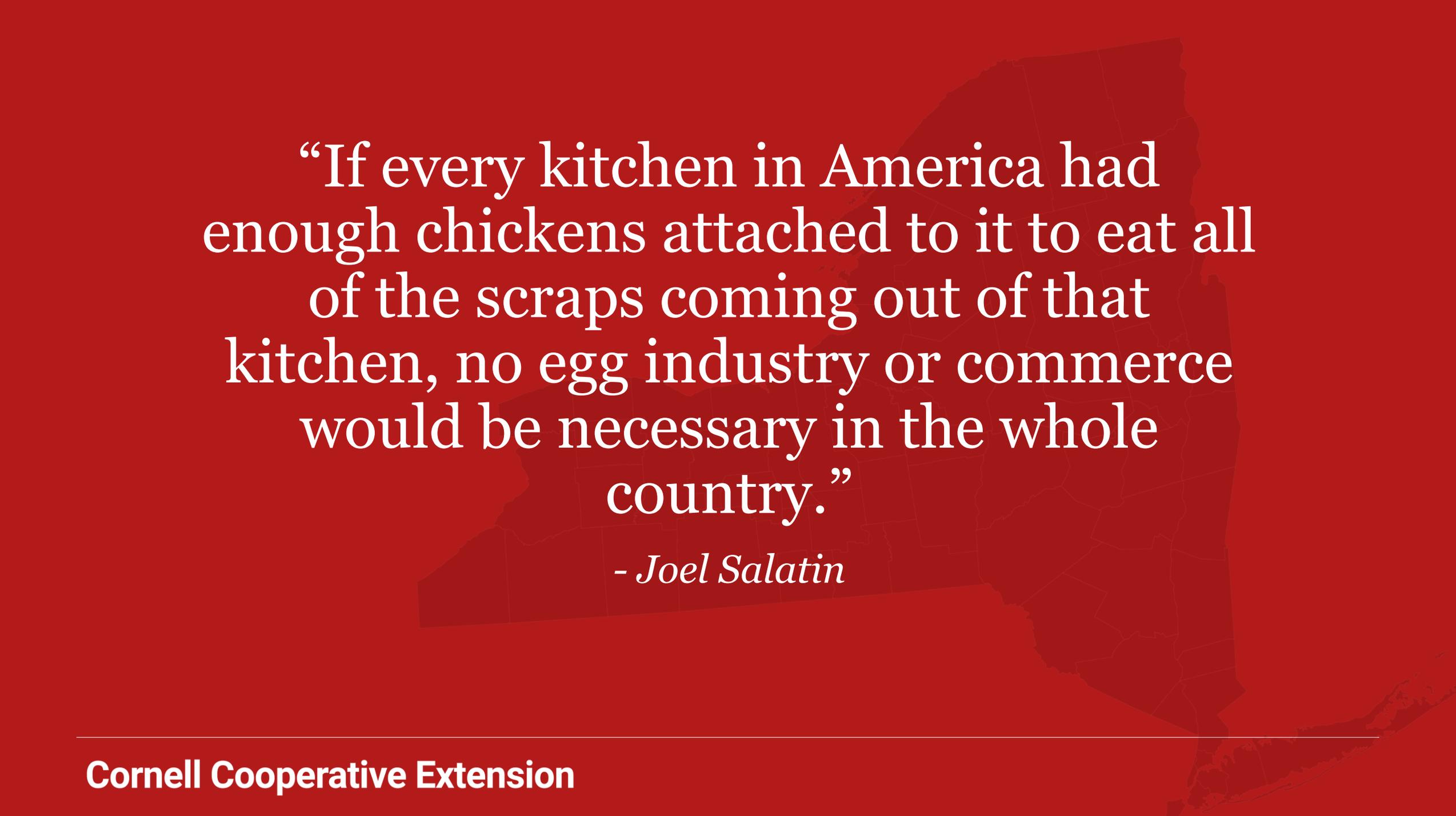
Backyard Poultry

2025 Rooted & Resilient Series

Cornell Cooperative Extension – Herkimer County

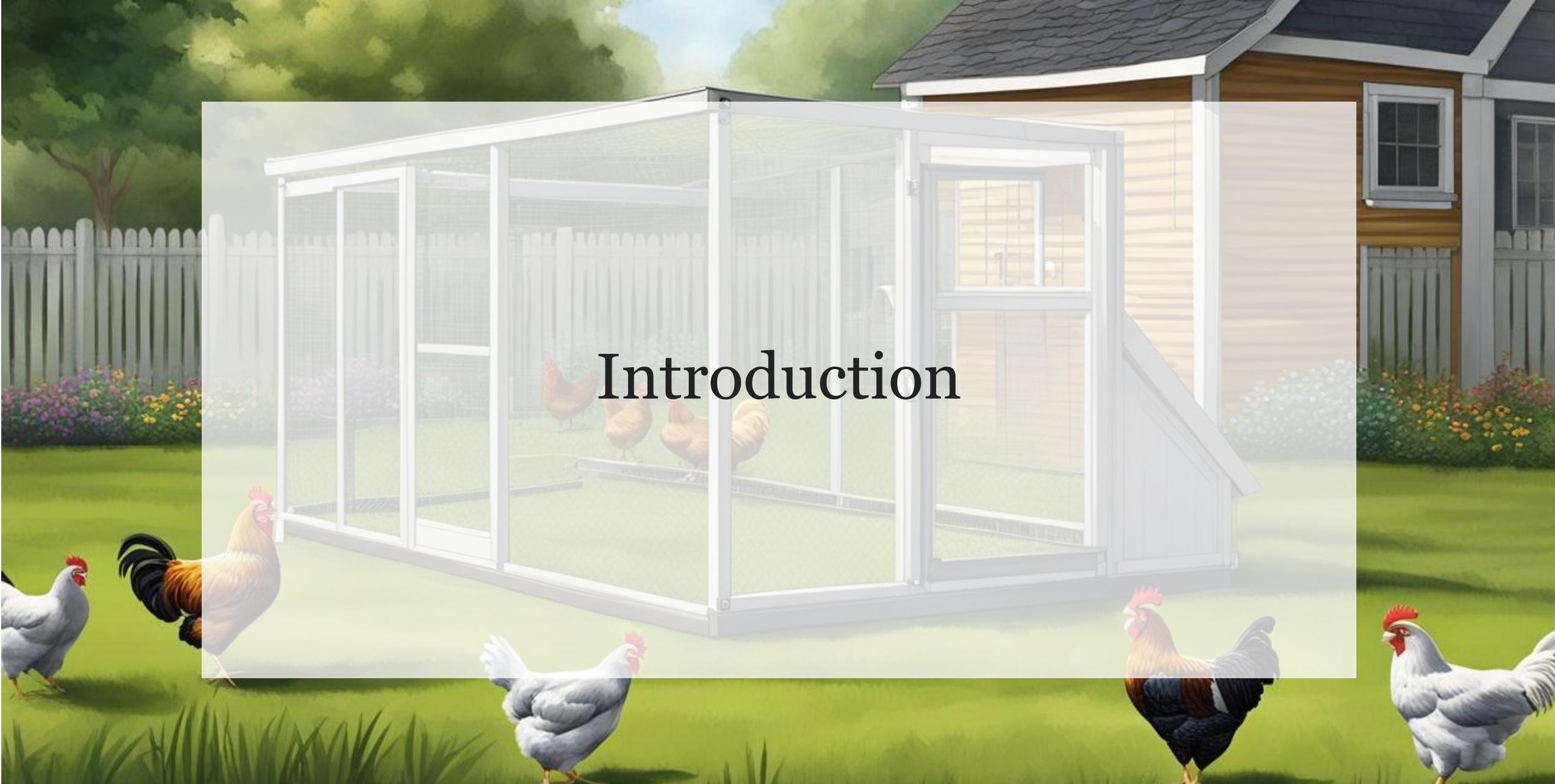
Garet D. Livermore

Executive Director/Ag Issues Leader



“If every kitchen in America had enough chickens attached to it to eat all of the scraps coming out of that kitchen, no egg industry or commerce would be necessary in the whole country.”

- Joel Salatin



Introduction

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Backyard Poultry

Raising poultry is a key component of a sustainability plan for householders:

- Fresh eggs to eat and share
- Health and eating qualities of fresh eggs
- Important contributor to garden fertility
- Insect control
- Teaching children the basics of agriculture
- Possible dual source of protein, eggs and meat

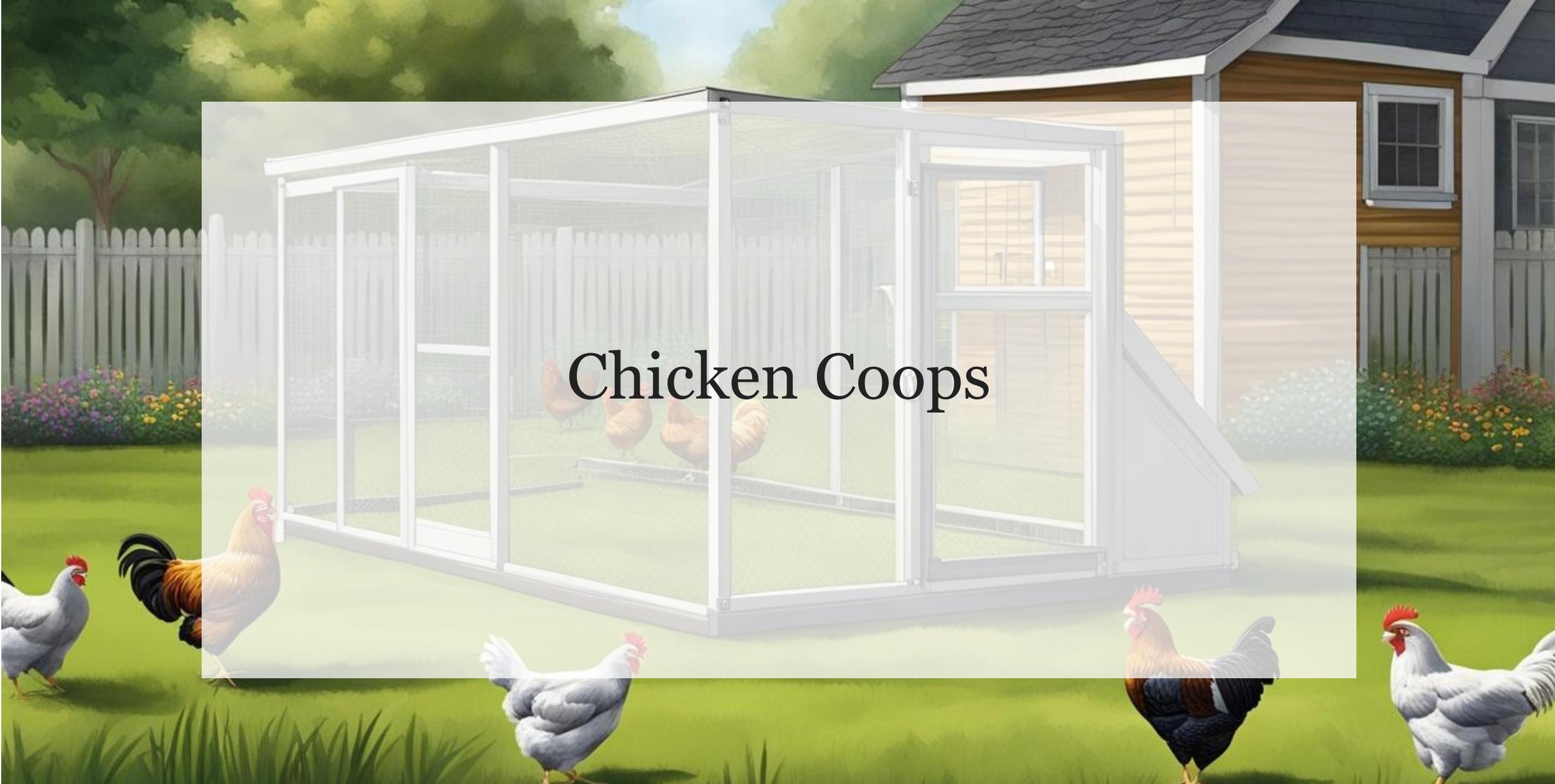


Backyard Poultry

Tonight we will cover:

- Poultry equipment
- Chicken Nutrition
- Chicken Health & Security
- Purchasing and Raising Chicks
- Chicken Breeds
- Egg Management





Chicken Coops

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Chicken Coops

- The Chicken Coop is the largest and most important investment in raising chickens
 - Weather tight, shelter against wind and rain
 - Predator tight, no openings that racoons, weasels and other critters can get into
 - Layout that facilitates managing the flock
 - Is a comfortable home for your chickens



Chicken Coops

An exterior run should be integrated into your coop plan so that your birds have a protected place to go in the day.

Think about:

- access during all seasons, especially winter
- Moving feed, bedding and water in and out
- Proximity to house, barn and human activity



Chicken Coops

Interiors will need several components:

- Nesting boxes for laying eggs
- Litter to absorb droppings and provide warmth
- Division fence to introduce new birds/chicks to the flock (optional)
- Space, allow a minimum of 3x3' for each bird



Chicken Coops

- Roosts are important:
 - Natural materials, no metal or plastic
 - Should be at least 1.5-2” in diameter to support birds
 - Flat 2x4 or other building stock is okay
 - Need to be staggered
 - Adding a manure board under the roost simplifies cleaning



Roosts



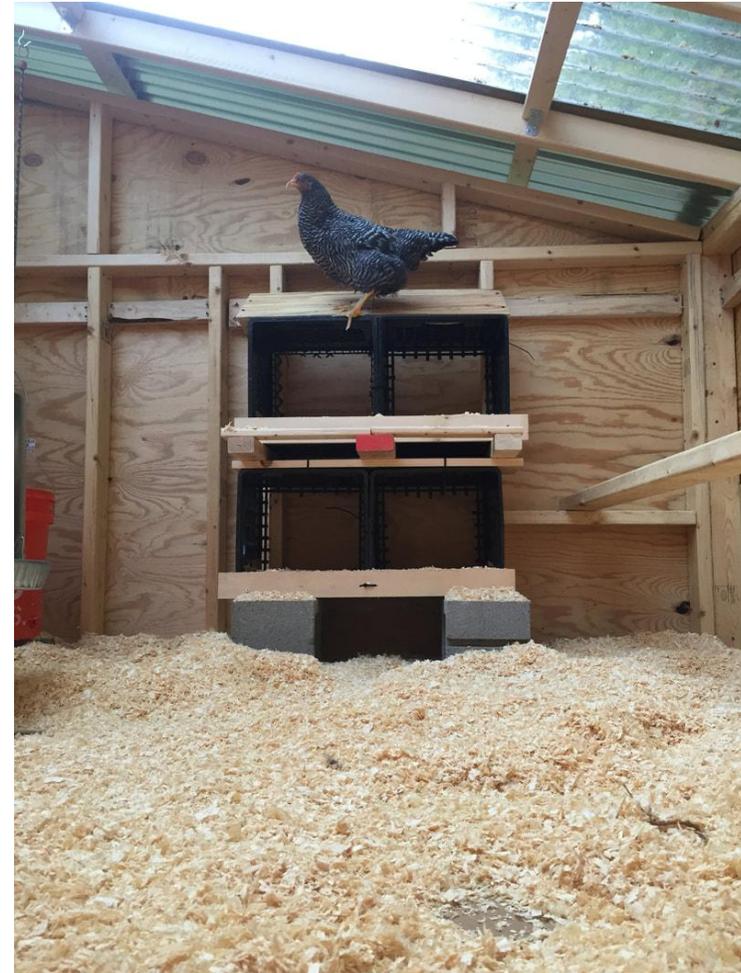
Outdoor roosts are an important addition to chicken runs

- Comfortable place for hens to rest
- Above muddy runs
- Allows birds to “keep an eye” on activities in the yard

Bedding

Bedding is a critical part of managing flock health and comfort, needs to be:

- Clean dry and absorbent
- Good materials:
 - Pine Shavings
 - Straw
- Poor materials:
 - Hay
 - Sawdust



Runs

- Chicken Runs:
 - Protection against predators
 - Safe, clean place to be outside
 - Protects YOUR landscape/gardens
 - Make sure that it is:
 - Well drained
 - Predator tight fencing
 - Accessible from the coop itself
 - Has a gate to the outside for human access and to let birds free range



Chicken Coop Must Nots



Alternative Seasonal Housing



Equipment Needs



- Water!
 - Very important to supply fresh, clean water to poultry
 - Covered to protect against chickens soiling water
 - Heated during the winter to protect from freezing
 - Filled and changed on daily basis
 - Protect from sun in summer
 - Clean waterer with bleach once a month to sterilize
 - Put a tray underneath the catch drippings

Equipment Needs

- Feeders:
 - Multiple day supply for entire flock
 - Hang feeder about head high
 - Leaving feeder on the ground encourages waste as hens dig through the feed looking for bigger kernels
 - Have two feeders if flock starts fighting over food resources

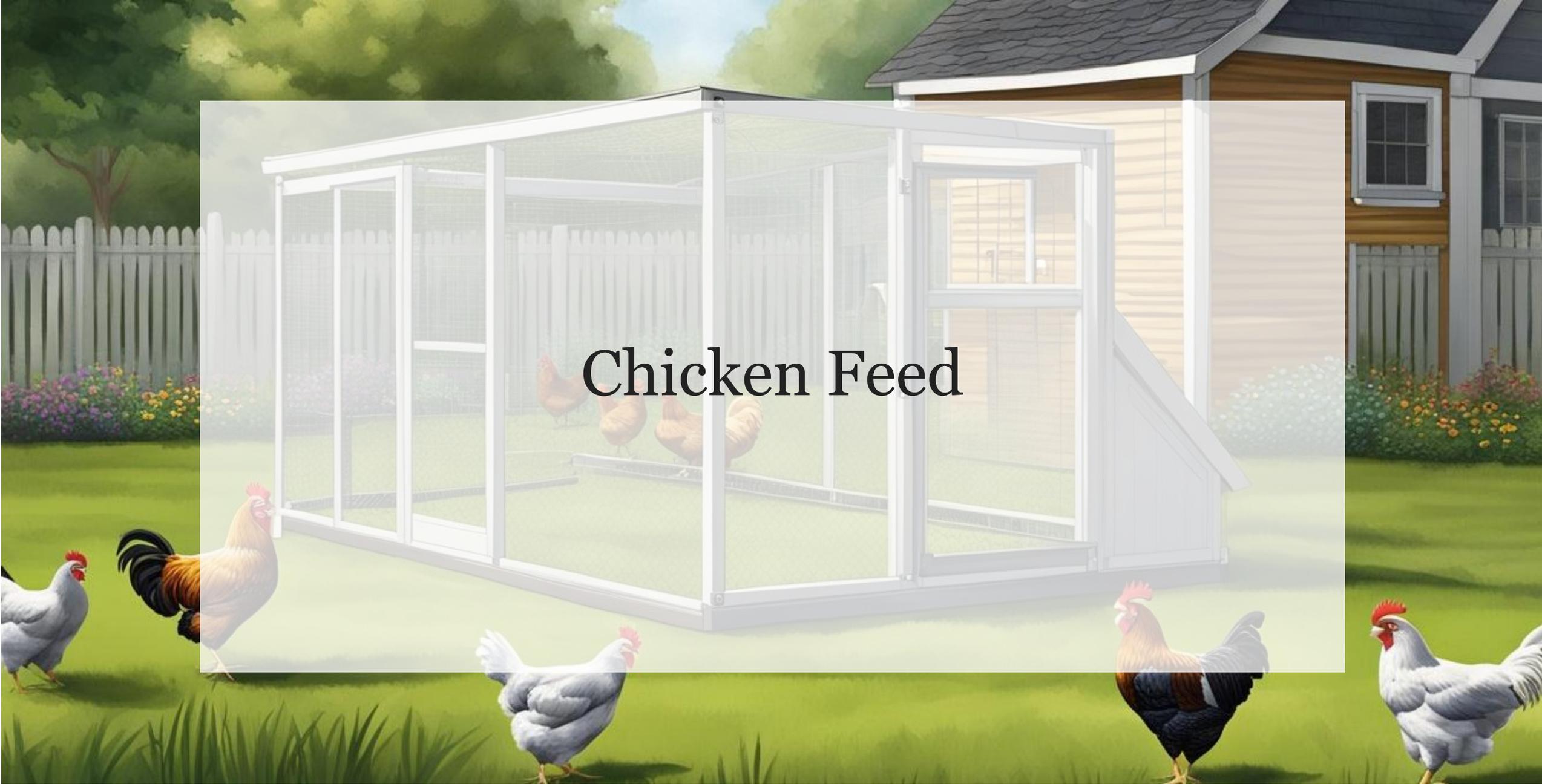


Equipment Needs

Gather a stock of chicken health items:

- Chicken Health Handbook (or other guide)
- Blu-Kote (or similar product)
- Nutritional supplements
- Ground Oyster Shells (if your chickens don't free range)





Chicken Feed

Chicken Nutrition

Starter Feed (0–6 weeks)

- Protein: 18–20%
- Energy: Moderate levels to support growth
- Calcium: Around 1%
- Phosphorus: Around 0.5%
- Vitamins & Minerals: Especially vitamins A, D, E, and B-complex, plus trace minerals like manganese, zinc, and selenium

Form: Usually a fine crumble that's easy to eat

This stage is all about rapid growth, so protein levels are higher than in later life stages.



Chicken Nutrition

Grower Feed (6–14 weeks)

- Protein: 16–18%
- Calcium: Reduced to about 0.8–1% (still important, but not yet at laying levels)

Form: Crumbles or pellets

Grower feed supports continued development but with slightly less protein, since the explosive growth phase slows down a bit.



Chicken Nutrition



Laying Hens (Layers)

Primary Goals: Egg production, shell quality, and maintaining health over time

- **Nutritional Needs:** Protein: 16–18% Needed for egg production, feather maintenance, and muscle tone
- **Calcium:** 3.5–4.5% Very high! Critical for strong eggshells Usually provided via layer feed and/or free-choice oyster shell
- **Phosphorus:** ~0.35–0.45%, helps with shell strength and bone health
- **Energy:** Moderate, too much leads to obesity, too little reduces egg production
- **Vitamins:** Especially A, D3, E, K, B-complex (B12 is important), and choline
- **Trace Minerals:** Iron, iodine, zinc, manganese, selenium
- **Omega-3s (optional):** Can be supplemented to boost egg nutrient quality

Chicken Nutrition



Meat Birds (Broilers)

Primary Goals: Fast growth and efficient muscle development

Grower/Finisher (3–8 weeks or until processing):

Protein: 18–20%

Energy: High to support rapid weight gain

Calcium: ~0.8–1%

Phosphorus: Slightly lower than starter but still essential

Broilers are bred for efficiency, so their feed needs to pack a lot of calories and nutrients into a small volume.

Chicken Nutrition



Make your own feed?

Commercial layer feed averages between \$16 - \$22 per 50lb bag

Homemade feed, using the following recipe costs about \$18 per 50lb.

Chicken Nutrition

Laying Hens Feed Mix (16–17% Protein)

100-lb Batch



Ingredient	Amount (lbs)	Purpose
Cracked corn	50	Energy source
Wheat or barley	20	Carbohydrates, variety
Soybean meal (44% protein)	15	Protein source
Oats	10	Adds fiber
Alfalfa meal	2	Vitamins, greens
Fish meal or bone meal	1–2	Protein, calcium, phosphorus
Ground limestone or oyster shell	1–2	Calcium for eggshells
Poultry vitamin/mineral premix	As directed	Balanced micronutrients

Making Your Own Feed

Raised on cracked corn
7% protein



Raised on commercial poultry starter
22% protein





Health & Safety

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Chicken Health



Prevention-Practice good biosecurity

- Maintain a clean coop and run
- Change water regularly
- Sterilize feed and watering equipment
- Discourage contact with wildlife

Chicken Health



Treatment:

- Isolate sick individuals
- Treat with appropriate veterinary medications
- Cull individuals not likely to recover
- Report unusual illnesses or deaths to <https://dec.ny.gov/nature/wild-life-health/animal-diseases>

Chicken Health – Injuries



Chickens in a confined space will, occasionally, turn on one another.

- Isolate injured individuals
- Treat with Blu-Kote or other masking/antiseptic product
- Chickens are resilient animals and can recover from remarkable injuries, treat and hold in a safe place and they often come back
- Reintroduce isolated chickens back into flock carefully.

Chicken Safety – Predators



Chickens are the ultimate prey animal; they are subject to being hunted by a wide variety of animals. Notably:

- Dogs, neighbors, your own and feral
- Foxes
- Hawks
- Weasels
- Raccoons
- Snakes

Chicken Safety – Predators



Know your enemy!

- Dogs, neighbors, your own and feral
- Foxes
- Hawks
- Weasels
- Raccoons
- Snakes



Where to Get Chickens?

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Finding Chickens



Raise Your Own!

Collect fertile eggs locally or purchase on-line

- Incubating the Eggs
- Duration: ~21 days for chicken eggs

Incubator temperature: 99.5°F (37.5°C)

Humidity: 40–50% for the first 18 days, then 65–70% for the last 3 days (during "lockdown")

Turn eggs: 3–5 times per day until day 18 (unless your incubator does this automatically)

Place eggs pointy-end down

Keep the incubator in a draft-free, stable environment

Finding Chickens



Purchase Chicks!

Available from hatcheries, farm stores, on-line and individuals. There are several advantages with this avenue:

- Can choose breed of chicken
- Sold either as, “female”, “straight run” or “male”. If you are raising chickens for eggs—always choose “female.”
- “Straight Run” is presumably 50/50 male and female. Experience tells us that it is usually 60/40 or 70/30 male predominant
- Ask around locally to find sources with the best quality chicks. Exotics are best sourced from on-line companies.

Raising Chicks



Brooder Setup:

Use a draft-free box or container with high sides

- Provide bedding like pine shavings (avoid cedar)
- Use a heat lamp or brooder plate
- Start at 95°F (35°C) and decrease by 5°F each week
- Watch chick behavior—huddling means cold, spreading out means too hot

Feeding & Water:

- Provide chick starter feed (18–20% protein)
- Fresh, clean water daily (add electrolytes the first few days if needed)
- Use shallow dishes to prevent drowning

Feathering & Transition:

- By 6–8 weeks, chicks should be fully feathered and can handle cooler temps
- Gradually introduce them to the coop during mild weather
- Ensure coop is secure, dry, and has proper ventilation

Finding Chickens



Buy Pullets or Adult Birds?

- Pullets (immature chickens) and adult birds are often available on Craigslist or FB marketplace.
- This can be a good way to get a young bird ready to lay. However, be wary of:
 - Post production birds
 - Roosters
 - Birds kept in poor conditions
- The going rate for a young bird early in the laying cycle is about \$20.

Beware the Rooster!



Rooster Issues:

- Aggression towards family and pets
- Noise and neighbor complaints
- Injuries towards other members of the flock, hens and lesser males that require time and attention to deal with
- Sometimes they are well natured and quite protective— Sometimes!

What Breed?



What Breed?



Red Comets/Star

- Bred for maximum egg production and easily sortable by sex
- Based on traditional Rhode Island Red and Delaware breeds
- Prolific egg layer, does well in cold climates and calm demeanor

What Breed?



Delawares

- Bred in the early 1920s as a generalist breed for home production
- Produces a good amount of eggs and is a heavier bird that can be used as a meat bird
- Is hearty and well adapted to Northern climates
- Quiet, social personality does well in mixed flocks

What Breed?



Buff Orpingtons

- An English breed that can be a number of other colors, including lavender, red, black and spangled
- An extremely popular bird due to its good looks, good production qualities and quiet nature
- Is hearty and well adapted to Northern climates

What Breed?



Rhode Island Red

- An early American breed that began in New England and spread across the country
- Versatile, hearty breed that does well in harsh environments with minimal care
- Is hearty and well adapted to Northern climates

What Breed?



Wyandotte

- 19th Century breed from the mid-west that is another dual purpose bird.
- Good layer of large, brown eggs through most of the year
- Is hearty and well adapted to Northern climates

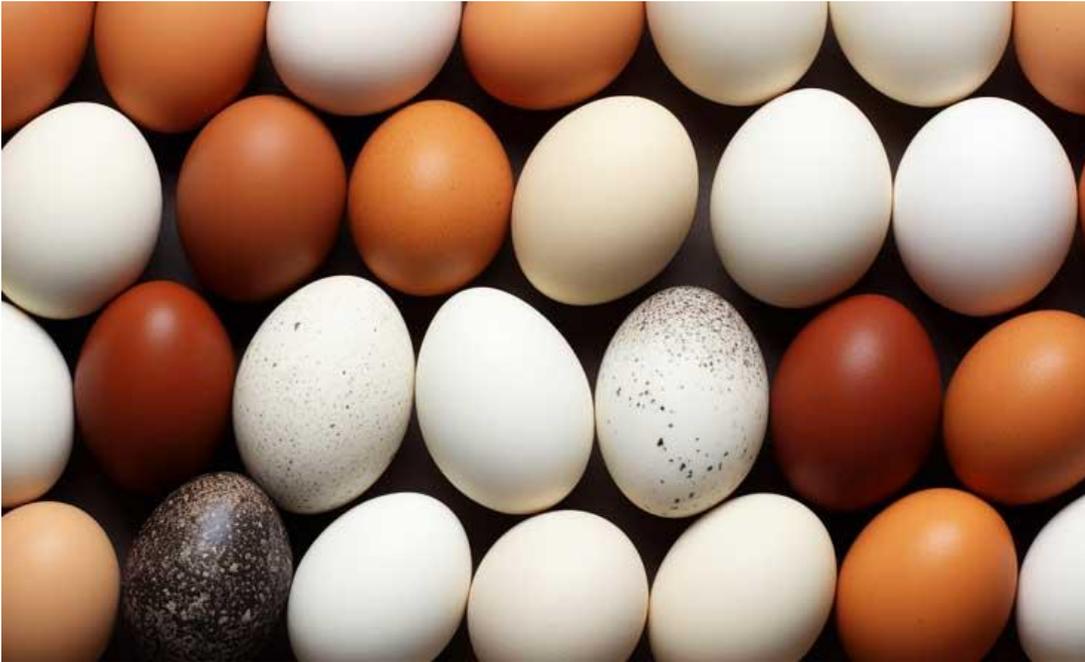
What Breed?



Cornish Cross

- Specifically bred as a meat bird, they grow to 6-8 pounds in as little as 8 weeks
- Most efficient meat producer of all breeds, turning the least amount of feed into the greatest amount of meat in the least time
- Plans for processing must be in place before you get chicks to raise, either from a commercial operation or at home.

Egg Production



- Each breed produces its own color pattern from pure white to very dark brown with blues and greens possible
- Laying patterns change through the season with peak laying occurring with peak daylight in June and declining through the year
- You can stimulate laying by putting in a lighting system (not heat lamps) but this does stress the birds and leads to shorter lives overall

Egg Production



- There is no flavor or culinary difference between the different color eggs, however people do notice that egg yolks are yellower and whites have a firmer texture than store bought eggs
- Chickens will lay eggs in areas that they feel safe in, hence nesting boxes. If they spend a lot of time outside they might find other places to lay eggs, like in wood piles or under bushes

Egg Production



- When hens sit on eggs for long periods and refuse to get off the nest, they are said to be “broody”. They can become ill by not eating or drinking so if this happens you should start taking them off of the nest, locking them out of the coop or following other treatments
- Eggs will often be soiled from the chickens laying on them, gently wash them or wipe them with egg wipes.



Any Questions?

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