

UF/IFAS Extension

The Journey to Sustainability Begins with Education





**CHICKENS 101
INTRODUCTORY COURSE
HOUSING AND
PREDATOR CONTROL**

THE BASICS: HOUSING



THE BASICS: HOUSING

- ✘ Protect from rain and cold when first outside.
- ✘ After about three weeks, chickens can tolerate cold or rain, but not at same time.
- ✘ Need to provide some sort of shade.
- ✘ After 3-5 weeks in brooder move to chicken house.

THE BASICS: HOUSING

Before You Build

- ✓ Check your ordinance requirements
 - ✓ Type
 - ✓ Dimensions
 - ✓ Setback

- ✓ Building options
 - ✓ Build new
 - ✓ Acquire and refurbish
 - ✓ Buy kit and assemble
 - ✓ Buy finished unit

THE BASICS: HOUSING

Housing Types

- **Definitions:**
 - ❑ Brooders = for raising chicks
 - ❑ Henhouse, with or without outside runs = for birds only
 - ❑ Chicken tractors = bottomless movable pens with housing
 - ❑ Chicken coop = large enough for humans to enter
- **Housing should be clean, dry, draft-free, comfortable year-round**
- **Larger spaces lessen odor, flies, disease**
- **Use pressure-treated lumber for wood in contact with ground**

THE BASICS: HOUSING

Confinement Systems

✘ Advantages

- + Build to your specs
- + Plans readily available
- + Used in urban areas

✘ Disadvantages

- + Ground can become barren
- + Not made for a large amount of poultry



THE BASICS: HOUSING

Chicken Tractors

- ✘ Bottomless, portable shelter-pen that fits over garden beds
- ✘ Many designs available
- ✘ Mostly commonly used with fruit and vegetable production
- ✘ Popular among sustainable production enthusiasts



THE BASICS: HOUSING

Chicken Tractor

✘ Advantages

- + Can be moved very easily
- + Insect control
- + Source of fertilizer
- + Used in urban areas

✘ Disadvantages

- + Ground can become barren
- + Semi-labor intensive
- + Not made for a large amount of poultry



THE BASICS: HOUSING

Chicken Data Summary

		Floor area per bird (indoors)	Floor area per bird (outdoors)	Feeder space per bird	Feed needs per bird	Roost space per bird
Chicks	0-4 weeks	0.5 sq. ft.		1.5"-2.0"		6"; spaced 12" o.c.
	4-8 weeks	1 sq. ft.		2.5"		
	8-12 weeks	2 sq. ft.		3.5"		
Layers	Light breeds	3 sq. ft.	8 sq. ft.	4.0"	0.25 lb./day (85-90 lbs./yr)	8"; spaced 12"-14" o.c.
	Heavy breeds	4 sq. ft.	10 sq. ft.	5.0"	0.3 lb./day (100-110 lbs./yr)	9"; spaced 12"-14" o.c.

		Water needs per bird	Waste per bird
Chicks	0-4 weeks	1.5-2 oz./day	
	4-8 weeks	4 oz./day	
	8-12 weeks	6-8 oz./day	
Layers	Cool weather (70°F)	8-10 oz./day	¼ lb./day + litter
	Warm weather (80°F)	10-14 oz./day	
	Hot weather (>90°F)	14-16 oz./day	

THE BASICS: HOUSING

Henhouse Flooring

- $\frac{3}{4}$ " exterior-grade plywood or concrete
- 3" deep absorbent litter that is clean, mold-free, dry, but not dusty
 - Pine shavings, rice hulls, chopped straw, shredded newspaper, peanut shells, ground corn cobs
 - Hardwood shavings can produce mold
 - Cedar shavings mat and enhance odors
- Stir litter to keep it from packing
- Replace wet litter with dry to reduce odors
- Move waterers regularly to prevent wet areas

THE BASICS: HOUSING

Lighting

- **Laying hens need adequate light year-round**
 - Hens molt and quit laying with decreased hours of light
 - Intensity affects cannibalism, aggression, feed & water intake
 - Photo period affects reproductive & egg production cycles, total feed intake & growth rate
- **Maximize production with 14-16 hours of “daylight”**
 - Provide two (one is spare) 15-25 watt light bulbs on timer
 - Birds will usually lay one egg every 25 hours

THE BASICS: HOUSING

Ventilation

- **Place windows on the south side of the henhouse**
 - Ensures light and warmth during winter
 - Use slanted window sills to discourage roosting
- **Place vents on the south or east side**
 - Chickens cannot sweat; they start to pant around 95°F
 - Ensures proper ventilation in summer months
 - Dampness & ammonia odor indicate lack of ventilation
- **Insulate roof and walls**
 - Reduces summer heat gain
 - Reduces moisture accumulation

THE BASICS: HOUSING

Water

- Water supply constant, clean & fresh
 - Water intake varies greatly with weather
 - White buckets stay cooler than colored buckets
- Waterer placement
 - Bottom of waterer at bird's back height
 - Within 15 feet of feeders
 - Place in shade in warm weather for bird comfort



Photo credit: www.cackletchery.com

THE BASICS: HOUSING WATERS

Watering Systems

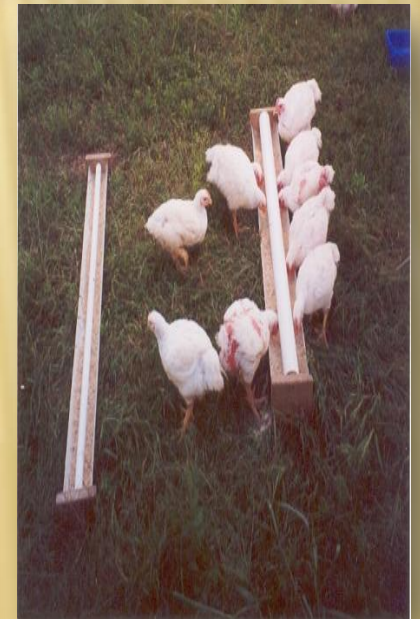
- Five-gallon bucket atop the pen will gravity feed a bell type
- **Mesh screen across top**
- Attach to pen
- **Hoses are used on nipple type**
- Daily water consumption at 90° F for chickens.... approx. 0.5 pint/bird
- **Water intake can vary greatly**



THE BASICS: HOUSING FEEDERS

Feeders

- **Hanging System**
 - Raise and lower to bird height
 - Outer lip level with birds back
 - Prevents spillage and spoilage
- **Trough Feeder Systems**
 - Chickens more susceptible to disease
 - Taken out of pen before moving
 - More chickens can feed at once



THE BASICS: HOUSING

Nests

- Provide one nest for every 4-5 hens
- 12" x 12" in size
- Wood, metal or plastic
- Place on W or E wall for south-facing coop
- Landing board on front for easier entrance/exit
- Provide bedding to prevent egg breakage

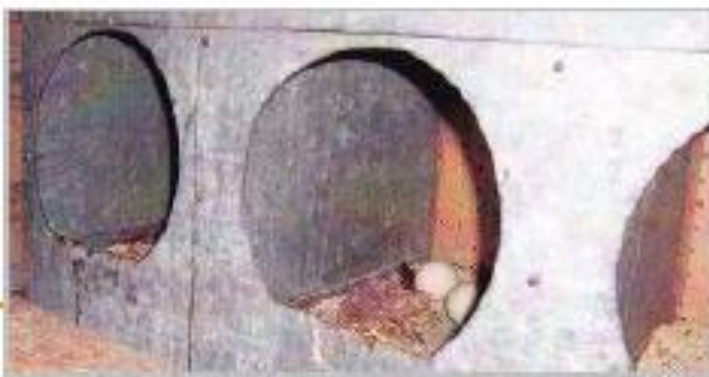


Photo credit: www.cacklehatchery.com

THE BASICS: HOUSING

Roosts

- Allow 8" to 9" of roost space per bird
- Space roosts 12-14" apart
- 1½" dowels or 2x2" lumber works well
- May have to teach birds to use roosts



THE BASICS: HOUSING & HEALTH

Why have my hens stopped laying?

- × **Nutrition**

- + Completely balanced diet
- + Out of feed or water

- × **Disease**

- + Vaccinate (esp. in confinement systems)

- × **Age**

- × **Management**

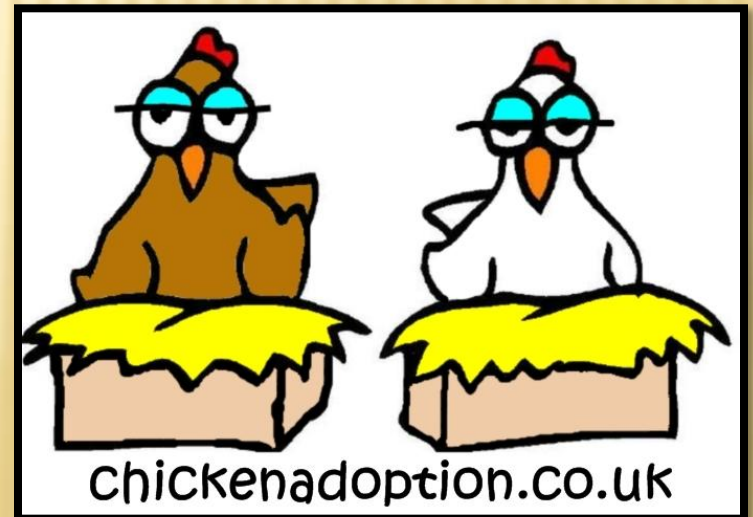


- + Heat
- + Overcrowding
- + Light

THE BASICS: HOUSING & HEALTH

Why have my hens stopped laying?

- ✘ A layer will produce an egg every 1-2 days
- ✘ Pullets start laying when they reach 20-24 weeks
- ✘ First eggs will be small and on the floor
- ✘ Light hours (have a program)
 - + Decrease light hours for growing pullets
 - + Increase hours after they start laying with artificial lights (orange/red lights are best) to maintain 14-16 hr day



THE BASICS: HOUSING & HEALTH

Lack of cleanliness is often a precursor to poultry disease.

Preventive measure include:

- Complete cleaning & disinfecting of houses & equipment before starting chicks or housing layers
- **Daily cleaning of waterers**
- Screened manure pits under roosts
- **Managing litter to keep it dry and clean**
- Spreading of accumulated manure and litter under soil away from areas used by chickens. Compost before use as garden fertilizer.

THE BASICS: PREDATOR CONTROL

- The goal is to balance safety with freedom for the chickens to provide them with every opportunity to exercise their free will and natural instincts.
- We also need to safeguard them in a way that respects and protects the wild animals we live among who are entitled to equal consideration. It is important to know the wildlife in your particular area.

THE BASICS: PREDATOR CONTROL

Provide Protection From Common Predators:



Raccoon



Fox



Hawk



Opossum



Owl



Coyote



Skunk



Dog



Snake



Panther

THE BASICS: PREDATOR CONTROL

Predator Protection 1

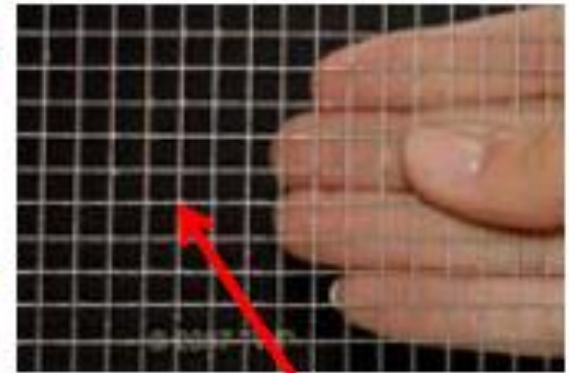
- Daytime threats
 - Dogs (#1), cats, foxes, hawks, coyotes
- Night-time threats
 - Cats, raccoons, possums, owls, rodents
- Predators are reluctant to travel across open territory
- Have as little tree cover as possible; poultry have a sixth sense in open air



THE BASICS: PREDATOR CONTROL

Housing Design

- Secure coop door latches at night
- Staple heavy wire screening to inside of windows & vents
- Use screened outdoor runs



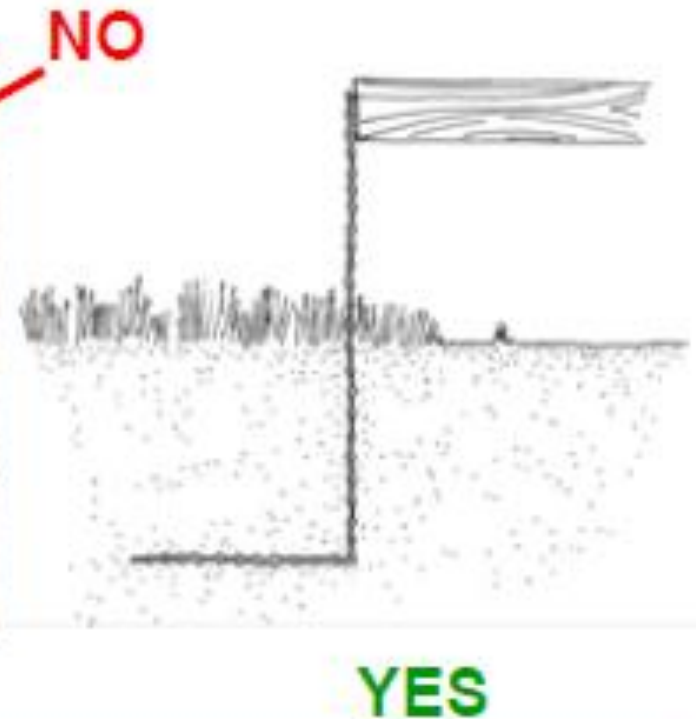
1/4" hardware cloth

Chicken wire

THE BASICS: PREDATOR CONTROL

Housing Design

- Bury wire fencing 6-12" deep in ground



THE BASICS: PREDATOR CONTROL

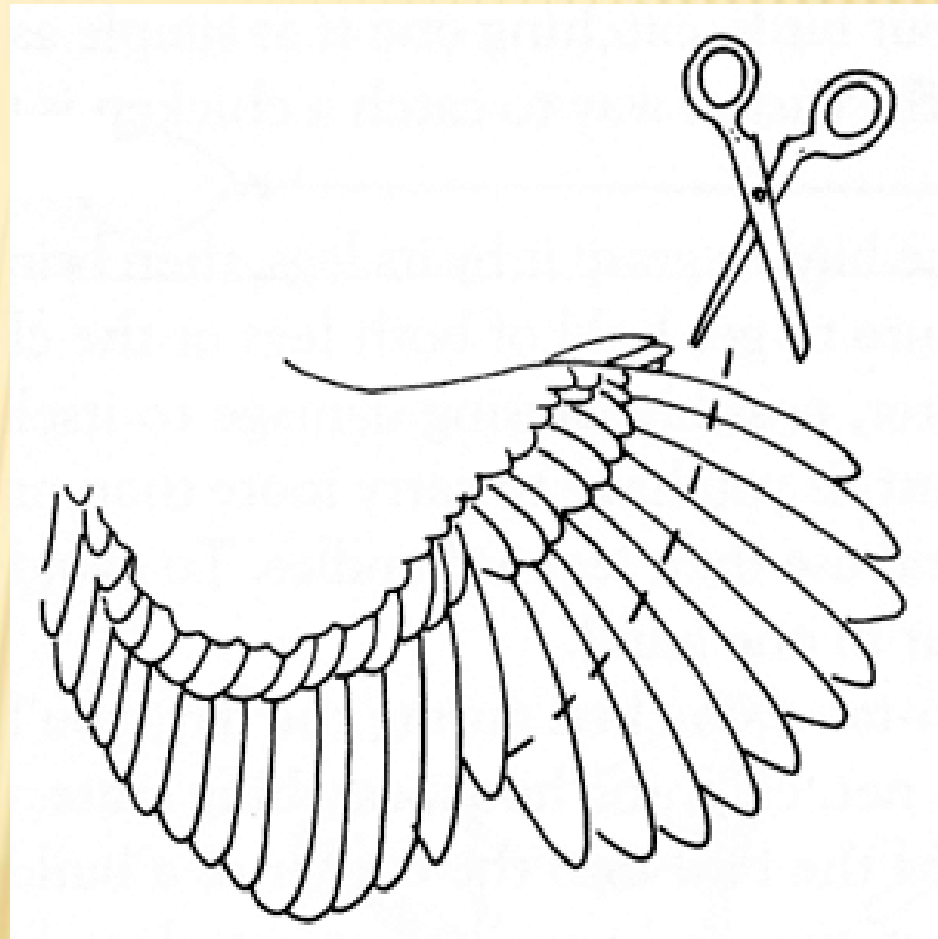
- The most effective means of predator proofing is locking up chickens at night before twilight in a secure coop.
- Situating the coop in close proximity to the house not only discourages wild visitors but also allows for quick action if an invasion occurs.
- Many people install baby monitors and security cameras in their coops.

THE BASICS: FENCING

- A perimeter fence is needed to keep the chickens in a protected outdoor area during the day. Any fence has to be at least five feet high.
- Fences can be made from a variety of materials but durability is essential for long-term security. Woven wire fencing is best (two-inch gauge or less) because there are no welds to corrode and break.
- The fencing has to be buried underground at least a foot or folded outward on the ground for a foot and a half to deter burrowing predators.
- If the area adjacent has overhanging tree branches expect lightweight chickens to fly up to roam the tree tops.

THE BASICS: WING CLIPPING TO PREVENT FLIGHT

- Use sharp shears to cut off the first ten flight feathers of **one** wing.
- Causes a bird to lack the balance needed for flight
- Lasts only until new feathers grow during the next molt
- Painless to your chicken !



THE BASICS: CHICKEN RUNS



INFORMATION RESOURCES

- × **UF/IFAS Extension Sarasota County**

<http://sarasota.ifas.ufl.edu/>

- × **UF/IFAS Solutions for Your Life - Poultry**

<http://solutionsforyourlife.ufl.edu/agriculture/livestock/poultry.html>

ACKNOWLEDGEMENTS

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- Clark, F.D. Range Production and Bird Health. University of Arkansas Extension Service
- Clifford, J. 2006. Biosecurity Guide for Poultry and Bird Owners. USDA APHIS
- Damron, B. & D. Sloan. Small Poultry Flock Nutrition.
- Jacob, J. and T. Pescatore. Selecting the right chicken breed. Kentucky Cooperative Extension Service.

ACKNOWLEDGEMENTS

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- Wiggins, L. Chicken Embryology. 4H School Enrichment Program. UF/IFAS Taylor County Extension.
- UF/IFAS Alachua County Extension. Small Scale Poultry Production.

ONLINE RESOURCES¹

- American Livestock Breeds Conservancy - <http://albc-usa.org/>
- Backyard Chickens - <http://www.backyardchickens.com/>
- Bio Pod - <http://thebiopod.com/index.html>
- Build A Chicken Coop Easy: How to Build a Chicken Coop - <http://www.buildachickencoopeasy.com/>
- 4 H Virtual Farm – Poultry - <http://www.sites.ext.vt.edu/virtualfarm/poultry/poultry.html>
- Heritage Poultry Conservancy - <http://www.heritagepoultry.org/>
- The City Chicken.com – <http://home.centurytel.net/thecitychicken/index.html>

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