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 the 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
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
**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
**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
**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

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

## Water needs per bird

<table>
<thead>
<tr>
<th></th>
<th>Water needs per bird</th>
<th>Waste per bird</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chicks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4 weeks</td>
<td>1.5-2 oz./day</td>
<td>¼ lb./day + litter</td>
</tr>
<tr>
<td>4-8 weeks</td>
<td>4 oz./day</td>
<td></td>
</tr>
<tr>
<td>8-12 weeks</td>
<td>6-8 oz./day</td>
<td></td>
</tr>
<tr>
<td><strong>Layers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cool weather (70°F)</td>
<td>8-10 oz./day</td>
<td></td>
</tr>
<tr>
<td>Warm weather (80°F)</td>
<td>10-14 oz./day</td>
<td></td>
</tr>
<tr>
<td>Hot weather (&gt;90°F)</td>
<td>14-16 oz./day</td>
<td></td>
</tr>
</tbody>
</table>
THE BASICS: HOUSING

Henhouse Flooring

- 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

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
**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.cacklestritchery.com
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
**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

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

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
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
Lack of cleanliness is often a precursor to poultry disease.

Preventive measures 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 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
Predator Protection

- 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
Housing Design

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

¼” hardware cloth
Chicken wire
Housing Design

- Bury wire fencing 6-12” deep in ground

Dust-bathing chickens
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
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
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• Damron, B. & D. Sloan. Small Poultry Flock Nutrition.
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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.
• American Livestock Breeds Conservancy - http://albc-usa.org/
• Backyard Chickens - http://www.backyardchickens.com/
• 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