
Housing & Space Requirements

Chickens in the Backyard Workshop
Springfield, MO
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UNIVERSITY OF MISSOURI
 Extension

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Overview



- Plan before you build
- Space needs
- Housing types
- Predator protection
- Storage
- Flooring
- Lighting
- Ventilation
- Water & feed
- Nests & roosts

Before You Build ₁

- Maximum of 6 hens; no roosters
- Shall only be located to the rear of the dwelling
- Setback distances
 - At least 3 feet from the property line
 - At least 25 feet from another residence, business, school or church
- Odors not detectable at the property line
- Housing must be clean, dry, odor-free, neat & sanitary at all times
 - Zoning Ordinance Subsection 1-1331
 - City Code Section 18-24

Before You Build ₂

- Check with your neighbors first
 - ❑ Show them what you plan to build
 - ❑ Make it look attractive or inconspicuous
- Decide type of housing
 - ❑ Build new
 - ❑ Acquire and refurbish
 - ❑ Buy kit and assemble
 - ❑ Buy finished unit
- Ordinance enforcement
 - ❑ City of Springfield's Building Development Services Dept.
417-864-1010



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 4-8 weeks 8-12 weeks	0.5 sq. ft. 1 sq. ft. 2 sq. ft.		1.5"-2.0" 2.5" 3.5"		6"; spaced 12" o.c.
Layers	Light breeds Heavy breeds	3 sq. ft. 4 sq. ft.	8 sq. ft. 10 sq. ft.	4.0" 5.0"	0.25 lb./day (85-90 lbs./yr) 0.3 lb./day (100-110 lbs./yr)	8"; spaced 12"-14" o.c. 9"; spaced 12"-14" o.c.

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

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

Brooders



Photo credit: www.backyardchickens.com



Photo credit: <http://chickensoncamera.com>



Henhouses

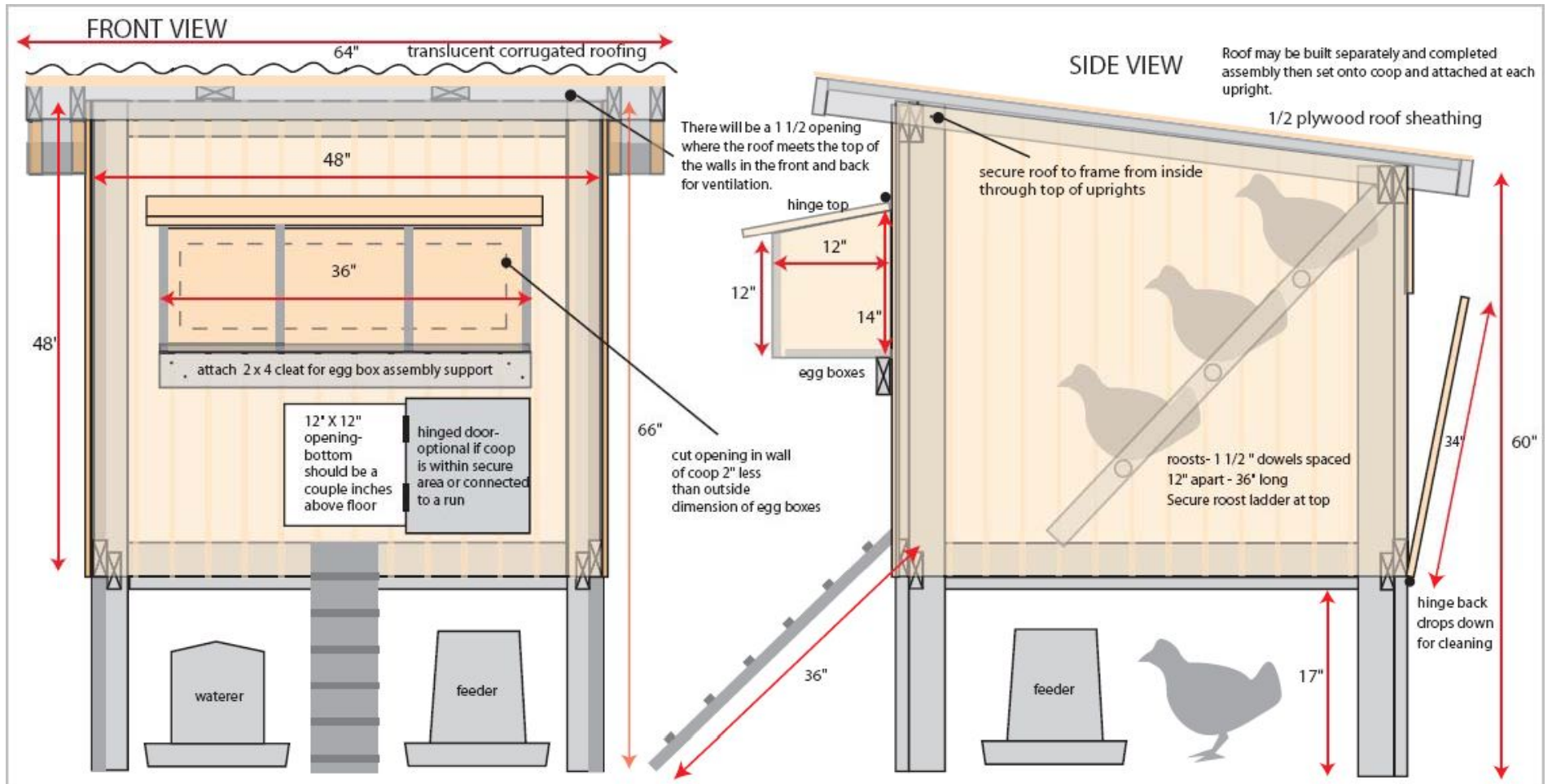


Henhouses



Photo credit: www.omlet.us

Henhouse for 6 Birds



Graphic courtesy of Purina Mills, Inc.

Chicken Tractor

- Bottomless, portable shelter-pen that fits over garden beds
- Many designs
- Most commonly used with fruit & vegetable production
- Popular among sustainable production enthusiasts



Chicken Tractor

■ Advantages

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



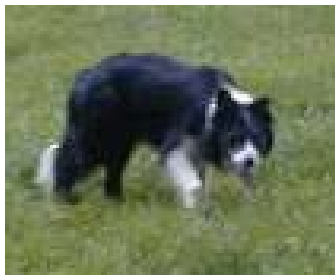
■ Disadvantages

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



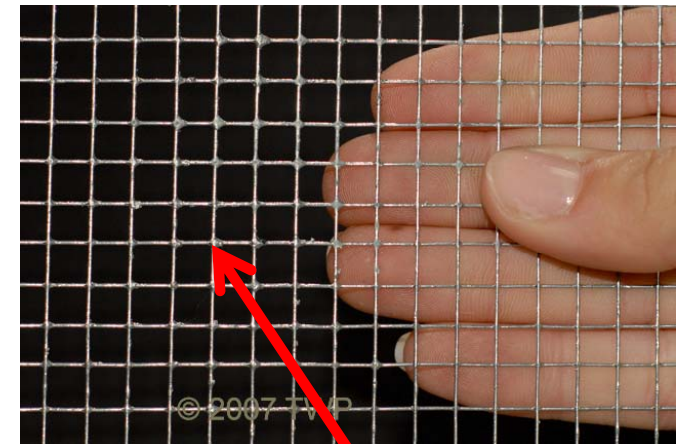
Predator Protection ₁

- 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



Predator Protection ₂

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

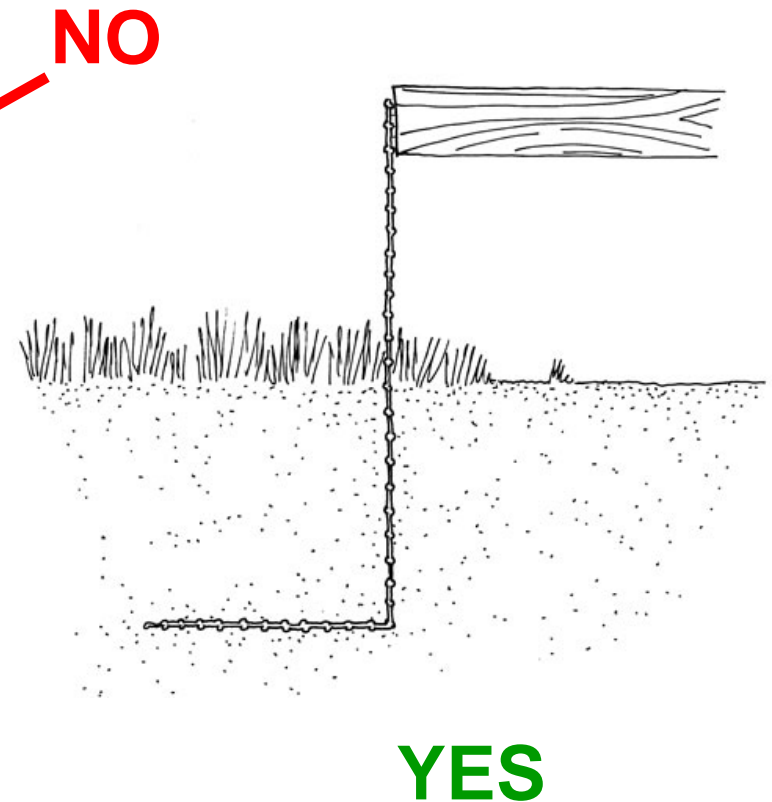


1/4" hardware cloth

Chicken wire

Predator Protection ₃

- Bury wire fencing 6-12" deep in ground



Storage for Feed, Bedding, Manure (for 6 layers)

■ Feed

- ❑ 2 lbs./day = Fifteen 50-lb. bags/year

■ Bedding

- ❑ Shavings = 9 lbs./cu.ft.
- ❑ Need 6 cu.ft. to cover 24 sq. ft. floor 3" deep

■ Manure

- ❑ Excreted at 75% moisture; weighs 60 lbs./cu.ft.
- ❑ Shavings absorb 2 lbs. (1 quart) water per 1 lb. bedding
- ❑ No more than 3 cu. ft. stored, in fully-enclosed structure with a roof or lid



Brooder Requirements

- Made of many different materials
- Home until sufficiently feathered
- Most critical stage of growth
- First weeks determine long-term survival & development
- Check your chicks at least twice per day
- Space = 1 square foot per bird
- Heat
 - 2 heat lamps (in case one burns out)
 - 95°F for week 1; then decrease 5°F per week to 70°F (need thermostat)



Brooder Requirements

■ Litter

- ❑ 3 inches of clean dry litter (*No sawdust, cedar or newspaper*)
- ❑ Keep litter **dry & clean** around water & feed

■ Water = clean & fill daily

■ Feeders

- ❑ Place near heat, but not directly underneath source
- ❑ Fresh food in front of chicks at all times

■ Delivery Day

- ❑ Brooder should be up and running 24 hr before chicks arrive
 - ❑ Have them sent overnight
 - ❑ Show each bird water source
-

Henhouse Flooring

- ¾" 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

Water

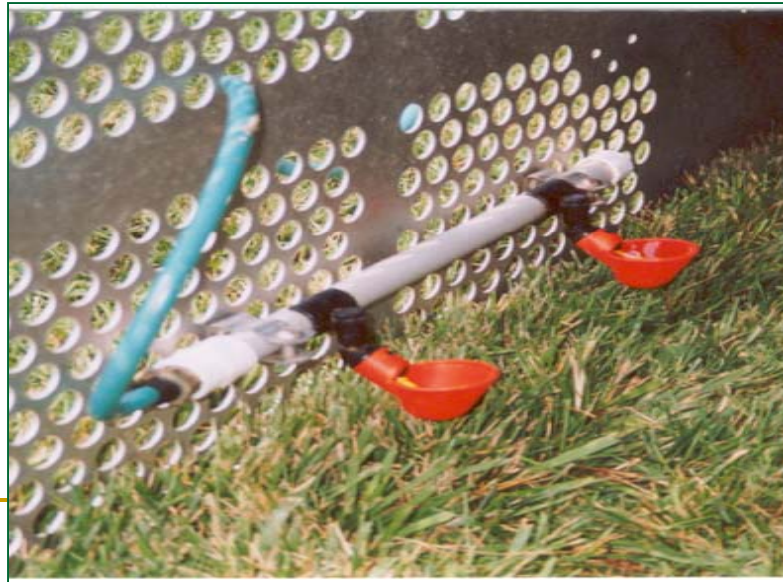
- Water supply constant, clean & fresh
 - ❑ Water intake varies greatly with weather
 - ❑ White buckets stay cooler than colored buckets
- Waterer placement
 - ❑ Bottom of waterer at bird's back height
 - ❑ Within 15 feet of feeders
 - ❑ Place in shade in warm weather for bird comfort



Photo credit: www.cacklehatchery.com

Water

- 5-gallon bucket atop the pen will gravity-feed a bell waterer
 - Mesh screen across top
 - Attach to pen
- Hoses can feed nipple waterers



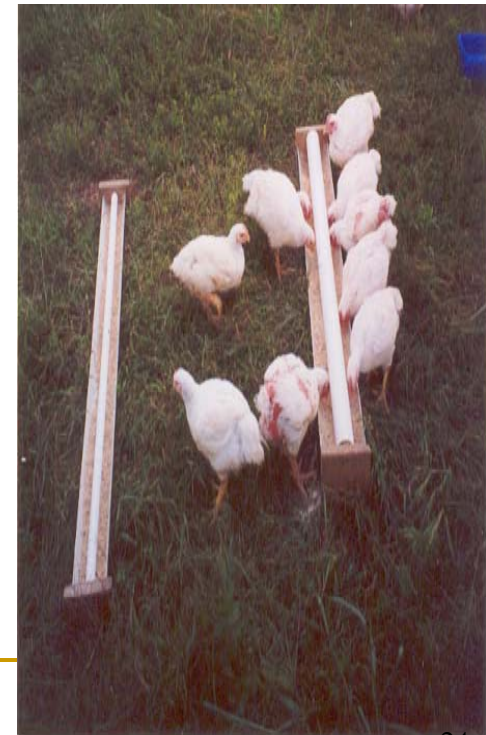
Feeders

■ Hanging System

- ❑ Raise and lower to bird height
- ❑ Outer lip level with bird's back
- ❑ Keeps feed clean; prevents spillage & spoilage

■ Trough Feeder Systems

- ❑ Chickens more susceptible to disease
- ❑ Taken out of pen before moving
- ❑ More chickens can feed at once



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



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



Resources

- **Web:** *extension.missouri.edu/publications*
 - ❑ G8350 Managing a Family Chicken Flock
extension.missouri.edu/explorepdf/agguides/poultry/g08350.pdf
 - ❑ G8351 Brooding and Growing Chicks
extension.missouri.edu/explorepdf/agguides/poultry/g08351.pdf

- **University of MO Extension – Webster County**
 - ❑ Phone: 417-859-2044
 - ❑ Web: extension.missouri.edu/webster/backyardchickens

Questions?

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Program Complaint Information

To file a program complaint you may contact any of the following:

University of Missouri

- MU Extension AA/EEO Office
109 F. Whitten Hall, Columbia, MO 65211
- MU Human Resources Office
130 Heinkel Bldg, Columbia, MO 65211

USDA

- Office of Civil Rights, Director
Room 326-W, Whitten Building
14th and Independence Ave., SW
Washington, DC 20250-9410

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