

# Raising Backyard Poultry

Rachel A. Bauer

Bastrop County Extension Agent- Ag &  
Natural Resources

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# Considerations

- Purpose – Meat, Egg, Dual, Ornamental, Pet, Exhibition, Breeding
- Goal – Enjoyment vs Business
- Conventional, Organic,
- Facilities / Space
- Caged, Cage Free, Barn, Pastured

# Considerations

- Climate – Hot vs. Cold
- Shipping Chicks – Seasonal
- Egg Color / Size
- Broodiness
- Temperament

# White Egg Layers



Anconas

120-180 Eggs

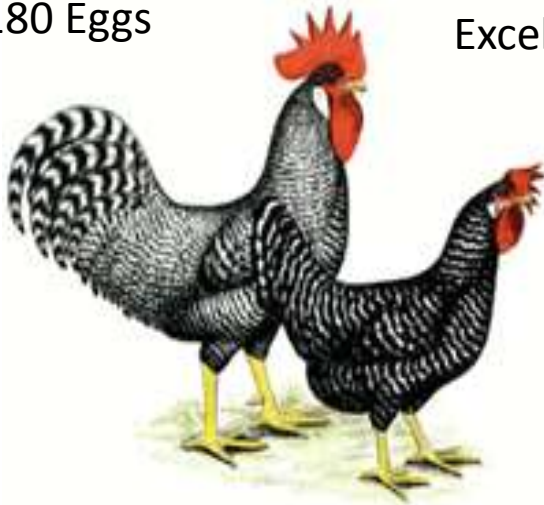


Black Minorcas

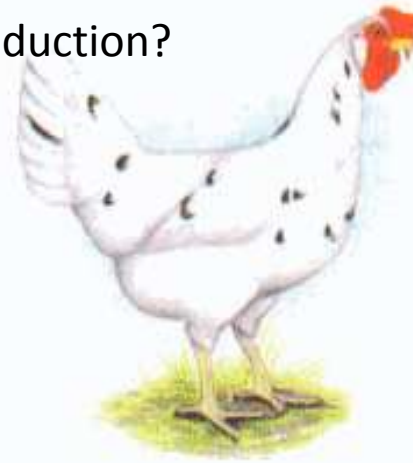
Excellent- Egg Production?



Buff Minorcas



Production Blacks



Ideal 236

# Brown Egg Layers



Production Reds

250+ Eggs



Barred Plymouth Rocks

200+ Eggs



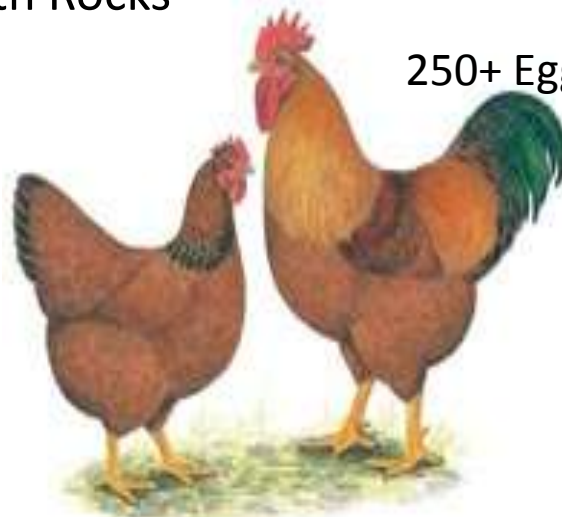
Rhode Island Reds

250+ Eggs



Silver Laced Wyandottes

180-200 Eggs



New Hampshire Reds

Fair? - Eggs

Sex Links (not pictured)

# Blue & Green Egg Layers

~250 eggs/yr

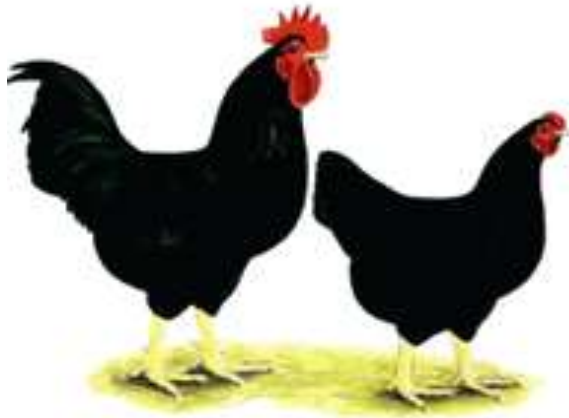


# Meat Breeds



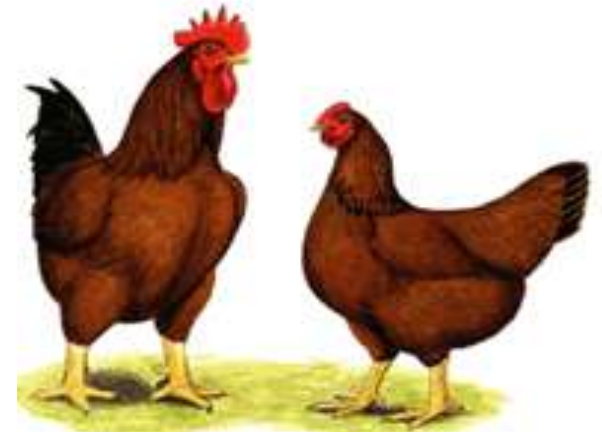
Cornish Cross

6 lbs in 6 weeks or less



Black Broiler

6 lbs in 7 weeks or less  
3-4 lbs in 8 weeks



Red Broiler

6 lbs in 7 weeks or less  
3-4 lbs in 8 weeks

# Dual Purpose Breeds



Buff Orpingtons  
175-200 eggs/yr



Black Australorps  
250 eggs/yr



Dark Cornish  
50-80 eggs/yr



< 140 eggs/yr

Cochins



Delawares  
150-200 egg/yr



# Mail Order Hatcheries

- Ideal Poultry – Cameron, Texas
- Randall Burkey- Boerne, Texas
- Murray McMurray – Iowa
- Morris Hatchery – Miami, Florida
- Stromberg's - Minnesota
- Meyer Hatchery – Ohio
- many more on internet

# Functions of Housing

- Protection from weather extremes
  - precipitation
  - winter and summer
- Protection from predators
  - particularly at night
- For laying hens, a place to nest and lay eggs
- For chicks, proper brooding environment for early growth period
- Maximize efficiency

# Layer Housing

- Suggest confined housing
  - promote bird health
  - promote egg quality
  - reduce potential for predation
- Wire or slat (wood or plastic) flooring optimum
- Littered flooring (wood shavings, rice hulls, wash sand) second best

# Layer Housing

- Free-range housing
  - Provide a permanent or mobile structure to provide minimum housing
    - protection from predators (close at night)
    - protection from bad weather and cold
    - nest boxes for egg laying
    - feed and water

# Principles of Housing Design

- **Orientation**

- Long axis east-west

- Minimizes wall area directly facing sun

- For naturally ventilated houses:

- minimizes direct sunlight shining into house

- takes advantage of prevailing south wind in summer

# Principles of Housing Design

- **Materials**

- Metal is fine for exterior walls and roof
- Metal not recommended for interior surfaces
  - metal is an excellent conductor of heat (radiant heat transfer)
- Cleaning and disinfection should be considered for interior surfaces
  - lower porosity materials are easier to clean
  - paint can help to seal wood surfaces for easier cleaning

# Principles of Housing Design

- **Roof Overhangs**

- essential to prevent rain or direct sunlight from entering the house
- provides shade for sidewalls, keeping the house cooler
- 2 ft. is a good rule of thumb to start with
- proper overhang is a function of side wall height and proximity of the side wall opening is to the ground
  - the taller the house, the longer the overhang should be
  - the closer the side wall opening is to the ground, the longer the overhang should be

# Principles of Housing Design

- **Side wall openings**

- openings should account for 50-80% of side wall area

- plastic curtain or adjustable doors

- curtains should open top to bottom

- doors should be hinged at the top and open out



# Location of Housing

- Adequate drainage a must
- Proximity to habitat for wild birds and predators
- Harborage for pests and rodents
  - eliminate trash and brush piles, old equipment
- Natural air flow (breeze)
- Visibility from your house and neighbors

# Minimum Ventilation

- A small amount of air exchange needed to remove moisture and waste gases and replenish oxygen
  - typically only a problem if the house is closed up tight during brooding or extremely cold days (in combination with old litter or high bird density)
- Best controlled through a cycle timer and fan

# Good Design with Adjustable Doors

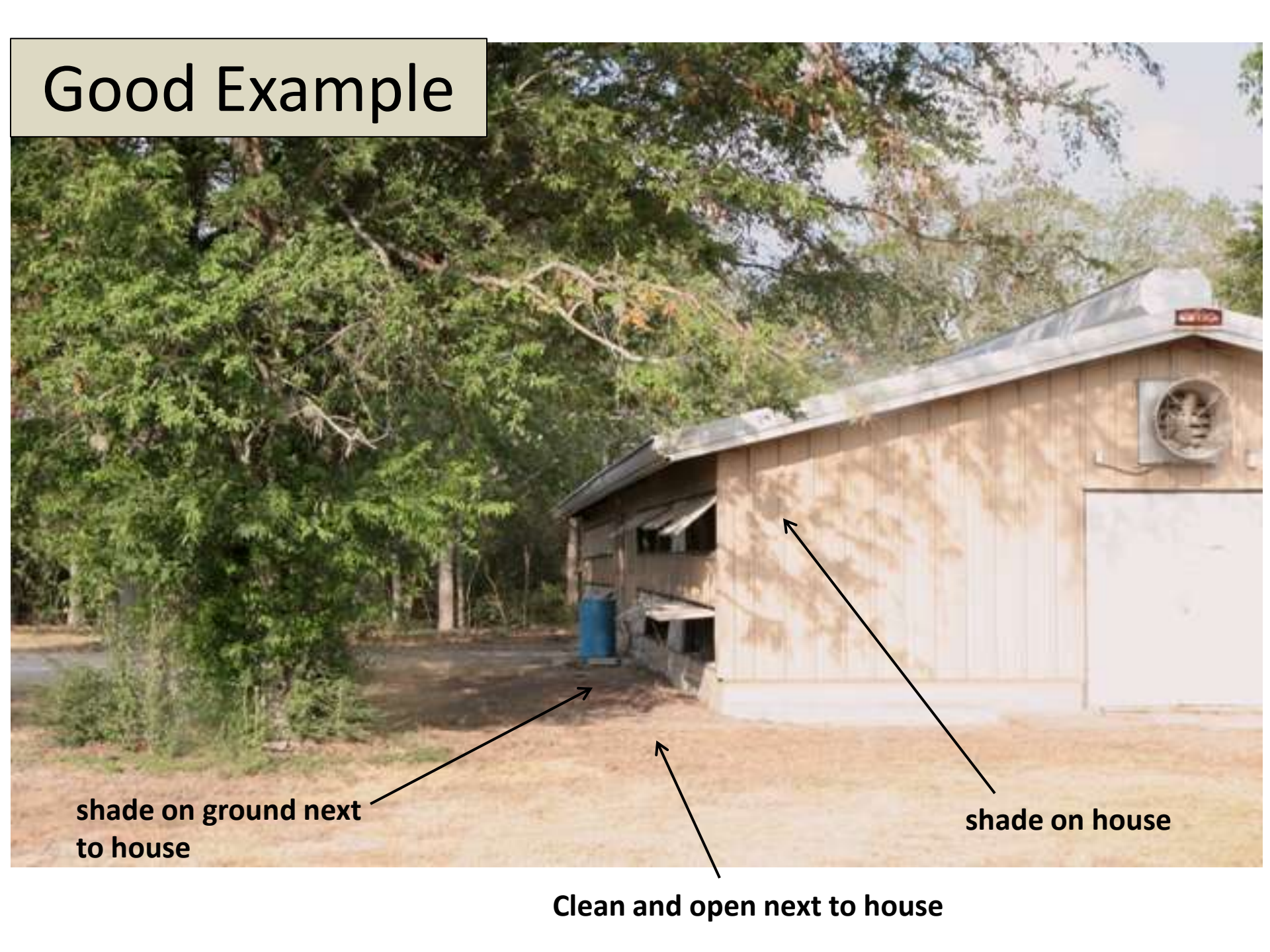


# Good Example

shade on ground next to house

Clean and open next to house

shade on house



Better, but can be improved



# Permanent vs Mobile

## Permanent Housing

- Build up of shavings/litter
- Control environment
- Predators less access
- Raise birds in one system
- More birds per housing

## Mobile Housing

- Fertilize pasture
- Less control over environment
- Predators easier access
- Brood birds then move to mobile
- Maximum coop size?

# Poultry: Science and Practice, 1951

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*Poultry: Science and Practice*



COURTESY MISSOURI AGRICULTURAL EXPERIMENT STATION

Fig. 104. A well-constructed range shelter built on skids to facilitate moving.


# But what about mobile coops or “chicken tractors”?





# Things to consider with mobile coops

- May have to move daily, depending on density of birds
  - Enough land??
- Heat/Cold stress
  - Air flow
  - Shade
  - Moisture
- Predators
- Still must brood baby chicks in a building

A mobile chicken tractor, a trailer with a corrugated metal roof and sides, is parked in a grassy field. A large white banner is attached to the side of the tractor. The banner features the text 'Pastured Eggs' in a large, serif font. Below this, in a smaller font, it reads 'Free-Range, No Antibiotics, No Growth Hormones, Organically Fed'. At the bottom of the banner, the phone number '979-555-9999' is displayed in a large, bold font. The tractor has a small wooden door on the right side. In the foreground, numerous chickens of various breeds are scattered across the field, some pecking at the ground. The background shows a line of trees and a yellow diamond-shaped road sign on a hillside.

# Pastured Eggs

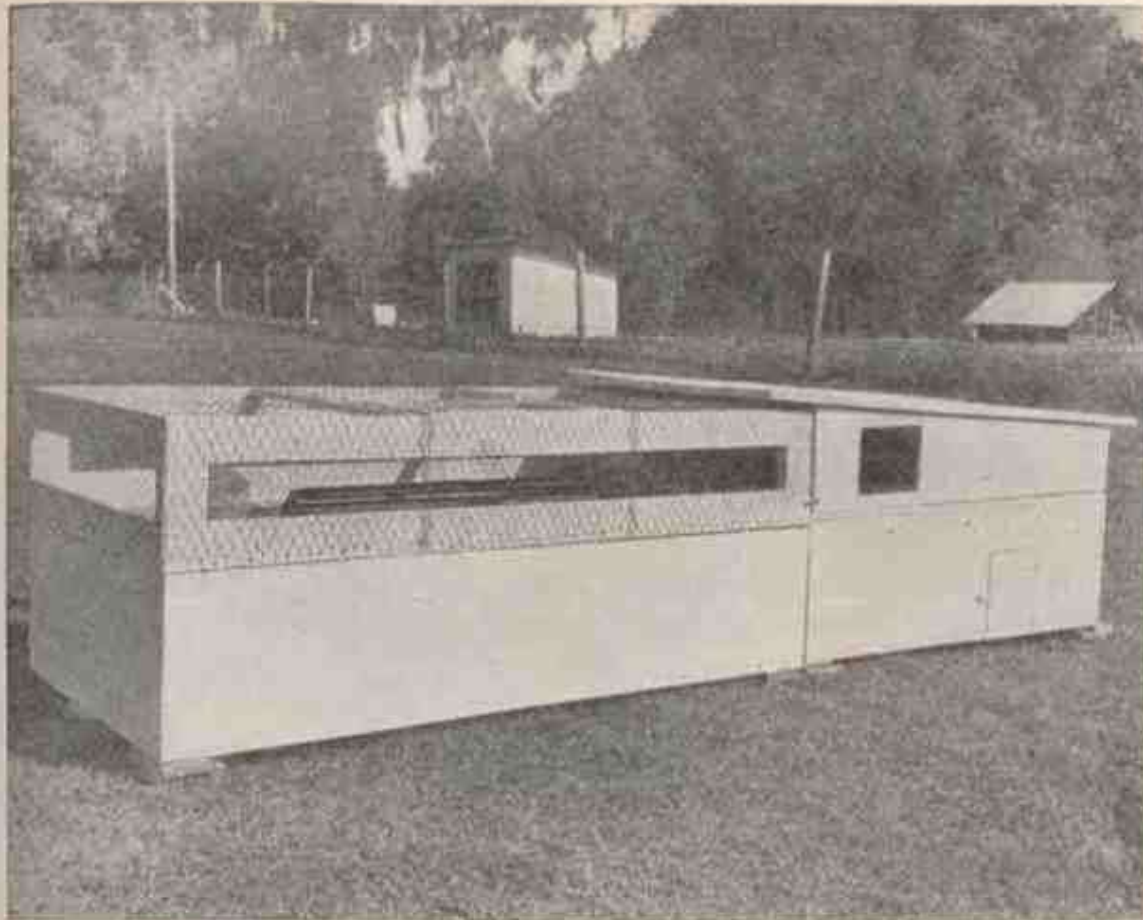
Free-Range, No Antibiotics, No Growth Hormones, Organically Fed

979-555-9999

# Poultry: Science and Practice, 1951

*Housing Principles and Practices*

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COURTESY FLORIDA EXPERIMENT STATION

Fig. 110. Oil heated chick brooder and sunporch in foreground. Colony brooder house and range shelter in background.

# Nipple drinker systems are suitable for all chickens

- automated
  - reduced time and labor
- more sanitary than trough or bell drinkers
- low pressure
- less spillage
  - = drier manure/litter





# Simple Nipple Drinkers with a Bucket



## Creating your own Poultry Nipple Bucket Drinker is as easy as 1-2-3!

1. Drill holes in the bottom of the sealed bucket with an 1 1/32" drill bit (purchased locally). We suggest three holes, spaced accordingly, for maximum efficiency.
2. When installing nipples, place rubber grommet in drilled hole first, followed by the actual nipple. Grommet is included with each nipple. Wetting the nipple first eases the application.
3. Hanging or fastening your drinker will depend on the location and application. We recommend using rope, cable or chain. All are sold separately. Ask your National Account Manager for more details.

# Water Equipment Options

- FarmTek catalog (also online)

POULTRY WATERING

**Our highest flow nipple.**

- Waters your birds perfectly.
- Best-suited for use with FarmTek® single arm drip cups (WF2223), sold separately.
- All sealing components are 100% stainless steel.



**360° HI-V° NIPPLE**  
STK# EACH  
WC1050 \$2.09

**Waters your birds while keeping your litter dry.**

- Ideal for broilers, breeders, layers, pullets, ducks and gamebirds.
- Does not require a drip cup.



**360° SUPER FLOW° NIPPLE**  
STK# EACH  
WC1030 \$2.19

**The ideal nipple for both broiler and layer systems.**

- Perfectly waters your birds while keeping your litter dry.
- Does not require a drip cup.
- Sealing components are 100% stainless steel.



**360° SUPER FLOW° PUSH-IN NIPPLE**  
STK# ITEM EACH  
WC1045 Push-In Nipple w/Grommet \$2.39  
WC1046 Replacement Rubber Grommet 0.43

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**Hobby Nipple Drinkers let you water your poultry like the pros.**

- Commercial poultry growers use them, why shouldn't you?
- Litter stays dry and birds stay healthier.
- 4" spacing with 8' line. Kits come complete with end riser kit.
- Super Flow™ Drinker (103696) also includes an auto flush regulator.
- Lines can be extended up to 200' long with our 8' Extension Kit (WC3515).
- Drinkers are designed to fit in our ClearSpan™ Chick-Inn Buildings.
- Allows drinking by a large number of birds.
- Little required maintenance saves both time and money.



**103696**

**Boiler drain valve for the line pressure monitoring made easy.**

- Constructed of durable, high-quality plumbing components.
- Flexible end riser tube eliminates accidental damage.
- Square pipe adapter and brightly colored sight tube float ball.



**END RISER KIT**  
STK# ITEM EACH  
WR1080 End Riser Kit \$25.95  
WR1084 Replacement Float Ball 1.10

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**Unique system will provide a constant supply of clean, fresh water to your new chicks or game birds right through their maturity.**

- Easily adjustable for all stages of development.
- Designed for both indoor and outdoor use, this Nipple Bucket System can be easily moved from one location to another.
- Sealed unit means bedding stays drier and water stays fresh and clean, saving time, labor and money.
- Five-gallon bucket, with snap-on lid and steel-wire handle, is constructed from high-impact polyethylene. Bucket and lid each sold separately.
- 360° Super Flow™ Push-In Nipples do not require drip cups and have stainless steel sealing components.



**Creating your own Poultry Nipple Bucket Drinker is as easy as 1-2-3!**

1. Drill holes in the bottom of the sealed bucket with an 11/32" drill bit (purchased locally). We suggest three holes, spaced accordingly, for maximum efficiency.
2. When installing nipples, place rubber grommet in drilled hole first, followed by the actual nipple. Grommet is included with each nipple. Verify the nipple fits over the application.
3. Hanging or fastening your drinker will depend on the location and application. We recommend using rope, cable or chain. All are sold separately. Ask your National Account Manager for more details.

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**Deliver high water flow at low pressure.**

- 3/4" MGH inlet, 3/4" FPT outlet.
- No O-ring seals to deteriorate.
- Constructed of ABS impact-resistant plastic.
- Impervious to rust, corrosion and medication.



**0-10 LB. FLOW MASTER PRESSURE REGULATOR**  
STK# EACH  
WR1280 \$63.95

**Easily remove sediment and air in lines.**

- Ideal for nipple drinking systems.
- Dependable, affordable and low maintenance.
- Molded from heavy-duty, durable plastic for long life.
- 3/4" MGH inlet, 3/4" FPT outlet.
- 0"-20" column pressure.
- Available with or without Auto Flush Kit.



**103462**

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**Perfect for poultry and livestock watering cups.**

**REGULATORS**  
STK# ITEM EACH SALE  
110018 Flow-Tek Hobby Regulator \$48.95 **\$24.95** Inventory Blowout  
103462 Regulator with Auto Flush Kit 78.95  
W2175 Square Adapter to 3/4" MPT 3.99  
WR1084 Replacement Float Ball 1.10

**110018**

Call and order today at 1.800.FarmTek (1.800.327.6835) or fax 1.800.457.8887 **FarmTek** 65

# Hand-gathered nest boxes





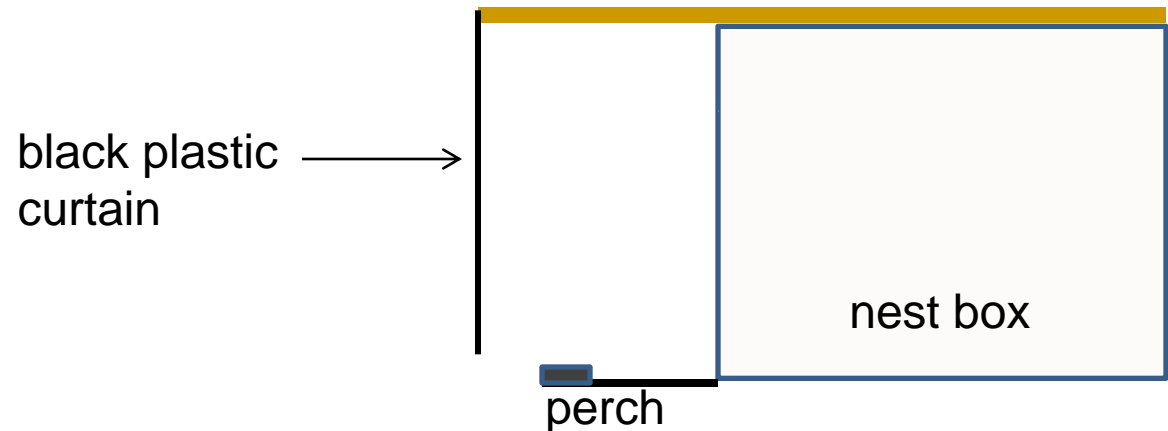
# Nest Management

- Roll-away nests are superior
- Change litter in box-type nests regularly
- Use excluding mechanism to prevent nighttime roosting in boxes
- 4 to 5 birds per nest

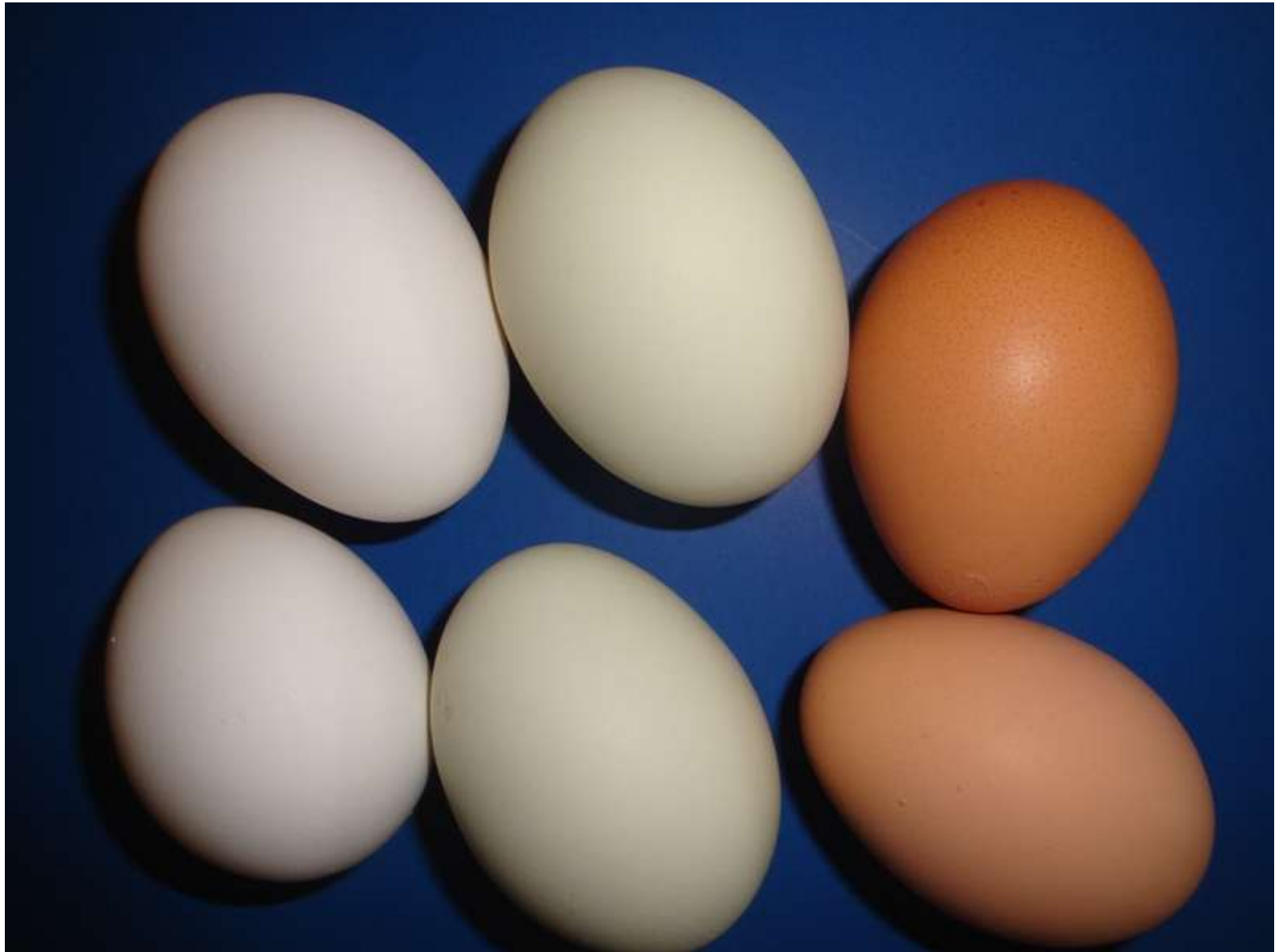


# Nest Management

- Avoid direct light into boxes (make boxes as dark as possible)



- Collect floor eggs frequently to discourage laying on floors
- Disrupt floor or ground nest sites to discourage laying





# Washing of Eggs

- Most washing procedures will remove the cuticle.
- Dipping or soaking (submersion) of eggs is highly discouraged.
  - may aid in bacterial penetration of shell
  - increase cross contamination between eggs

# Washing of Eggs

- Washing should be done by spraying eggs with a wash solution
  - use an approved egg detergent
  - wash water conditions very important
    - temperature, detergent concentration
- Wash water should be at least 20°F warmer than the internal temperature of the eggs
  - minimum of 90°F

# Washing of Eggs

- Spray rinse eggs after washing
  - rinse water should be slightly warmer than wash water
  - use an approved sanitizer
    - chlorine or a quaternary ammonium compound at 100-200 ppm is most commonly used
- Dry eggs before packaging

# Storage of Eggs

- Eggs should be refrigerated as quickly as possible after cleaning and sorting/grading to preserve quality and reduce the potential for bacterial growth.
- FDA, TDA and DSHS regulations:
  - **Must** be maintained at **45 °F** or less at all times



# Poultry in Bastrop City Limits

- Found at [www.cityofbastrop.org](http://www.cityofbastrop.org) Code of Ordinances link, under Ch. 2 “Animal Control”.
- Basically, no restrictions on backyard poultry.
- Contain chickens in your yard.
- Be aware of “nuisance issues” with neighbors (roosters crowing or chickens getting out).
- Coop placement
- Chicken Sanctuary- Farm St. (95 & RR tracks)

# Using Litter as Fertilizer

- Good source of N, P, K, Ca, Mg, S, B
- 3-3-2 ratio of N-P-K (can vary)
- Can raise soil pH & OM content over time
- Must mineralize to be taken up by plant
- Incorporate into soil to prevent N volatilization
- Can lead to P<sub>2</sub>O<sub>5</sub> build up in soil over time
- Soil test!

# Average Range in Nutrient Value of Manure

Source	Dry Matter	N % (lbs/ton)	Potassium % (lbs/ton)	Phosphorus % (lbs/ton)
Cow (Fresh)	25	15	8	10
Beef Feedlot	65 (45-79)	27(23-39)	24 (15-39)	36 (18-56)
Broiler Litter	65 (25-85)	58 (34-89)	51 (32-67)	40 (16-48)
Layer Litter	35 (4-78)	30 (13-70)	40 (2-85)	20 (8-52)

Let me know if you find one of  
these!

