



Beginning Poultry —

Do you have questions about raising a
back yard flock?

By

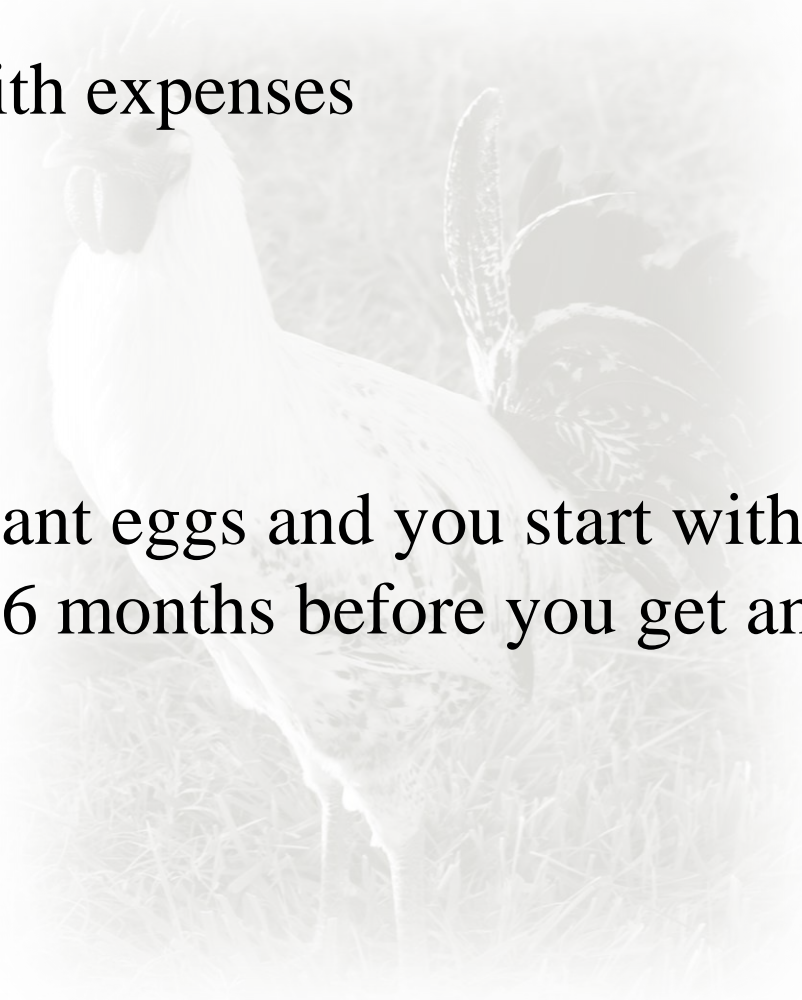
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It's Cheaper To Buy It
From The Store



Expense

- Birds come with expenses
 - Birds
 - Feed
 - Housing
- Also, if you want eggs and you start with chicks, it will be about 6 months before you get any eggs



Expense

- Big companies buy feed by the truck load so it is cheaper
 - Feed costs more when you buy it by the bag
- Big companies control the environment where the birds are housed so they spend less energy on staying warm or cool

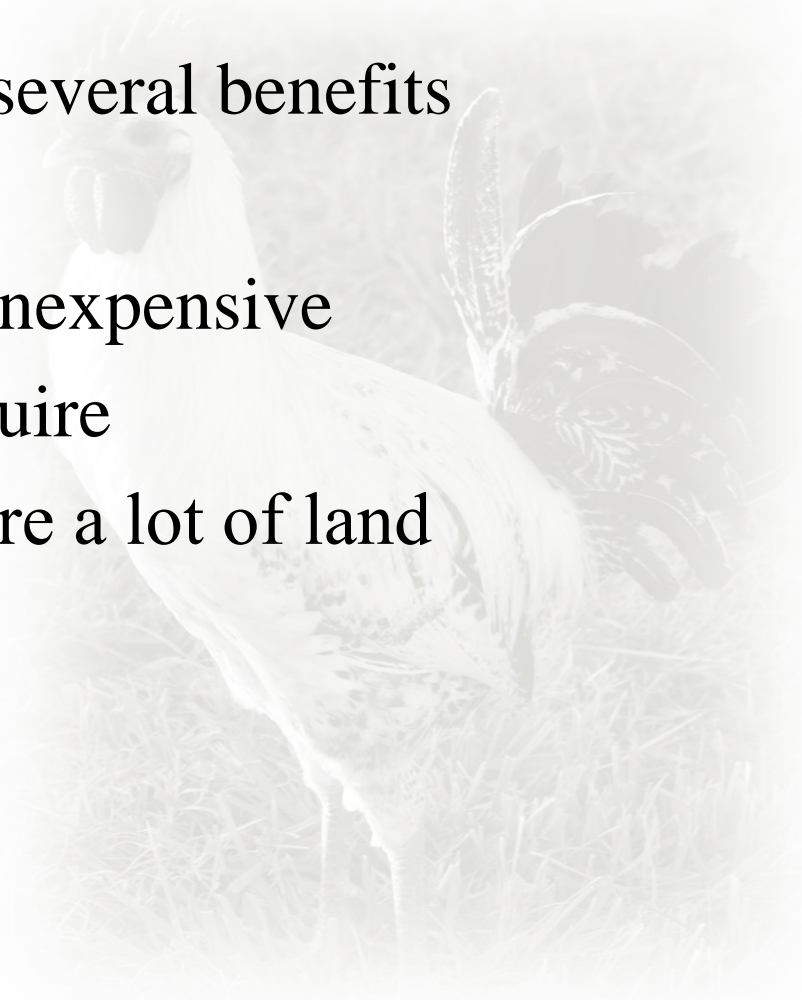


Poultry Are An
Excellent Choice
When Starting a
Livestock Project



Cheap to start

- Poultry have several benefits
 - Small
 - Relatively inexpensive
 - Easy to acquire
 - Don't require a lot of land



You Need To Register Your Small Flock



Rules

- Federal law exemption:
 - Slaughter less than 20,000 poultry per year of own production for intrastate sales. Prohibited from selling adulterated product.
- States have their own requirements
 - You must obey them, so look them up
- Everyone that sells eggs in MD must register with the state
 - A producer/packer who keeps 3,000 or fewer chickens and who sells eggs only from those chickens must register annually, but is exempt from paying the registration and inspection fees
 - All shell eggs sold, donated or delivered in Maryland must be graded

The Rules Maryland

- **Who needs to register?** All individuals involved in keeping or caring for all types of poultry and any number of birds, which would include: Small households, all forms of live poultry production, production facilities/farms, suppliers, dealers, haulers, wholesalers, live bird markets, and participants in MD's fairs and shows. By definition poultry includes: Chickens, turkeys, ratites, waterfowl, game birds and domestic/captive pigeons.
- **Who is exempt from registration?** Registration is not required if five (5) or less birds are housed for less than 120 days in a 12 month period. Poultry can not be moved from the exempt premises, participate in shows or be sold. Examples of exempt poultry: Easter chicks, school or 4-H broiler projects and certain pets.
- http://mda.maryland.gov/animalHealth/Forms2/poultry_registration.pdf

More Rules

- While many urban areas are changing laws to allow backyard poultry, there are still restrictions on the number of birds and the gender
- If you live outside the city limits, then you need to check with the county to see what regulations exist
- HOAs



Have A Plan Before You Get Your Birds



Have a Plan

- Plan at least six months in advance
- Neighbors
- Time
 - Who will take care of the birds?
 - What about vacations?
- Bird safety/Housing
 - Weather
 - Predators



Have a Plan

- Where will you get your feed?
- What will you do with the manure?
- Do you know basic husbandry for poultry?
- What will you do if there is a disease problem?
- What will you do with the birds that die?
 - Know the rules



Selecting A Breed Can Be Fun



Introduction to Breeds

- Chickens come in two sizes;
 - Standard or Large fowl
 - These are the normal size birds
 - Bantam – A miniature size chicken or duck, usually about 1/4 to 1/5 of the regular size
 - Used mainly as ornamental birds
 - Most are miniature copies of the large breeds
 - Silkies have no large counterpart
 - Some do have good egg production
 - Eggs are small



Breeds



- Select the breed that best fits your goals
 - Breed Preservation – keeping breeds from going extinct
 - Dual-purpose – both meat and eggs
 - Meat production
 - Egg production
 - Developing your own breed – when you just can't find a breed that meets your goals
 - There are over 400 varieties of chickens

Know your market

- If you are producing meat, what do your customers want
 - Yellow or white skin
 - Large plump breast or lots of dark meat
- For egg production consider
 - Size of the eggs
 - Color of the eggs
 - White, green, brown, dark brown, tinted or blue



Dual Purpose

Breed	Egg Production	Egg Size	Egg Color	Disposition	Foraging Ability
Plymouth Rock	Fair	Large	Brown	Calm	Fair
Rhode Island Red	Good	Large	Brown	Calm	Fair
Dominique	Fair	Medium	Brown	Calm	Good
Delaware	Fair	Large	Brown	Calm	Good
Wyandotte	Fair	Large	Brown	Calm	Fair
Brahma	Fair	Large	Brown	Calm	Good
Orpington	Fair	Large	Brown	Calm	Poor-Fair

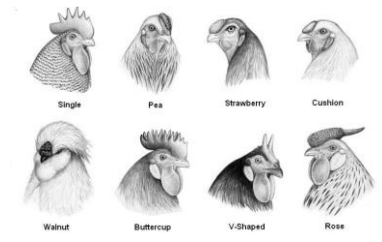
Egg Layers

Breed	Egg Production	Egg Size	Egg Color	Disposition	Foraging Ability	Broody
Leghorn	Excellent	Large	White	Very Active	Good	No
Minorca	Excellent	X Large	White	Active	Good	No
Australorp	Excellent	Large	Brown	Calm	Poor	Yes
Ancona	Good	Large	White	Active	Good	No
Ameraucana	Good	Large	Blue-green	Calm	Good	Yes
Hamburg	Good	Small	White	Very Active	Good	No
Fayoumi	Good	Small	Tinted White	Very Active	Excellent	Some
Maran	Good	Large	Bark Brown	Active	Poor	Yes
Sex-link	Excellent	Large	Brown	Calm	Poor	No

Meat Breeds

Breed	Growth Rate	Skin Color	Disposition	Foraging Ability
Cornish	Slow-Medium	Yellow	Calm	Poor
Jersey Giant	Medium	Yellow	Calm	Poor
New Hampshire	Fast	Yellow	Calm	Poor
Freedom Rangers	Fast	Yellow	Calm	Fair
Modern Broilers	Very Fast	Yellow	Calm	Poor

Other Things to Consider



- Climate
 - Some chickens do better in cold areas, others do better in hot areas
 - Mediterranean breeds generally do well in hot humid areas
 - Most American breeds do better in cool areas
 - Usually birds with large combs will perform better in hot areas
 - Combs can get frost bite
 - Some breeds have varieties with different combs
 - Use a smaller comb variety in cold areas

There Are A Lot Of
Options When It
Comes To Coup
Design



Housing and Confinement

- Protect birds from extreme weather, predators, injury, and theft
- Consider location on your property
- Keeping poultry totally confined with fence and covered run is the best protection from predators
- May need to bury fencing wire below surface to prevent predators from getting to birds

Housing and Confinement

- Fence wire size - small enough to prevent predators (mink, weasels)
- Consider proximity of your house (neighbors) before construction begins
- Location which drains well
- Run electricity and/or water
- Poultry require a dry, draft free house
- Must be able to clean it without too much difficulty



Housing and Confinement

- There Are Two Main Types of Houses
 - Moveable
 - House are moved to new locations on a regular basis so that birds have access to fresh pasture
 - Fixed
 - Can't be moved but can allow birds to have access to pasture
 - Some have multiple fixed pasture areas so pasture can be rotated


Moveable Houses



Fixed Housing



Minimum Space Requirements



<u>Type of bird</u>	<u>Sq ft/bird inside</u>	<u>Sq ft/bird outside runs</u>
Bantam Chickens	1	4
Laying Hens	1.5	8
Large Chickens	2	10
Quail	1	4
Pheasant	5	25
Ducks	3	15
Geese	6	18

It's Not Hard To Find Baby Chicks



Getting Chicks



- Most small farms order their chicks by mail from hatcheries
 - This method is very affective and allows for a wide selection of breeds to select from
 - There are lots of different hatcheries and most can be found using a quick web search
 - Make sure that they participate in the NPIP program
 - Chicks can be shipped by mail because prior to hatching the yolk is drawn into the body and can be used as a source of energy for up to 3 days

Raising Chickens Is
Not As Easy As Some
Magazines Claim

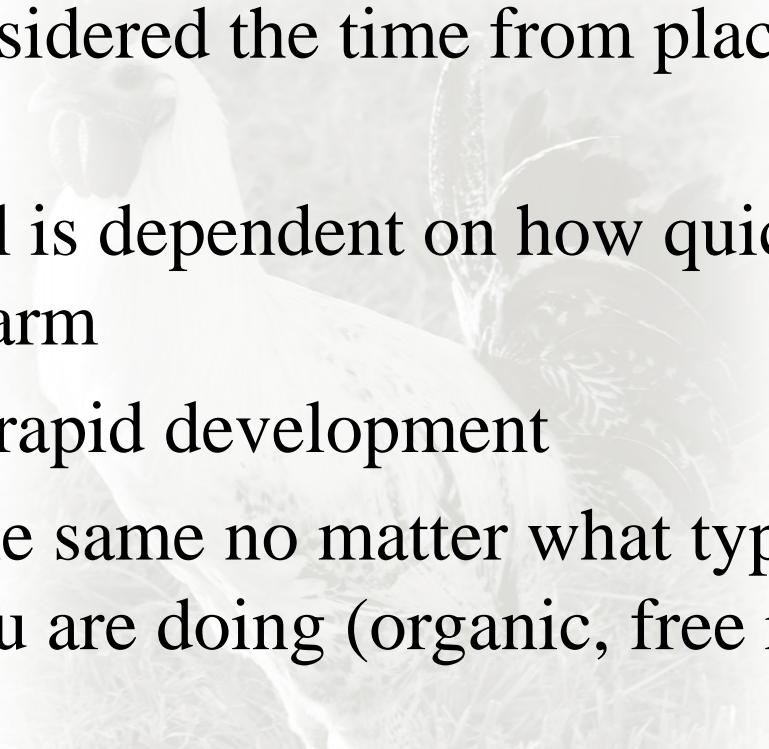


Managing small flocks

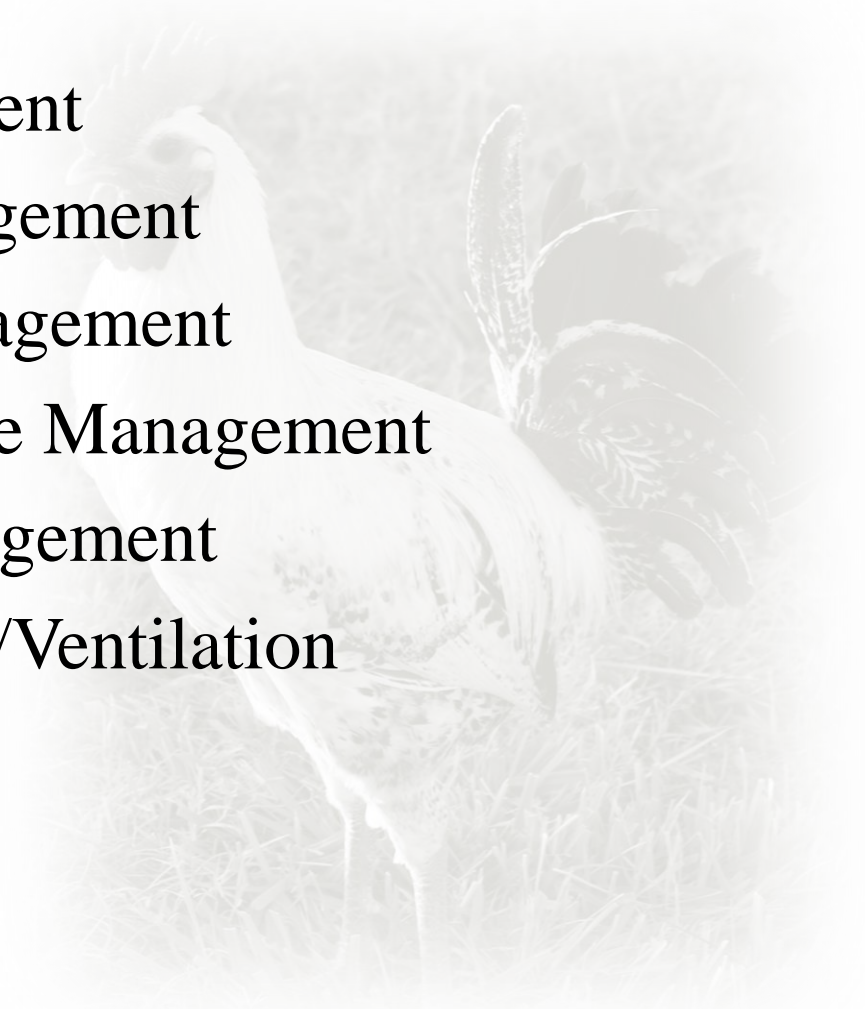
- Managing small flocks can be divided into three different stages
 - Brooding
 - Growing
 - Egg production/breeding



What is Brooding?

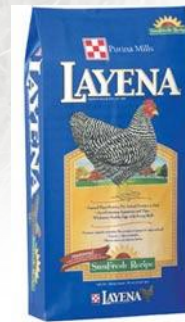
- Generally considered the time from placement to 14 days
 - Chick survival is dependent on how quickly they adjust to the farm
 - Time of most rapid development
 - Brooding is the same no matter what type of production you are doing (organic, free range, etc.)
- 

6 Basics of Brooding

1. Pre-Placement
 2. Feed Management
 3. Water Management
 4. Temperature Management
 5. Light Management
 6. Air Quality/Ventilation
- 

A Note on Feed and Water

- For beginners, it is easiest to just purchase feed from a local farm store
 - Starter (20%-24% protein)
 - Grower (18%-20% protein)
 - Layer (~16% protein)
- Water needs to be clean
 - Use a source of water that you would drink from

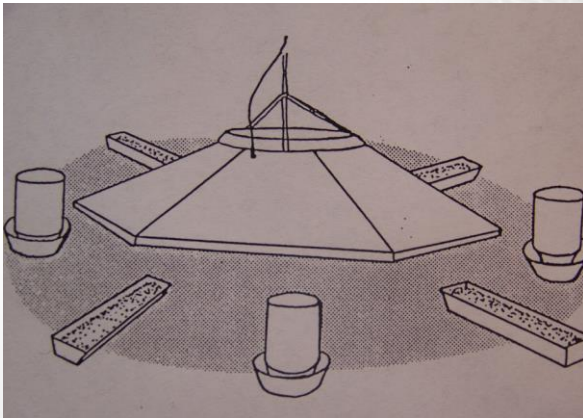


Feed and Water

- To encourage the chicks to eat, place feed in feed trays and then place the chicks on top of the feed
- Feed trays can be any low-sided object like
 - Egg flats
 - Pie tins
 - Cut the bottom off of a milk jug
 - You can even place the feed on newspaper
- Remove feed trays after the first couple of days

Feed and Water

- Waterers need to be cleaned daily
- If available, start the chicks on a “chick starter” mash or crumbles
- Place your feed pans close to the heat source
 - This allows them to find the feed and still stay warm



Feed and Water

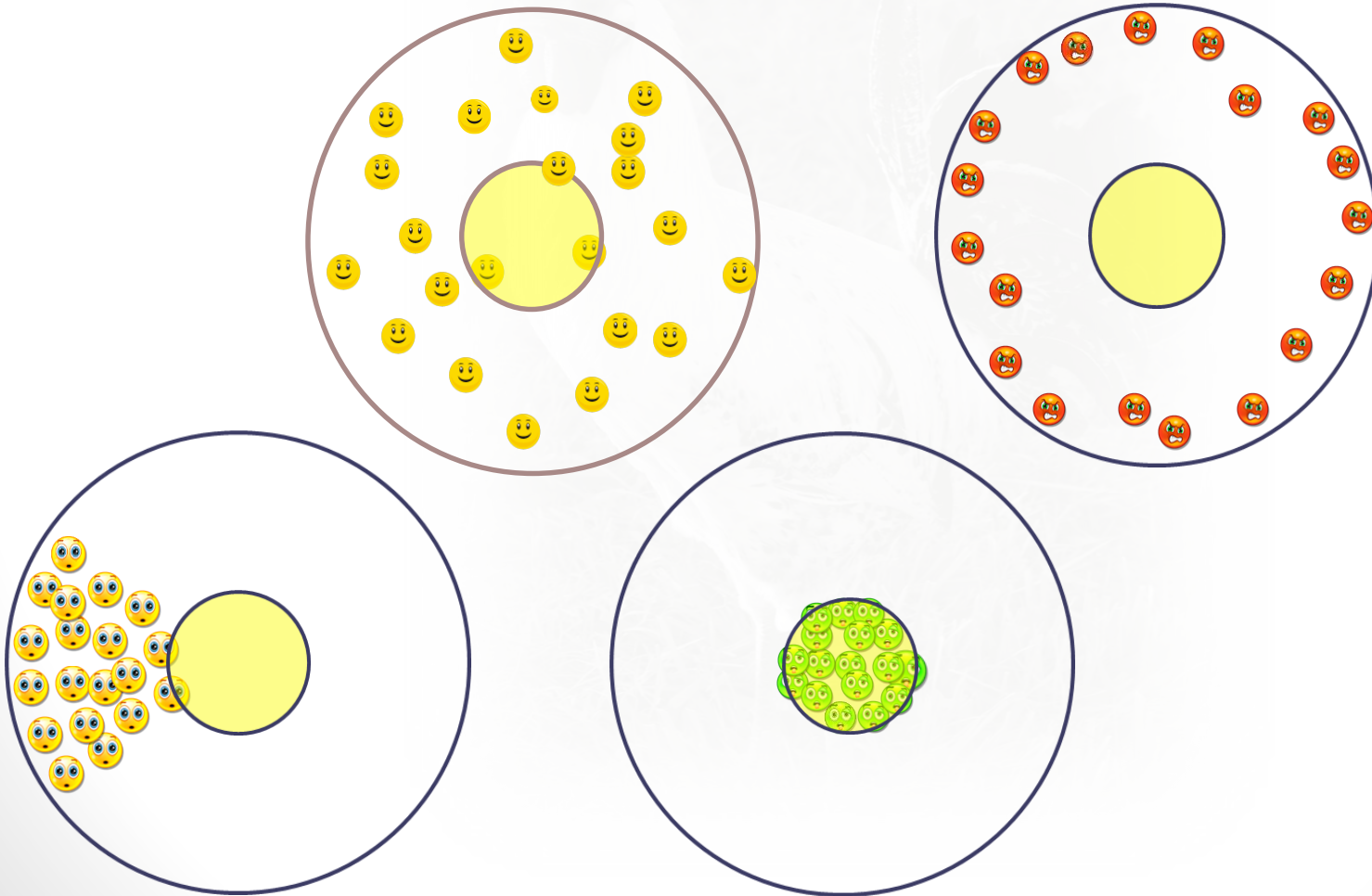
- For the first week, fill the feeders full
 - This will help the chicks find the feed
- For the second week fill feeders $\frac{3}{4}$ full and no more than half full thereafter
 - This will help to prevent the chicks from wasting feed
- Provide enough feeder space
 - Watch birds to make sure they can all eat

Heating

- Always use a thermometer when setting up for chicks
- Aim for a chick level temperature of 92-95°F for the first week, then drop the temperature by 5°F a week
- Once the chicks begin to feather out, the temperature may be dropped rapidly, saving energy
- Good ventilation is important
 - The area should be light and airy, without drafts
- After placing the chicks, watch them and adjust heat to the right temperature based on **their** needs

Heating

- Look at the birds



Housing - litter



Primary functions of a litter in poultry houses are;

- Diluting excreta
- Absorbing fecal moisture
- Promoting drying of feces
- Providing a cushion for breast muscle and feet
- Insulating chicks during cold weather

Growing

- Growing covers the time from the end of brooding until birds are harvested or are sexually mature



Growing

- Management is not as intensive
 - Birds can manage their body temperature
 - Still need some supplemental heat until they are fully feathered
 - Once grown they can handle cold weather without problems if they can stay dry and out of the wind
 - It is best to keep them confined indoors until they are 4 weeks old
 - Mortality is lower as the chicks know how to find food and water

Growing

- For rapid growth, birds should not be allowed to run out of feed
 - Feeder height needs to be adjusted periodically as the birds grow
 - If the feeder is too low they will waste feed



Growing

- It is important that water be provided at all times
 - On hot days lack of water can quickly lead to death
 - Water needs to be clean and fresh
 - Birds consume about twice as much water as they do feed



Egg production/breeding

- The amount of time it takes for chickens to sexually mature varies by the breed
 - Usually start laying between 18 and 22 weeks of age
 - Fayoumi hens may start laying as early as 16 weeks
 - Lighter breeds usually mature faster than heavier breeds

Egg production/breeding

- Feed and water need to be provided at all times
- Water is particularly important as it is a major component of the egg
 - If water is restricted or unavailable for long times during the day, egg production will drop
- Layer feed needs to contain adequate calcium and phosphorus
 - Calcium can also be supplied by allowing the hens access to oyster shell free choice
 - Can be used instead of grit in layers
 - Available from most feed stores or online

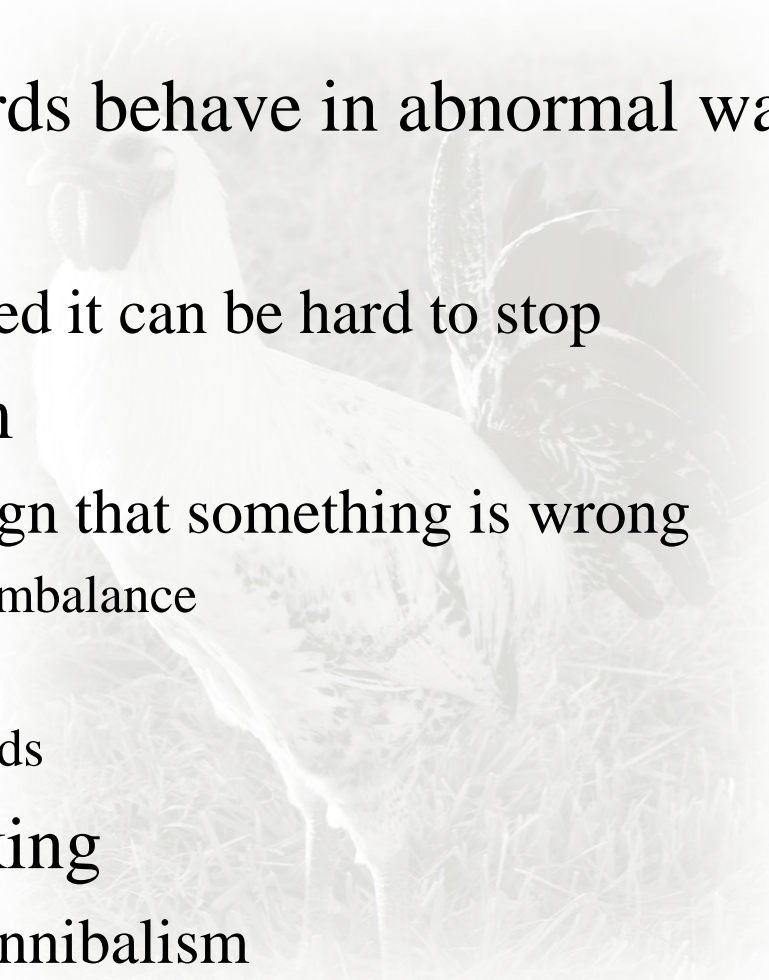
Egg production/breeding

- Housing is the same as growing with the exception of nest boxes
 - Need one nest box for every 4-6 hens
 - 12x12x12 is a good size for average size hens
 - Make them a little bigger for large size breeds
 - Place in a shaded area to encourage the hens to lay eggs in them



Common behavior issues

- Sometimes birds behave in abnormal ways
 - Egg eating
 - Once learned it can be hard to stop
 - Cannibalism
 - Can be a sign that something is wrong
 - Nutrition imbalance
 - Bored
 - Injured birds
 - Feather picking
 - Same as cannibalism



Records Are Important



Records

- You need to keep records for
 - Taxes
 - To determine if you have problems
 - To determine what works
 - In order to know how much to charge for your products



Pricing your eggs

- \$13-16 / 50 pound bag
- 1 bag can feed 20-25 adult hens for 10-14 days
- 1 month = 5 bags of feed (adult birds) = \$92.50
- 3.56 lb. feed eaten/dozen eggs
- $\$13.99/50\text{lb. bag} = 35.7\text{¢/lb.} \times 3.56\text{lb.} = \$1.27/\text{dozen}$
- Labor & fuel for driving
- Equipment: feeders, cartons, waterers, bedding
- Farmer's Market booth fees, Vet bills
- Price your eggs accordingly!
 - In MD you need a permit to sell or give away eggs

Biosecurity Is An Important Part Of Raising Birds



What is Biosecurity

- “Bio” means life and “security” means protection

“Life protection”

- Any and all practices and protocols for the prevention of disease
- Why is it important?
 - To prevent the spread of disease
 - Maintain healthy flocks
 - Increase income

Elements of Biosecurity



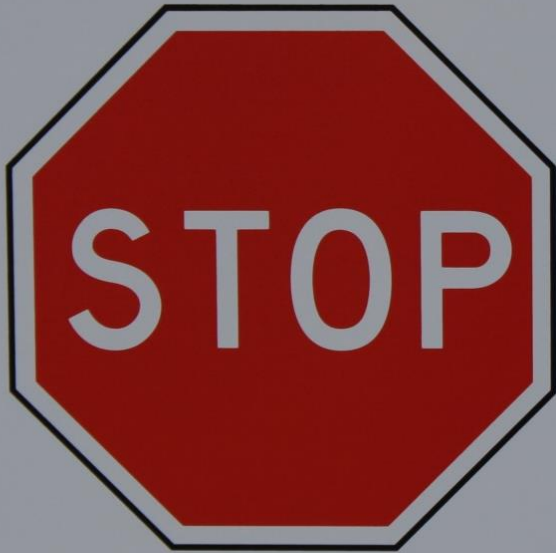
- Isolation
 - Confine your birds within a controlled environment
 - Keeping other birds out
 - Locking doors to prevent others entering
 - Separating birds by age
- Traffic Control
 - Control traffic on and around your farm
- Sanitation
 - Disinfect material, equipment, and people that work or enter the farm

Isolation

- One of the best ways to accomplish this is to prevent people and animals from entering the farm
 - Limit access to farm
 - Fences or farm land
 - Gates
 - Place at all access points
 - Lock when no one is present on farm, gate can't be monitored if seldom used
 - Signs
 - Place all access points

Signs

Biosecurity Area



**No Admittance
Without Owner
Permission**

Telephone:

UNIVERSITY OF
MARYLAND
EXTENSION
Solutions in your community
<http://extension.umd.edu/poultry>

Signs



Predators Are A Problem



Predators

- Little chicks are very vulnerable to predators
- The list of predators is long but some to consider include:
 - Cats and dogs, they may be pets but they can see chicks as food if not properly supervised
 - Rats
 - Owls and raptors
 - Wild animals
 - Weasels, mink, skunks, opossums, bobcats, foxes, coyotes, and even bears will kill and eat chickens

Predators

- Most predation occurs at night so make sure your chicks are in their house and that it is shut tight to keep them safe
- Cover chicks in boxes or feed tanks with poultry wire to protect them



Predators

Predator	Signs
Coyote	Whole bird missing, with scattered feathers
Cat	Chicks or young birds missing
Dog	Birds usually mauled but not eaten
Fox	Whole bird missing, with scattered feathers
Hawk	Bird eaten on site, lots of feathers
Mink/Weasel	Dead birds neatly piled, back of head and neck eaten
Owl	Head and neck eaten, lots of feathers, sometimes whole birds missing Happens at night
Opossum	Whole birds consumed feathers and all, sometimes leave only the wings or feet
Rat	Chicks or young birds missing, partially eaten chicks
Raccoon	Breasts and entrails eaten, backs bitten, scattered feathers
Skunk	Entrails eaten but not muscles or skin, lingering odor

Questions??



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