

## POULTRY MANAGEMENT

### Learning Objectives

*The learner will:*

- Understand the role livestock (specifically poultry) in farm system
- Learn how to care for chicks
- Learn how to raise chickens for eggs, meat, and other
- Learn about pasture-based production models

### Why Raise Chickens

- Entertainment
- Eggs
- Meat
- Fertilizer
- Bug and Weed Control
- Breeding Stock

### Chicken Terminology

- Hen                mature female chicken > 1 year
- Pullet            immature female chicken < 1 year
- Cockerel        male chicken < 1 year
- Rooster         male chicken > 1 year
- Straight / hatchery run:        unsexed
- Molt             natural process of shedding feathers
- Brood            to care for batch of chicks
- Broody          hen that sets
- Crop             pouch where chicken digests food
- Vent             opening through which hens lay eggs

### Brooding

- Equipment
- Feeders
- Waterers
- Temperature
- Litter
- Nutrition
  - Grit critical – use stream sand – usually higher mineral content
  - Add hay chaff – seeds of perennials generally higher in nutrition than annuals (grains)
  - Fresh green vegetable matter – garden waste, grass clippings (not too much, especially meat birds – bred for hot feeds)



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### Chicken Breeds

- Layers
- Meat

### Egg Production

- Production layers: 250-280 eggs / year
- Average brown egg layer: 150-200 eggs / year
- Hens begin laying at about 5-6 months of age
- Production falls off as hens age – replace every 2-3 years to maintain profit
- Egg color:
  - White (Leghorns)
  - Brown (Barred Rock, Rhode Island Reds, Buff Ophington, Black Australorp, New Hampshire Reds)
  - Colored (Auracana/Americana) 1 egg every 3 days
- Yolk Color – affected by plant pigments beta carotene and xanthophylls (green plant material or yellow corn will turn yolks orange)

### Winter Production

- Egg production will decline in the fall and may cease during Nov – Jan
- Can sustain with lighting:
  - 40-60 watt bulb, 16 hours / day on timer
  - 15 watt bulb 24 hours / day

### Egg Processing

- Storage:
  - 1 month or more in the fridge
  - 2-3 months < 55 degrees at 75% humidity
  - Egg quality diminishes in storage

### Chicken Coop Design

- Stationary vs. Mobile
- Should provide protection from weather, drafts
- Need adequate ventilation



## POULTRY MANAGEMENT

- Feeders – 5-6 inches per bird
- Waterers – 1-2 inches per bird
- Roosts – 8 - 12 inches roost space per adult, 15 inches between roosts (sloping)
- Nest boxes – 12” x 12” spacing, 4” lip across front, 2 feet above floor, 1 box per 5 birds

### Disease Prevention

- Sanitation
- Adequate space
- Fresh air / ventilation
- Proper nutrition
- Cull as needed
- Protect from predators

### Pastured Poultry Production

- Feed requirements drop 30 – 50%
- Housing:
  - Eggmobile (henabago)
  - Hoop houses
  - Variations on the chicken tractor
- Grass height important (too tall, will be trampled)
- Rotation with other livestock

### Marketing

- Eggs: direct vs. retail
  - Designations: certified organic, free-range, free-nested, cage free
- Meat



## POULTRY MANAGEMENT

### Assessment/Review

- What role can chickens play in an agricultural ecosystem?
- What are the benefits of pastured poultry production models?
- List important considerations for care of chicks.
- What are the basic feed requirements of chicks? Chickens?



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### References

ATTRA (Appropriate Technology Transfer for Rural Areas) Website:  
<http://attra.ncat.org/>.

Damerow, G. 1994. The Chicken Health Handbook. Storey Books, North Adams, MA.344 pp.

Salatin, J. 1993. Pastured Poultry Profits. Polyface, Inc, Swoope, VA.371 pp.

### Sources for Chicks

- Phinney Hatchery, 1331 Dell Ave., Walla Walla, WA
- Murray McMurray, Webster City, IA

