

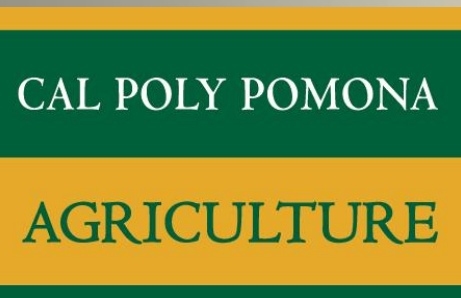
BACKYARD POULTRY PRODUCTION

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Backyard Chickens

Success depends on good husbandry practices....

Layer Housing

- **Should provide the following:**
 - (i) Shelter from elements**
 - Wind & Rain
 - Sun & Predators
 - (ii) Ventilation, light**
 - (iii) Roosting**
 - (iv) Laying boxes**
 - (v) Low cost but functional**





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- **Use clean, dry litter material:**
 - (i) **Wood shavings**
 - (ii) **Peat moss**
 - (iii) **Ground corn cobs**
 - (iv) **Chopped straw**
 - (v) **Saw dust**
- **Depth of litter should be 3-4”**
- **To avoid packing (caking), turn (rake) the litter weekly or as needed**

Brooding Management

- Set up brooder 2 days before chicks arrive – allow space of 10 square inch per chick
- Temperature under brooder: 90-95°F; measured 3" off floor and brooder walls
- Reduce by 5°F weekly until temperature is 70-75°F



- **Behavior of chicks best indicator of brooder conditions:**
 - (i) **Crowded together – too cold**
 - (ii) **Far out from heater, pant, hold wings away from their bodies – too hot**
- **Supply heat until chicks well feathered (4-8 wk of age depending on season)**



Feeding Management

Starter phase:

- **Starter diets should contain:**
 - (i) **>18% CP**
 - (ii) **>1.00% lysine**
 - (iii) **>0.30% methionine**
 - (iv) **>0.80% Ca**
 - (v) **>0.40% P available**
- **Starter diets fed to chicks 0-5 wk of age**

Grower phase:

- Feed grower diet (>15% CP) during 6-14 week of age
- Feed grower diet (>12% CP) during 14-20 week of age
- Provide **Calcium supplement & grits** (oyster shells) at >18 week of age

- Laying phase:
- **Feed usually medicated; non-medicated or organic feed available**
- **Grits** may be provided
- **Feed available in feeders at all the times**
- **Fresh, clean water should be provided at all times**

Equipment

- **Feeder space (linear):**

<u>Age (week)</u>	<u>space/100 birds</u>
0-2	100" (2.54 m)
3-6	200" (5.08 m)
13-20	300" (7.62 m)

- **Drinker space (linear):**

<u>Age (week)</u>	<u>space/100 birds</u>
0-2	25" (0.63 m)
3-6	50" (1.26 m)
13-20	100" (2.54 m)



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Feeding Broilers

- **0-3 weeks of age - broiler starter**
 - (i) **CP = 22-23%**
 - (ii) **3.00% added fat**
 - (iii) **Cocciostat (0-3 week)**
- **3-6 weeks of age – grower diet (CP = 20%)**
- **6-8 weeks of age – finisher diet (CP = 18%)**



Fencing



- **Electric fence - use together with reliable fence charger**
- **Can drain charger in wet weather, use fault-finder to monitor voltage**
- **Very effective in excluding predators**

Predators

- Coyote, dogs, hawks, cats, etc.
- Successful strategies
 - Physical Barriers
 - Fencing
 - Netting
 - “Trained” Local Predators
 - Wood line Distance
 - Livestock Guardian Dogs (LGD)
- Can't shoot/trap out of predation problems
- Control methods depend on predators, local ordinances





Safe Egg Handling Practices

Success depends on good husbandry practices....

Keeping Eggs Clean

- Keep nest-boxes clean
- Provide adequate roost space
- Prevent roosting in nests
- Exclude birds from nest-boxes until laying time
- Clean, dry bedding
- May prefer roll-away nest



- **Use open containers to collect eggs, at least 2x daily**



- **Do not store eggs near onions, kerosene, paint**

Egg cleaning/washing:

- Eggs may be dry cleaned using fine sand paper, emery (rough) cloth or steel wool
- Egg containers should be pre-cooled before packing with eggs
- Exercise care to minimize cracking
- Wash in running, hot water ($> 90^{\circ}\text{F}$)
- Use open baskets, can't hold water



- Assurance of egg quality depends on handling
- Store eggs in a cool environment (65°F), 75-80% relative humidity
- **What safe handling instructions are on egg cartons?**
All packages of raw, shell eggs not treated to destroy *Salmonella* must carry the following safe handling statement:
- **SAFE HANDLING INSTRUCTIONS:** To prevent illness from bacteria: Keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly (USDA-FSIS)

Egg Grading



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Biosecurity practices

- **Guidelines** – prevent introduction of commonly known and unknown diseases
- **Sanitation, management, vaccination, and control of diseases precedes good health of poultry flocks**
- **Thoroughly clean & disinfect poultry house & equipment between flocks**

1. Personnel & equipment restriction

- (i) Restrict visitor access**
- (ii) Visitors - use disposable boots**
- (ii) Delivery truck restriction**
- (iv) Avoid equipment sharing**

2. General hygiene & sanitation

- (i) Farm clothes, coveralls**
- (ii) Rubber/work boots**
- (iii) Hand gloves, face masks**
- (iv) Hand sanitizer**
- (v) Equipment**
- (vi) Animal stocking**

- **Use of effective foot bath**



- **Disinfectants – kill disease causing pathogens (viruses, bacteria & fungi)**
- **Examples: Tek-Trol, Roccal-D Plus, Virkon S - *Antec***

3. Disposal of dead animals

- (i) Bury - 3 feet deep and cover**
 - (ii) Burn**
 - (iii) Compost pile (>130°F)**
 - (iv) Use rendering companies**
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- DO NOT discard in nearby bushes or woodlands**

- **Buy chicks/poults from reputable farms**
- **Adopt all-in, all-out program**
- **Control rodents, flies & other pests**
- **Keep visitors away from poultry premises**

Disease control:

- **Practice good sanitation, management, vaccination schedule**
- **Check poultry flocks daily for signs of disease, dead birds, lack of appetite**
- **Use state labs for disease diagnoses**

Vaccination Program (Layer Flocks):

Age	Disease	Method
1 Day	Marek's	Injection
18-20 Days	Gumboro	Water
24-26 Days	Gumboro, Bronchitis New Castle Disease	Water
30-32 Days	Gumboro	Water
7-8 Weeks	Bronchitis, New Castle Disease	Water or spray
10 Weeks	Pox Avian Encephalomyelitis	Wing web Wing web, water or spray
14 Weeks	Bronchitis, New Castle Disease Bronchitis, New Castle Disease	Spray (live vaccine) Injection (killed vaccine)

Resources

- **ATTRA – the National Sustainable Agriculture Information Service – <http://www.attra.org>**
- **American Pastured Poultry Producers Association (APPPA) <http://www.apppa.org/>**