## **Backyard Chickens**



## Livermore rules and regulations

- In Livermore you need to apply for an animal fancier's permit.
  - http://www.cityoflivermore.net/civica/filebank/blobdload.asp?
    BlobID=4195
- Animals need to be kept in clean and healthy conditions, with appropriate bedding, perches and protection from the weather
- Coops need to be located five feet from residential lot lines
- Roosters are not allowed
- Not to exceed 10 birds per lot
- Enclosure Specifications: Wood and wire mesh construction
- Enclosure Size: Minimum of two square feet per bantam bird, minimum of three square feet per standard breed

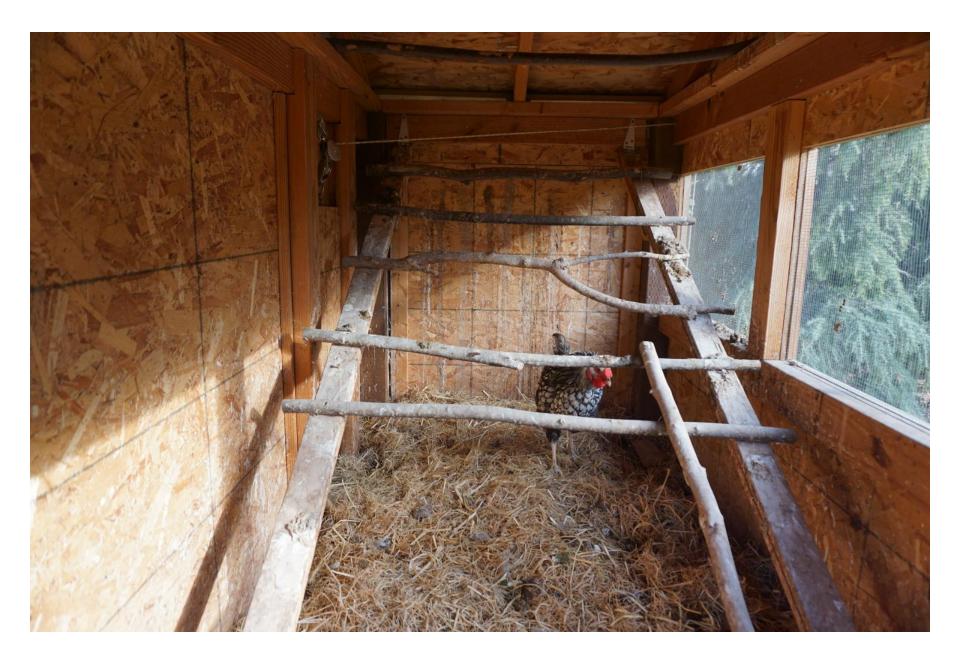
# Coop/shelter options











#### Chicken Shelter Needs

- Shelter of at least 3 ft<sup>2</sup> per bird
- Space or access to space for chickens to move around
  - At least 10 ft<sup>2</sup> per bird
- Chicken door that can be opened and closed daily
- Human door
- Roosts
  - At least 12"apart
- Feeder
- Waterer
- Nesting boxes
  - At least 12"x12", Quiet and dark
- A system to manage manure
- Free from drafts in winter
- Keeps out predators
- Cool in summer
  - Shade, adequate ventilation

#### Chicken Shelter Niceties

- Food and tool storage
- Light controlled chicken door
- Electricity/light bulb
- Water spigot
- Chickens naturally want to fly up to roost at night, so shelters or roosts should be raised
- A bathtub
- A dust bath

## Gardening with Chickens

- Chickens will scratch the ground bare. To deal with this, consider:
  - Locating chickens near the garden so that you can easily throw them trimmings and scraps
  - Mobile coop/chicken tractor so that you can rotate your chickens with crops
  - Letting the chickens out for a short time in the evening, so they don't have all day to damage the garden
  - Divide the garden area in two with the chicken house in the middle. Garden on one side and run the chickens on the other. Rotate these annually
- Protect plants from free ranging birds by placing a heavy stones around the root zone

### Confined vs. Free Range

- Confined chickens are fenced into a run whereas free range chickens may wander around at will during daylight hours
- Confined chickens should have 10 ft<sup>2</sup> per hen of yard space.

"A confinement house with good ventilation and properly managed litter may be more healthful than a yard covered in mud and manure" – Gail Damerow

### Chicken breeds

#### **Austrolorp**

## **Amaraucana or Easter Egger**





Photos from Welp Hatchery http://www.welphatcherv.com/index.php?p=home

#### Chicken Breeds

- Mediterranean breeds such as Leghorns tend to be flighty (they don't like people)
- In my experience heavier breeds tend to have more mellow personalities

### How to get chicks

- Feed stores carry chicks in the Spring
  - Hatcheries ship Spring, Summer and early Fall
    - Belt, Privett , Welp, McMurray, JM
- Most Hatcheries ship boxes of 25 chicks
- You can get pullets or a straight run (mixed sexes)
- Make sure your chicks are vaccinated for Merek's disease
- Birds from backyard breeders are more likely to carry parasites
- You can also incubate fertilized eggs, but you will need to vaccinate them yourself

### Chick care

- Brooder setup:
  - Rubbermaid tub or cardboard box or tank
  - Heat lamp
  - Newspaper
  - Pine shavings for after the first five days
  - Water dish or dispenser
  - Feeder
  - Chick starter food
- I move fully feathered chicks into a dog kennel before moving them into the coop

### What to do about roosters

- Sexing at the hatchery is not guaranteed, so be prepared to deal with a rooster
- It is relatively easy to eat them or find someone who will eat them.
  - Food pantry
  - Craigslist



### Food and Water



## Feeding and watering

### I feed

- Layeena pellets
- Scratch grains
- Oyster Shell
- Table scraps
- Garden greens



### **Table Scraps**

- Avoid:
  - Raw potato peels
  - Avocado seeds
  - Chicken
  - Raw eggs
  - Anything spoiled
- Don't overdo any one food
- If it is junk food for humans, it is junk food for chickens
- Strong flavored foods can give eggs an off flavor

### Water







#### Water

- Chickens need access to clean drinking water during the day
- I like cup drinkers
- Bell waterers are also common
- A mortar mixing tub of clean water makes a nice cool bath for chickens when the weather is hot



#### Cannibalism

- Cannibalism is when chickens peck each other's bodies
- It can be caused by stress and/or boredom
  - Make sure that chickens have adequate space to roam and roost
  - Add things to their environment that encourage foraging
  - Make sure that there is adequate fiber and protein in their diet
  - Keep them cool in the summer

#### **Predators**

- Rats
- Racoons
- Hawks
- Owls
- Possums
- Dogs

"The way to deal with predators is to eliminate the predator's point of entry or eliminate the predator"

- Gail Damerow

## Build a Sturdy Coop!



#### Weather

- Heat is more stressful than cold
  - Cool bath
  - Shade
  - Hose down a shady area for evaporative cooling
  - Run a fan

### Dealing With Manure

- Manure in the coop should not crust or stink, if it does, add bedding such as straw or hay
  - I clean when the litter reaches 12"-15" deep.
- When it comes time to clean the coop
  - Spray it with water to keep dust down
  - Wear a mask
  - Shovel it all out and build a compost pile
- The coop should be thoroughly cleaned at least once per year and before getting a new batch of chickens
  - Remove all dust, manure and feather dander
  - Bleach all feeders and waterers with a 10:1 bleach solution

## **Coop Cleaning tools**



### Coop Cleaning tools

- Mask
- Wheelbarrow
- Offset paint scraper
- Snow scoop
- Manure or ensilage fork

# Compost







### Health

- The best way to keep your flock healthy is to avoid stress by providing food, water, and shelter that is ample and clean
- Keep your chickens away from other chickens and chicken people
  - Get a pair of coop boots
- Acquire only healthy stock
- Buy Merek's disease vaccinated chicks or vaccinate day old chicks
- Keep wild birds away, especially waterfowl
- Control insects and rodents

#### **Parasites**

- Worms: If you see evidence of worms (diahorea, worms, talk your vet or the feed store about a deworming program)
- Mites and fleas can be controlled with cleaning and a diatomaceous earth and sand dust bath

### **Parasites**

- Northern Fowl Mites
- Sticktight fleas





### Diseases: Necropsies and Reporting

- If your chickens suddenly become ill,
  California Animal Health & Food Safety
  Laboratory System wants to know
- You can send chickens in for a necropsy to diagnose what went wrong
- You could prevent an outbreak of bird flu
- http://www.vetmed.ucdavis.edu/cahfs/about/ locations/davis.cfm

## **Eggs**

#### Color

- The color of the shell is determined by the breed of the chicken
- The color of the yolk is determined by the chicken's diet
- Carotenoids from greens make deep orange yolks



### Egg production

- Egg production is highest in Spring and lowest in Fall
- Most hens start laying at 18-22 weeks old
- Peak production is at 30 weeks when prolific breeds will lay four eggs in five days.
- Commercial flocks are replaced after 72 weeks

#### Lead

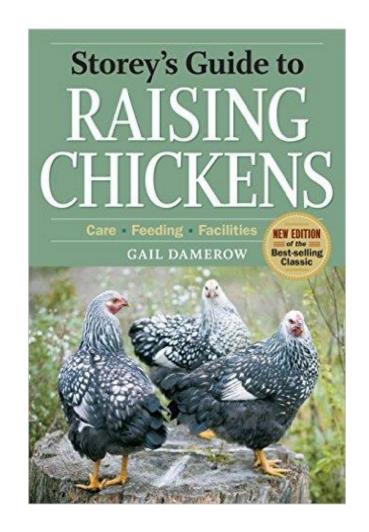
- If soil is contaminated with lead, chicken eggs may also be contaminated
  - Soil testing can be done by U Mass
  - Testing of eggs can be done by California Animal Health & Food Safety Laboratory System (CAHFS) at UC Davis
  - http://www.vetmed.ucdavis.edu/cahfs/about/loca tions/davis.cfm

### Egg Collection and Storage

- Collect eggs as often as possible
- Avoid washing eggs, as washing destroys the natural protective coating on the egg's exterior
- Refrigerate eggs within 12 hours of collection
- Wash eggs before use
- Wash hands after handling chickens or eggs
- Avoid manure contamination of clothing, shoes
- Don't kiss your chickens

#### Resources

- Book: Storey's guide to raising chickens by Gail Damerow
  - Amazon
- California Animal Health & Food Safety Laboratory System
  - http://www.vetmed.ucdavis.edu/cahfs/index.cfm



### Have Fun!

