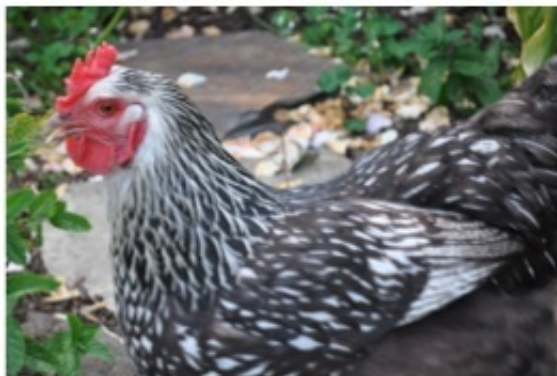




University of California  
Agriculture and Natural Resources

UCCE Master Gardener Program  
Monterey and Santa Cruz Counties



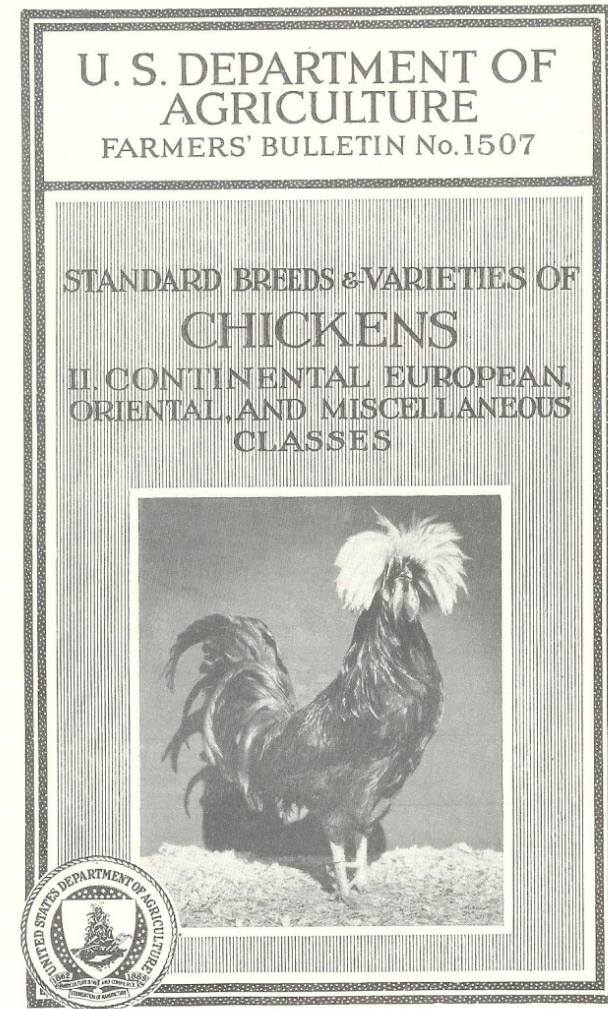
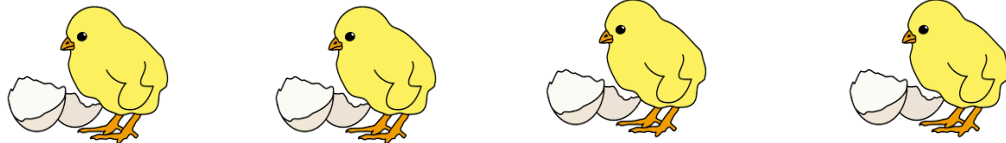
Chix in the city, Hens in the hood



Candice McLaren

# Backyard Chicken Raising

- Overview of chicken breeds
  - Class, breed, variety
  - Brown, white, or colorful eggs
  - Chick care
  - Pullet to hen care
  - Coop location and design
- Keeping the girls healthy girls and clean
- Questions?



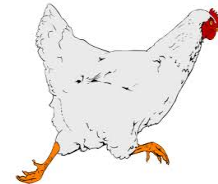
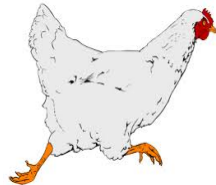
# Why keep hens???

- They have lots of personality! (really)
- Raising hens give you eggs. (for a while anyway!)
- Hens make manure for your garden.
- Hens will eat your leftovers (and your garden if you let them!)
- Hens are fun and they make really GREAT pets!



# Who's who in the Poultry world

- Chick- just hatched to about 8 weeks
- Pullet- young female under 1 year
- Hen- female bird over 1 year
- Cockerel- young male under 1 year
- Cock- male bird over 1 year
- Capon- A capon is a cockerel that has been castrated to improve the quality of its flesh for food



# Breed selection that meets your needs

## **Laying breeds:**

- Hens lay a large number of eggs- average 250-280 eggs first year
- Begin laying around 5 months of age
- They have small bodies- Mediterranean breeds, leghorn, higher stung, (could be called nervous) Safeway laying hens
- They are not inclined to brood. (Broody hens don't lay)

## **Meat Breeds- Fryers( 5-6 lbs), Broilers and Roasters, (7-10 lbs)**

- Chickens grow and feather quickly- typically white feathers for clean picking
- They weigh 5-6 pounds by week 7 and in 3 more weeks can weigh 7-10lbs.
- White Plymouth Rock ,Brahma, and Cornish breeds
- They are broad breasted

## **Dual Purpose- the best of both, eggs and meat (then no more eggs)**

### **Unless you bought a straight run group of chicks**

- Most are in the American and English classification
- Most lay brown eggs, about 250 a year
- Large bodied, hardy, calmer
- Plymouth Rock, Red Sex Link, Orpington, Rhode Island Red

# Chickens- a breed for everyone!



- **American Class – 13 breeds from the United States and Canada.**

- Most are large and lay brown eggs.

Plymouth Rock, Dominique, Wyandotte, Java, Rhode Island Red, Rhode Island White, Buckeye, Chantecler, Jersey Giant, Lamona, New Hampshire, Holland, and Delaware, and Holland.

- **Asiatic Class – 3 breeds and all from China**

- Large, mostly feathered legs, and lay brown eggs  
Cochin, Langshan, Brahma

- **Continental Class: 11 breeds**

The Continental Class contains large-sized chicken breeds of Continental European origins, excluding however, birds originating in the Mediterranean region. The breeds included in this class are mostly sprightly birds, the Faverolles being the most prominent exception. The ten breeds in the Continental Class hail from four countries, Belgium, France, Germany, and the Netherlands.

Hamberg, Campine, Lakenvelder, Polish, Houdan, Crevecoeur, La Fleche, Faverolle, Welsummer, and Barnevelde, Marans



# Chickens- a breed for everyone!

- **Game Class:**

Modern Game, Old English Game.

- **Oriental Class:**

Shamo, Sumatra, Malay, Cubalaya, Phoenix, Yokohama, Aseel, Phoenix

- **All other Standard Breeds:**

Sultan, Frizzle. Naked Neck, Araucana, and Ameraucana.



chickens, Stephen Green-Armytage  
Photos from



# How many chicks should I get???

- Chickens are social animals, get at least 2 chicks/hens.
- Base your chick/hen purchase on how many eggs you want. How many in your family will want eggs everyday? (everyone will when they first start)
- 3 hens can produce 2 eggs a day for the first year, some figure 1 hen can lay an egg every 1-4 days. Some days every girl will lay.
- Pullets start laying between 16 and 25 weeks. Sunset's first batch of pullets started laying at 150 days ( April chicks, September eggs)
- Egg production peaks between 1-2 years.
- Don't overcrowd your chicken coop or yard.
- Don't forget- those cute little chicks will soon be much larger hens.



# Where to purchase chicks locally

- General Feed and Seed, Santa Cruz
- Scotts Valley Feed, Scotts Valley
- Westside Feed, Santa Cruz
- Mountain Feed, Ben Lomond
- Tractor Supply, Watsonville





# Local chicks this season

## General Feed

**Arriving sometime in March**

Breeds:

Ameraucana

Light Brahma

Buff Orpington

Deleware

Barred Rock

Rhode Island Red

Gold Laced Wyandotte

Silver Laced Wyandotte

Americana

Vaccinated

(usually Coccidiosis

and Marek's

## Mountain Feed

**Arriving March 21**

Breeds:

Black Australop

White Plymouth Rock

Dominique

Black sex link

Welsummers

Delaware

Silver Laced Wyandotte

Rhode Island Red

Buff Orpington

**More arrivals expected**

**April 4 and 18th**

## Scotts Valley Feed

**Friday, February 28, 2020**

Salmon Favorelle

Gold Sexlink

Ameraucana

Buff Orpington

Silver Laced Wyandotte

Gold Laced Wyandotte

Light Brahma

Rhode Island Red

Barred Rock

Black Australorp

**Friday, March 6, 2020**

Ameraucana

Buff Orpington

Gold Laced Wyandotte

Silver Laced Wyandotte

Rhode Island Red

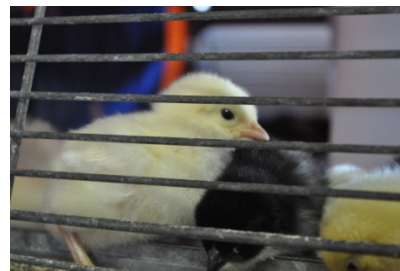
Delaware

Dominique

Gold Sexlink

## The details

- Chick care
- The brooder
- Water and food
- Where to place the coop, the run.
- Design of the coop
- Cleaning of the coop
- Water and feed for pullets and hens
- First year of a hen
- What to do when your girls get sick



# Spring time!

- Always be ready to bring home the new ones with housing and feed set up
- Remember just like kittens and dogs, they do grow up and get much bigger.
- Many end up at the local shelters- which becomes a good place to find an older bird.
- Only buy as many as your coop can hold



# Good Gardening practices to protect your hens and you. (after all you want to eat the eggs)

- Eliminate the use of pesticides. Hens love to eat your bugs, earwigs, snails, and anything that moves!
- Eliminate the use of herbicides. Hens will eat a lot of weeds, grass clippings, and vegetable trimmings.

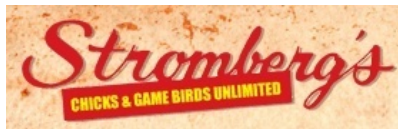


## Chick brooder kit

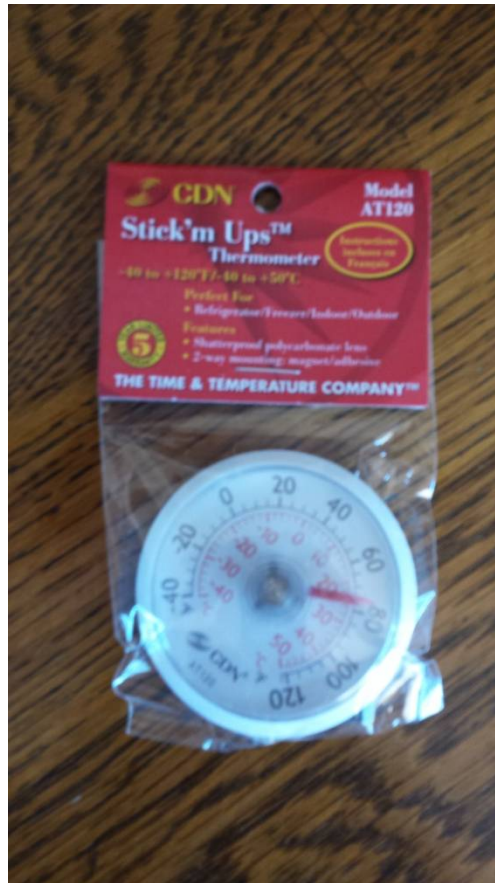
Have it all set up before you bring your babies home.



View Larger Brooder Starter Kit For projects just needing brooding equipment. Includes (1) single lamp brooder w/ guard, (1) 250 watt infrared heat bulb, (1) brooder thermometer, 30 ft. roll of draft protection shield, (1) 1 gal. waterer, (2) reel feeders, (2) large plastic jars w/ no drain founts and a book on raising poultry.



# Handy thermometer for Brooder



Stick'm Ups  
Thermometer  
Model AT120  
by the Time and Temperature Company.  
Purchased at Mountain Feed. \$4.99





# Bringing home the babies

Be prepared- have your brooder ready before you bring the chicks home. Can be a cardboard box, Rubbermaid clear box, or a real brooder purchased from a hatchery or farm supply.

Use a thermometer inside the brooder with the heat lamp so that you know where to position the lamp to keep the temperature constant. Raise up the lamp each week to keep the proper temperature.

Days of age	Brooding Temperature (F)
1-7	90-95
8-14	85-90
15-21	80-85
22-28	75-80
29-35	70-75
36-42	70



At one week, chicks will have feathers on wings, and by 5 weeks should be fully feathered out.



# Brooder drawing showing the proper heat for chicks

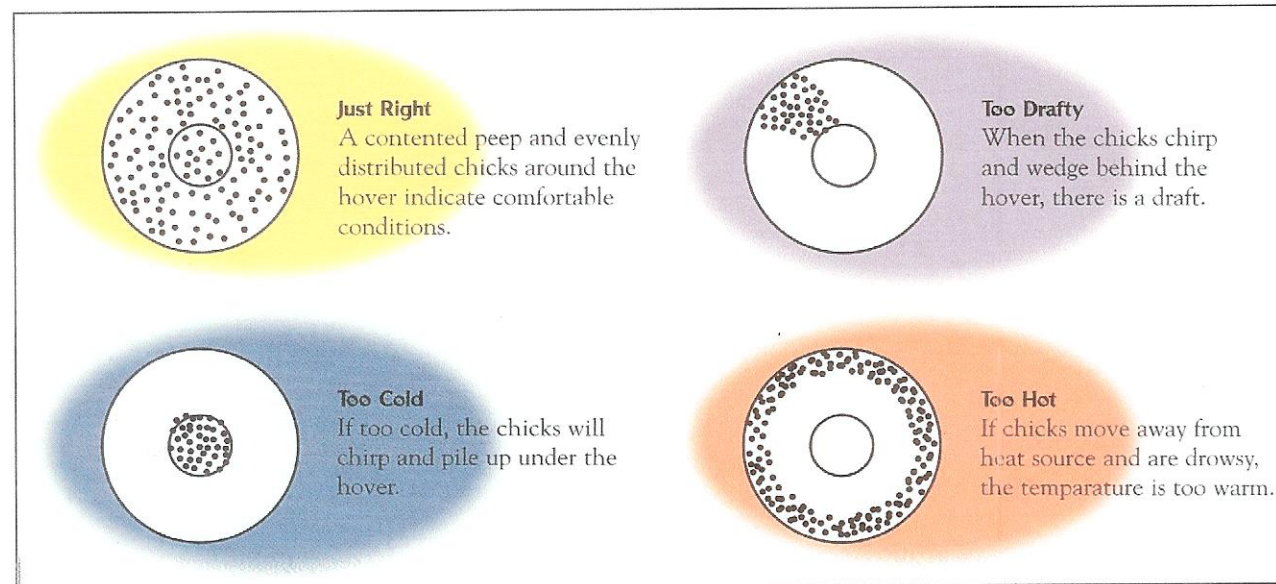


Figure 1. Brooding area temperature is important.

# Water and Feed for chicks

Size appropriate for the brooder and number of chicks. Switch to larger size when you put hens outside.



Plastic quart size water and 28 opening feeder

Galvanized water and feeders



Reversible all plastic water/feeder

GFS GENERAL FEED & SEED CO.  
SANTA CRUZ CA

Debra Lynn Kuettel – Owner  
(831)-476-5344  
1900 Commercial Way, Santa Cruz, CA 95065  
[www.GeneralFeedandSeed.com](http://www.GeneralFeedandSeed.com)



# Feeders and waterers

Provide enough feeder space to allow most of your birds to eat at the same time.

- **Feeders**

- Hang feeders or raise off the ground/floor.
- Purchase a feeder with a lid, it will keep feed dry and cleaner.

- **Waterers**

- Always provide clean, fresh water. Change as needed. Place it where it won't heat up.
- Place it off the ground to keep the water cleaner. Chickens scratch in all directions!

Keep feeders and waterers clean!!



# Feed for chicks, pullets and hens

Many start their chicks out on chick starter or lay crumbles as it provides enough protein for growth.

If you are raising broilers, you may want to use higher protein for fast growth.



<b>Feed</b>	<b>Protein</b>	<b>Age of bird</b>
Chick starter	20-22%	0-6 weeks
Pullet grower	14-16%	6-20 weeks
Lay feed	15-18%	20 weeks on



Feed schedule from University of California, Cooperative Extension, Suburban Rancher for feeding chickens leaflet 2919

# Outdoor water and feeders for pullets and hens



Lids for galvanized feeders keep food clean and dry.

Thanks to General Feed & Seed

GFS GENERAL FEED & SEED CO.  
SANTA CRUZ, CA

Debra Lynn Kuettel - Owner  
(831)-476-5344  
1900 Commercial Way, Santa Cruz, CA 95065  
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# How to make the transition from your house to theirs

Baby chicks can be placed outside on a nice warm day with someone watching them. If your fully enclosed and run is ready, place them in there but bring them inside before it gets cold.

Chicks should be fully feathered before living outside.

If you get your chicks in March and April, at 6 weeks of age and fully feathered, the weather should be warm enough to put out in their new house.

First week you may need to put them on the roosts.



## Housing requirements for when the chicks leave their nice warm house (yours) to the outside.

The chicken coop- a place where your hens can be kept comfortable in all kinds of weather. This is where they sleep and hang out when it rains or is windy.

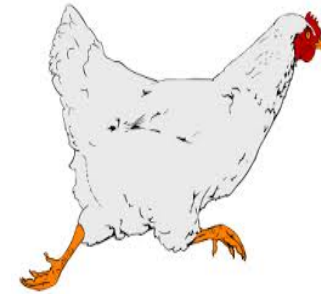
- Construction should be solid, tight, and well ventilated. Should have a roof and wire floor. Protect your girls from dogs, coyotes, raccoons, skunks, and birds of prey.
- Provides protection from predators in the design of doors, windows, roof and floor. Night time wildlife in the cities is a real issue.
- Provide space for roosts, - plan on about 10" per bird  
2" dia. poles for roosts. Several heights and 10" apart.
- Egg/nest boxes, 1 box for every 4-5 hens.
- Allow 3 square feet per chicken.



# Housing requirements for chickens

The chicken run or yard- attached to the chicken coop that allows access to the outside world.

- Recommend that it be fully enclosed top and bottom, secured.
- Should have water and feed.
- Provide straw or weed trimmings for scratching around.
- Can be as large as you want. Keeps chickens from your garden.
- Location, location, location. Check with your City about any set backs. Do your neighbors like chickens? Do they like fresh eggs???





# Egg boxes or nests

Egg boxes should be part of the coop design. Some designs allow access to the egg box from outside the coop.

- Provide access to egg boxes starting at 18 to 20 weeks ( 126-140 days).
- Medium size birds like Leghorns can use 12" x 12" x 12" box.
- Larger breed bird such as Rhode Island Red use a 14" x 14" x 14" box
- Provide straw inside the box and keep the egg boxes clean.
- Don't allow birds to sleep in boxes.





Chicken coop pictures from the [BackYardChickens.com](http://BackYardChickens.com)

# When a chick is a pullet then a hen

- Female chicks are called pullets when they are fully feathered and under 1 year of age.
- Pullets start laying between 16 and 25 weeks. Sunset's first batch of pullets started laying at 150 days ( April chicks, September eggs)
- Pullets are called hens after 1 year old.
- Pullets start out laying smaller eggs and as they get older will produce a larger egg.





# The first year of a hen



Hens need about 14 hours of daylight to produce eggs. (they do not need a rooster to lay eggs)

Hens lay eggs on about a 25 hour cycle.

As a hen start laying eggs she will lose body color (bleaching) as her pigment goes into the yolk color.

Egg yolks get their color from Xanthophyll, a natural yellow-orange pigment in green plants and yellow corn. It also colors the skin and legs.

Some feeds will affect yolk color and produce darker yolks.

The first year a hen will not molt (replace feathers) but reduced sunlight in the winter months may reduce the number of eggs that she lays.

In the late summer/fall of their 2<sup>nd</sup> year hens will begin to molt and will reduce or stop laying so that they can produce new feathers.



# What a hen really needs

Hens need about 14 hours of daylight to produce eggs. (they do not need a rooster to lay eggs)

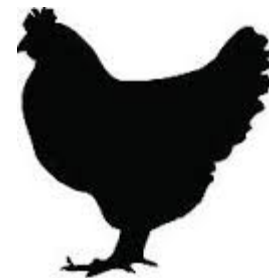
The first year they will not molt (replace feathers) but reduced sunlight in the winter months may reduce the number of eggs that they lay.

Spring and summer bring longer days and production should pick up the 2<sup>nd</sup> year up until fall.

In the late summer/fall of their 2<sup>nd</sup> year they will begin to molt and will reduce or stop laying so that they can produce new feathers.

2<sup>nd</sup> winter hens may decide to stop laying but will usually start back up in the spring/summer.

Always keep your coop clean and your girls will stay healthy





# Recipe for spa bath (real dirt works fine too!)

- 1 part fine sand.
- 1 part fireplace or wood stove ashes.
- 1 part garden soil (not potting soil, nothing with fertilizers).
- 1 part diatomaceous earth (100% food grade quality, not the swimming pool kind).
- Mix together and fill a wood frame box 2/3 full.
- Place on the ground, in a sunny dry spot.
- Add more mixture as it gets used up.



Recipe by Kristina Mercedes Urquhart from "The Anatomy of a Dust Bath"  
Chickens Magazine, Summer 2011



# Keep your coop and run clean

Pick a hot sunny day and clean several times a year

Wear clothing that you only use when caring for your poultry

Move all birds out of the coop and run

Remove all litter, manure, and other debris

“Dry” clean all areas—brush, scrape, and shovel off manure, feathers, and other materials. Disinfectant will not penetrate organic matter or caked-on dirt

“Wet” clean all surfaces—scrub with water and detergent. Work from top to bottom and back to front.

Rinse all surfaces carefully with water

Apply disinfectant according to the directions on the label. Be sure to use a disinfectant that is registered by the U.S. Environmental Protection Agency (EPA) and indicates that it is effective against avian influenza and other poultry diseases

Leave the enclosure empty until it is completely dry.

If using dedicated clothing and boots, change clothing and clean and disinfect your boots

Wash your hands thoroughly with soap and water. Wash and dry your dedicated clothing.

[https://www.aphis.usda.gov/publications/animal\\_health/fs-c-birds-checklist-cleaning-disinfect.pdf](https://www.aphis.usda.gov/publications/animal_health/fs-c-birds-checklist-cleaning-disinfect.pdf)

# What to do with sick chickens

- How do you know the girls are not feeling well?
  - Ruffled, untidy feathers.
  - Quite, moves away from the flock.
  - Changes in comb/wattle color. (turns purple, darker or paler)
  - Sneezing.
  - Abnormal stool.
  - Loss of appetite.
  - Diarrhea
  - Visible mites.
- 
- Remove sick hen from flock, treat individually
  - Products available at poultry feed stores- Corid for Coccidiosis
  - Vet Rx for respiratory functions
  - Peck no more



Refer to “ The chicken Health Handbook” by Gail Damerow.

Call a local vet that treats poultry

Dr. Hilary Stern, DVM

Animal Hospital of Soquel, 475 0432



# Concerns in California, now



## ALERT



### VIRULENT NEWCASTLE DISEASE

#### INFORMATION FOR BIRD OWNERS

*Virulent Newcastle Disease (VND) has been found in California. It is a contagious disease of birds, including chickens.*



#### WHAT KINDS OF BIRDS GET VND?

All birds can be infected with VND. In most cases the disease will kill chickens. Other birds may not get sick but can still spread the disease to chickens and other pet birds.

#### DOES VND INFECT PEOPLE?

Properly cooked meat and eggs from infected birds are safe to eat. In rare cases, people in extremely close contact with infected birds may get a mild fever, and redness and swelling in the area around the eyes. As with any medical condition, if you're concerned please consult your physician.

#### WHAT YOU CAN DO TO HELP

- If you think your birds are sick please immediately call the **Sick Bird Hotline at: 866-922-2473**.
- Keep your birds away from other birds.
- If you visit family or friends with birds, shower, wash your clothes, and change your shoes before handling your birds.
- Don't visit them without taking these same steps if you have handled your birds.
- Try to keep people who also own birds from visiting your property.
- Share information about VND with family and friends.

#### HOW IS VND SPREAD?

The disease is spread by direct contact between birds, by coughing and sneezing, and through droppings. People can spread VND by moving infected birds, moving equipment and feed, and by wearing clothing and shoes that have been in infected areas.

#### WHAT DOES VND LOOK LIKE IN BIRDS?

There may be swelling around the eyes, a purplish swelling of the wattle and comb, a large amount of fluid coming from the beak and nasal areas, a twisting of the neck and head, a loss of appetite, diarrhea, and sometimes sudden death.

#### How to Protect Your Birds

- Wash hands and scrub boots before and after entering an area with birds.
- Avoid sharing equipment; clean and disinfect equipment and tires before moving them between properties.
- Do not bring any new birds onto your property as long as the disease is in California.



# Safe Handling Tips for Eggs from Backyard Poultry

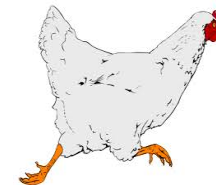
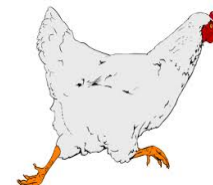
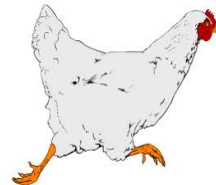
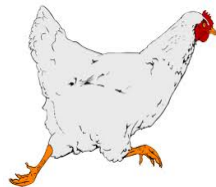
Egg shells may become contaminated with *Salmonella* through the laying process, once the eggs are laid, through poultry feed or bedding. To keep your family healthy, follow the tips below when collecting and handling eggs from a backyard flock:

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- Maintain a clean coop. Cleaning the coop, floor, nests and perches on a regular basis will help to keep eggs clean.
- Collect eggs often. Eggs that spend a significant amount of time in the nest can become dirty or break. Cracked eggs should be thrown away.
- Eggs with dirt and debris can be cleaned with fine sandpaper, a brush or cloth. Don't wash eggs, because colder water can pull bacteria into the egg.
- Refrigerate eggs after collection.
- Cook eggs thoroughly. Raw and undercooked eggs contain *Salmonella* bacteria that can make you sick.
- Know the local regulations around sale of eggs. If you sell eggs, it is important to follow local licensing requirements

# Rainy, winter day reading



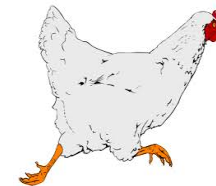
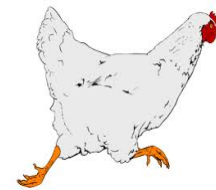
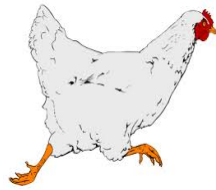
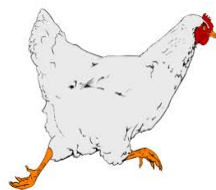
*Family owned business delivering quality poultry and reliable equipment since 1921*





## AMERICAN POULTRY ASSOCIATION “OUR MISSION STATEMENT”

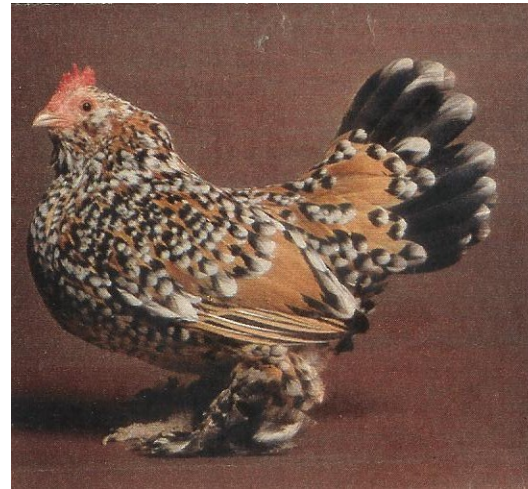
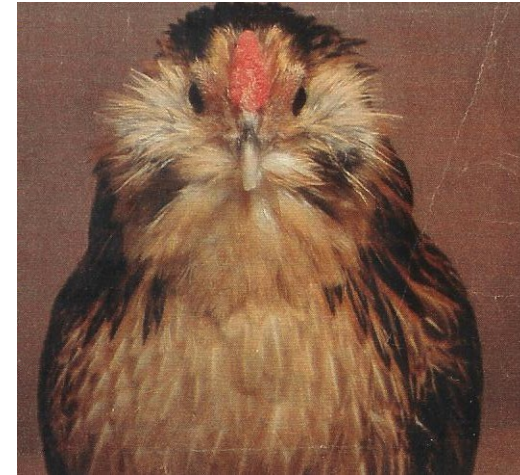
- To promote and protect the standard-bred poultry industry in all its phases.
- To continue the publication of the American Standard of Perfection with breed and variety descriptions for all the recognized purebred fowl.
- To encourage and protect poultry shows as being the show window of our industry, an education for both breeders and public, and a means of interesting young future poultry keepers in taking up poultry.
- To assist, encourage and help educate the junior poultry keeper to the sound and practical value of standard-bred poultry and pure breeding.
- Towards these goals the APA supports sanctioned meets at poultry shows all over the US and Canada, including an Annual meet and a Semi-Annual meet. Individual members earn points at these shows toward becoming a Master Exhibitor, as well as receiving awards from the association.
- The APA publishes a quarterly newsletter and an annual yearbook. The newsletter is sent to all members and the yearbook is sent to individual members and Endowment Trust members.
- The yearbook features many different articles, membership listings, advertisements, APA licensed judges and master exhibitor information.





# Wrap up

- Chicken classes, breeds, varieties,
- egg shell color
- Big, little, egg laying hen, or meat, or show
  
- chicks or young pullets
  
- New chick care, brooder, water, feed
  
- Coop design, egg boxes, roosts,
  
- Chicken runs
  
- Pullets to hens
  
- Keeping your flock healthy



# Backyard chickens- a complete recycling circle for a Gardener!

