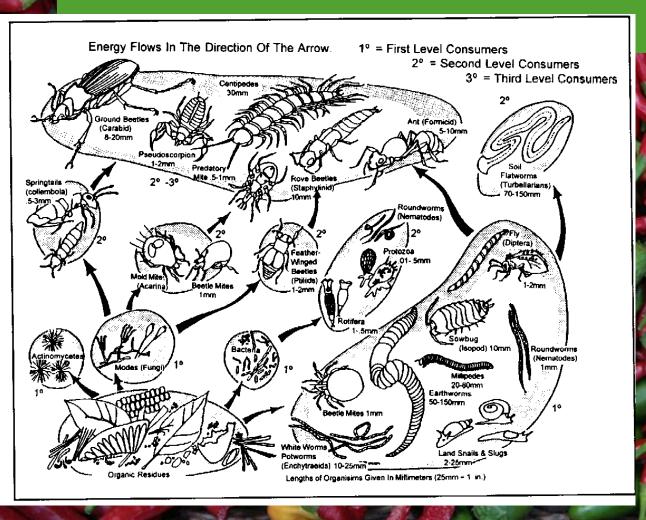


# Soil...

Healthy soil is alive with organisms





## **Amendments for Soil**

"Feed the soil and the soil will nurture the plants"

### **Organic Matter**

- Compost
  - Composted in a bin
  - Purchased
  - Composted in the bed
- Seaweed
- Peat
- Manure

**Check pH - 6.3 - 6.9 is best** 



## **Planting**

Planting dates: Jan.- Mar. or Aug.- Sept. Water at planting with a starter solution of 1 to 2 T of 6-8-6 fertilizer dissolved in 1 gal. of water

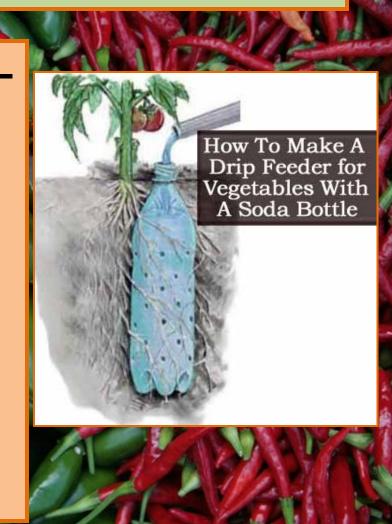
➤ Shade from direct sun for 2 – 4 days







- ➤ Stake at planting time or use a cage
- ➤ Water plants -1-2 in. of water/week
- Drip irrigation can reduce fungal disease
- ➤ Mulch and keep weeds pulled



## **Fertilizing**

- > Apply at planting time
- > 3 weeks after planting as a side dressing
- > After 3 more weeks, apply at 7 to 10 day intervals.

#### **Chemical Fertilizers**

- **>**6-8-8, 13-13-13, 10-10-10
- Usually petroleum based

## Fertilizer - Organic

➤ If manure is used, compost it or mix well into the soil 4 - 8 weeks prior to planting.

#### **Commercial Organic fertilizers**

- Organic blends Peggy Green (local), Gardener's Supply, Espoma and others
- Fish emulsion may also mix with Neem oil for spraying
- Kelp/Seaweed emulsion fertilizer and growth enhancer
- ➤ Epsom salts (MgSO4) 1 tsp per gal of water

## **Pests**

### **Major pests**

- > Caterpillars
  - Cutworms
  - Army worms
  - Loopers
  - Leaf miners
- > Aphids
- >Pepper weevil
- > Nematodes





- ➤ Biological controls natural beneficial insects
- > Mechanical controls
  - Floating row covers
  - Sticky cards (yellow, blue or white)
  - Hand removal
- > Cultural controls
  - Companion Planting (Intercropping)
- > Solarization soil borne pests





### **Pest Control**

#### Organic pesticides

- Bacillus thuringiensis (Bt)
- horticultural oils Neem, other plant based oils
- Insecticidal soap
- Copper or Sulphur fungicides
- Spinosad
- Pyrethrums
- Rotenone

#### Chemical pesticides

- Carbaryl Seven
- Malathion



## **Diseases**

#### Damping off –

➤ Seedlings fall over and die—gently wet seedling stems with Neem oil



#### **Anthracnose**

> Primarily on fruit



#### **Bacterial Spot**

- >Yellow raised spots on young leaves
- ➤ Wounds on fruit causing rot



## **Disease Control**

- > Crop rotation rotate with crucifers or beans
- > Sanitation
- ➤ Remove badly infested plants
  Fungal diseases treat proactively
  - Neem oil
  - Copper and/or Sulfur fungicide
  - Bacillus subtilis creates protective barrier to fungus
  - Garlic spray/Milk spray questionable research results
- ➤ Bicarbonate salts 0.5% solution used to treat fungus already on leaves.

#### SCOVILLE CHILE HEAT GUIDE

INDIA DEE@2011

#### SCOVILLE HEAT UNITES

15,000,000

2,000,000 - 5,3000,000

1,000,000

577,000

200,000 - 350,000

100,000 - 250,000

30,000 - 50,000

15,000 - 30,000

12,000 - 30,000

8,000 - 23,000

5,000 - 8,000

3,500 - 8,000

2,500 - 4,000

1,500 - 2,500

1,000 - 2,500

1,000 - 2,000

500 - 2,000

500 - 1,500

500 - 1,000

500 - 750

Pure Capsaician

PEPPER TYPES

U.S. Grade Pepper Spray

Bhut Jolokia

Red Savina

Habanero

Chiltepin

Cayenne

Arbol

Manzano

Serrano

Yellow Hot

Jalepeño Pepper

Guajillo

Chilaca

Pasilla

Pablano

Anaheim

Chile Verde

Yellow Genetics

Red Chile

Sweet Bells

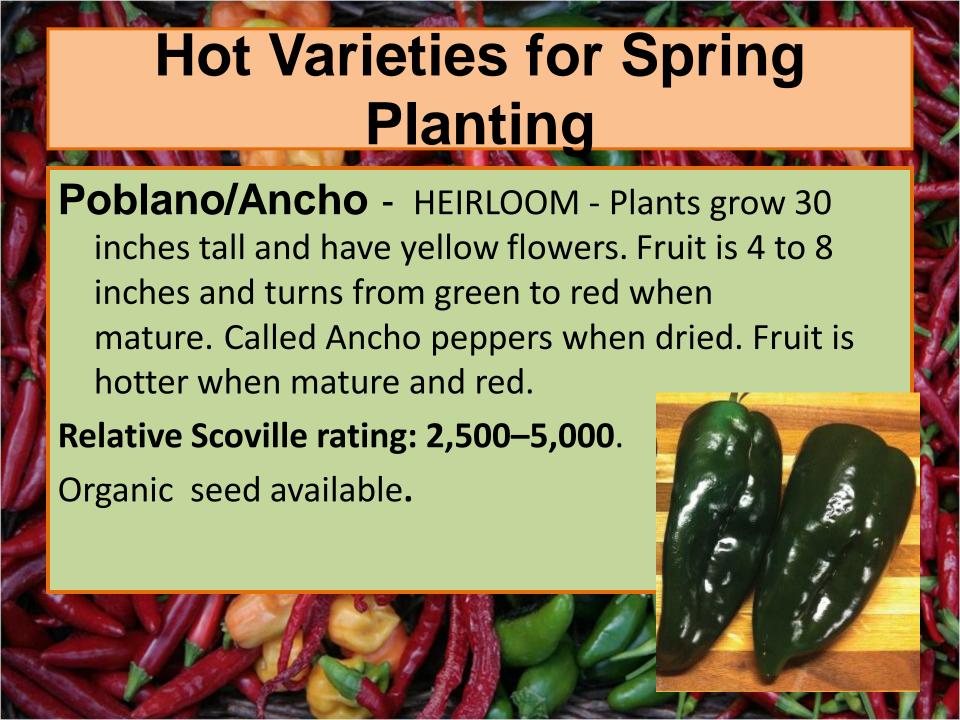




**Hungarian Hot Wax -** HEIRLOOM - Long, bananashaped waxy pepper used for frying, stuffing, or for pickled peppers. Ripens from green, pale yellow to deep golden orange to cherry red. Very productive. Harvest at various

maturities to control the heat in the flesh of your pepper. Relative Scoville rating: 750–3,500. Organic seed available.

To save seed, let them ripen all the way to red.



**Serrano** - HEIRLOOM - a type of chili pepper with crisp, fresh flavor and is an excellent producer.

**Serrano** chilies generally tend to have thin skin. They don't need to be steamed or peeled before using.

Large plants with club-shaped fruit 2 to 3 inches in length. It ripens from green to red.

Relative Scoville rating: 2,500–10,000. Organic seed available.



**Jalapeño -** HEIRLOOM - this is the most popular chile pepper in the United States. Thick-walled, moderately hot pods with deep green color that matures to a bright red are 3 – 3.5 inches

long. Plants yield a bountiful harvest in dry or humid, hot climates. The compact plants well in containers. **Relative Scoville rating: 10,000**. Organic seed available.



Hot Banana — HYBRID -Profuse bearer of 6-inchlong, medium hot peppers. Excellent for pickling, frying, or roasting. Just hot enough to provide a little bite. Produce well even in hot weather. Fruit matures from light yellow to orange to red. Mark these as different from the sweet banana peppers in your garden.

Relative Scoville rating: 5,000 to 10,000

• **Cajun Belle-** HYBRID -an awesome pepper that gives you all the flavor of a sweet pepper combined with a mild but spicy heat. The little peppers ripen from lime green to orange to red. Can be eaten at any stage, but the longer they stay on the plant, the warmer and more flavorful they get. Plants are robust and disease tolerant yet

small, they're ideal for small gardens or containers. Each fruit is 2 to 3 inches long. **Relative Scoville** 

rating: 100 - 1000.



**Thai Hot** — HEIRLOOM -produces large numbers of 1-inch green fruits that mature to blazing red color with heat and flavor to match! These are extremely hot. This variety grows well in hot, humid regions.

Plants are compact, about a foot tall, and perfect for containers. Great ornamental value. The colorful peppers last a long time on the plant. **Relative Scoville rating:** 50,000 – 100,000

Cowhorn cayenne — HEIRLOOM - a giant among chilies — growing up to ten inches in length — and it curves like a cayenne pepper which, with the cowhorn pepper's size, combine to give the impression of a steer's horn. But not all's big in the world of the cowhorn — its heat is low-medium.

Scoville heat range of 2,500 to 5,000

