

Insect Treatments

(Edited from <http://www.ghorganics.com/page14.html>)

Having healthy soil and a good eco-balance in your yard allows nature to take care of itself. Keeping the soil in top condition is the number one way to have healthy, strong plants! Plants have naturally inherent abilities to ward off adverse conditions when living in healthy soil. Proper pruning and sanitation is a big part of the picture. When you have insect problems remember that insects are attracted to unhealthy plant material. They are scavengers. However if you have encountered a pest or disease that has become uncontrollable try these natural methods to eliminate the problem and bring things back in balance.

Always observe some basic rules when you try any of these, even though they are natural, damage can occur. Use homemade remedies with caution and as a last resort.

For These Insects	Go To This Treatment
Aphids, root flies & cabbage butterflies	Clover Underplanting
Aphids, carrot root fly, cucumber beetles, midges, peach tree borers & root maggots	Elder Leaf Insecticide
Aphids, cabbage loopers, grasshoppers, June bugs, leafhoppers, mites, squash bugs, slugs & whiteflies	Garlic Spray
All purpose	Great Fleabane Treatment
Aphids, blister beetles, caterpillars, Colorado beetles, whiteflies, soft-bodied insects & maybe even slugs	Horseradish Pesticide
Cucumber beetles, mites & all purpose	Lime Spray
Repels asparagus beetles, tomato hornworms, leaf cutting & chewing insects	Marigold Spray
Aphids, fungus gnats, mealy bugs & as an ant repellent	Orange Peel Spray
All purpose	Pepper and Herb Dusts
All purpose	Pepper Spray
Bad nematodes!	Sugar Drench
Repels asparagus beetles & flea beetles, will kill earworms & maggots, acts as an anti-feedent for other insects	Tomato or Potato Leaf Spray
Aphids, caterpillars, crawling insects & slugs, may repel snakes	Wormwood Spray
Aphids, mealybugs & other soft-bodied insects	Yarrow Tea

Spraying basics

1. It is best to use any type of spray in the early morning or the cool of evening. Do not spray when temps are above 80 degrees Fahrenheit! Your plants may "burn" or have a reaction to what you are using in excessive heat. This is known as "phytotoxicity"
2. Always perform a test on a small portion of the plant material first. Wait 24 hours to observe

- any negative reaction. Proceed if there is no damage.
3. Really and truly...more is not better. If you are not getting good results don't increase the strength of these remedies without testing first.
 4. Target just the area you need to treat. Be careful... try not to harm the good guys! You don't want to run off your allies.
 5. When working with sprays or dusts always protect your exposed skin and face. Some of these ingredients can be very irritating to your skin, eyes and mucous membranes, especially any hot pepper sprays.

Clover underplanting:

Target insects: Aphids, root flies and cabbage butterflies.

To reduce insect damage in the brassica family underplant with white clover (*T. repens*) or subterranean clover (*Trifolium subterranean*). works via masking the distinct scent of brassicas.

Elder Leaf Insecticide:

Target insects: Aphids, carrot root fly, cucumber beetles, peach tree borers, and root maggots. It is particularly effective against midges. Elder leaves also have fungicidal properties and may be useful against mildew and blackspot diseases.

- To make: simmer 8 ounces of leaves in 16 ounces of water for 30 minutes. Stir this thoroughly, then strain. Take 16 ounces of warm water and mix with 1 tablespoon of castile soap. Add soap mixture to the elder water, spray as needed. Note: Set your sprayer to a coarse or large droplet setting as this mixture will tend to plug a fine setting.

Garlic Spray

Target insects: Aphids, cabbage loopers, grasshoppers, June bugs, leafhoppers, mites, squash bugs, slugs and whiteflies. May also help to repel rabbits! Never use oils sprays on Blue Spruce as it will remove the blue waxy coating on the needles! Because garlic contains naturally occurring sulfur it also acts as an antibacterial agent and fungus preventative.

- To make: Combine 3 ounces of minced garlic cloves with 1 ounce of mineral oil. Let soak for 24 hours or longer. Strain.
- Next mix 1 teaspoon of fish emulsion with 16 ounces of water. Add 1 tablespoon of castile soap to this.
- Now slowly combine the fish emulsion water with the garlic oil. Kept in a sealed glass container this mixture will stay viable for several months. To use: Mix 2 tablespoons of garlic oil with 1 pint of water and spray.
- When working with oil sprays you want to monitor the climate conditions so your plants won't get phytotoxic burn. Use this simple equation: Take the current outdoor Fahrenheit temperature then add to this the percentage of humidity, if the total is more than 140 don't spray.
- Example: Temperature of 80 degrees plus humidity of 67 percent equals 147, don't spray. You also do not want to spray when temps are above 80F.

Great Fleabane:

(*Inula conyza*) the leaves and roots of this plant make a strong general insecticide. It is also a nice addition to the perennial flower bed.

- To make: Take one cup of leaves and or roots. Bring 4 cups of water to a boil and pour over the fleabane, put a lid on this and let it steep for 10 minutes. Strain the mixture, let cool.
- Mix in a 1/4 teaspoon of pure soap such as castile and spray.

Horseradish Pesticide

How about some alternative uses for this invasive plant?

Target insects: Aphids, blister beetles, caterpillars, Colorado beetles, whiteflies and soft-bodied insects. Maybe even slugs.

- To make: Bring 3 quarts of water to a boil, add 2 cups of cayenne peppers, a 1 inch piece of chopped horseradish root, and 2 cups of packed scented geranium leaves, any kind. Let mixture steep for 1 hour, cool, strain and spray. Note: this can be made without the scented geranium leaves if you don't have them to spare.

NOTE: Penn State University announced in 1995 that minced horseradish holds promise in decontaminating wastewater and now says it may clean contaminated soils as well!

Penn State's center for Bioremediation and Detoxification reports that minced horseradish combined with hydrogen peroxide can completely remove chlorinated phenols and other contaminants found in industrial wastes. Experiments involve applying the mixture directly to tainted soils or growing horseradish in contaminated soil and rototilling the roots just before applying hydrogen peroxide!

The cleansing properties of horseradish have been known for more than a decade, however creating a purified form has been far too expensive. This method has proved to be just as effective, but at a fraction of the cost!

Lime Spray

Target insects: Cucumber beetles, mites and general purpose.

- To make: Mix 1 ounce of hydrated lime, 32 ounces of water and 1 teaspoon of castile soap. Use up to twice a week.

Marigold Spray (use pot marigold: *Calendula officinalis*)

Target insects: Repels asparagus beetles, tomato hornworms, leaf cutting and chewing insects, like leaf cutting bees on your roses and lilacs.

- To make: Mash 1 cup of marigold leaves and flowers. Mix with 1 pint of water. Let soak for 24 hours. Strain through cheesecloth. Dilute further with 1 1/2 quarts of water then add 1/4 teaspoon of castile soap. Spray target areas.

Orange Peel Spray

Oranges and other citrus fruit contain natural occurring pesticide compounds called limonene and linalool. These compounds can be used as a treatment for soft bodied pests such as aphids, fungus gnats, mealy bugs and as an ant repellent.

- To Make: Pour 2 cups of boiling water over peelings of one orange. Let this steep for about 24 hours. Strain the mixture into a glass jar and toss the peels into the compost. Use this liquid as a spray mixing in a few drops of castile soap on target insects or on ants and their nests. Smells nice too!

Pepper and Herb Dusts

Target Insects: General

- Peppers and certain herbs contain the compound "capsaicin" which will irritate and repel many insects. Cayenne, chili, dill, paprika, red and black peppers can be used as dusts. Purchase the cheapest you can find, or grow hot peppers and dill in your garden. Dry them and pulverize them in a food processor. Sprinkle on moist plant foliage and the surrounding soil.

Pepper Spray

Target insects: All-purpose

- Just like the pepper dusts a spray made from hot peppers will release the capasaicin compound to repel insects.
- To make: Mix 1/2 cup of finely chopped or ground hot peppers with 1 pint of water. Let this sit for 24 hours. Use as is for a soil drench application or strain the mixture through cheesecloth until you have a clear liquid. Add a few drops of castile soap and use as a foliar application. Keep away from your eyes and skin when using.

Tomato or Potato Leaf Spray

Target insects: Repels asparagus beetles and flea beetles. This will kill earworms and maggots and acts as an anti-feedent for other insects.

- Plants belonging to the nightshade family (tomatoes, potatoes etc.) have large amounts of compounds called "alkaloids" in their leaves. These compounds are water soluble and can be extracted by soaking chopped leaves then using as a spray. The toxicity of the alkaloids may account for only part of their effectiveness. The sprays may also attract beneficial insects that follow the chemicals in these plants as a cue in searching for their prey.
- To make: Soak 2 cups of chopped tomato leaves in 1 pint of water overnight. Strain this mixture then add another pint of water and 1/4 teaspoon of castile soap a sticker. Spray foliage and soil as needed.

Sugar Drench

Target insects: Bad nematodes! Sugar also adds trace minerals to the soil.

- Mix 1/2 a cup of sugar with 1 gallon of water. Stir to dissolve sugar. Pour on the soil around plant roots where you have had nematode problems or use as a treatment prior to planting.

Wormwood Spray

Target insects: Aphids, caterpillars, crawling insects and slugs. May repel snakes.

Caution is advised when using wormwood sprays around plants as it can inhibit growth. Best results are obtained when spraying directly onto the target insect when possible.

See page on wormwood for more details.

- To Make: Simmer 8 oz wormwood leaves in 4 pints water for 30 minutes. Stir, strain, and leave to cool. Add 1 tsp castile soap to wormwood mixture and use to spray.

Yarrow Tea

Target insects: Aphids and soft-bodied insects. Also an excellent plant tonic!

- Yarrow has insecticidal properties and is also an excellent natural fertilizer. Try mixing this with strong coffee to make a more powerful brew. Yes, coffee, caffeine makes the insects hyper and confused. See: Companion planting: Yarrow. Yarrow is also one of the ingredients used in Golden Harvest fertilizer.
- To make: Soak 1 cup of yarrow plant pieces in 16 ounces of water for 24 hours or more. Brew it in the sun like tea. Strain and mix with 1 gallon of water. Mix in strongly brewed coffee and 1/4 teaspoon castile soap. Spray on aphids and other soft bodied pests every 1-2 weeks. Or use as a preventative.

Victory Seeds Vegetable List

(Also offers herbs on their site, but I chose to use another vendor for herbs - these are my personal choices of veggie varieties - many additional choices are on the web site)

Beans - \$2.25/pk

Blue Lake FM-1K - Pole

66 Days – Food production here in the fertile soils of the Willamette Valley was once one of a primary industry of Oregon. Bred for canning and fresh-frozen packaging, Blue Lake beans were one of the preferred varieties until the cost to hand pick soared and the invention of mechanical harvesters changed planting trends to bush-type beans.

This is a BCMV resistant strain of the original 'Blue Lake' pole. Its pods are stringless when young and tender, dark green, round, tasty, and reach about six inches. They can be enjoyed fresh as snap or shell beans, canned, frozen or dried. The plants are vigorous, climb well, and are productive. About 95 seeds per ounce.

Kentucky Wonder - Pole

65 Days (to green stage) – A green pole bean with long, fleshy, and stringless pods. Very reliable, early maturing, and productive. An old favorite enjoyed fresh, canned, dried, or frozen. The seeds can also be used dry as an excellent baking bean. Each packet contains one ounce, which is approximately 75 seeds.

Great Northern - Bush

90 days – According to Oscar H. Will, this very old bean variety was obtained from Son of Star, a Hidatsa Indian in the early 1880s. The variety grows well in Northern climates, hardy and a heavy yielder. Plants reach twenty to twenty four inches in height. Its white seeds are an excellent choice for baked beans or soups. More tender and cook more quickly than Navy Beans. Each packet contains one ounce, which is approximately 90 seeds.

Beets - \$1.95/pk

Detroit Dark Red

58 days – Introduced in the United States in 1892 by the D. M. Ferry Seed Company, the Detroit Dark Red is said to be the most popular garden variety today. Its origin are based in the European Early Blood Turnip.

Very tasty fresh out of the garden, it also maintains its taste and texture well after being canned or pickled.

Globe shaped, excellent color, sweet, smooth and tender. Each packet contains four grams which is approximately 200 seeds.

Early Wonder Tall Top

55 days – This variety yields crimson-red flesh with flattened globe-shaped roots and tall, bright, dark green succulent tops. You can use the tender leaves for greens and the dark red roots for salads, pickled, borsch or cooked. Originally introduced to the United States in 1811.

Each packet contains four grams, which is approximately 200 seeds.

Carrot - \$1.65/pk

Danvers 126

73 days – Bred by the Eastern States Farmers Exchange, West Springfield, Massachusetts from selections of heat resistant strains of Danvers and improved for better interior color, smoother skin, better uniformity and better yield. Released in 1947.

Works in most soils. Uniform orange-red color, seven to eight inches long. The tops are large and the plant is heat tolerant. For home and market processing. Each packet contains one gram, which is approximately 650 seeds.

Little Fingers

60 days – Deep-orange color, one-half inch by three inch long, blunt tips, with smooth skin and small cores. Because the color develops early, they can be harvested at a young, tender stage for use as baby gourmet carrots. Each packet contains one gram, which is approximately 650 seeds.

Cucumber - \$1.55/pk

Long Green Improved (trellis is good idea)

65 days 'Long Green Improved' is a very old variety that was the most widely grown slicing and pickling variety for decades since its original introduction in 1842. It was bred as a selection of an even older variety, 'Long Green Turkey,' that dates back to prior to 1778.

It is a vigorous and dependable variety with dark green fruits that are ten to twelve inches long by 2 to three inches in diameter. Each packet contains one gram, which is approximately 25 to 30 seeds.

Straight-8 (Straight Eight)

63 days – The vigorous and productive plants yield dark green, blunt ended, cylindrical, seven to eight inch long fruits. A good slicing variety. Released by Ferry-Morse Seeds in 1935 and was an "All-American Selection®" winner that same year. Each packet contains one gram, which is approximately 25 to 30 seeds.

Homemade Pickles

55 days – A heavy producer of solid, crisp fruit. Can be harvested at two inches long or at full maturity at five inches. As its name implies, it is primarily used as a pickling cucumber. Each packet contains one gram, which is approximately 25 to 30 seeds.

Eggplant - \$1.95/pk

Black Beauty

80 days – Broad, dark purple egg-shaped fruits that range between four to six inches that are borne well off of the ground on medium sized plants. Each packet contains 0.25 gram, which is approximately 25 seeds.

Onion - \$1.95/pk

Yellow Sweet Spanish (Utah Strain)

115 days – Extra large (up to six inch) globe shaped onion. The skin is a straw color and the flesh is white. It has a popular mild and sweet flavor. Long Day Variety. Each packet contains one gram or approximately 200 seeds.

Ringmaster

120 days – An improved White Sweet Spanish strain that has large globes, with single centers and firm, mild flesh. Stores well and is excellent for onion rings. Long Day Variety. Each packet contains one gram or approximately 200 seeds.

Evergreen Long White Bunching - \$1.65/pk

120 days – This bunching variety has long, silvery white stalks does not form bulbs under most conditions. Each packet contains one gram or approximately 200 seeds.

Selection and Growing Information:

Your geographical location will need to be considered as you select your onion seeds. There are three main types of onions – "short-day," "intermediate-day," and "long-day" varieties. Onions require specific balance of daylight to darkness to perform properly.

The genetic makeup of the particular onion variety is what signals the plant to stop vegetative growth and to start forming the bulb. As the onion matures, the tops will eventually fall and touch the ground, at which point the onion is ready for harvest.

Short-day varieties are recommended for the southern U.S. where the temperatures are typically warmer year round. They will make bulbs earlier in the year with only ten to twelve hours of daylight. If grown in the north, they will tend to shut down their vegetative growing and bulb resulting in small, pearl onions.

Intermediate-day onions typically need twelve to fourteen hours of daylight to trigger the bulbing process. They are suited for most areas.

Long-day varieties are best suited for the northern states as they need fourteen to sixteen hours of daylight to bulb. In the south, they will grow nice green tops but not bulbs - like bunching onions. Long-day onions are generally more pungent and store better.

Growing Instructions: Plant seeds early in flats, a couple of months before you intend to plant in the garden. The tops will get spindly so use scissors and prune back to two to three inches tall. You may need to do this a few times before transplanting time.

Don't throw the clippings away. They make a great topping for a baked potato, a flavoring for a soup recipe or as a garnish on a tossed green salad.

When the soil can be worked, transplant the seedlings with a spacing of two to four inches apart. It is very important to keep them weeded. The early growth of the allium plants is very important.

Peas - \$1.95/pk

Green Arrow

70 days – Popular with commercial processors and home gardeners as it has high yields and freezes well. It also has an excellent flavor and exhibits disease resistance. Ideal for shelling and eating

fresh. Pods average about four inches in length with nine to eleven peas. Each packet contains one ounce or approximately 90 to 125 seeds. (One ounce will plant about a 10-foot row.)

Lincoln (Homesteader)

68 days – Does well in the Northern United States, resists wilt and is tolerant of heat. The vines are eighteen to thirty inches tall and the pods are easy to shell. Lincoln was one of the better post-war varieties and continued in commercial production until the mid-1960s. Each packet contains one ounce or approximately 90 to 125 seeds. (One ounce will plant about a 10-foot row.)

Pepper - \$1.95/pk

California Wonder (Bell Variety)

75 days – The plants are upright, strong, and produce four or five fruits that are mostly four-lobed, blocky, and 4 by 4½ inches with thick flesh that is mild and sweet. Each packet contains 0.25 gram, which is approximately 30 seeds.

Pumpkin - \$1.85/pk

Jack Be Little (Little Sweetie) (Cucurbita pepo)

95 days – This is a true open-pollinated miniature pumpkin - not a gourd like other miniature pumpkins on the market. This variety produces fruits that are small enough to fit in your hand, weigh three to four ounces, and are generally two inches high and three inches in diameter. Easy to grow, prolific, and can last up to twelve months if carefully cured. Each packet contains two grams, which is approximately 15 seeds.

Radish - \$1.55/pk

Cherry Belle

22 days – A quick growing, globe shaped radish with bright red skin and crisp, firm, white flesh. 'Cherry Belle' was an "All-American Selection®" winner in 1949. Each packet contains three grams, which is approximately 240 seeds.

Squash - \$1.55/pk

Waltham Butternut (Cucurbita moschata)

85 days – Light tan, seven to nine inches long with a thick neck and a small seed cavity. The flesh is a wonderful, bright orange. An "All-American Selection®" in 1970. The plants are vining. Each packet contains three grams, which is approximately 30 seeds.

Early Prolific Straightneck (Cucurbita pepo)

42 days – The standard yellow, straight-necked type, summer squash in many parts of the United States. The fruits taper towards the stem end and are a nice lemon yellow color. They are mature at twelve to fourteen inches long but are tender and succulent when they are five to six inches long. An "All-American Selection®" winner in 1938. Bush-type plants. Each packet contains three grams, which is approximately 30 seeds.

Table King Acorn - Bush (Cucurbita pepo)

85 days – The plants are compact and produce two pound, glossy dark green, acorn-shaped fruits

with a small seed cavity and pale orange flesh. Produces five to eight fruits per plant. An "All-American Selection®" in 1974. Each packet contains three grams, which is approximately 30 seeds.

Zucchini, Dark Green (Cucurbita pepo)

50 days – The bush-type plants are vigorous and produce early. The fruits are straight, smooth, mottled dark green. The flesh has a pale green tint to it, is firm and has a fine flavor. Best picked at six to eight inches. Each packet contains three grams, which is approximately 21 seeds.

Slicing Tomatoes - \$1.95/pk

Crimson Cushion

90 days, indeterminate – This is a very old late-seasoned, wilt-resistant beefsteak variety. The fruits are large, fourteen to sixteen ounce, deeply ribbed, irregular, bright scarlet, juicy, yet solid and very prolific. Nice balance of tart and sweet. A real nice slicing tomato. Each packet contains approximately 20 seeds.

Rutgers

75 days, determinate – An improved, disease resistant strain. The fruits are typically six ounces, bright red, globular, slightly flattened with smooth, thick walls that are crack resistant. It was originally introduced in 1934. It is a cross between 'J. T. D.' and 'Marglobe'. Good for slicing and cooking. Each packet contains approximately 20 seeds.

Beefsteak

90 days, indeterminate – A very old standard variety. Some seed companies list this as a synonym with 'Crimson Cushion' but it appears different enough to us to warrant separate listings.

The fruits are large meaty, ribbed and deep scarlet in color. Weights average of about twelve ounces. Fairly soft skinned for easy slicing. Each packet contains approximately 20 seeds.

Sauce Tomatoes - \$1.95/pk

Roma VF

75 days, semi-determinate – This open-pollinated, plum-shaped, two ounce fruit, is ideal for paste or puree.

Breeder, Joseph Harris Company of Rochester, New York crossed 'Roma' with 'California Red Top VR 9' to give this variety its verticillium and fusarium wilt resistance. Adapted for the United States and Canada. Introduced in 1963. Each packet contains approximately 20 seeds.

Saucy

85 days, determinate – Bred and introduced by Dr. James R. Baggett of Oregon State University in 1993.

It is an early maturing paste-type tomato. The plants are very compact producing blocky, plum shaped fruits with solid flesh (very few seeds). They are easy to pick and peel and keep well both on and off of the plant. Each packet contains approximately 20 seeds.

Heidi

90 days, semi-determinate – A very productive paste variety. The fruits are elongated, red, thin-skinned, thick-walled, meaty, weighing about three ounces. Unlike typical bland tasting paste tomatoes, 'Heidi' has an excellent, full, rich flavor. Great for sauces.

We received our original seed from Dr. Carolyn Male (NY MA C). She received the variety from a student of hers, Heidi Iyok, from Cameroon, West Africa. Each packet contains approximately 20 seeds.

Swallowtail Garden Seeds Herb List

(also offers veggie seeds, but I chose another vendor -
these are my personal choices of herb varieties -
many additional choices are on their web site)

BASIL - GENOVESE COMPACT HR00009

Thick, large, crinkled, dark green leaves are full of spicy basil flavor - superb for pesto sauces. Genovese has long been a favorite of fresh markets and gourmets - and Genovese Compact delivers the same superior quality on much more neat and compact 1.5 foot tall plants. Great in containers. Packet is 1/4 gram, about 150 seeds. \$2.49

BEE BALM - PANORAMA MIX HR00025

Monarda didyma

Every year in June and July Panorama Mix produces shaggy semi-double blooms in intense shades of pink, salmon, red, scarlet and crimson. Butterflies and hummingbirds find them irresistible. Leaves are mint scented and used to make Oswego tea. The mildew resistant plants grow to 3-feet tall and thrive in full sun or part shade. A good cut-flower. \$2.99

CATNIP - HR00039

Nepeta cataria

Catnip is an easy to grow, highly ornamental herb with fragrant gray-green leaves and clusters of lavender or white flowers at branch ends in late spring and early summer. Fresh or dried, leaves can be used to make soothing teas for upset stomachs, nervous headaches or colds. Of course cats find it beyond compare and will appreciate having some of this fresh herb added to their meals. Attracts bees and butterflies. A 2-3 foot tall perennial, which is winter hardy to zone 3. Packet is 1 gram, about 1,600 seeds. \$2.25

CHAMOMILE - GERMAN HR00042

Matricaria recutita

White blossoms with yellow centers are sweet and easy to pick. Scientific research indicates that chamomile tea stimulates the immune system's infection fighting cells. The tea is will also said to aid in digestion and soothe frayed nerves. A summer blooming annual that grows to 2-feet tall. Packet is 1/8 gram, about 1,200 seeds. \$1.99

CHIVES - HR00045

Allium schoenoprasum

These delicate leaves have a mild onion flavor perfect for salads, vegetables, egg dishes and soups. The cloverlike purple flowers appear in the spring - they are edible and make a colorful and flavorful addition to salads. Chives are great edging plants in the herb, vegetable or flower garden and grow well in containers. Clumping growth to 2-feet tall. A winter hardy perennial for zones 3 and above. Packet is 1 gram, about 750 seeds. \$1.99

CILANTRO - SANTO HR00049

Fresh cilantro leaf is an important ingredient in Mexican and Asian cuisine - its spicy flavor is superb in salsas, stir-fries and curries. The aromatic seeds have an orangelike flavor and are used as seasoning for pastries, beans, stews and sausages. Santo is slower to bolt than common cilantro.

Annual. Packet is 2 grams, about 150 seeds. \$1.99

DILL - FERNLEAF HR01208

An outstanding ornamental edible, Fernleaf dill grows to 18 inches tall in containers, and up to 2.5 feet tall in the ground. It features prolific, finely cut, deep blue-green foliage on very slow to bolt plants. A superb choice for supplying tasty, fresh dill leaves over a long season, and the handsome plants thrive in patio containers, or in flower, herb or vegetable gardens. An All-America Selections Winner. Packet is about 200 seeds. \$1.99

ECHINACEA PURPUREA - HR00055

This prairie native has rose-purple 4-inch blooms with downward pointing petals and a prominent orange-tipped cone. It blooms from July-September and is a long lasting cut-flower. Echinacea is a tough, heat tolerant, easy to grow 3-foot perennial. A favorite flower of the Monarch butterfly. Winter hardy to zone 3. Packet is about 100 seeds. \$1.99

LEMON BALM - CITRONELLA HR00065

This is the most fragrant variety available with an essential oil content up to .4%. Fresh or dried leaves are made into a wonderful calming lemon-scented tea (sweeten with honey). Fresh leaves can be used to give a lemony tang to salads and drinks. Attracts bees, butterflies and hummingbirds. Compact, mildew resistant 10-12 inch plants. Winter hardy to zone 4. Packet is 1/4 gram, about 400 seeds. \$2.49

SWEET MARJORAM - HR00073

Sweet Marjoram can be used fresh or dried to add spicy flavor to soups, vegetables, salads and meats. The plants grow 1-2 feet tall and have tiny gray-green leaves and spikes of white flowers in summer. An excellent container plant. Perennial grown as an annual. Packet is 1/4 gram, about 1,000 seeds. \$2.25

MILK THISTLE - HR00093

Silybum marianum

This striking medicinal plant will definitely make a statement in your herb garden. It is a 3-4 foot annual which carries glossy leaves with milky white veins and showy 2-inch purple flowers. All parts are edible. Medicinally the active ingredient silymarin is found in the seeds and is reported to have liver rebuilding properties. Sorry, cannot ship to the State of Washington. Sorry, out of stock.

OREGANO - GREEK HR00077

Origanum vulgare hirtum

Greek oregano is tastier than common oregano and much more restrained in growth. It has a delightful spicy flavor that compliments meats, egg dishes and salad dressings. Forms a low growing 18-inch mound with small white summer flowers. Perennial. Packet is 1/4 gram, about 1,000 seeds. \$1.99

PARSLEY - ITALIAN DARK GREEN HR00081

A productive broad leaf parsley with sweetly pungent, flat dark green leaves. Packet is 2 grams, about 1,000 seeds. \$1.99

ROSEMARY - HR00704

Rosmarinus officinalis

A tough, easy to grow herb that is terrific in containers, produces showy blue flowers and is a tasty addition to some of your favorite dishes. Height is variable, from 18-60 inches tall and can be kept clipped at almost any height. Please note: Seed is primed for easier and faster germination, and should be used within a few weeks of purchase for best results. Winter hardy to zone 6.

Sorry, out of stock.

SAGE - EXTRAKTA HR00085

Salvia officinalis

Extrakta has a higher essential oil content (1.5-2%) and is higher yielding than common sage. Use fresh or dried to flavor chicken, sauces and dressings. Perennial plants grow to 2.5 feet tall. They have fragrant gray-green leaves and attractive blue flower spikes in early summer. Winter hardy to zone 4. Packet is about 30 seeds. \$1.99

TOPAS ST. JOHN'S WORT SEEDS HR00052

Hypericum perforatum

Topas is an improved variety with higher (.5%) levels of the active ingredient hypericin. It is used to treat insomnia and depression. Small, shrubby plants grow to 2-feet tall with attractive bright yellow summer flowers. Packet is 1/4 gram, about 2,500 seeds. \$2.99

Sow thinly in cell packs or flats, using a packaged sterile seed starting mix. **Barely cover** and press firm. Kept at 60° F., germination averages **10-20 days**. Transplant into the garden **24 inches apart** in **full to part sun**. Will **tolerate drought** once established, but looks better with **occasional to regular summer water**.

SUMMER SAVORY - HR00087

Satureja hortensis

Summer Savory is particularly good for flavoring beans, peas, pork and chicken. As a medicinal tea it is used to aid digestion and reduce fevers. Packet is about 1000 seeds. \$1.99

THYME - SUMMER HR00705

Thymus vulgaris

This is the best culinary thyme, with higher essential oil content, offering a spicier more pungent flavor for your meat, fish and poultry dishes than other varieties. More upright growing than Mother-of-Thyme, it is an excellent choice for containers, growing 6-12 inches tall. Winter hardy to zone 6, Summer Thyme can be grown as an annual everywhere. Packet is 1/8 gram, about 500 seeds. \$1.99

When we first set out to make our own homemade laundry detergent we thought it would be difficult and time consuming, boy were we wrong! It was actually incredibly fast, easy, and inexpensive. Now, years after making our first batch, thousands of others have tried it and loved the results.

Homemade powder soap required only 3 simple ingredients & took around 5 minutes to create, in respect of opportunity cost I abandoned my original idea of brewing a liquid detergent and set my sights on creating the powder variety. What follows is my own personal pictorial tutorial to making homemade powder laundry detergent. Enjoy!

Note: This soap/detergent works in all HE front-load washers... read more below.

Recipe

Each batch yields approximately 32 ounces (between 32-64 loads based on how many Tbsp used per load).

- 1 bar of soap - shaved
- 1 cup of borax
- 1 cup of washing soda

Thoroughly stir together for 5 minutes and enjoy the results! That's it folks...seems too good to be true, but it is true indeed!

High Efficiency (HE) Washers

HE front-load washers require "special soap" for one reason alone – low suds. Because they use less water, they require soap that is less sudsy. The good news is, this homemade detergent is VERY low suds. The "special" HE detergent is just another advertising mechanism to push consumers to buy "special soap" for unnecessarily high prices.

Regardless of your washer type, just make your own in confidence, here's how.

Detergent directions:

- Shave 1 bar of soap. The medium/fine side of a common cheese grater will do fine
- Add 1 cup of borax
- Add 1 cup of washing soda:
- Stir thoroughly for several minutes until all ingredients are evenly blended together

2 batches of this recipe fit perfectly into a 32 ounce yogurt container

Use 1 tablespoon of detergent per load (you can also use 1 – 2 scoops for heavily soiled loads).

Web Links to Reference Materials

Books

All New Square Foot Gardening - maximize yield from small plots

http://www.amazon.com/All-New-Square-Foot-Gardening/dp/1591862027/ref=sr_1_1?ie=UTF8&qid=1319567159&sr=8-1

Your Backyard Herb Garden: A Gardener's Guide to Growing Over 50 Herbs Plus How to Use Them in Cooking, Crafts, Companion Planting and More - way long title on a great book

http://www.amazon.com/Your-Backyard-Herb-Garden-Gardeners/dp/0875969941/ref=sr_1_1?s=books&ie=UTF8&qid=1319567310&sr=1-1

Edible Landscaping - make your yard taste as good as it looks -or- why waste valuable space

http://www.amazon.com/Edible-Landscaping-Rosalind-Creasy/dp/1578051541/ref=sr_1_1?s=books&ie=UTF8&qid=1319567425&sr=1-1

Carrots Love Tomatoes: Secrets of Companion Planting for Successful Gardening - plants need friends too

http://www.amazon.com/Carrots-Love-Tomatoes-Companion-Successful/dp/1580170277/ref=sr_1_2?s=books&ie=UTF8&qid=1319567611&sr=1-2

Root Cellaring: Natural Cold Storage of Fruits & Vegetables - Storage the old way and with upgrades

http://www.amazon.com/Root-Cellaring-Natural-Storage-Vegetables/dp/0882667033/ref=sr_1_1?s=books&ie=UTF8&qid=1319676034&sr=1-1

Rosemary Gladstar's Herbal Recipes for Vibrant Health: 175 Teas, Tonics, Oils, Salves, Tinctures, and Other Natural Remedies for the Entire Family - more uses for your harvest

http://www.amazon.com/Rosemary-Gladstars-Herbal-Recipes-Vibrant/dp/1603420789/ref=pd_sim_b_3/191-1973879-2714223

Healing Herbal Teas: A Complete Guide to Making Delicious, Healthful Beverages

http://www.amazon.com/Healing-Herbal-Teas-Delicious-Healthful/dp/1591201101/ref=sr_1_1?ie=UTF8&qid=1333668577&sr=8-1

Today's Herbal Health: The Essential Reference Guide

http://www.amazon.com/Todays-Herbal-Health-Essential-Reference/dp/1580544169/ref=sr_1_1_title_0_main?s=books&ie=UTF8&qid=1333669377&sr=1-1

Seeds -

Open pollinated, or non hybrid, may be the wisest choice, so you can save some of the seed from the best plants and not worry about regressing to a former and possibly inferior variety next year. Or worse yet, not even germinating at all.

<http://www.victoryseeds.com/>

<http://www.swallowtailgardenseeds.com>

<http://www.burpee.com/>

<http://www.heirloomseeds.com/>