Community Gardening Information for the Isla Vista Area

This information is to help you in your garden. Gardening is complex but we hope that this might be able to answer some of your questions. Feel free to come to us for any more questions or problems you might have.

Good soil is alive. It contains millions of tiny animals of various sizes that are constantly breaking down dead material and changing it into substances that are available to plants for food. The secret of a good garden is that the soil be as healthy as possible. Each time we grow vegetables we drain the soil of some of its nutrients. Plants take food from the soil. Some plants, like corn, are heavy feeders and take out more from the soil than other plants. Others, like radishes, are light feeders and take much less. Still, whether they are light or heavy feeders, plants drain the soil of some of its life giving energy.

In order to insure the health of your soil and plants, it is essential to add some kind of fertilizer before planting. Compost is an excellent fertilizer which you can make yourself. Compost is a mixture of weeds, animal manure, kitchen wastes, soil and various other organic substances which are piled together. By keeping the pile damp and allowing air to penetrate it (usually by turning with a pitch-fork), we create an environment in which certain bacteria and insects can eat the decaying matter and turn it into rich soil. This finished product contains a wide number of minerals needed by your plants.

Although agribusiness finds it cheaper and more efficient to use chemical fertilizers, the superiority of a well-made compost is clear. Chemical fertilizers supply only certain major elements needed by plants. Compost is also an organic substance. Plants are able to take the food they need from it at a more steady pace. When adding it to you soil, you are also increasing the amount of organic material (humus) in the soil. This helps its texture and adds drainage, earthworm activity, etc.

Manures can also be used as fertilizers. They are not as decomposed as compost (or as varied in terms of their mineral and trace elements content). Fresh manure can harm young seedlings if it is not worked well into the soil at least three weeks before planting or transplanting, because it can burn them by supplying too much nitrogen (may give much green and no new fruit).

Different crops have different fertilizing requirements. As a rule of thumb you should add an inch or two of compost over the entire area in which you will be planting. Work the compost into the top six inches of the soil. By fertilizing the soil we show our respect for nature. We attempt to give back some of the life energy which we take out by growing our crops.

Preparing the Soil for Planting

Once of the most important parts of a plant is a part you never see – the plant's roots. Roots absorb water and minerals needed by the plant for its development. A strong root system is essential for a strong plant. When preparing a planting area (referred to as a bed) we should dig as deeply as possible to loosen the soil. Try to clear the soil of rocks, and break apart clods of clay. Once the bed is dug, try not to walk on it, because your weight compacts the soil. It is advisable to make certain path areas in you garden to walk on. Make sure your paths are adequately place to enable you to easily reach all areas. Proper bed preparation will aid you plants in developing strong root systems.

We have found that a good method of digging a bed is to first soak the ground with a sprinkler a few days before you plan on digging it. Allow a day or two for it to dry out a little, then dig away. Doing this helps to loosen the soil and allows you to get out all the weeds. Don't dig the soil when it is very wet as that can damage the soil structure and leave you with hard clay.

Seed Propagation

There are many different methods of planting and each plant has particular needs. Certain seeds, notably the larger ones, can just be put directly in the ground where you want them to mature, watered thoroughly, and left until they come up. This goes for peas, beans, squash, pumpkins, melons, cucumbers and corn. *Other smaller seeds, such as carrots, flowers, radishes, etc. can also be planted directly in the ground but must be watched constantly so they do not dry out.*

A rule of thumb is to plant the seed twice the depth of the diameter of the seed. Very tiny seeds, because they are so close to the surface, dry out quickly and need daily attention. Certain plants such as lettuce, broccoli, cabbage, eggplant, tomatoes and peppers do better if started in seed flats and watch carefully until they are an inch or two high. They can then be transplanted into your garden. The advantage of this is that a careful eye can be kept on them in terms of their watering needs, they can be started in extra-rich soil, the healthiest looking seedlings can be selected for transplanting, and they can be transplanted out into your garden with suitable spacing between the plants.

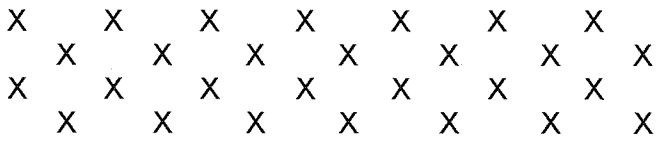
Spacing

Plants can be put a lot closer together than most people realize. Ideally, they should be spaced so that their leaves will touch when they are mature and thus protect the soil.

Lettuce*	6 in.		Carrots	1 in.
Cabbage*	18 in.		Beets	3 in.
Beans	4-6 in.		Broccoli*	18 in.
Corn	12 in.		Eggplant	18 in.
Onions	2 in.		Peas	3 in.
Potatoes	12 in.		Radishes	1 in.

*We would like to plant these plants in a diamond pattern so each plant is equidistant from the others. The other may be planted in rows in either a bed or row corp arrangement and the spacing between the rows varies from plant to plant; see your seed packet or the following chart.

Example of diamond pattern of planting:



Other people prefer to plant in rows. Either method is fine, but try to utilize your space efficiently.

Planting Guide

Santa Barbara is a very unique area in that one can garden all year round. However, not all plants can be grown all year round due to different requirements of heat, length of sunlight, etc. This is a general guide as to what can be planted when.

The following crops can be grown any time and are actually best if you plant a little each month. That way you won't end up with 10,000 radishes all at once.

Radishes
Carrots
Turnips
Onions
Beets (though they like a little shade in summer)

The following plants definitely like cooler weather and early spring or late summer through fall is perfect time for them to be seeded:

Lettuce
Spinach
Cabbage (the whole family, including broccoli, cauliflower, kale, mustard greens, and Brussels sprouts)
Leeks
Peas

All of the above things do better if started in seedflats except for peas and spinach which do well seeded directly in the ground. Brussels sprouts are heavy feeders and do well with additional fertilization to replace calcium and phosphorous.

The following fruiting plants need a lot of sun and should be started from March through July.

Tomatoes
Corn
Peppers
Eggplant
Squash
Pumpkin
Zucchini
Beans
Cucumbers
Melons

Tomatoes, peppers and eggplants do much better if started in seedflats.

Tomatoes often fall prey to mold and _____. Advance preparation can make tomato plants more resistant to disease. Plant vetch in winter, then superimpose tomato plants in old vetch beds. The vetch will help strengthen tomatoes against fungi (Steve Snyder).

Prune tomatoes in September, except sunny Arizona and Southern California. Prune down to a lateral bud, minimize exposed area.

Corn Silk: Sprinkle or lime, keeps out earworms.

Seeds may require a lot of attention and a lot of watering. If they dry out once while germinating, they may die. Transplants also need much water and may go through shock when moved. They need to be handled carefully so their roots are not damaged. It's best to move them in the evening when the sun is not so strong.

Watering

There are different ways to water your garden, and no one does it the same way. Leafy vegetables tend to like to be sprayed gently overhead quite often, but tomatoes and squashes can be burned and mildewed if their leaves get wet. In Isla Vista, powdery mildew will get your squash no matter what you do, but overhead watering will hasten it. Trenches or basins for tomatoes, squashes and cucumbers will help water these plants.

Different weather conditions will affect the moisture content of the soil, and some days your garden will need lots of water and other days none. Check one or two inches down before you water. Sandy soil will need more watering then clay types.

Mulching will help conserve moisture. Leaves, compost, and manure make the best mulch since they should be added to the soil anyway. Straw makes a good mulch also, but it takes awhile to break down and is carbon rich; add manure for balance.. Weeds are inhibited by mulching, you save water, and the moisture content and temperature stay even. Be aware, though, that mulches can provide a habitat for harmful insects like earwigs and cutworms.

Vegetable Planting Guide for the Santa Barbara, California Coastal Area

Abbreviations: JA=Jan., F=Feb., M=Mar., AP=Apr., MAY=May, JU=June, JUL=July, AU=Aug., S=Sept., O=Oct., N=Nov., & D=Dec.

ι/□/▲	Plant Type	Ideal Planting Time	Days to Harvest Seeds:	Days to Harvest Transplants
	Artichoke Plants	JA F M S O N D	---	180
▲	Asparagus	JA F M	3 Years	2 Years
▲	Beans	M AP MAY JU JUL AU	60	42
▲	Beets	JA F M AP MAY JU JUL AU S O N D	70	---
ι	Broccoli	JA F M AP AU S O N D	100	75
ι	Brussels Sprouts	JA F M S O N D	100	80
ι	Cabbage	JA F M AU S O N D	100	75
	Carrots	JA F M AU S O N D	90	---
ι	Cauliflower	JA F M AU S O N D	90	75
▲	Celery	JA F AU S O N	125	100
	Corn	M AP MAY JU JUL AU	90	---
▲	Cucumbers	M AP MAY JU JUL AU	60	---
□	Eggplant	JA F M AP MAY JU	120	80
ι	Kale	JA F M AP MAY JU JUL AU S O N D	60	---
ι	Kohlrabi	JA F M AU S O N D	55	---
▲	Lettuce (head)	AP MAY JU JUL	75	50
	Lettuce (leaf)	JA F M AP MAY JU JUL AU S O N D	45	30
	Melons	AP MAY JU	90	---
▲□	Okra	JA F M AP MAY JU	90	---
▲	Onions	JA F M AP S O N D	125	75
▲	Parsley	JA F M S O N D	75	---
▲	Parsnips	S O N	100	---
	Peas	JA F M S O N D	65	---
□	Pepper	JA F M AP MAY JU JUL	100	60
	Potatoes	F M	125	100
▲	Pumpkin	AP MAY JU	110	---
▲	Radishes	JA F M AP MAY JU JUL AU S O N D	30	---
	Rhubarb Roots	JA F M	---	120
▲		S O	150	---
▲	Spinach	JA F M AP S O N D	50	---
	Strawberries	JA F M S O N D	---	150
▲	Squash	M AP MAY JU JUL AU	55	---
▲	Swiss Chard	JA F M AP MAY JU JUL AU S O N D	60	---
▲□	Tomato	JA F M AP MAY JU JUL AU	105	60
▲	Turnips	JA F M S O N D	45	---

ι Although not recommended in our chart, these plants which are in the brassica family can be started by seed or transplanted throughout the summer months. You will get best results if you are in a cool or foggy location.

□ These plants should be started in seed flats indoors, January through April. The young seedlings, either raised indoors or bought at a nursery, can be set out from late March to July.

▲ Plants known to be perennial annuals

COMPANION PLANTING CHART

A BASIC GUIDE TO PLANT COMPANIONS

PLANT	FRIENDS	FOES
asparagus	tomatoes, parsley	--
beans	beets (bush beans), carrots, cauliflower, cucumbers, potatoes, savory, petunias, rosemary	onions, garlic
beets	kohlrabi, onions, bush beans	pole beans
cabbage family (broccoli, Brussels sprouts, cabbage, cauliflower, kale, kohlrabi)	beets, celery, onions, early potatoes, most aromatic herbs (esp. dill, nasturtium, peppermint, rosemary, and sage)	tomatoes, beans, strawberries
carrots	lettuce, onions, peas, radishes, tomatoes, rosemary, and sage	dill
celeriac	leeks or onions (alt. rows)	--
corn	beans, cucumbers, melons, peas, potatoes, pumpkins, squash	--
cucumbers	beans, corn (alt. rows), peas, sunflowers	potatoes, strong herbs
eggplant	beans	--
lettuce	carrots, cucumbers, radishes, strawberries	--
onion, garlic	beets, carrots, celery or celeriac, peas, beans (alt. rows), lettuce, tomatoes, summer savory	peas, beans
peas	most vegetables, esp. beans, carrots, cucumbers, corn	onions, potatoes
potatoes	beans, corn, cabbage, peas, horseradish at corners or patch	cucumbers, squash, sunflowers, tomatoes
pumpkin	corn	potatoes
radishes	lettuce	--
raspberry	most vegetables	blackberries, potatoes
spinach	strawberries	--
squash	corn, nasturtiums	--
strawberries	borage (few), lettuce, onions, spinach	cabbage
tomatoes	carrots, onion, parsley, marigold, nasturtiums, basil, mint, borage	cabbage, kohlrabi
turnips	peas	mustard

**Scattered throughout the garden: marigolds, calendulas, yarrow.

A COMPANIONATE HERBAL FOR THE ORGANIC GARDEN

A LIST OF HERBS, THEIR COMPANIONS, THEIR USES, INCLUDING SOME BENEFICIAL WEEDS & FLOWERS

HERB		COMPANION AND EFFECTS
Basil		Companion to tomatoes; dislikes rue intensely. Improves growth & flavor. Repels flies and mosquitoes.
Beebalm		Companion to tomatoes; improves growth and flavor.
Borage		Companion to tomatoes, squash and strawberries; deters tomato worm; improves growth and flavor.
Caraway		Plant here and there; loosens soil.
Catnip		Plant in borders; deters flea beetle.
Chamomile		Companion to cabbages & onions; improves growth & flavor.
Chervil		Companion to radishes; improves growth & flavor.
Chives		Companion to carrots; improves growth & flavor.
Dead nettle		Companion to potatoes; deters potato bug; improves growth & flavor.
Dill		Companion to cabbage; dislikes carrots; improves growth & health of cabbage.
Fennel		Plant away from gardens. Most plants dislike it.
Flax		Companion to carrots, potatoes; deters potato bug, improves health & flavor.
Garlic		Plant near roses & raspberries; deters Japanese beetle; improves growth & health.
Horseradish		Plant at corners of potato patch to deter potato bug.
Henbit		General insect repellant.
Hyssop		Deters cabbage moth; companion to cabbage and grapes. Keep away from radishes.
Lamb's-Quarters		This edible weed should be allowed to grow in moderate amounts in the garden, especially in corn.
Lemon Balm		Sprinkle throughout the garden.
Lovage		Improves flavor and health of plants of planted here and there.
Marigolds		The workhorse of the pest deterrents. Plant throughout the garden; it discourages Mexican bean beetles, nematodes, and other insects.
Mint		Companion to cabbage and tomatoes; improves health and flavor; deters white cabbage moth.
Marjoram		Here and there in the garden; improves flavors.
Mole Plant		Deters moles and mice if planted here and there.
Nasturtium		Companion to radishes, cabbage and curcurbits; plant under fruit trees. Deters aphids, squash bugs, striped pumpkin beetles. Improves health and flavor.
Petunia		Protects beans.
Pot Marigold		Companion to tomatoes, but plant elsewhere in garden too. Deters asparagus beetle, tomato worm and general garden pests.
Purslane		This edible weed makes good ground cover in the corn.
Pigweed		One of the bets weeds for pumping nutrients from the subsoil, it is especially beneficial to potatoes, onions and corn. Keep weeds thinned.
Peppermint		Planted among cabbages, it repels the white cabbage butterfly.
Rosemary		Companion to cabbage, bean, carrots and sage; deters cabbage moth, bean beetles and carrot fly.
Rue		Keep it far away from Sweet Basil; plant near roses and raspberries; deters Japanese beetle.
Sage		Plant with rosemary, cabbage and carrots; keep away from cucumbers. Deters cabbage moth, carrot fly.

HERB		COMPANION AND EFFECTS
Southernwood		Plant here and there in garden; companion to cabbage; improves health & flavor; deters cabbage moth.
Sowthistle		This weed in moderate amounts can help tomatoes, onions and corn.
Summer Savory		Plant with beans and onions; improves growth and flavor. Deters bean beetles.
Tansy		Plant under fruit trees; companion to roses and raspberries. Deters flying insects, Japanese beetles, striped cucumber beetles, squash bugs, ants.
Tarragon		Good throughout garden.
Thyme		Here and there in garden. It deters cabbage worm.
Valerian		Good anywhere in garden.
Wild Morning Glory		Allow it to grow in corn.
Wormwood		As a border, it keeps animals from the garden.
Yarrow		Plant along borders, paths, near aromatic herbs; enhances essential oil production.

**This information was collected from many sources, most notably the Bio-Dynamic Association and the Herb Society of America.

THE ABOVE TABLE IS TAKEN FROM ORGANIC GARDENING AND FARMING MAGAZINE, FEBRUARY, 1972, PAGES 32 AND 33.

Composting: Give Life to your Soil!

Optimal Starting Time: Spring and Autumn when biological activity is increasing.

Purpose: Compost improves the soil's texture, aeration and water-holding ability; also helps make nutrients in soil more available to plants.

What Happens: The nitrogen in the composted materials is food for the bacteria which decompose the materials. The decomposition process can be accelerated by increasing:

- Aeration of the materials
- The amount f nitrogenous materials
- The surface area of the materials (through shredding)

The heat produced in the compost pile is generated by the metabolism of the microorganisms growing, consuming and digesting the raw materials.

3 Recipes:

Santa Cruz French Intensive	**Bio-Dynamic**	**Rodale Organic**
1/3 Vegetation 1/3 Kitchen Waste 1/3 Soil	70% Leaves, Garbage, Lawn Clippings, Weeds, Garden Trash 20% Manure 10% Soil	1/3 Leaves 1/3 Grass Clippings 1/3 Cow Manure
Bone Meal and 2-year composted manure added to planting beds	Herbal solutions added to stimulate micro-organisms	Sprinkling of natural r powders, blood meal cottonseed meal and nitrogen supplements required
Ingredients Layered	Worms added when possible	Ingredients mixed or layered
Prepared under deciduous tree in shade when possible	Ingredients mixed or layered	Ingredients turned twice during first 14 days

Hints:

- Compost piles can be built in or above the ground; if above the ground, either a solid-frame or chicken wire forms are used as well as natural piles
- A minimum size of 3 feet square by 3 feet high is desirable
- Don't let the pile become soggy or let it dry up; it should be kept as damp as a completely wet, squeezed-out sponge.

Maturation Period:

- 6 months to one year
- Can be ready in 2 weeks (see Rodale's 14-day method)

Ready: When materials are rich and dark in color, crumbly in texture (all fibers do not need to be broken down, however).

Yield: Approximately 1,000 lbs. per cubic yard

Application: 50 lbs. per 100 square feet dug into soil or 1"-3" layer dug into soil

Organic Pest Control

The best pest control is, of course, prevention. Fertile soil with sufficient humus, disease-resistant plants and proper garden maintenance will produce healthier plants than over/under fertilized soil low in organic matter, lackadaisical watering, weeds, and hasty soil preparation. Also, companion planting can help by repelling some pests or helping plants grow better with their "companions."

The most common pests in Isla Vista are snails, slugs, spotted cucumber beetles, aphids, spider mites, leaf hoppers, cabbage moths, corn earworms and gophers. Powdery mildew is a common disease. Earwigs are good and bad, eating decaying matter, insect larvae, and snails as well as lettuce, strawberries and corn stalks. Ants can be harmful if they are the right kind. Some chew leaves, and others tend aphids, carry them around from plant to plant and protect them from their natural predators.

Pill bugs are harmless, as are Jerusalem crickets (also called potato bugs), earthworms and bees.

The chart lists metaldehyde as a control for snails; this is a persistent chemical and should not be used. The following is a list of what the chart left out:

Birds: They are generally good to have in a garden as many eat insects; some do eat young lettuce and pea seedlings. They can be discouraged by hanging pie tins around the garden.

Gophers: They will eat even onions and garlic! I have found it useless to try to discourage them, so I either accept the damage or use gopher gas bombs.

Snails: These can be trapped by upside down pots, propped up so snails can crawl into them, which they will during the day, when you may dispose of them. Slugs can be controlled by using boards, with the same effect.

Earwigs: Use traps like for snails and slugs.

Corn Earworms: These may be suffocated by applying one half to three quarters of an eyedropper of mineral oil into the silk when the silk has wilted and begun to turn brown. Or, put a clothes pin at the top of the husk early on, to prevent the earworm from crawling in.

Powdery Mildew: This looks like a grey-white powder on leaves, and lives mostly on squash plants. It comes with the summer fog, every year – no matter what. Watering at the soil level, and not on the leaves, will help delay it. Trim the badly affected areas.

Botanicals are a last resort for the organic gardener. These are pesticides that are derived from plants. The most common are pyrethrum and rotenone. Pyrethrums have small daisy-like flowers that can be planted in your garden just for its good looks. It is safe to use theses (rotenone does kill fish) and they decay in a matter of hours in full sunlight.

Food crops are the one exception: They require a close watch for insect damage. Even so, you can sacrifice a small percentage of your fruits and vegetables to pests without materially affecting your harvest – and at a great saving of the time and effort you would have to spend toward total eradication.

Which Control For Which Pest?

Ingredients	Pyrethrum	Rotenone (cube)	Ryania	Soap Solution	Lime Sulfur	Dusting Sulfur	Sabadilla	Petroleum Oils	Metaldehyde	Hand Methods	Adhesive Barriers	Bacillus thuringiensis	Milky Spore Disease
Pests													
Leaf Chewers													
Beetles	✱	✱	✱							✱	✱		
Japanese beetle			✱							✱			✱
Weevils										✱			
Caterpillars	✱	✱								✱	✱		
Grasshoppers							✱			✱			
Oak Moths										✱		✱	
Snails and Slugs									✱	✱			
Sucking Insects													
Aphids	✱	✱	✱	✱			✱	✱		✱			
Leafhoppers	✱	✱	✱										
Mealybugs								✱					
Scale					✱			✱		✱			
Spider Mites			✱	✱	✱	✱		✱					
Spittlebugs		✱											
Thrips	✱	✱	✱					✱					
Whiteflies	✱	✱						✱					
Soil Pests													
Cut Worms										✱			
Grubs										✱			
Lawn Moths	✱	✱								✱		✱	
Burrowers													
Codling Moths			✱				✱	✱		✱			
Leaf Miners		✱								✱			
Corn Earworms			✱							✱			
Borers										✱	✱		
Nuisance Insects													
Ants										✱	✱		

Organic Soil Amendments

N, P, and K refer to the three main nutrients plants need: NITROGEN for green growth and in compost piles to speed decomposition, PHOSPHORUS for root growth, disease resistance, and production of good fruits, vegetables and flowers, with POTASH for strong stems, vigorous roots and increased disease resistance. Plants also need HUMUS which is provided by decaying organic matters such as compost, manure, rice hulls and cover crops.

COTTONSEED MEAL	3-5% N 2%P 1%K, lasts 4-6 months. Use up to 10 lbs./100 sq. feet. Fair source of nitrogen. Especially good for citrus and azaleas because it ahs an acidifying effect on soil.
BLOOD MEAL	12.5%N 1.3%P 0.7%K, lasts 3-4 months. Use up to 5 lbs./100 sq. feet. A quick source of nitrogen, good for slow compost piles. Can burn plants if using more than 3 lbs./100 sq. feet. If using higher amounts, wait 2 weeks to plant.
HOOF & HORN MEAL	14%N 2%P 0%K, lasts 12 months. Use up to 4 lbs./100 sq. feet. Highest nitrogen source. Slow releasing: no noticeable results for 4-6 weeks.
FISH MEAL	10.5%N 6%P 0%K, lasts 6-8 months. Use up to 5 lbs./100 sq. feet. Good combined nitrogen and phosphorus source.
BONE MEAL	3%N 20%P 0%K, lasts 6 months to 1 year. Use up to 5 lbs./100 sq. feet. Excellent source of phosphorus. Especially good on roses, around bulbs, and around fruit trees and flower beds.
PHOSPHATE ROCK	33%P, lasts 3-5 years. Use up to 10 lbs./100 sq. feet. Very slow releasing.
SOFT PHOSPHATE	18%P, lasts 2-3 years. Use up to 10 lbs./100 sq. feet. Clay base makes it more available to plants than the phosphorus in phosphate rock, though the two are used interchangeably.
KELP MEAL	1%N 0%P 12%K, 33% minerals, lasts 6 months to 1 year. Excellent source of potash, iron, and other minerals. Kelp meal is also a natural fungicide. Use sparingly (1 lb./100 sq. feet) because it contains growth hormones.
WOOD ASHES	1%K, lasts 6 months. Use 1-2 lbs./100 sq. feet. Ashes from wood are high in potash and help repel root maggots. Ashes also have an alkaline effect on the soil, so use them with care. Black wood ash is the best. Must be dry.
CRUSHED GRANITE	3-5%K, lasts up to 10 years. Use up to 10 lbs./100 sq. feet. Good slow –releasing source of potash and trace minerals.
GREENSAND	0%N 1.5%P 6.7%K. use interchangeably with crushed granite.

Additional Known Perennial Annuals

Bok Choy	Cucumber	Marigold	Sweet Alyssum
Borage	Dill	Moon Flower	Sweet Pea
Calendula	Endiue	Mustard	Sweet William
Celery	Fennel	Nasturtium	Swiss Chard
Chamomile	Foxglove	New Zealand Spinach	Viola
Chervil	Ground Cherry	Pansy	Zinnia
Cleome	Honey Dew	Petunia	Zucchini
Collards	Huckleberry	Purslane	
Corn Salad	Lamb's Quarters	Snapdragon	
Cosmos	Larkspur	Summer Savory	
Cress	Louage	Sunflower	

**Corn Salad: Seed in autumn. Grows best in cool, moist; will tolerate shade. Two weeks after emerging, leaves (trimmings) ready for salads (6 or so plants to set seeds to perennial). Also known as lamb's lettuce, field salad, salad de chanoine (valerian family).

**Calcium & Oxalic Acid: Beet greens, spinach and Swiss Chard @ 8xmore oxalic than calcium. Turnip tops, mustard, collards, bale, broccoli: Calcium 42, Oxalic 1