NEW JERSEY AGRICULTURAL EXPERIMENT STATION
RUTGERS COOPERATIVE RESEARCH & EXTENSION

FS129

Fact sheet

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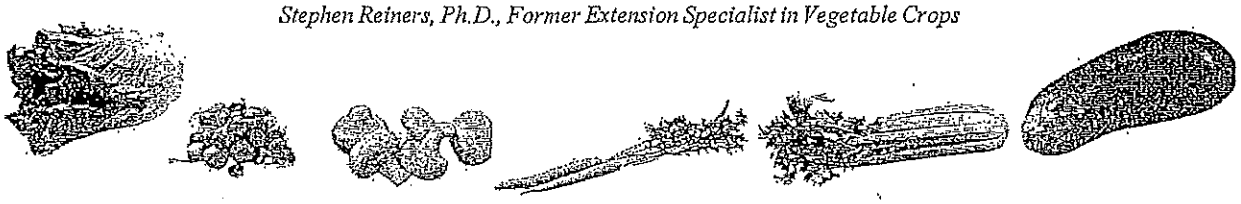
Planning a Vegetable Garden

Peter J. Nitzsche, Morris County Agricultural Agent &
Stephen Reiners, Ph.D., Former Extension Specialist in Vegetable Crops



The most important factor in planning a vegetable garden is location. Choose a site with good drainage and no standing water, even after the heaviest rain. Keep the garden away from trees and shrubs, which may compete with vegetables for water, nutrients, and light. Leafy vegetables, such as lettuce and spinach, require the least direct sunlight, only 4 to 5 hours. Root vegetables require 5 to 6 hours, and fruiting vegetables, such as tomatoes, cucumbers, and zucchini, require at least 8 hours. Remember, NO vegetable can grow in total shade.

Once you've decided where the garden will go, it's time to choose which vegetables to grow. First, make a list of those vegetables you like. Next, put a plan down on paper. This will help you make the best use of space and will save time when planting by showing you exactly where to place your seeds and transplants. The plan should include the following information: garden size, space between rows and within rows, crops and varieties, planting dates, seeded crops, and transplanted crops: You may want to make two plans. One for the spring planting and one for a second planting for summer and autumn harvest. Use the table included in this factsheet to help you plan. If possible, rotate your crops so similar vegetables are not planted in the same location consecutively. Remember to place your tallest growing crops on the north side of the garden so as not to shade lower growing plants. Also allow for good air movement through the garden. This ensures that moisture on plant leaves dries quickly and may lessen disease problems.

When choosing varieties, always look for ones with disease resistance. Although these varieties may cost more than some of the old standards, they more then make up for the cost with improved yields and less reliance on chemical controls. For more information call your county Rutgers Cooperative Extension office (listed in the phone book under county government) or visit our web site at *www.rce.rutgers.edu.*

A good garden design will save you time and make the best use of limited garden space. Most importantly, vegetables grown under optimal conditions, along with the use of disease-resistant varieties, will result in healthy, high-yielding crops.

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Vegetable Planting Guide

Vegetable	Spacing (in.) In Row	Spacing (in.) Btwn. Rows	Transplant or Seeds	Planting Dates*	Avg. Yield per 10 ft. of Row	
Asparagus	18	60	Crowns	Perennial	5	lbs
Beans, Lima, bush	4	24	seed	Ma,Ju,Jl	6	lbs
Beans, Lima, pole	36	36	seed	Ma,Ju,Jl	7	lbs
Beans, Snap, bush	4	24	seed	Ma,Ju,Jl	6	lbs
Beans, snap. pole	36	24	seed	Ma,Ju,Jl	7	lbs
Beets	3	15	seed	Ap,Ma,Ju,Jl	14	lbs
Broccoli	15	30	transplant	Ap,Ma,Jl,Au	8	heads
Brussels Sprouts	18	30	transplant	Jl	5	lbs
Cabbage	18	24	transplant	Ap,Jl	7	heads
Cabbage, Chinese	12	18	seed or trp.	Ap,Jl	10	heads
Carrots	3	15	seed	Ap,Ma,Ju,Jl	10	lbs
Cauliflower	24	30	transplant	Jl	5	heads
Celery	6	18	transplant	Ma,Ju	20	stalks
Chard, Swiss	6	24	seed	Ap,Ma,Ju,Jl,Au	20	plants
Collards	18	24	seed	Ap,Ma,Ju,Jl	10	lbs
Corn, Sweet	12	24	seed	Ma,Ju	10	ears
Cucumbers	36	30	seed or trp.	Ju,Jl	8	lbs
Eggplant	30	30	transplant	Ma,Ju	20	fruit
Endive	12	18	seed or trp.	Ap,Ma,Ju,Jl,Au	10	plants
Kale	15	18	seed	Jl,Ag	24	lbs
Kohlrabi	4	15	seed or trp.	Ap,Ma,Jl,Au	20	bulbs
Leeks	3	15	transplants	Ap,Ma,Au	40	plants
Lettuce,Leaf,Romaine	8	15	seed or trp.	Ap,Ma,Au,Se	15	heads
Lettuce, Bibb	6	15	seed or trp.	Ap,Ma,Au,Se	20	heads
Muskmelons	36	72	seed or trp.	Ju	8	melons
Mustard Greens	12	15	seed	Au	10	lbs
Okra	24	36	seed	Ma,Ju	100	pods
Onions, dry	4	15	seed,trp.sets	Ap	10	lbs
Parsley	6	15	seed	Ap,Ma,Ju	20	bunches
Parsnips	3	18	seed	Ap	10	lbs
Peas	2	18	seed	Mr,Ap	3	lbs
Peppers	15	15	transplant	Ju	12	lbs
Pumpkins	48	96	seed	Ju	4	fruit
Radishes	1	12	seed	Ap,Ma,Ju,Jl,Au,Se	60	roots
Rhubarb	36	48	crowns	Perennial	20	stalks
Rutabagas	4	18	seeds	Ap,Jl	15	lbs
Spinach	4	18	seeds	Ap,Se	7	lbs
Squash, bush	24	48	seeds or trp.	Ju,Jl	25	fruit
Squash, vine	36	72	seeds or trp.	Ju	20	fruits
Sweet Potatoes	12	36	transplants	Ju	12	lbs
Tomatoes	24	36	transplants	Ma,Ju	50	lbs
Turnips	3	18	seed	Ap,Jl	7	lbs
Watermelons	36	96	seed	Ju	3	melons
White Potatoes	12	24	tubers	Ap	18	lbs

*Mr=March; Ap=April; Ma=May; Ju=June; Jl=July; Ag=August; Se=September

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Fact sheet

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Grow Your Own Vegetable and Flower Seedlings

James Nichnadowicz, Union County 4-H Agent

Materials

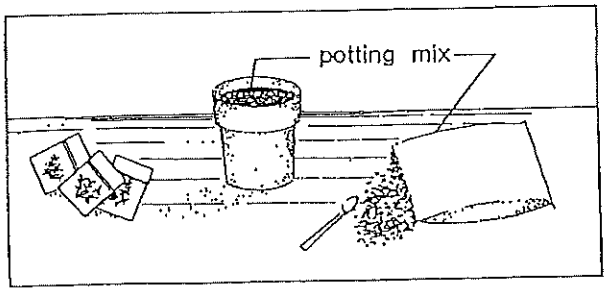
- Vegetable or flower seeds
- Sterile potting soil
- 6-ounce plastic drinking cups
- Clear plastic foam wrap
- A window with southern exposure OR a fluorescent fixture with cool white bulbs
- Waterproof marking pen
- Rubber bands

Seeds

Seeds are available from local garden centers. You can also purchase them via mail directly from seed companies. Before buying however, take a close look at your garden site. Select only those plants that will thrive there. For help in selecting plants to grow, contact the Rutgers Cooperative Extension office in your county.

Potting Mix

Use a well-drained artificial soil mix consisting of peat moss, vermiculite, and perlite. This mix is also available at local garden centers.

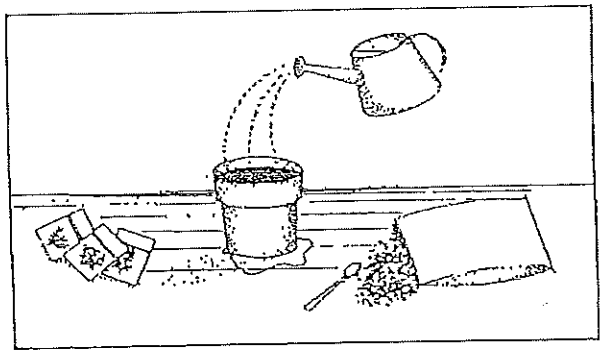


Containers

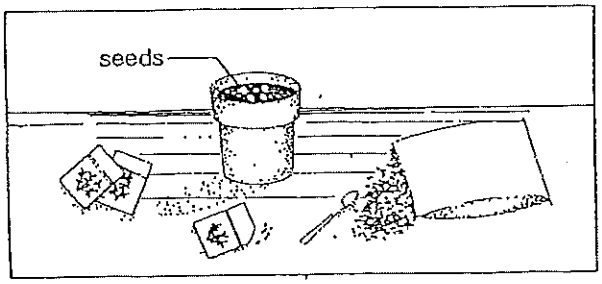
To avoid overwatering your seedlings, start them in small containers. A 6-ounce plastic, not waxed paper, drinking cup works well. Be certain, however, that it has drainage holes in the bottom. If not, make several small holes in the bottom of each cup with a sharp instrument.

Sowing Seeds

1. Label containers--date and plant name--with a water proof pen.
2. Fill a 6-ounce container with soil mix.
3. Using warm water, soak the pots until water runs through drainage holes.



4. Place four (4) seeds on the soil surface of each pot.



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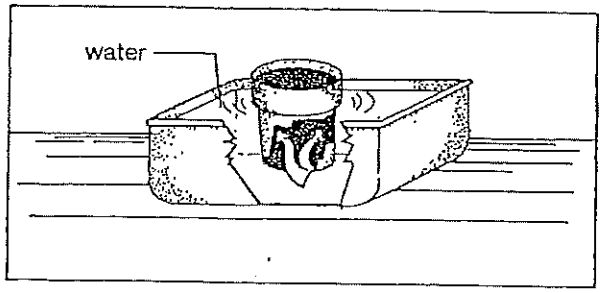
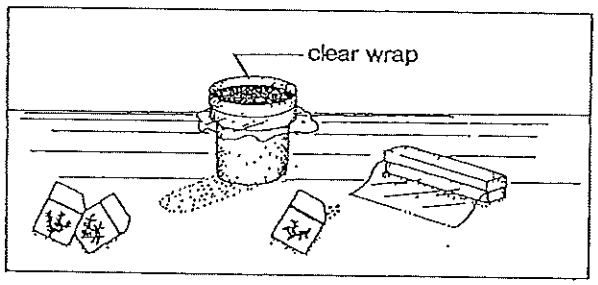
5. Cover seeds with 1/4-inch of artificial soil mix.
6. Tamp the soil lightly. This brings the seed in close contact with the soil.
7. Set the bottom of the pot in warm water. The water should not be above the rim of the pot. Water will move into the soil mix through the drainage holes. When the surface of the soil appears wet, pots should be removed.



8. Cover pots with clear plastic and secure with rubber bands. (Remove the plastic as soon as seeds sprout).



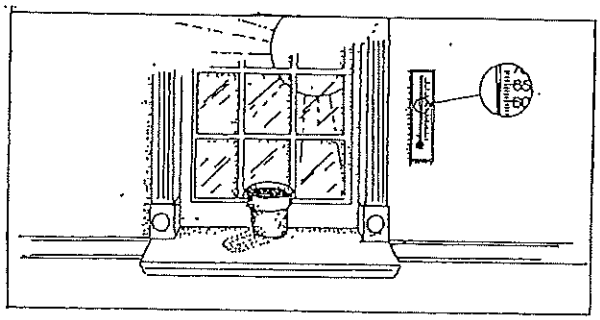
9. Place pots in a warm location (70 to 75°F.) -- the top of a hot water heater is a good location.

10. Keep the soil damp at all times. If necessary, water again from the bottom. (See step #7).

Care After Germination

1. Remove plastic coverings as soon as seeds sprout. Be patient! You can find out how long it takes for the seeds to sprout by reading instructions on the seed package.

2. Move plants under fluorescent lights or to a window that receives full sun most of the day. NOTE: fluorescent lights should be 4 to 8 inches above the plants and be left on 14 to 18 hours per day. (The cost of power for lights is minimal). Also the temperature in this area should be above 65°F. at all times.



3. Water plants thoroughly with a solution of water and houseplant fertilizer whenever the soil surface feels dry to the touch.

   When each plant has four leaves, pull out of the soil all but the healthiest plant.

4. Your seedlings are large enough to transplant outdoors when their roots have filled the pot in which they are growing. This happens 6 to 8 weeks after you have planted the seeds. Check instructions on the seed package for more details.

Planting Outdoors

Before planting your seedlings outdoors they need to become acclimated. They've led a pampered life in your home. You've protected them from the drying wind, scorching sun, and cold night air. Allow a week for seedlings to become adjusted to the outdoors. Each day, place them outside in a sunny spot for a few hours. Gradually increase the length of time outside. By the end of the week leave them outdoors overnight. After 1 week of this procedure, the seedlings will have adjusted to the outside world. They are now ready for outdoor planting.

- Illustrations by Lynne Ziobro
Master Gardener, Union County

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Fact sheet

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Varieties for New Jersey Vegetable Gardens

Stephen Reiners, Ph.D., Extension Specialist in Vegetable Crops & Joseph Steinke, Horticulturist

This fact sheet is intended for use by home gardeners. These recommended varieties have been tested for suitability in New Jersey gardens. They have been selected for their productiveness, quality, flavor, and disease resistance. Some of these varieties are available only through seed company catalogs. For a listing of seed companies please see fact sheet #680, Vegetable Seed and Plant Sources for the Home Gardener, available from your county Rutgers Cooperative Extension Office. In addition, contact your county extension office for more specific information on growing these vegetables.

ABBREVIATIONS

d- Approximate number of days required from seeding to maturity. This number will vary with the season. Use it as a guide to compare the maturity of a given variety as it relates to others.

dt- Approximate number of days to maturity from transplanting, not seeding.

ASPARAGUS

Greenwich
Jersey Giant
Jersey Prince
Jersey Knight
Jersey King
Jersey General

BEANS

Bush Snap Green

Provider – 50d
Bountiful – 50d
Triumph de Farcy – 52d
Derby – 55d.
Tendercrop – 55d
Bush Lake 274 – 56d
Roma II – 59d
Jumbo – 60d

BEANS (continued)

Bush Snap Yellow

Resistant Cherokee Wax – 54d
Gold Crop – 54d
Gold Rush – 56d

Pole Green

Romano – 60d
Blue Lake – 65d

Bush Lima

Fordhook 242 – 75d
Eastland – 73d

Pole Lima

King of the Garden – 90d

BEANS (continued)

Horticultural Shell Beans

French Horticultural – 72d

Edible Soybean

Prize – 85d

BEETS

Red Ace – 60d
Burpee's Golden Beet – 60d
Ruby Queen – 65d
Crosby Green Top – 65d
Detroit Dark Red – 68d
Long Season/Winter Keeper – 80d

BROCCOLI

Green Comet Hybrid – 55dt

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BROCCOLI (continued)

Premium Crop – 65dt
Waltham #29 – 74dt

BRUSSELS SPROUTS

Jade Cross E – 90dt

CABBAGE

Green Flat Leaf

Golden Acre – 65dt
Market Prize – 75dt

Savoy

Savoy King – 80dt

Red

Ruby Ball – 70dt

Chinese Cabbage

Jade Pagoda – 72d
Michihli – 75d

CAULIFLOWER

Snowball strains – 50-60dt
Snow Crown – 50dt

CARROTS

Orbit – 55d
Scarlet Nantes – 70d
Royal Chantenay – 70d

CELERY

Pascal – 100dt
Florida – 115dt

CELERIAC

Marble Ball – 110dt

COLLARDS

Vates – 75d

CUCUMBERS

Slicers

Bush Champion – 55d
Marketmore #76 – 65d
Burpless Hybrid – 65d

Picklers

Wisconsin SMR #58 – 55d

EGGPLANT

Black Magic – 75dt
Jersey King Hybrid – 75dt
Harris Special Hibush – 75dt

ENDIVE

Green Curled – 95d
Full Heart Batavian – 85d

KALE

Vates – 55d

KOHLRABI

Grand Duke – 55d

LEEK

American Flag – 125d
Conqueror – 130d

LETTUCE

Butterhead

Summer Bibb – 60d
Buttercrunch – 65d
Dark Green Boston – 70d

Looseleaf

Ruby – 47d
Salad Bowl – 50d
Grand Rapids – 54d

Romaine

Parris Island Cos – 70d

MUSKMELON

Burpee Hybrid – 83d
Harper Hybrid – 83d
Ambrosia Hybrid – 88d
Saticoy Hybrid – 90d

Crenshaw type

Early Hybrid Crenshaw – 80d

Honeydew

Early Dew Hybrid – 80d

MUSTARD

Green Wave – 45d

OKRA

Clemson Spineless – 55d
Emerald – 57d
Burgundy – 60d

ONIONS

Sets

Early Yellow Globe – 90d
Stuttgarter – 120d

Transplants

Sweet Spanish – 110dt

Bunching

Japanese Bunching (Heshiko)
Shallots
White Portugal

PARSLEY

Triple Moss Curled – 80d
Dark Green Italian – 80d
Hamburg Root Parsley – 90d

PARSNIPS

All America – 105d
Harris' Model – 120d

PEAS

Sugar Ann – 58d
Sugarbon – 58d
Little Marvel – 60d
Progress No. 9 – 60d
Frosty – 65d
Green Arrow – 65d
Wando – 70d
Sugar Snap – 70d

PEPPERS

Bell

Gypsy – 65dt
Staddon's Select – 70dt
Cubanelle – 70dt
Orobelle – 78dt
Oritani – 80dt
Bell Tower – 80dt
Yolo Wonder – 80dt
Emerald Giant – 80dt

Hot types

Hungarian Wax – 70dt
Long Red Cayenne – 70dt
Large Cherry – 80dt

PUMPKINS

Big Autumn – 95d
Small Sugar – 100d
Howden – 115d
Atlantic Giant – 120d
Big Max – 120d

Mini-Pumpkins

Jack Be Little – 105d

RADISHES

Champion – 30d
Icicle – 30d
Summer Cross – 45d

RHUBARB

MacDonald
Canada Red
Victoria

RUTABAGA

American Purple Top – 90d

SALSIFY

Mammoth Sandwich – 120d

SPINACH

Melody – 45d
Long Standing Bloomsdale – 50d

SQUASH

Summer

Seneca Prolific – 50d
Seneca Zucchini – 50d
Zucchini Elite – 50d
Early Prolific Staightneck – 54d

Winter

Tay Belle – 83d
Table Queen – 85d
Sweet Mama – 95d
Butternut – 100d
Vegetable Spaghetti – 100d
Blue Hubbard – 110d

SWEET CORN

Yellow-normal

Sundance – 69d
Tuxedo – 75d
Merit – 82d

Yellow-sugar enhanced

Summer Flavor 62Y – 62d

Yellow-supersweet

Showcase – 83d

Bicolor

Sprite – 70d
Calico Belle – 82d
Sweet Sue – 87d
Biqueen – 95d

SWEET CORN (continued)

White-normal

Stardust – 67d
Silver Queen – 92d

White-sugar enhanced

Silverado – 79d

White-supersweet

Summer Sweet 8601 – 86d

Ornamental

Indian – 110d
Strawberry – 105d

SWEET POTATOES

Jewel – 110dt
Beauregard – 120dt
Jersey Yellow – 120dt
Georgia Jet – 120dt
Porto Rico – 120dt

SWISS CHARD

Large White Rib – 60d
Rhubarb Chard – 60d

TOMATOES

First Early

Quick Pick – 62dt

Second Early

Pikred – 70dt
Jet Star – 70dt

Midseason

Celebrity – 72dt
Supersonic – 78dt
Floramerica – 78dt

Late

Empire – 80dt

TOMATOES (continued)

Supersonic – 80dt
Supersteak – 80dt
Ramapo – 85dt

Novelty types

Roma VF – plum, 75dt
Sweet 100 – cherry, 65dt
Small Fry – cherry, 65dt
Pixie Hybrid II – 55dt
Patio Prize Hybrid – 52dt
Lemon Boy – yellow fruit, 72dt
Stuffing Tomato – 75dt
Burpee's Longkeeper – 78dt

TURNIP

Shogin (for greens) – 30d
Tokyo Market – 50d
Purple Top White Globe – 55d

WATERMELON

Yellow Baby – 70d
Sugar Baby – 75d
Blue Belle – 76d
Crimson Sweet – 80d

WHITE POTATOES

White skinned – Early

Early Cobbler
Superior

White Skinned – Midseason

Chippewa

White Skinned – Late

Katahdin
Kennebec

WHITE POTATOES (continued)

Green Mountain

Red Skinned

Red Pontiac
Norland

Yellow skin and flesh

Yukon Gold

Violet skin, white flesh

Caribe

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Companion Planting

Plants, like people, influence one another. Some get along better together than others. Black walnut and butternut have an antagonistic relationship with tomatoes, for example. The toxin juglans exuded from the trees' roots is quite toxic to several plants, including those of the nightshade family such as tomato, pepper, and eggplant. Plant neighbor relationships might take several forms. First, they may improve the health or flavor of a companion. Second, they may interfere with the growth of a neighbor. Third, they may repel or trap an undesirable critter. Companion plant may also attract a beneficial insect.

Although there are several references about beneficial relationships between plants, the science of companion planting is often anecdotal. There appears to be no research proven reproducible companion planting recommendations. There are numerous suggestions rooted in organic agriculture. The suggestions below are a starting point for individual trials. Localized growing environment influence success or failure. Certainly, a mixed plant community rather than a monoculture is a model for companion planting. The array of colors, aromas and ripening times often confuse plant pests in these situations. The following are a few plants that seem to help one another. The garden should test and trial. Continue doing what works and abandon what does not.

Asparagus – A good method for planting is in a long row at one side of the garden. After harvest, plant tomatoes on either side, and both plants reap benefits from each other. Parsley planted with asparagus seems to provide vigor to both.

Beans – Generally, beans thrive when interplanted with carrots, cauliflower and beets. They also aid cucumbers and cabbage. A Summer Savory companion improves growth and flavor as well as repelling bean beetles. As a bonus, cook both together for a great flavor. Beans don't like members of the onion family and they dislike being planted near gladiolas.

Beets – Beets grow well near bush beans, onions, and kohlrabi, but dislike *pole* beans. In addition, lettuce and brassicas are good companions.

Cabbage – Cole crops such as cabbage, kale, kohlrabi, broccoli, and Brussels sprouts as well as collards, rutabagas and turnips. They do well when planted with aromatic plants such as dill, celery, chamomile, sage, peppermint, and rosemary. Do not plant with tomatoes, pole beans or strawberries.

Carrots – Onions, leeks and herbs such as rosemary, wormwood, and sage act as repellents to the carrot fly.

Corn – Sweet corn does well with potatoes, peas, beans, cucumbers, pumpkin, and squash. Melons, squash, pumpkin and cukes like the shade provided by corn.

Cucumbers – Cukes seem to be offensive to raccoons, so it's good to plant them near your corn. Thin strips of cucumbers also repel ants. Sow 2 or 3 radish seeds in cucumber hills to repel cucumber beetles. Don't pull the radishes even if they go to seed. Cukes and potatoes are antagonistic. Cukes do not grow well with aromatic herbs.

Lettuce – Lettuce grows well with strawberries, cucumbers and carrots. Radishes grown with lettuce are especially good.

Onion – Onions and all members of the cabbage family get along well together. They also like beets, strawberries, tomatoes, lettuce, summer savory and a sparse planting of chamomile. They do not like peas and beans. Ornamental relatives of the onion are helpful as protective companions for roses. Since onion maggots travel from plant to plant when set in a row, scatter your onion plants throughout the garden.

Sweet Pepper – Basil and sweet peppers have similar general requirements. They work well when planted together.

Squash – As with cucumbers, 2 or3 icicle radishes planted in each hill help prevent insects on squash. Again, let them grow and go to seed. Nasturtiums repel squash bugs. Also, squash planted either earlier or later than usual will often remain insect free.

Tomato – Tomatoes and all Cole crops should be kept apart. Tomatoes also dislike potatoes and fennel. Tomatoes are compatible with chives, onion, parsley, marigold, nasturtium and carrot. Garlic planted between tomato plants protects them from red spider mites. Tomatoes protect roses against blackspot. A spray for roses: make a solution of tomato leaves in your blender by adding 4 or 5 parts of water and 1 tablespoon of cornstarch. Strain and spray on roses where it is not convenient to plant tomatoes as companions.

The best way to see how companions interact with each other is first follow the given guidelines. Secondly, and most importantly, keep careful records of your successes and failures. Learn the basic combinations and then experiment with your own. Just as every person is different, no two gardens are alike. That is why personal observation is so important.

Resources: *Carrots Love Tomatoes,* by Louise Riotte; several books from Rodale Press.

Pests and the Plants that Repel Them

Certain plants are believed to repel insects.
Use the list below to help you map out your next planting arrangement.

Pest	Repellent Plant(s)
Ant	Mints, tansy, wormwood
Aphid	Most aromatic herbs, including catnip, chives, clover, coriander, eucalyptus, fennel, garlic, larkspur, marigold, mustard, nasturtium, peppermint, spearmint
Asparagus beetle	Basil, calendula, nasturtium, parsley, tansy, tomato
Cabbage butterfly	Southernwood, tansy
Cabbage Looper	Catnip, dill, eucalyptus, garlic, hyssop, nasturtium, onion, pennyroyal, peppermint, rosemary, sage, southernwood, spearmint, thyme, wormwood
Cabbage maggot	Garlic, marigold, radish, sage, tansy, thyme, wormwood
Carrot fly	Basil, leek, lettuce, nasturtium, onion, rosemary, sage, tansy, tobacco, wormwood
Codling moth	Garlic, wormwood
Colorado potato beetle	Catnip, coriander, eucalyptus, marigold, nasturtium, onion, tansy
Corn earworm	Cosmos, geranium, marigold, thyme
Cucumber beetle	Catnip, corn, marigold, nasturtium, radish, rue, tansy
Cutworm	Spiny amaranth, tansy
Flea beetle	Catnip, marigold, nasturtium, peppermint, rue, spearmint, southernwood, tansy, tobacco, wormwood
Flies	Basil, tansy
Imported Cabbageworm	Dill, garlic, geranium, hyssop, peppermint, nasturtium, onion, pennyroyal, sage, southernwood, tansy, thyme, borage
Japanese beetle	Catnip, chives, garlic, nasturtium, odorless marigold, tansy, white geranium
Leafhopper	Geranium, petunia
Mexican bean beetle	Garlic, marigold, nasturtium, rosemary, savories
Mouse	Wormwood
Mole	Castor bean, narcissus
Mosquito	Basil
Nematodes	Calendula, French marigold
Peach borer	Garlic
Pests in general	Oregano
Rabbit	Garlic, marigold, onion
Slug and snail	Fennel, garlic, rosemary
Spider mite	Coriander, dill
Squash bug	Catnip, marigold, nasturtium, peppermint, petunia, radish, spearmint, tansy
Squash vine borer	Radish
Tomato Hornworm	Borage, calendula, dill, opal basil, thyme
Whitefly	Basil, nasturtium, peppermint, thyme, wormwood
Wireworm	Clover

Plants Helping Other Plants

Listed below are a few of the plant combinations that gardeners have long recommended. None has been scientifically proven, but some do seem to make good common sense as interplants. Test them yourself.

Plant	Plant(s) It Enhances
Anise	Coriander
Basil	Pepper, tomato
Bee balm	Tomato
Borage	Bean, strawberry, tomato, squash
Chamomile	Cabbage family, cucumber, most herbs, melon, onion
Chervil	Radish
Chives	Carrot, grape, rose, tomato
Coriander	Anise
Dandelion	Fruit trees
Dead nettle	Potato
Dill	Cabbage family, lettuce, onion
Dill, *Immature*	Tomato
Garlic	Rose, beet, cabbage family
Horseradish	Potato
Hyssop	Cabbage, grape
Larkspur	Bean, cabbage
Lovage	Bean
Marigold	Potato, rose, tomato
Mint	Cabbage, pea, tomato
Mustards	Bean, fruit trees, grape
Nasturtium	Cucumber, radish
Onion	Beet, cabbage, lettuce, strawberry
Oregano	Pumpkin
Pigweed	Corn, melon
Rosemary	Bean
Rue	Fig
Sage	Cabbage, carrot, strawberry, tomato, marjoram
Savories	Bean, onion
Summer savory	Melon
Sow thistle	Melon
Tansy	Blackberry, raspberry, rose
Tarragon	Most vegetables
Thyme	Eggplant, potato, strawberry, tomato
Yarrow	Most aromatic herbs

Plants Harming Other Plants

These are the herbs that gardeners have suggested as "harmful" to certain neighboring plants. Don't let this scare you. Any plant deserves to remain innocent until proven guilty. So far, there's almost no scientific "proof" to back up most of these claims. The only plant that should perhaps concern the gardener is wormwood, which does contain some toxins.

Plant	Crop(s) It Harms
Anise	Carrot
Aster	Sugar maple, red pine, tulip poplar, black cherry
Balsam poplar	Green alder
Beets	Pole bean
Black cherry	Red pine, red maple
Black walnut	Pine (Austrian, red, Scotch, white); apple, white birch
Cabbage	Strawberry
Chives	Bean, pea
Chrysanthemum	Lettuce
Coriander	Fennel
Dill	Carrot, tomato
Fennel	Bean, pepper
Foxtail & Smooth broome	*Poplus* sp.
Garlic	Bean, pea
Golden rod	Sugar maple, red pine, tulip poplar, black cherry
Hyssop	Radish
Kentucky bluegrass	Azalea, barberry, *Taxus,* forsythia, *Cornus* sp.
Kohlrabi	Tomato
Larkspur	Beet
Mustard	Turnip
Onion	Bean, pea, sage
Perennial rye	Apple, forsythia, *Cornus* sp.
Pole bean	Beets
Potato	Pumpkin, squash, turnip
Red fescue	Azalea, barberry, *Taxus,* forsythia, *Cornus* sp.
Rhododendron	Douglas fir
Rue	Basil, cabbage, sage
Sage	Onion
Sassafras	Box elder, elm, silver maple
Shallot	Bean
Southern red oak	Sweetgum
Sugar maple	Yellow birch, white spruce
Sumac	Douglas fir
Sycamore maple	Yellow birch
Tall fescue	Black walnut, sweetgum, white ash
Tansy	Collard
Tomato	Kohlrabi
Wormwood	Most vegetables

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How to Start a Windowsill Herb Garden

James Nichnadowicz, Union County 4-H Agent

Materials

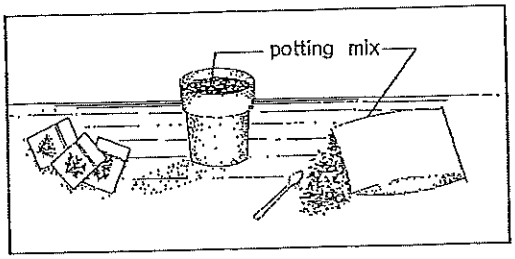
- Herb seeds
- Clean clay or plastic pots
- Sterile potting soil
- 2 oz plastic drinking cups
- Clear plastic food wrap
- A window with southern exposure OR a fluorescent fixture with cool white bulbs
- Waterproof marking pen
- Rubber bands

Herb Seeds

First, select the herbs you like for cooking. Basil, parsley (flat and curled), chives, thyme, rosemary, and sage are easy to grow indoors. Simple to sprout from seed, they make attractive plants if pinched back regularly. To purchase seeds, check with your local garden center or write to your favorite seed companies. Some may also carry started plants.

Potting Mix

Use a well-drained artificial soil mix consisting of peat moss, vermiculite, and perlite. Remove sticks and clumps, as those will block germination of seeds.

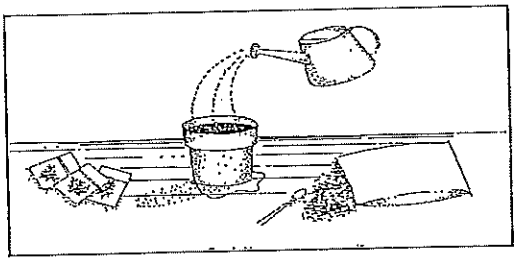


Containers

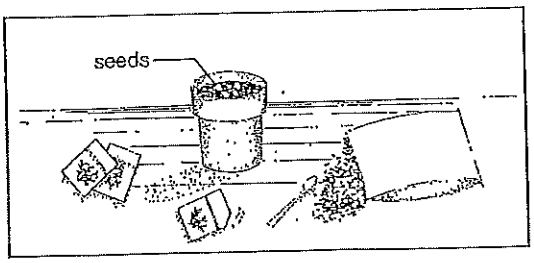
To avoid overwatering your seedlings, start them in small containers. A 2-ounce plastic, not waxed paper, drinking cup works well. Be certain, however, that it has drainage holes in the bottom. If not, several small holes should be made with a sharp instrument.

Sowing Herb Seeds

1. Label containers—date and plant name with a waterproof pen.
2. Fill a 2-ounce container with soil mix.
3. Using warm water, soak the pots until water runs through drainage holes.



4. Place four (4) seeds on the soil surface.



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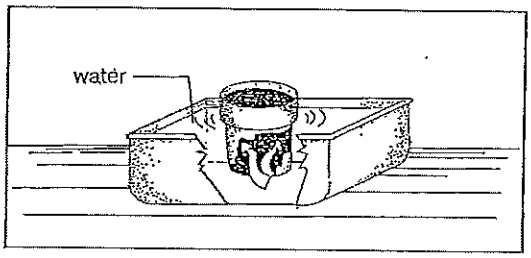
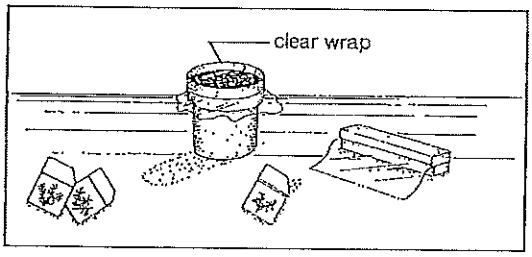
5. Cover seeds with 1/4-inch of artificial soil mix.
6. Tamp the soil lightly. This brings the seed in close contact with the soil.
7. Set the bottom of the pot in warm water. The water should not be above the rim of the pot. Water will move into the soil through the drainage holes. When the surface of the soil appears wet, pots should be removed.



8. Cover pots with clear plastic and secure with rubber bands. (Remove plastic as soon as seeds sprout).

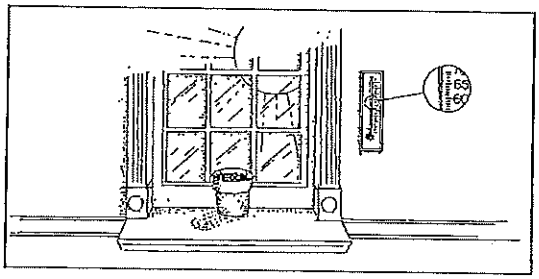
9. Place pots in a warm location (70 to 75°F.)—the top of a hot water heater is a good location.



10. Keep soil damp at all times. If necessary, water again from the bottom. (See step #7).

Care After Germination

1. Remove plastic covering as soon as seeds sprout. Be patient! Some herbs such as parsley can take 3 to 4 weeks to sprout.
2. Move plants under fluorescent lights or to a window that receives full sun most of the day. NOTE: fluorescent lights should be 4 to 8 inches above the plants and left on 14 to 18 hours per day. (The cost of power for lights is minimal). Also, the temperature in this area should be above 65°F. at all times.



3. Water plants thoroughly with a solution of water and houseplant fertilizer whenever the soil surface feels dry to the touch.

   When each plant has four leaves, pull out all but the healthiest plant from each pot.

4. Repotting of the plant is necessary when it begins to dry quickly between waterings. Use the next largest size container. Ultimately, a 5-inch pot should be large enough to contain a mature plant.

Picking Herbs

After the plants have been transplanted twice, (6 to 10 weeks after sprouting), you can begin to harvest. Take only a few leaves, mostly lower ones, each time. This enables the plant to produce over a longer period.

With appreciation to Charlene Costaris, Atlantic County Agricultural Agent, and Union County Master Gardeners: Peter Cunicella, Dorothy Herold, and Joanne Kenny.

—Illustrations by Lynne Ziobro, Master Gardener, Union County

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