



Summer squash varieties form a compact bush type plant. Harvest the fruits when they are young tender, and not more than 6 or 8 inches long.

The home garden can be a fine source of fresh vegetables to improve your diet and help reduce the food budget. It can also provide desirable outdoor recreation and serve as an interesting feature in the home landscape.

SOIL TYPE, ACIDITY, AND LIMING

A fertile, well-drained loam is best for your garden. Infertile sandy soils or heavy clay can be improved by the incorporation of organic mulches and plant residues. Manure may be used to supply nutrients and organic matter, but usually is expensive and difficult to obtain, and contains many weed seeds which may cause a serious control problem.

Home gardeners should make arrangements with the Extension agent in their county or city to have their soil tested. Most vegetables grow best under slightly acid conditions, with a pH of 6.0 to 6.5. If your soil is strongly acid with a pH 5.5 or lower, add ground limestone to make it more alkaline. Apply 10 pounds per 100 square feet to raise a silt loam 1.0 pH value. Use only half as much on a sandy soil, and twice as much on heavy clay soils. Broadcast evenly over the entire garden and work into the top 4 or 5 inches of soil.

Apply dolomitic lime, if the soil analysis indicates that magnesium is low. Have another soil test conducted in 4 to 6 months to determine the effectiveness of your liming program.

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Vegetable Gardening in Virginia

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FERTILIZATION

Vegetables need liberal fertilization to promote vigorous growth. Broadcast 2 pounds of 10-10-10 per 100 square feet or 4 pounds of 5-10-5 or 5-10-10, and disc, rototill, or spade 5 inches deep into the soil when the garden is being prepared for planting. On poor soils, make an additional application of 1 pound of 10-10-10 per 100 feet of row in the furrow, when the seeds are planted. Cover the fertilizer with about 2 inches of soil before sowing the seeds, to avoid burning the seedling roots when germination occurs.

A side dressing of fertilizer containing nitrogen, applied between the rows about a month after growth starts, will be beneficial for most vegetables. This is particularly true for corn and leafy vegetables such as broccoli, cabbage, celery, kale, lettuce, and spinach. Scatter 1 pound of 10-10-10 or 2 pounds of 5-10-5 fertilizer per 100 feet of row and scratch into the top inch of soil with a rake. Repeat the side dressing whenever the plants are not making satisfactory growth, or do not have the desired green color.

SEED PURCHASE AND STORAGE

For best results, seeds should be purchased from a reliable seedsman. Such seeds are grown under controlled conditions and will produce large yields of high quality vegetables. Many vegetables

cross pollinate rather readily and if seeds are saved from the home garden, the next crop may be less productive and of poorer quality. Also, many of the newer and best varieties are hybrids which revert back to less desirable forms if the seed is saved. Therefore, the best policy is to buy seeds of known high quality rather than trying to save your own.

The following suggestions are given for the home gardener who would like to save some of his own seeds in spite of the problems involved. Except for hybrid varieties, seeds may be saved quite satisfactorily from beans, peas, and okra, and with a bit less reliability from eggplant, pepper, and tomato, because these vegetables are generally self-pollinated. Seeds may also be saved from standard varieties of cucumber, muskmelon, pumpkin, squash, and watermelon if only one variety of each is grown in the garden.

Although vegetable seeds gradually lose their viability, most types may be kept for several years, and still germinate and produce satisfactory crops. This practice may result in considerable savings for the home gardener. After your last planting has been made in the summer, place your seeds in a tin, glass, or plastic container which is air tight, and store over winter in your refrigerator or deep freeze. This method of storage will allow very slow loss of viability. Seeds may deteriorate quite rapidly if held under warm, humid conditions.

ARRANGEMENT OF CROPS AND ROWS

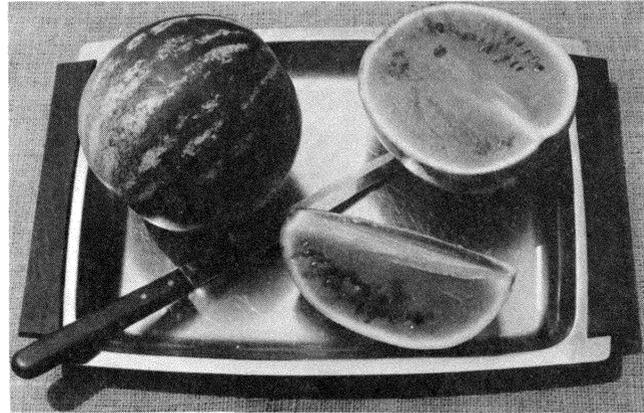
Plant perennials such as asparagus and rhubarb along one side of your garden so they will not interfere with soil preparation for annual crops.

Plant early season and quick maturing crops together to facilitate the sowing of late summer and fall crops.

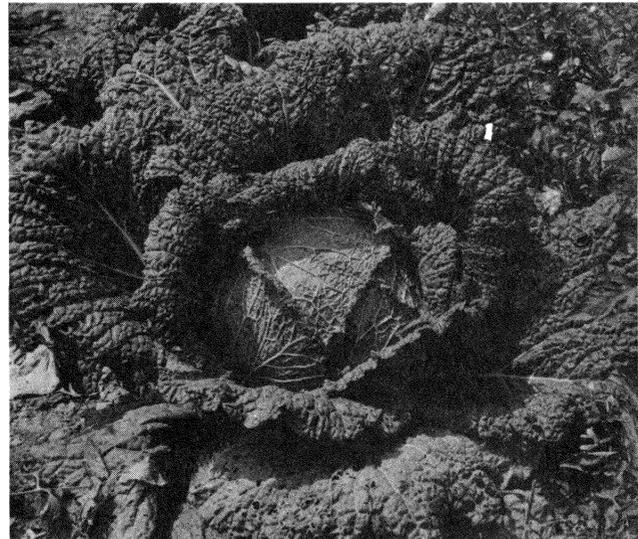
The rows in the garden should run along the slope to reduce the possibility of erosion. There seems to be no significant benefit in terms of exposure to the sun from running the rows in a north and south direction as is sometimes suggested.

SEASON OF PLANTING

The planting date for vegetables is dependent upon the hardiness of the particular species or variety. The average date of the last spring frost is the best guide to use in determining when to plant.



The small icebox watermelons are easy to grow in the home garden.



Savoy type cabbage has mild, tender flavor.



Pole beans will provide an abundant harvest in a small space in the garden. Note the chicken wire fence which is an effective way to prevent damage by rabbits.

Hardy species may be planted about 3 weeks before the average last frost date in your area. Half-hardy varieties may be planted about a week before the last frost date, and tender varieties about a week after the last frost date. The average date of the last frost in your locality may be secured from the Extension agent in your county or city.

In most sections of Virginia, hardy vegetables may be planted in late March, half-hardy varieties in the middle of April, and tender varieties in late April or early May. In the warmer Tidewater and Eastern Shore sections of the state, planting may be done about one month earlier. In the colder, elevated, western parts of the state the planting dates should be about 2 weeks later. In all localities the planting dates should be related to the average last frost date of the area.

SUCCESSION PLANTING

Several successive plantings at 2 week intervals should be made of vegetables which mature during a short period such as snap beans, beets, cabbage, sweet corn, lettuce, and radishes. This will provide a continuous supply over a longer period than would be secured from only one planting.

PLANTING DISTANCES

The rows in the garden should be spaced as close together as possible to secure high yields, and yet far enough apart to allow space for the plants to grow, and room to walk. Crops like onion, leek, and root crops may be planted in double rows or in beds several rows wide to secure higher yields.

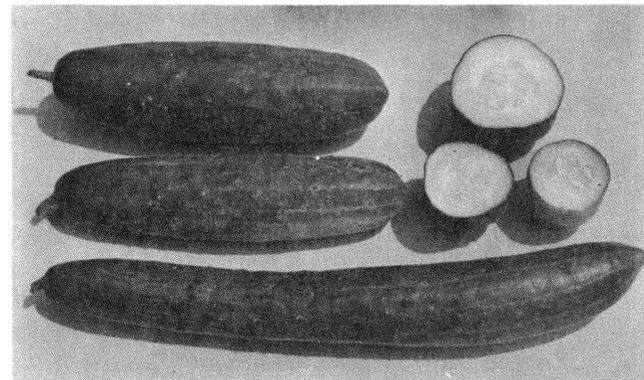
A more complete utilization of soil moisture and nutrients will be secured when plants are spaced evenly along the row rather than in hills. Minimum suggested distances between rows, and between plants in the row, are given in the Vegetable Planting Guide on back cover. The minimum distance between rows is based on cultivation with hand tools, or the use of mulch. If power equipment is used, the rows must provide space for the passage of the equipment.

DEPTH AND METHOD OF PLANTING

Many gardeners plant seeds too deep. They need only be sown deep enough to obtain moisture from the soil for germination. In good loamy soil,



Plant crops such as onions, beets, carrots, leeks and radishes in double rows to increase yields in a small garden.



Select disease-resistant cucumbers like Gemini or Victory. The long specimen at the bottom is Burpless, which is liked by people who have stomach discomfort after eating regular slicing cucumbers.



Leeks require a long growing season, but have delicious mild onion flavor.

most vegetable seeds should be covered to depth of about five times their largest diameter. In sandy soils, plant them deeper and in clay soils, shallower. During the summer, when the soil is warm and dry, plant the seeds deeper. Approximate depths for spring planting in loam soil are given in the Vegetable Planting Guide.

Firm the soil along the row after planting, to ensure adequate movement of moisture to the seeds. The emergence of young seedlings from a heavy soil will be improved if the seeds are covered with sand or vermiculite to conserve moisture and reduce crusting.

RATE OF SEEDING AND THINNING THE SEEDLINGS

To ensure a full stand of plants, and a bountiful yield of vegetables, sow 2 or 3 times more seeds than needed to secure the distance between plants suggested in the vegetable planting guide on back cover. When the seedlings are several inches tall, thin them to the recommended spacing. Crowded plants are more susceptible to diseases, and will not produce as large a crop of highly quality vegetables.

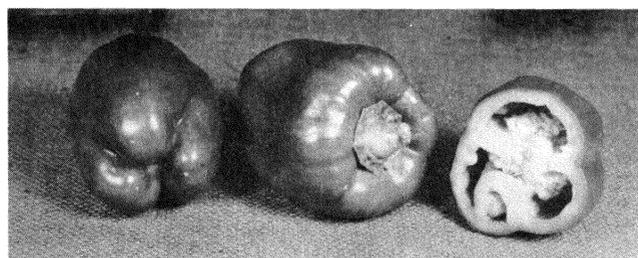
Fine seeded crops which produce relatively small plants like beet, carrot, kohlrabi, leek, radish, Swiss chard, and turnips, may be scattered thinly in a band about 4 inches wide. The young seedlings may be thinned to a double row, or band of scattered plants to secure optimum yields.

Large seeds like beans and corn may be dropped about twice as close together as the suggested distance between plants, and thinned later to the desired spacing.

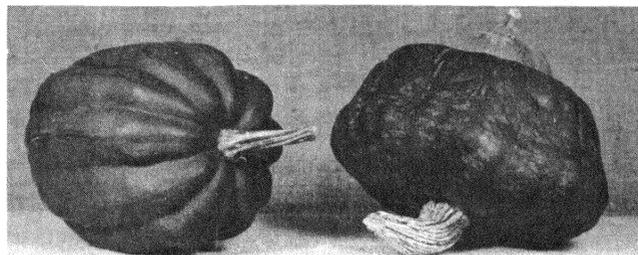
The earliest crop of broccoli, cabbage, cucumber, eggplant, muskmelon, pepper, and tomato can be secured by setting young seedlings in the garden rather than planting seeds. For the late summer and fall crop of these vegetables, plant several seeds per spot at the desired spacing of 15 to 18 inches apart, and thin later to 1 plant at each location. The same method may be followed for pumpkin and squash, with a 24 to 30 inch space between plants. Extra seeds may be scattered in the row, and the resulting seedlings transplanted to other locations in the garden after early crops have been harvested, or where seeds fails to germinate.



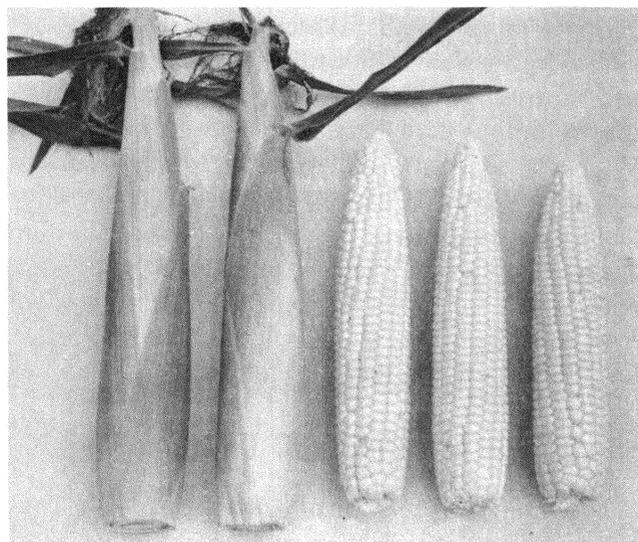
Salad Bowl lettuce is an ideal variety for the home garden. It grows very well in hot weather without becoming bitter or going to seed.



Bell Boy is a productive All-America Selection pepper.



The Acorn or Table Queen at the left, and the Buttercup at the right, are excellent winter-type squashes.



The quality of garden grown sweet corn is much better than can be secured at the grocery store.

STARTING EARLY PLANTS

Crops of certain vegetables may be harvested 30 to 40 days earlier if seedlings are planted rather than seeds. Plants should not be started too early because they may become too large and leggy for easy transplanting. Cabbage, cauliflower, broccoli, brussels sprouts, cucumbers, melons, lettuce, and tomatoes should be started indoors about 6 weeks before they are to be transplanted in the garden. Pepper and eggplant should be started about 8 weeks before setting in the garden, and celery about 10 weeks before the date for transplanting.

TRANSPLANTING SEEDLING VEGETABLE PLANTS

Select sturdy seedling vegetable plants with dark green color. Avoid tall, spindly, light green, or yellow plants.

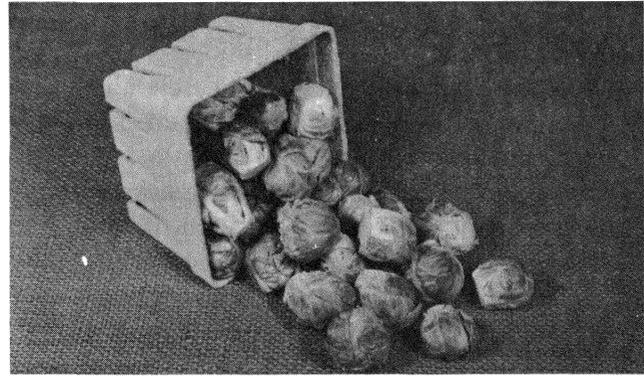
Set seedling plants about 1 inch lower than they grew in the flat or peat pot. If the peat pot has been kept continually moist, and is soft, with roots protruding, it should not be removed. When peat pots have been allowed to become dry and hard, root growth through them will be retarded, and the pot should be removed before the plant is set out. In all cases, it is advisable to remove any portion of the pot which extends above the soil ball of the seedling plant.

If leggy tomato plants must be used, lay the lower portion of the stem in a trench and cover with about 3 inches of soil, leaving 5 or 6 inches of the top exposed. Roots will develop along the buried part of the stem.

STARTER SOLUTION

The use of starter solution instead of water when setting young vegetable plants will add nutrients and promote rapid recovery from the transplanting operation. Apply one cupful around each plant when it is set, and repeat every day for about 4 applications.

To make a starter solution, use a soluble fertilizer which you may secure from a garden center. Follow the instructions which are printed on the package. If you are unable to secure a soluble fertilizer, use 1/2 cup of 10-10-10 or 1 cup of 5-10-5 in 3 gallons of water. Stir thoroughly several times. There will always be some undissolved residue because regular commercial fertilizers are not completely soluble.



Brussels sprouts is a productive crop for the home garden, with small cabbage-like buds.



Butternut squash is an excellent, productive, winter-type vegetable which will keep for several months after harvested.



Broccoli is a triple harvest crop. Some of the leaves may be cut for use as greens like collard, when the center head starts to form. After the head is cut, side buds will develop for a prolonged third harvest.

WEED CONTROL

Weeds must be controlled to eliminate their use of the soil nutrients and moisture needed by your vegetables. Cultivate or hoe your garden as frequently as needed to destroy all weeds when they are only a few inches tall. Do not dig too deep because this would damage the shallow roots of your vegetable crops. Keep the hoe sharp to facilitate the cutting of weeds.

The use of herbicides is not a practical method for controlling weeds in the home garden. With several types of plants located close together in a small area, some may be seriously damaged by any herbicide which may be selected. The best methods of weed control are cultivation, hoeing, and the use of mulch.

ORGANIC MULCH

An organic mulch such as fresh sawdust, leaves, or lawn clippings, will conserve soil moisture, help control weeds, and improve the infiltration of rain or irrigation water into the soil. A fine mulch like sawdust or lawn clippings may be used for any crop, and may be applied as soon as your vegetables are a few inches tall. Leaves are adapted to larger crops and vines, and may be applied when the plants are 8 to 12 inches tall.

Be sure the sawdust or fine shredded bark you use as mulch is fresh, or well aerated if old. Sawdust or shredded bark from the inside of a pile may go through anaerobic decomposition and become very acid, with a pH of about 3.0, and a pungent odor. Such material is very toxic to plants.

Weeds which grow up through the mulch should be pulled when they are about 2 inches tall, when the soil is moist after a rain or irrigation. Do not cultivate or hoe a mulched garden. This would destroy the effectiveness of the mulch and bring weeds up near the surface where they will germinate.

After your vegetables are harvested, cut all plants into pieces 6 or 8 inches long with pruning shears, a sickle, or hedge clippers. Leave this trash mulch on your garden during the winter to reduce erosion. This plant residue and the mulch you used during the summer will add organic matter to the soil when your garden is plowed next spring.

Organic materials which are commonly used as mulch, such as sawdust, leaves, or lawn clippings, have little or no fertilizer value. Also, they usually will have no effect on soil acidity. When

organic matter is plowed into the soil, it improves the structure, and increases the amount of nutrients it can retain. If large quantities are incorporated into the soil, additional fertilizer may be needed to avoid nitrogen deficiency.

PLASTIC AND PAPER MULCH

Black plastic, kraft paper, or newspapers may be used as a mulch to reduce the loss of soil moisture by evaporation. Such mulches will prevent weed growth, especially grass type weeds which spread by rhizomes. Crops may be planted in rows between strips of mulch, or plants like cabbage, cucumber, or tomato may be set in holes punched through the plastic or paper. Be sure an adequate amount of fertilizer has been broadcast and worked into the soil before the plastic or paper is applied. Vine crops such as muskmelons and summer squash grow especially well with this type of mulch.

WATERING THE GARDEN

Vegetables need about 1 inch of water each week to promote maximum yields and high quality. Moisture will be conserved by controlling weeds and using mulch, but irrigation may be necessary during periods of drouth. Give the garden a good soaking about once a week when the soil becomes dry. This is more effective than frequent light sprinklings. Rotary, or oscillating sprinklers, or perforated plastic hose may be used.

TRAINING POLE BEANS AND TOMATOES

Bean poles should be 8 or 9 feet tall to allow for full growth of the climbing type beans, which support themselves by twining around a support. The poles may be inserted firmly in the ground in rows in the garden, or set one at each corner of a 3 foot square, and tied together in the form of a teepee as illustrated on page 2. Bean poles may be made from strips of scrap lumber, young sapling trees, or bamboo poles.

Tomato stakes should be about 7 or 8 feet tall to allow about 15 inches to be driven into the soil and still have about 6 feet exposed. The tomato plants may be trained to one stem by removing the side shoots as they arise in the axils of the leaves. The single stem must be tied to the stake with twine or twist type ties.

The lower portion of stakes which extend into the soil should be treated with a wood preservative such as copper naphthenate each spring. Wooden stakes treated in this way will last for many years if stored in a garage or basement during the winter. Do not use creosote as a preservative because it may seriously damage your plants.

Tomatoes may also be grown in wire cages by making a cylinder about 15 inches in diameter, and 4 feet tall from heavy wire fencing with mesh about 6 inches square. The cages are placed over the tomatoes after they are transplanted to the garden, and the plants are trained to grow up inside the cage. As the side shoots develop they should be tucked back inside the cage and not allowed to project through the wire. The tomatoes are easily harvested by reaching through the square mesh of the wire fencing.

A cage-like support for tomatoes may be constructed by driving tomato stakes on 4 corners around each plant to form a square about 14 inches on each side. Binder twine may be wrapped around the stakes at about 5 inch intervals. The tomato plants are trained up inside as in the wire cage. The stakes which are used to form this structure are easier to store during the winter than the bulky wire cages.

HARVEST FOR OPTIMUM QUALITY

Harvest your vegetables as soon as they reach edible size to secure maximum yields and high quality. One of the principal causes of poor quality vegetables is over maturity. In particular, do not allow broccoli, cucumber, kohlrabi, summer squash, and sweet corn to become too large before they are picked.

LATE SUMMER AND FALL GARDEN

As early crops are harvested, continue to make new plantings to provide fresh vegetables during the late summer and fall. The best crops for the fall garden are those which have a short harvest period, so the entire yeild potential can be secured before the plants are killed by cold. Hardy and half-hardy vegetables which continue to grow in cool weather are particularly desirable.

Some of the best vegetables for the fall garden are snap beans, beet, broccoli, Brussels sprouts, cabbage, Chinese cabbage, carrot, cauliflower, collard, sweet corn, kale, lettuce, radish, spinach, and turnip.

The planting dates for your fall garden are easy to determine. Vegetables may be planted at any time which allows them to mature before they are killed by cold weather.

Determine the number of days required for maturity as cited in the variety list, in your seed catalog, or on the package of seeds. Plant hardy crops not later than that number of days before the average date of the first fall frost in your locality. Plant half-hardy crops the number of days to maturity plus about one week before the first expected frost. Plant tender crops the number of days to maturity plus 2 weeks before the first expected frost. The average date of the first frost in your area can be secured from the Extension agent in your county or city.

Furrows for planting seeds in the fall garden may be made without plowing or rototilling if the soil is mellow. Cover the seeds about twice as deep as you did in the spring.

Dry soil may be a problem during the midsummer planting period. To ensure germination of seeds, apply water along the row after the seeds are planted. Use a sprinkling can with small holes in the nozzle. Repeat daily as needed to maintain soil moisture until the young plants are well established and making rapid growth.

OVERWINTERING COVER CROPS

The planting of rye or wheat in the fall is sometimes recommended as a means of controlling erosion during the winter, and providing organic matter to improve the soil. Most home gardens are of small size and on relatively level land, so erosion is not a serious problem. Also, the use of mulch, leaves, lawn clippings, and plant refuse from the garden and flower bed usually will provide more organic matter than would be secured from the cover crop.

If the garden is planted in early spring, and a fall garden of hardy vegetables is maintained until late fall, there will be insufficient time to plant an overwintering cover crop and secure a beneficial growth to plow into the soil the following year. Therefore, the use of overwintering cover crops is usually not recommended for the home garden.

For gardeners who have a relatively poor soil, and cannot secure adequate supplies of mulching material, the use of an overwintering cover crop may be desirable. Sow rye or wheat broadcast at the rate of 2½ pounds per 100 square feet, and

scratch into the top inch of soil with a rake. This should be done several weeks before the average date of the first fall frost. If crops are still growing in the garden, the rye or wheat may be planted between the rows. Plow or rototill the cover crop into the soil in the spring when the garden is prepared for planting, about one month before the average date of the last frost.

VEGETABLE VARIETY RECOMMENDATIONS

The varieties suggested here include the best disease-resistant introductions, new hybrids, and All America Selections. These will produce good yields of high quality vegetables. Those with disease resistance may be grown with little or no need for pesticide sprays. Try a few new varieties each year to add interest to your garden and menu.

Some of the standard varieties are also included in this list. These and others which are commonly available from seedsmen and local sources will produce satisfactory results in most localities, although the harvested crop may not be as high in quality, and the plants may be more susceptible to disease than the new resistant varieties. Space in this publication does not permit the listing of all acceptable varieties. The information in seed catalogs on varieties and production practices, is usually reliable.

The number in parentheses following the variety name indicates the approximate number of days from planting seeds until harvest. When vigorous seedling plants are set in the garden, the first harvest may be 30 to 40 days earlier. The letter H before the numbers in parentheses indicates the variety is a hybrid. The letters AA indicate that the variety was an All American Selection.

ASPARAGUS: MARY WASHINGTON or WALTHAM WASHINGTON, resistant to rust. A perennial crop which will produce for many years. Plant 1 year old roots, 4 inches deep. Cut spears which are 6 to 8 inches long, in spring, for 2 weeks the second year, 4 weeks the third year, and for 8 weeks each year thereafter. Allow the foliage to grow during the summer and fall to store food in the roots for the production of edible spears early the next season.

BEAN, BUSH HORTICULTURAL: DWARF HORTICULTURAL, RUBY, or TAYLOR strains

(65 days). Excellent as green shell beans, or as dry beans for winter use.

BEAN, BUSH LIMA: THAXTER (70 days), baby lima, resistant to downy mildew, an improved Henderson; JACKSON WONDER, speckled seeds, heat and drouth resistant; FORDHOOK 242 (75 days) AA, large seed. Fertilize moderately because excess fertilizer will cause vigorous vine growth and few beans. Harvest when beans reach full size but when pods are still green.

BEAN, BUSH SNAP, GREEN: CONTENDER (50 days) resistant to mosaic and mildew; TOPCROP (50 days) AA, resistant to mosaic; ASTRO (55 days) resistant to NY 15 and common mosaic; TENDERETTE (55 days) resistant to mosaic; GREENCROP (55 days) AA, flat pods, tolerant of mosaic and mildew. Harvest is usually completed in about 2-3 weeks. Make successive plantings for continued production. Pick when pods reach full size and beans are very small, or harvest may be delayed until beans reach mature size as long as pods are still tender.

BEAN, BUSH SNAP, WAX: CHEROKEE WAX (50 days) AA, tolerant to mosaic; GOLDCROP (55 days) AA, tolerant to mosaic, curly-top, and blossom drop; KINGHORN WAX (55 days).

BEAN, POLE LIMA: CAROLINA or SIEVA (78 days), small seeded; KING OF THE GARDEN (88 days), large seeded.

BEAN, POLE SNAP: BLUE LAKE STRINGLESS (60 days); KENTUCKY WONDER (64 days); McCASLAN (65 days), for snap or dry shell beans. Produce a large crop in a small space over a long period.

BEAN, EDIBLE SOYBEAN: KANRICH (100 days); VERDE (85 days), resistant to downy mildew and pod and stem blight. Use as green shell beans, or as you would dried lima beans.

BEAN, HALF RUNNER: STATE HALF RUNNER (55 days) resistant to mosaic and nematodes; MOUNTAINEER HALF RUNNER (60 days), resistant to mosaic. Use as snap beans when young and stringless, or as shell beans when mature.

BEET: RUBY QUEEN (56 days) AA; DETROIT DARK RED (60 days); HI-RED (68 days). Plant in a band or double row 4 inches wide. Thin to 2 to 3 inches apart when plants are 6 to 8 inches tall and use as greens. Beet roots may be harvested when they become 2 inches or larger in diameter.

BROCCOLI: GREEN COMET (H-80 days) AA, for early crop, tolerates heat; WALTHAM 29 (95 days)

for fall crop, tolerates cold. Young leaves may be cut when the head is 1/4 developed and used as greens like collard. Harvest the terminal bud cluster before flowers begin to open, and side buds for several weeks thereafter.

BRUSSELS SPROUTS: JADE CROSS (H-95 days) AA. Develops best flavor as a fall crop when it matures under cool conditions. Pinch off stem tip when sprouts commence to form near the base of the stem. Harvest by snapping buds sideways, starting at the base of the stem when buds are about 1 inch in diameter.

CABBAGE: STONEHEAD (H-75 days) AA; ROUND UP (H-90 days); LITTLE ROCK (H-96 days); WISCONSIN ALL-SEASON (100 days); all are resistant to yellows. Little Rock is resistant to bacterial spot and black speck. If left in the garden after fully mature, bend the plants to one side to break roots and reduce head splitting.

CABBAGE, SAVOY: SAVOY KING (H-100 days) AA, heat resistant; CHIEFTAIN (110 days) AA, excellent keeper, slow to burst. Tender, mild flavor.

CABBAGE, CHINESE: MICHIHLI (80 days). Plant only as a fall crop.

CARROT: CHANTENAY, NANTES, or DANVERS (72 days) are 5, 6, and 7 inches long respectively with blunt shaped roots, and are recommended for average depth garden soils. The long, tapered IMPERATOR, or GOLD PAK (78 days) AA, which grow 8 and 9 inches long, are recommended only for deep, porous soils. Seeds germinate best in early spring when the weather is cool.

CAULIFLOWER: SNOW KING (H-80 days) AA; SNOWBALL (95 days). Cauliflower is excellent as a fall crop; it does not head well in hot weather. Harvest when heads reach full size but before clusters separate or turn brown.

CELERY: PASCAL or UTAH (135 days). Celery grows best at temperatures between 60 and 70° F. Summer temperatures are too high for satisfactory growth of celery in most sections of Virginia.

CHARD, SWISS: FORDHOOK GIANT or LUCULLUS (60 days). Successive harvests for greens may be made during the entire summer by cutting the outer leaves off at the base when about 12 to 15 inches tall.

COLLARDS: VATES (75 days), excellent hardy variety. Harvest when leaves are young and about 12 inches long. Old leaves become tough and stringy.

CORN, SWEET: EARLY XTRA SWEET (H-70 days) AA; GOLDEN BEAUTY (H-70 days) AA; GOLDEN CROSS BANTAM, ILLINICHIEF, and SENECA CHIEF (H-85 days); SILVER QUEEN (H-90 days) white; GOLDEN QUEEN (H-95 days). The crop of each hybrid variety ripens during a 1 to 2 week period. Make successive plantings to secure continuous harvest. Plant at least 2 adjacent rows to ensure good pollination. Harvest when the kernels reach full size and mature yellow or white color to the tip of the ear, but are still in the soft milk stage of growth.

CRESS: UPLAND (60 days).

CUCUMBER, SLICING: VICTORY (H-60 days) AA, tolerant to anthracnose, leaf spot, mosaic, mildew, and scab; GEMINI (H-60 days), resistant to anthracnose, leaf spot, mildew, mosaic, and scab; POINSETT (68 days), resistant to anthracnose, leaf spot, and mildew; TRIUMPH (65 days) AA, resistant to mosaic, and tolerant to downy mildew; BURPLESS (H-60 days), resistant to downy and powdery mildew, mild flavor, causes no stomach discomfort. Cucumbers may be grown on woven wire fence or cord support to save space. Harvest when the fruits attain the desired length, and before they start to swell and lose the dark green color.

CUCUMBER, PICKLING: PIONEER (H-55 days), tolerant to anthracnose, leaf spot, mosaic, scab, and mildew.

EGGPLANT: MISSION BELL (H-95 days), oval shape; BLACK KNIGHT (H-110 days); BLACK BEAUTY (120 days). Very susceptible to damage by flea beetles and white fly. Eggplants require a long, warm summer for satisfactory growth.

ENDIVE: FULL HEART (85 days); GREEN CURLED (95 days). Best as a fall crop to mature in cool weather.

KALE: VATES DWARF BLUE CURLED SCOTCH (55 days). Excellent as a fall crop because light frost improves the quality. Harvest when leaves are young and about 12 inches long. Old leaves become tough and stringy.

KOHLRABI: EARLY WHITE VIENNA (55 days). Harvest when the swollen stem is 2-3 inches in diameter.

LEEK: AMERICAN FLAG (120 days). Delicious mild onion flavor for soup. In midsummer mound dirt 8 to 10 inches high around base, to produce white, tender edible portion. Start harvesting in the fall when plants have attained full size. Leave plants in the garden and dig as needed during the

winter.

LETTUCE, LEAF: SALAD BOWL (50 days) AA, Slow to bolt to seed or become bitter in hot weather.

LETTUCE, HEAD: ITHACA or PENNLAKE (80 days); FAIRTON (80 days), improved Ithaca, heat tolerant; GREAT LAKES (90 days) AA. All types of lettuce grow best in cool weather as a spring or fall crop.

LETTUCE, BIBB: BUTTERCRUNCH (65 days) AA. Tender, with fine flavor.

MUSKMELON: BURPEE HYBRID (H-82); HARPER HYBRID (H-86 days); resists fusarium wilt; EDISTO (H-90 days), resistant to leaf spot and mildew; SATICOY (H-90 days), resists fusarium wilt, and tolerates powdery mildew and fruit spot. Muskmelons develop their best flavor when ripened in warm dry weather. Pick when the stem separates readily from the fruit.

MUSTARD: TENDERGREEN (40 days); SOUTHERN GIANT CURLED (45 days).

OKRA: DWARF GREEN LONG POD (55 days); CLEMSON SPINELESS (60 days) AA. Grows best in warm weather.

ONION: WHITE PORTUGAL or SILVERSKIN (100 days), white, good storage life; EBENEZER, STUTTGARTER, or YELLOW GLOBE DANVERS (110 days), brown, excellent for storage. For best results, plant small sets not over 1/2 inch in diameter, or seedlings. Onions will not make a satisfactory crop from seeds in Virginia. Onions are ready to harvest when about half of the tops have fallen over.

PARSLEY: MOSS CURLED or TRIPLE CURLED (80 days).

PARSNIP: HOLLOW CROWN or HARRIS MODEL (110 days). Plant only in early spring to ensure good germination. Dig roots after ground freezes to secure sweet flavor, or leave in ground during winter and dig as needed.

PEA, ENGLISH: ALASKA (56 days), 30 inch, wilt resistant; FREEZONIA (62 days) AA, 40 inch, wilt resistant; GREATER PROGRESS (62 days), 20 inch; FROSTY (64 days), 26 inch, wilt resistant; WANDO (68 days), 30 inch, tolerates heat; GREEN ARROW (70 days), tolerant of downy mildew and fusarium wilt. Harvest when the seeds have enlarged to fill the pod but before they become hard and light green in color.

PEA, SOUTHERN: RAMSHORN BLACK EYE (70 days) resistant to rot, wilt, and nematodes; QUEEN ANNE BLACK EYE (70 days); BROWN

CHOWDER (85 days). Harvest for use as tender fresh peas, or allow to mature as dried peas.

PEPPER, HOT: HUNGARIAN WAX (100 days), RED CAYENNE (110 days).

PEPPER, SWEET: BELL BOY (H-110 days) AA, drouth and mosaic resistant; KEYSTONE RESISTANT GIANT (115 days), mosaic resistant. Fertilize moderately because excess fertilizer will cause flowers to drop and not set fruit. Peppers may be picked for use when green, at any time they have attained acceptable size. Sweet peppers may also be used after they turn red following maturity.

POTATO: IRISH COBBLER (100 days); PONTIAC (100 days), red; KENNEBEC (112 days), resistant to mosaic and late blight. Plant blocky seed pieces about 1¼ inches square with at least 1 eye. Harvest potatoes whenever the tubers attain a satisfactory size. Maximum size will be reached when the tops start to die. Dig only the quantity needed for immediate use because potatoes will keep better in the soil than when stored in a warm basement. The best storage temperature is 40° F.

PUMPKIN: FUNNY FACE (H-100 days) semi-bush for small gardens, 10 inch pumpkins; CINDERELLA (105 days), bush type; JACK-O-LANTERN, SPOOKIE, or SUGAR (110 days). Allow to ripen fully on the vine to ensure good storage quality.

RADISH: CHERRY BELLE, AA; CHAMPION, SPARKLER, or STOP LITE (24 days), round, red; ICICLE (30 days), long, white. Grows best in the cool weather of spring or fall. Flavor becomes sharp in hot weather.

RHUBARB: MACDONALD, brilliant red color, excellent; VALENTINE, deep red color, sweet flavor; VICTORIA, green stalk shaded with red, tart flavor. A hardy perennial crop which grows best in the cooler sections of Virginia. Propagated by dividing old clump in spring or fall. Fertilize in spring with 1 pound of 5-10-5 per plant. Harvest leaves for about 2 months in spring. Use only leaf stalk as food, the leaf blade contains injurious oxalic acid. Remove flower stalks as they appear. Allow leaves to grow during the summer to store food in roots for next spring's crop. Divide and replant every 6-8 years.

RUTABAGA: AMERICAN PURPLE TOP (88 days).

SALSIFY or OYSTER PLANT: SANDWICH ISLAND MAMMOTH (120 days).

SPINACH: VIRGINIA BLIGHT RESISTANT SAVOY (40 days), hardy, best for fall crop; AMERICA (50 days) AA, tolerates heat, best for spring crop. Raise as a spring or fall crop; bolts to seed in summer. Harvest when leaves reach mature size before the plant produces flowers and seeds.

SQUASH, SUMMER: BUTTERBAR, GOLDBAR, or SENECA PROLIFIC (H-50 days), yellow; ARISTOCRAT ZUCCHINI (H-50 days) AA, green. Harvest when fruits are immature and not over 8 to 9 inches long.

SQUASH, WINTER: TABLE KING (80 days) AA, a bush type acorn squash; TABLE QUEEN (85 days); GOLD NUGGET (85 days) AA, yellow, bush type; BUTTERNUT, or WALTHAM BUTTERNUT (96 days) AA, resistant to squash borer; BUTTERCUP (100 days). Allow to ripen fully on the vine to ensure good keeping quality.

SWEET POTATO: CENTENNIAL, GOLDMAR, NEMAGOLD, PORTO RICO, or REDMAN (120 days). Grows best in warm sections of Virginia with long growing season. Propagate by using plants, called slips, grown from roots under 2 inches of sand in a cold frame. Dig in the fall as soon as the vines are killed by frost. Handle roots very carefully to avoid breaking the skin which may result in rot.

TOMATO, STANDARD RED: The letters VFN after the variety name, indicate it is resistant to verticillium and fusarium wilt, and nematodes. EARLY GIRL, VF, (H-90); BEEFEATER, VFN, (H-100 days); BEEFMASTER, VFN, (H-100 days); BETTER BOY, VFN, (H-105 days); TERRIFIC,

VFN, (H-105 days). Do not use too much nitrogen fertilizer until first cluster of fruit has set, then apply moderate side dressing. See suggestions for staking and training on page 6. Harvest when fruits develop the typical red mature color.

TOMATO, SMALL and YELLOW: SMALL FRY, VFN, (105 days) AA, small cherry type, bushy 12 to 15 inches tall; ROMA, VF, (115 days), oval paste type; SUNRAY, F, (120 days), large, yellow, nonacid.

TURNIP: TOKYO CROSS (40 days) AA; PURPLE TOP WHITE GLOBE (55 days); JUST RIGHT (60 days) AA, use for fall crop only, bolts to seed in warm weather; SEVEN TOP (45 days), use for greens only.

WATERMELON: PETITE SWEET (80 days), 8 lb., resistant to anthracnose, and fusarium wilt; SUGAR BABY (85 days), 7 lb., SUPER SWEET (90 days), 15 lb., resistant to anthracnose, and fusarium wilt; CRIMSON SWEET (90 days), 25 lb., resistant to anthracnose, and fusarium wilt; SWEET PRINCESS (96 days), resistant to anthracnose, fusarium wilt, and hollow heart. Watermelons grow best in the warmer sections of Virginia. The small, 8 lb., icebox types are preferred for the home garden. Harvest watermelons when the spot next to the ground turns from white to light yellow. A ripe melon has a duller sound than a green melon when thumped. The tendril near the stem of watermelons usually turns brown and becomes dry a short time before the fruit is ripe.

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VEGETABLE PLANTING GUIDE

	Plant Hardiness	Seeds or Plants	Depth (2) to Plant	Minimum suggested Spacing		Yield (4)	Quantity Needed (5)	Date of Planting (1)
				Be- tween rows	Be- tween plants (3)			
				Inches	Inches			
		Per 50 feet	Inches	Inches	Inches	Per 50 feet	Family of 3	
Asparagus	Hardy	34 plants	4	36	18	30 lb.	15 lb.	Late March
Bean: Bush Lima	Tender	4 oz.	1½	24	3	10 lb.	6 lb.	Late April
Bean: Bush Snap	Tender	4 oz.	1½	24	3	25 lb.	25 lb.	Late April
Bean: Bush Shell	Tender	4 oz.	1½	24	3	10 lb.	6 lb.	Late April
Bean: Pole Lima	Tender	4 oz.	1½	36	6	15 lb.	6 lb.	Late April
Bean: Pole Snap	Tender	4 oz.	1½	36	6	40 lb.	20 lb.	Late April
Beet	Half Hardy	½ oz.	½	18	3dbl.	40 lb.	30 lb.	Mid April
Broccoli	Hardy	⅛ oz.	¼	30	18	25 lb.	20 lb.	Late March
Brussels Sprouts	Hardy	⅛ oz.	¼	30	18	15 lb.	10 lb.	Late March
Cabbage	Hardy	⅛ oz.	¼	30	18	50 lb.	25 lb.	Late March
Cabbage: Savoy	Hardy	⅛ oz.	¼	30	18	50 lb.	25 lb.	Late March
Cabbage: Chinese	Hardy	⅛ oz.	½	24	12	50 lb.	20 lb.	Late March
Carrot	Half Hardy	¼ oz.	¼	18	2dbl.	50 lb.	50 lb.	Mid April
Cauliflower	Hardy	⅛ oz.	¼	30	18	30 lb.	15 lb.	Late March
Celery	Half Hardy	⅛ oz.	⅝	24	6	60 lb.	20 lb.	Mid April
Chard: Swiss	Half Hardy	½ oz.	½	24	4	40 lb.	15 lb.	Mid April
Collard	Hardy	⅛ oz.	¼	24	12	40 lb.	15 lb.	Late March
Corn: Sweet	Tender	2 oz.	1½	30	8	5 doz.	10 doz.	Late April
Cress	Hardy	⅛ oz.	¼	18	4	15 lb.	5 lb.	Late March
Cucumber: Slicing	Tender	¼ oz.	1	48	15	60 lb.	15 lb.	Late April
Cucumber: Pickling	Tender	¼ oz.	1	48	15	30 lb.	8 lb.	Late April
Eggplant	Tender	⅛ oz.	¼	30	18	60 lb.	15 lb.	Late April
Endive	Half Hardy	¼ oz.	¼	18	8	30 lb.	8 lb.	Mid April
Kale	Hardy	⅛ oz.	¼	24	8	40 lb.	15 lb.	Late March
Kohlrabi	Hardy	⅛ oz.	¼	24	4dbl.	50 lb.	15 lb.	Late March
Leek	Hardy	¼ oz.	¼	30	4dbl.	40 lb.	20 lb.	Late March
Lettuce: Leaf	Hardy	⅛ oz.	⅝	18	8	30 lb.	10 lb.	Late March
Lettuce: Head	Hardy	⅛ oz.	⅝	18	12	30 lb.	10 lb.	Late March
Lettuce: Bibb	Hardy	⅛ oz.	⅝	18	12	30 lb.	10 lb.	Late March
Muskmelon	Tender	¼ oz.	1	48	15	30 melons	15 melons	Late April
Mustard	Hardy	⅛ oz.	¼	18	6	25 lb.	10 lb.	Late March
Okra	Tender	1 oz.	½	30	12	30 lb.	8 lb.	Late April
Onion	Hardy	¼ oz.	¼	18	4dbl.	50 lb.	50 lb.	Late March
Parsley	Hardy	⅛ oz.	⅝	18	6	15 lb.	3 lb.	Late March
Parsnip	Hardy	¼ oz.	¼	24	4dbl.	50 lb.	25 lb.	Late March
Pea: English	Hardy	8 oz.	1½	24	1dbl.	30 lb.	15 lb.	Late March
Pea: Southern	Tender	4 oz.	1	30	4	30 lb.	8 lb.	Late April
Pepper: Hot	Tender	⅛ oz.	¼	24	18	15 lb.	5 lb.	Late April
Pepper: Sweet	Tender	⅛ oz.	¼	24	18	25 lb.	10 lb.	Late April
Potato	Half Hardy	3 lb.	3	36	12	60 lb.	60 lb.	Mid April
Pumpkin	Tender	¼ oz.	1	72	24	60 lb.	15 lb.	Late April
Radish	Hardy	½ oz.	¼	18	1dbl.	40 doz.	10 doz.	Late March
Rhubarb	Hardy	17 plants	3	48	36	40 lb.	10 lb.	Late March
Rutabaga	Hardy	¼ oz.	¼	24	6	60 lb.	10 lb.	Late March
Salsify	Hardy	½ oz.	½	24	2dbl.	40 lb.	10 lb.	Late March
Spinach	Hardy	½ oz.	½	18	4	20 lb.	8 lb.	Late March
Squash: Summer	Tender	¼ oz.	1	48	30	40 lb.	10 lb.	Late April
Squash: Winter	Tender	¼ oz.	1	72	24	60 lb.	20 lb.	Late April
Sweet Potato	Tender	50 plants	3-4 inches of base	36	12	50 lb.	50 lb.	Late April
Tomato	Tender	1/16 oz.	¼	48	18	60 lb.	30 lb.	Late April
Turnip	Hardy	¼ oz.	¼	24	4dbl.	60 lb.	15 lb.	Late March
Watermelon	Tender	¼ oz.	1	72	24	20 melons	10 melons	Late April

¹Approximate earliest safe planting date for most sections of Virginia. Plant about one month earlier in the warmer Tidewater and Eastern Shore areas, and about 2 weeks later in the colder elevated western parts of the state.

²Plant shallower in heavy clay soils and deeper in sandy soils. Cover seeds deeper when planting the fall garden in midsummer.

³The dbl. designation indicates that the best yields will be secured from a double row or bed system of planting.

⁴The yields cited here may be expected under average conditions. Yields may be much higher on rich loam soils, and much lower on poor soils or under dry conditions.

⁵These are only approximate quantities. More will be needed, if surplus is desired for canning or freezing.