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## RDENER'S MANUAL;

#### CONTAINING

PLAIN AND PRACTICAL DIRECTIONS FOR THE CULTIVATION AND MANAGEMENT OF SOME OF THE MOST USEFUL

## **CULINARY VEGETABLES:**

TO WHICH IS PREFIXED

A CATALOGUE OF THE VARIOUS KINDS OF GARDEN SEEDS RAISED IN THE UNITED SOCIETY AT ENFIELD, CONN.; WITH A FEW GENERAL REMARKS ON THE MANAGEMENT OF A

## KITCHEN GARDEN.



#### BY CHARLES F. CROSMAN. Published for EARL JEPHERSON, Enfield, Hartford Co., Conn.

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#### TO GARDENERS

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AND

#### DEALERS IN GARDEN SEEDS.

The design of this little Manual is to enable our trading customers, while furnishing their assortment of Garden Seeds, to afford instructions, at a triffing expense, to such of their customers as may wish to obtain some practical information relative to the raising and management of those valuable kitchen vegetables which are considered the most useful and important in a family.

Having had many years' experience in raising seeds and vegetables, and in proving the quality of seeds,—and we are not ignorant of the complaints which are often made of bad seeds,—we are fully convinced that good seeds are sometimes condemned for the want of a fair trial, and especially for the want of a seasonable and right management in preparing the ground and putting in the seed. We know full well the loss and perplexity of sowing poor seeds, and the reasonable anxiety of those who purchase for sale, to procure such seeds as will satisfy their customers; and yet the venders are sometimes blamed and charged with imposing on their customers, in consequence of the failure of their seeds, when the fault is altogether owing to the want of proper management in the gardeners. We have therefore endeavored to furnish a small and convenient Manual, which we trust will prove beneficial to all who deal in Garden Seeds, and more especially to those who have had but little experience in cultivating a kitchen garden, by furnishing such plain and practical directions as are best calculated to ensure success.

Our original stock of garden seeds have been carefully selected, with a view to obtain those that are most useful, from the numerous varieties cultivated in the country; and those we offer for sale are raised under our own immediate care and lirection, we can therefore recommend them as genuine and of the first quality.

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For EARL JEPHERSON.

C. F. C.

Enfield, August 29th, 1835.

### CATALOGUE OF GARDEN SEEDS,

#### RAISED BY THE UNITED SOCIETY OF SHAKERS,

ENFIELD, HARTFORD CO., CONN.

Orders addressed to EARL JEPHERSON.

6. 8 June 1917

White Onion, Long Scarlet Radish Yellow do. Early Dutch Cabbage Red do. Large York or Harvest do. Early Blood Turnip Beet, Large Drumhead do. Early French Sugar do. Green Savoy do. Early Orange Turnip do. Red Dutch do. Long Blood White Flat Turnip do. Orange Carrot Long Hanover do. Blood do. Sage, Early Horn do. Squash Pepper Guernsey Parsnip, Cayenne do. Curled Cress or Peppergrass, Long White do. Early Cluster Cucumber, Large Tomato, Extra Long do-Small do. White Solid Celery, Long Green do. Early Short Green do. Summer Savory, Superior Watermelon, Curled Parsley Dutch Summer Squash, Saffron, Crookneck do Lemon Balm. do. Crookneck Winter do. Early Sugar Corn Cocoanut or Porter do. Early Washington or June Peas, Early White Head Lettuce White Marrowfat do. Dwarf Prolific Ice do. do. do. Dwarf Blue Imperial do. Cabbage do. do. Radish Early China Dwarf Beans, Long Salmon

This is a general assortment for country dealers, but as we raise various other kinds, those who want others can mention them in their orders.

Note.—The time for planting and sowing seeds, as directed in the following pages, is calculated as a medium for the vicinity of Albany, or  $42^\circ$  N. Latitude; and by observing the different degrees of heat and cold throughout the country, the proper time for putting in seed, will be found to vary from 30 to 60 days or more, being earlier to the south and later to the north; therefore it becomes necessary for the Gardner to notice the climate, season, cituation of the soil, &c. to apply these directions to profit.

#### A FEW

## GENERAL REMARKS

#### ON THE

## MANAGEMENT OF A KITCHEN GARDEN.

Previous to commencing the work of the garden, a few matters essential to success should be particularly attended to: In laying out, a garden of an oblong form, it will cenerally be found most convenient to have the rows of vegetables run lengthwise of the garden, so that the plough or cultivator may run through freely, without interruption, allowing an alley at each end for the horse and plough to turn round upon. The ground should be ploughed or dug to a good depth, especially for long rooted plants, and be well incorporated with rotten manure or rich compost. The essential advantage of deep ploughing is not only bestcalculated to give room for the essential advantage of deep ploughing is not only bestcalculated to give room for the to injury from the extremes of wet and dry weather. Every garden should have a good supply of well rotted manure or old compost, ready for use when wanted; also a portion of soot, tobacco dust, ashes and lime, for the purpose of scattering over seed beds and hills of plants in dry weather, to destroy insects, which often cut off the young plants as fast as they come up.

The next matter of importance is, to work the ground and put in the seed when it is in proper order to receive it. A light, sandy soil will be benefitted by working it when rather moist, as this will have a tendency to make it more compact, and better adapted to retain its moisture; but if a clay soil be worked when too wet, it will become hard and stiff, and not only prevent the seeds from rising freely, but materially injure the plants in their subsequent growth. Rolling or pressing the earth over the seeds, will tend greatly to promote their vegetation, especially when the soil is loose and dry; but when moist and heavy, if done at all, it should be done very lightly.

If the ground be very dry at the time of sowing, let the seed be soaked a few hours in water strongly impregnated with sulpher or soot, and keep the ground moist by frequent watering. This will have a great tendency to forward the vegetation and prevent the ravages of insects.

<sup>•</sup> Transplanting<sup>•</sup> is generally attended with the best success when performed immediately after the ground has been newly ploughed or dug; as it will then work light, and the moisture arising from newly stirred ground is highly beneficial to the growth of young plants. If the soil of the bed be dry when the plants are to be taken out of it, let it be watered freely, and then raise the plants carefully with a trowel or a flat, pointed stick; and before setting them out, dip the roots into a mixture of rich mould or rotten manure and water, with the addition of a little line or ashes, and reduced to the consistence of thick white-wash. This preparation is found highly beneficial to the young plants of cabbage, turnips and others when transplanted, by promoting their growth and preventing their roots from being injured by destructive insects.— In setting young plants, the earth should be pressed a little over the roots, and raised around the stem, sufficient to support the plant, and prevent it from falling or leaning aside. The ground should be stirred often, and kept loose and light by frequent hoeing through the season.

A good garden, well supplied with useful vegetables, in a healthy, thriving state, kept neat and clean from weeds, affords a striking evidence that the cultivator possesses a good portion of wisdom and economy, and is attentive to his business; but when I see a garden containing a small quantity of such as are evidently from good seed, promiseuously planted, without order or regularity, faintly struggling among the weeds for a feeble existence. I readily conclude that the proprietor's mind needs cultivation, and that some noxious weeds of domestic or foreign growth have taken deep root there, which will require the strong hand of an industrious and persevering cultivator to eradicate.

The numerous benefits afforded to a family from a well cultivated garden, are too little considered by many of our country farmers, for their own interest and the health and prosperity of their families. The cheap and healthy varieties which may be furnished, (much less expensive, and far more healthy than the same quantity of meat without vegetables,) the pleasing and healthy exercise and enjoyment attending their cultivation is beyond description: indeed the cultivation and produce of a good garden are the life and health of a family, upon every principle of rational enjoyment and temporal economy.

#### DIRECTIONS FOR MAKING THE HOT-BED.

Such vegetables as are wanted for early use, or such as require the whole season to bring them to maturity, may be brought forward nearly a month earlier, by being sown early in a hot-bed, and transplanted in the open ground, when the weather has become mild and the soil prepared for vegetation. The Celery, Lettuce, Pepper, Tomato, Cabbage, Cauliflower, Cucumber, Melon, &c. are the kinds from which we receive the most advantage by artificial heat.

To form a cheap and convenient hot-bed for a family Garden; select a warm dry place, near the south side of a building or high wall ; make a boarded box or frame from 3 to 5 feet wide, and extend it east and west to any convenient length ; but so constructed as to descend towards the south, about fifteen degrees from a level. This frame is to be covered with glazed sashes, fitted in tight on all sides, to prevent rats or mice from entering the enclosure. Within this frame put a quantity of unfermented horse manure, with about one third part of short straw or leaves ; mix the whole well together by pitching it over, tread it even all over the bed, keeping it inclined to the south, as above directed : the depth of manure should be from 12 to 18 inches, according to the season, heat required, &c. Then put on a layer of well rotted manure, three inches thick; let the whole now be covered with sashes or boards. If the weather be cold, put on a coat of straw or mats, keep it covered until the heat begins to rise, then cover the surface of the manure with rich garden mould, about eight inches deep, and lay on your sashes. As soon as the earth gets warm and of a proper temperature, stir the top of the bed thoroughly over and rake it fine. reserving enough of the fine mould to cover the seeds : mark your drills across the bed about four inches apart, and half an inch deep. then sow your seeds and sift the mould equally over the whole. covering them about half an inch deep, press the surface with a board or back of the shovel equally all over; put on the sashes, and cover with straw or mats, when exposed to frost. The bed will now require very close attention to keep the temperature right. if too hot, raise the covering to admit a circulation of air, or make holes in the bed with a sharpened stake; if more heat is required, add some fresh manure to the outside of the bed. When the plants are up, give them water frequently, and air when the weather is After the plants have attained sufficient size, and the weamild. ther is fovorable, they may be transplanted into the open ground. In this climate we commence making our hot-beds, from the 20th to the end of March ; if plants are wanted earlier, we sow the seed in boxes of fine rich earth, about the first of March, and keep them in a warm place, exposed to the rays of the sun as much as possible, and remove the plants into the hot-bed when they have attained sufficient size, and the bed is prepared for vegetation.

#### PRACTICAL DIRECTIONS

#### FOR THE

#### CULTIVATION OF VEGETABLES.

1. Asparagus. F. Asperge. S. Esparrago.\*-This is a very delicious esculent vegetable, and easily cultivated, after the first operation of preparing the ground. It requires some of the deepest soil in the garden ; a rich, sandy loam is the best. The ground should be trenched or spaded up, and a plenty of rotten manure well mixed into the soil to the depth of one foot and a half. Then mark out your beds six feet wide, forming two feet alleys around them, by throwing up six inches top soil on the beds. Next use the rake and hoe, till the ground is well pulverized and made level and smooth. Then mark out your drills one foot apart and two inches deep. Soak the seed twelve hours in warm water ; drop it about one inch apart in the row ; rake it in, and press the soil over the seed with a board or garden roller. When the young plants are up, hoe them carefully, and keep them clear of weeds through the season. After the second hoeing, pull out the weakest plants, leaving them about four inches apart.

A bed of asparagus, we'l managed, will produce buds fit for cutting the third spring after sowing. The buds should be cut one inch or more below the surface of the ground. The cutting may be continued until the first of July; then let it grow up, but hoe it frequently till it covers the ground.

Spring dresssing. As soon as the ground is dry, so as to work light, separate the stalks from the ground with a hoe, cutting them off, beneath the surface, and loosen the surface of the ground all over the beds. Some dry straw, litter or fine brush may be added to these stalks when dry, and the whole burnt together on the ground. This will promote the growth of the asparagus, and destroy many insects' eggs, seeds of weeds, &c. The ground should then be covered one inch thick or more with rotten manure or compost, well incorporated with the soil above the roots ; then rake the beds smooth and level. An application of swamp earth, salt or brine spread

<sup>\*</sup> The French and Spanish names of the various vegetables are added to our common English name, and marked with the letters F. and S., for the information of foreigners who purchase our seeds.

on the beds, has been found to promote the growth of asparagus.

Though this vegetable grows naturally in a poor, sandy soil, yet the sweetness and tenderness of the buds depend much on the rapidity of their growth, which is greatly promoted by richness of soil and good attendance. Beds of asparagus may be formed by preparing the ground, as before stated, and transplanting the roots of two or three years' growth, setting them with the crown upwards, three inches below the surface.

A good bed of asparagus, with proper management and strict attendance, will flourish and produce bountifully, for more than forty years, as proved by experience.

Directions for cooking asparagus. Cut the buds when from three to six inches high; clean them well in cold water, cutting off most of the white part, as that which grows beneath the surface of the ground is apt to be tough and bitter. Take water enough to cover the stalks, and put in salt sufficient to season them well; boil and skim the water, then put in the asparagus. Be careful to take them up as soon as they become tender, so as to preserve their true flavor and green color; for boiling a little too long will destroy both. Serve up with melted butter or cream.

2. Beans. F. Feve. S. Haba.—A dry, warm soil, tolerably rich, is the best for beans. The ground should be worked fine and mellow. Plant, for early use, from the 20th of April to the 1st of May. The early kinds may be planted in drills two and a half feet apart, and at the distance of three inches in the row, or in hills a foot apart.

The Early Purple is the earliest bean, and consequently preferred for early use. The Early China and Early White are excellent, either for stringing or shelling: they will be fit for use, if the season is favorable, in about six weeks from planting. The Royal White is a large, rich bean, excellent for shelling. This kind should be planted in rows three feet apart, and if in hills, two feet from each other, with four beans in a hill; if in drills, six inches apart in the row. The Running or Pole Beans should be planted in hills, three and a half feet distant each way. They should be planted as early as possible, in a rich, mellow soil. We prefer setting the poles before planting. For this purpose we stretch a line, and set the poles by it; then dig and loosen the earth, and drop five or six beans in a circle round the pole, about three inches from it, and cover with mellow dirt one inch or one and a half in depth. When the plants are well up, stir the earth around them, and pull out the weakest plants, leaving three to each hill. This should be done when they are perfectly dry; for beans never should be hoed when wet, nor when any dew is on them.

The green pods of beans may be kept and preserved fresh by laying them down in a jar or tub, with a layer of salt between each layer of beans.

Beet. F. Betterave. S. Betarraga.-Prepare your 2. ground as early in the spring as it will work light and mel-low, by ploughing or digging to the depth of eighteen inches. A deep, rich soil produces the finest roots. If a small bed of the earliest kinds is sown as early as the season will admit, they will be fit for use in June. After making your beds fine and smooth, mark out the drills eighteen inches apart, and one inch deep; drop the seeds along the drills, two inches apart ; cover them, and press the soil a little over the seeds. When the plants are up and sufficiently strong, thin them to the distance of six inches apart in the rows. The ground should be often hoed round the plants, and kept free from weeds. Beets for early use, should be sowed about the first of May ; for winter use, two or three weeks later, the beds kept clean through the summer, and the roots taken up before hard frosts in the fall. Care should be taken in cutting off the tops, not to injure the crown.

A good method of preserving beets fresh through the winter is, to lay them in a circular form on the bottom of the cellar, with the roots in the centre and heads outward; cover the first course of roots with moist sand; then lay another course upon them, and cover with sand as before, and so on till all are packed and covered.

The Mangel Wurtzel and Scarcity Beet, also the Yellow Swedish or Ruta baga turnip, are often raised to great perfection by field culture, for which we give the following directions:

Field culture. Select a deep mellow soil; if not sufficiently rich, make it so with well rotted manure, thoroughly mixed with the soil to the depth of a foot or more. This should be done by ploughing and harrowing when the ground is in good order to work light and fine. You may then throw up moderate ridges with the plough, about the distance of three feet apart. Pulverize and level the top of the ridges with a rake. Then, with a dibble or with the fingers, make holes on the centre of the ridge, two inches deep, and eight inches apart; and for beets, drop two seeds in each hole, and cover with fine dirt, pressing it a little over the seed. For the Swedish or Ruta baga turnip, we generally prefer sowing the seed in a bed of light, mellow soil, from the 1st to the 10th of July. After having attained a sufficient size for transplanting, the ground being prepared as before directed for beets, set the plants about ten inches apart in the row; while the plants are young, the ground should be often stirred around them, and kept clean from weeds through the season. The horse plough should be often used between the rows, especially in dry, hot weather.

block should be often used between the rows, especially in dry, hot weather. The noise the average crop of these roots, on good land, with proper management, is about fifteen tons to the acre: The quantity of seed required for the mangel wurtzel or scarcity beet, is about four pounds to the acre: for the ruta baga or Swedish turnip, about one pound and a half. To quicken vegetation, the beet seed in particular, should be soaked twenty-four hours in warm water.

There are various methods of field culture recommended and practised by different people. Some sow the seed broad cast; others in rows on level ground, from ten inches to four feet apart: some sow or transplant on moderate ridges, and others on very high ridges. But those who have had most experience in this branch of agriculture, will doubtless find their own experience and judgment the most successful guide; and those who have not, may follow the directions we have given, with such deviations as the nature, situation and circumstances of their soil, according to their best judgment, may require; and experience will doubtless prove the best teacher in the end.

These roots are highly and justly recommended for feeding milch cows in the fall and winter, and especially in the spring, if well preserved; also for fattening beef and pork. If fed in the raw state, they should be cut fine; if boiled, a little Indian meal or bran may be mixed with them.

4. Cabbage. F. Chou. S. Col.—This vegetable requires a light, rich, and rather moist soil. The seed may be sown about the middle of May, either in a bed for transplanting, or where they are intended to grow. The transplanting should be done when the ground is light, just before a shower, or in cloudy, moist weather, but never when the ground is wet and heavy. Before transplanting, (if the soil is not free from worms) dip the roots in a mixture made of rich mould and water, with some tobacco dust or juice, soot and ashes stirred in; this is a preventative against worms eating the roots, which often causes the plants to die or grow stump footed. They should be hoed often while young, at least twice a week; the best time for hoeing is when the dew is on. If lice should appear on the plants, wet them with a strong decoction of tobacco, put on with a small brush, or rubbed on with the hand.

Cabbage should be secured before very cold weather; they should be pulled when dry, and placed with their heads downwards, until the water is drained off from the heads, for the drier they are put in the cellar, the better they keep: a cool, dry cellar is the best for cabbage; if they are put in a wet cellar, they will keep best to set them on boards, with their roots up; but if the cellar be tolerable dry, they will be better to set upright, in rows, with a small pole between each row, and their roots covered with dirt.

5. Cauliflower. F. Choufleur. S. Coliflor.—This requires he best of rich, light soil. The early kind is most suitable for this climate. It should be sown about the 20th of September, for spring use; and it requires much care to keep them during the winter. For fall use, they may be sown in a hot bed in March, or in the open ground about the 20th of May. They should be protected from the northwest winds by walls or hedges, and great pains must be taken in every stage of their growth, as the extremes of heat and cold operate very unfavorably upon them.

To cook Cauliflower. Cut it when close and white, and of a middling size; cut the stem so as to separate the flower from the leaves below it. Let it lie in salt and water awhile; then put it into boiling water, with a handful of salt. Keep the boiler uncovered, and skim the water well. A small flower will require about fifteen minutes boiling—a large one about twenty. Take it up as soon as a fork will easily enter the stem : a little longer boiling will spoil it. Serve it up with gravy or melted butter.

6. Carrot. F. Carotte. S. Zanahoria.—The long orange or red is generally preferred, both for garden and field culture : the short orange is the earliest and deepest color.

Soil. Carrots require a light, mellow soil, with a mixture of sand. The ground should be dug or trenched deep, and well broken up, in order to give plenty of room for the roots to penetrate into the soil; it should also be made fine, smooth and level.

Sowing. As the seeds have a fine, hairy furze on the borders or edges, by which they are apt to cling together, they should be well rubbed between the hands in order to separate them. To forward vegetation, they should be soaked in warm water about twenty four hours, and then mixed with dry sand, so as to separate them as much as possible in sowing. They should be sown in a calm time, and scattered as equally as possible.

The seed should be sown in drills about an inch in depth; the rows from eighteen to twenty inches apart, so as to give plenty of room to hoe between them. Some recommend from nine to twelve inches, and others from eight to ten : this may answer in small family gardens, where the land is scarce; but where there is a sufficiency of ground, the carrots are more easily cultivated, and will thrive better and grow larger at a greater distance.

Field culture. The best soil for field carrots is a deep, rich, sandy loam. To obtain a good crop, the soil should be a foot deep at least, and well prepared by very deep ploughing and thorough harrowing, so as to make the ground perfectly mellow, smooth and level. It is a matter of importance to wet the seed and cause it to swell, so as to hasten vegetation; because the weeds are apt to start very quick after sowing, and and the seed in out quickened, the weeds will get up and overpower the car-

rots, before they get large enough to hoe. The seed may be sown in drills, as directed for garden culture or on moderate ridges, from two to three feet apart, and cultivated between the rows with a horse plough. In hoeing, they should be thinned to three or four inches apart in the rows. Two pounds of seed is considered sufficient to sow an acre of ground in drills two feet apart.

Carrots are excellent for fattening beef, and for milch cows. Horses are remarkably fond of them. When cut up small, and mixed with cut straw and given them, with a little hay, it is said they may be kept in excellent condition for any kind of ordinary labor, without any grain.

7. Celery. F. Celeri. S. Apio .- The White Solid is considered the best kind of celery. We have had the best crops by sowing the seed the latter part of March, in a hot bed. After the plants have attained the height of about six inches, they may be transplanted into trenches. Select, for this purpose, a piece of rich ground, in an open exposure ; lay out your trenches about eighteen inches wide, allowing six feet space between each trench ; plough or spade out the earth from the trenches to the depth of sixteen or eighteen inches, if the depth of soil will admit ; put about three inches of very rotten manure into the trench; then throw in upon this manure about five inches of the best soil; mix and stir the manure and soil well together; then set your plants by a line in the centre of the trench, leaving a space of four inches between each plant. If the weather be dry, water the plants freely. They should be shaded till the roots strike and the plants begin to grow; the covering should be taken off at night.

When they have attained the height of ten inches, you may commence earthing them up; but never do it while the plants are wet. In performing this, care should be taken to gather all the leaves up with the hand while drawing the earth up equally on each side of the row, being careful to leave the hearts of the plants open. Repeat the earthing once a week or oftener, till about the last week in October; then bury the whole with dirt, to remain till time for digging.

Celery may also be raised by sowing the seed in a rich, moist soil, and removing it into trenches as before directed; or by sowing it in the trenches where it is to grow. As the seed vegetates very slowly, it should be soaked in warm water for twenty-four hours before sowing. To preserve it through the winter, dig it before the ground freezes deep, and pack it away in casks or tubs with dry sand, and keep it in the cellar. Some recommend to cover the ridges with boards, and dig the celery as it is wanted for use. This may answer in a dry, sandy soil; but in a wet or moist soil it is apt to rot and spoil.

8. Corn F. Mais. S. Maiz .-- The Early Canada is the

earliest kind of corn we raise, and is preferred only for being several weeks earlier than the common field corn. The sweet or sugar corn is the best for cooking in its green state, as it remains much longer in the milk, and is richer and sweeter than any other kind. It is rather later than the common field corn, and is therefore fit for the table when the field corn has become too hard. Alluvial, or any gravelly or sandy soil, if made sufficiently rich and properly cultivated, will produce a good crop. It should not be planted till the weather becomes settled and warm, and the soil sufficiently dry. It may be planted in hills, like the common field corn, or in a garden in drills, like broom corn ; as in this way a larger crop may be produced from the same quantity of ground. Care should be taken that no other kind of corn be planted near it, as by intermixing it will soon become adulterated and injure the crop. This corn may be preserved for winter use, by parboiling it when green, and cutting it from the cob and drying it in the sun. It then affords a wholesome and agreeable dish when cooked like bean porridge, or what is called succotash.

9. Cucumber. F. Concomber. S. Cohambro.—The early kinds are most suitable for early planting. For the purpose of obtaining them very early, some plant the seed in a hot bed, or in elevated hills, well manured with rotton horse-dung, and covered with glazed frames. But in order to grow fair, handsome cucumbers, the soil should be rich, light and warm, and well mixed with rotten manure; or a good shovel full may be put into each hill, and thoroughly mixed with the soil in the hill. We generally plant the early kinds about the first of May, in hills about four feet apart each way, elevating the hills a little above the level of the ground. Put in eight or ten seeds into each hill, and cover them half an inch deep with fine dirt, and, as in all other planting, press the earth a little over the seeds with the back of the hoe.

When the plants are up, examine them closely, as they are frequently attacked by the yellow bug or fly. To prevent this, take rye flour, sifted ashes and ground plaster, equal parts of each, well mixed together, and dust the plants all over with it. If the plants are dry, sprinkle them with water before you dust them. Snuff, tobacco dust, or the stalks boiled in water, soot, or a decoction of elder and walnut leaves, are all very good to prevent small bugs and insects from injuring any young plants. Keep the ground loose and clear of weeds, and in dry weather water your plants freely. After they have attained a vigorous growth, and the danger from insects is over, they may be thinned out, leaving two of the most thrifty in a hill.

Those intended for pickling may be planted from the 10th to the 20th of June. If the soil is rich and warm, the 20th is preferred. The long kinds are preferred by some for pickles. The cultivation and management of these is the same as the others, excepting that the hills should be at least five feet apart each way. Some gardeners recommend nipping off the first runner bud of cucumbers and melons, from an idea that they will become more stocky and fruitful.

10. Lettuce. F. Laitue. S. Lachuga.—Lettuce requires a mellow soil. It should be sown as early in the spring as possible : to insure a very early supply, it may be sown late in the fall—it will then start early in the spring ; but to obtain a constant and regular supply through the season, it should be sown every month from March to September. It may be sown broad-cast, moderately thin, or in rows from twelve to eighteen inches distant, according to the usual size of the different kinds. Rake in the seed lightly, with a fine tooth garden rake. When the plants are up, stir the ground lightly while it is dry, and clear out the weeds : thin the plants where they crowd each other. Those intended for large heads should stand eight or ten inches apart : the hardy kinds, such as the early green, early curled and ice coss, may be sown in September, and covered with straw at the approach of severe winter. Or any kind may be sown in a hot bed in March, and transplanted in the open ground at the proper season.

11. Melon. F. and S. the same.—This plant requires a warm gravelly or sandy soil, made very rich with well rotted manure from the hog-pen, or rich old compost, well mixed with the soil. The hills may be formed after the manner recommended for cucumbers. But if the natural soil is not sufficiently warm for melons, then dig a hole of sufficient size, and put in a large shovel full of rotten horse dung; upon this put the compost or rotten hog dung, with a quart of slacked lime : then add some good mellow soil, and mix it up well on the surface without disturbing the horse dung at the bottom. The hills may be made from six to eight feet apart; for water melons, on rich, warm land, where they grow most thrifty, nine feet is near enough.

Plant about the middle of May, if the weather be warm and the ground in good order. The seed should be soaked a few hours in warm milk and water, with a little soot in it. Put six or eight seeds in a hill, and cover half an inch deep.— When the plants become strong and thrifty, so as to be out of danger, pull out the weakest, leaving only two in each hill; indeed one would always be sufficient, if secure from all accidents. The ground should be often hoed round the hills, and kept loose and light. If you would raise good melons, you must plant them remote from any other vines; for in the vicinity of cucumbers, squashes, pumpkins, gourds and the like, they will infallibly degenerate. In this respect, therefore, they require great care and attention. To secure them from the ravages of insects, pursue the directions given for cucumbers. [See page 12.]

12. Mustard. F. Moutard. S. Mostaza.—The white and broad leaf kinds are excellent for salad or greens. They should be sown very early in the spring, in a rich, warm soil, in shallow drills, ten inches apart, and kept clean from weeds. After the crop is off, the ground may be planted with cucumbers for pickling, or used for a succession of salad or radishes. The brown mustard seed is the best for grinding : it is a palatable and healthy condiment, and may be sown broadcast or in drills, and kept clean from weeds.

13. Onion. F. Oignon. S. Cebolla .- Onions require a rich mellow soil, rather moist and sandy or gravelly. A heavy clammy, or a dry clayey soil will not do for them .--They grow well on an alluvial soil, such as is made by the overflowing of rivers and streams, or from the wash of hills, The ground requires to be well worked and made completely mellow by ploughing and harrowing, and then raked over with an iron tooth rake, so as to break the clods and pulverize the soil. If not sufficiently rich, it may be made so by a plentiful supply of good manure, well rotted. Dung from the hog-pen is considered the best manure for onions; though any rich and well rotted manure will answer. The manuring must be repeated annually ; because onions have a natural tendency to impoverish the soil; but if well manured, they will do better on the same ground many years. The manure may be put on in the fall and ploughed in. Plough the ground again in the spring, as early as it can be done after the frost is out. Work it over thoroughly, and prepare it for sowing as early as the season will admit.

When the ground is sufficiently leveled and pulverized, stake out your rows, draw your garden line, and make your drills about 16 inches apart, so as to afford sufficient room for hoeing between the rows. The drills should not be more than an inch in depth; if the ground is moist, three fourths of an inch will answer. The seed (if good) should be sowed sparingly. Many are very apt to put in too much seed, and of course must thin out a large portion, or have a crop of small onions. Good seed, well put in will not fail to come up well. After the seed is in, rake lightly over the drills, lengthwise; and when the seed is all covered, if you have a small light garden roller, (which should be kept in every garden, ) draw it carefully over the bed from end to end of the rows, till the whole is rolled. If you have no roller, take a long board and lay it lengthwise on the rows and walk on it; then move it to the next row, and proceed on in this manner till the whole bed is pressed. This will make the seed come up more even and equal.

When the onions are fairly up the weeding and hoeing should be immediately attended to. If they are too thick, thin them out so as to let them stand two or three inches apart; but this should be carefully done, so as not to disturb those that remain. It is better to do the thinning by degrees, at each successive hoeing, rather than all at once, as the little black grubs will sometimes thin them off too rapidly. The ground must be often hoed and kept clean of weeds, or they will not do well.

Onions will sometimes run to scallions, having a thick, stocky neck and little or no bulb. To prevent this, some recommend breaking the tops down, when they have attained their full growth. But if the ground is suitable and well prepared; if good seed is sown, and properly cultivated, there is little danger of scallions; besides it is not a very good practice to break the tops down. The onions will be ripe in September. When the tops are sufficiently dry, pull the onions and let them lie a few days in the sun to dry; then gather them up and house them. They may be kept through the winter, by spreading them on shelves in a cool dry cellar. Some prefer bunching them up which is a very good plan to keep them dry. A damp warm cellar will cause them to sprout and rot, which should be avoided.

14. Parsley. F. Persil. S. Peregil .- This plant should

have a good rich soil, and may be sown at almost any time. For early spring use it is sometimes sown late in the fall, and the ground covered with straw; it is also sown early in the spring—also in March, April, May or June. But as the seed vegetates slowly, it should be soaked in warm water from twelve to twenty-four hours. In order to hasten vegetation, some recommend mixing sulphur with the water. If sown in the spring and frequently cut, the plants shoot up more thick and stocky, and afford a plentiful supply through the whole season. It should be kept free from weeds.

15. Parsnip. F. Panais. S. Pastinaca.—This vegetable requires a deep, rich, mellow soil, free from stones and coarse gravel. A sandy loam is accounted the best. If the soil be suitable, it will not require much manure, as parsnips do not impoverish the soil like onions, and they may be raised from year to year on the same ground. As the seed is very light and vegetates slowly, it should be soaked or kept wet for several days before sowing. Let the ground be ploughed or dug and worked deep, and well harrowed and raked over, so as to make a smooth, level surface. Sow the seed in drills, eighteen or twenty inches apart, and as early in the season as the ground can be prepared, the earlier the better, to insure a good crop. The seed may be covered an inch or more in depth.

As parsnips require the whole season to come to maturity, and are not fit for use till ripe, other seeds that come off early, may be sown with them, such as lettuce, radishes, and beets or carrots that are to be pulled early in the season, when, the roots are small.

When the plants are two or three inches high, let them be thinned so as to stand from four to six inches apart. Hoe them and keep them clear of weeds till the leaves get so large as to cover the ground; after which they will need no further attention till you come to dig them. Some let them stand in the ground through the winter, and they are generally considered the better for it, provided they are dug as soon as the frost is out of the ground, for if they are left until they begin to sprout, their good qualities are much impaired. But if they are dug in the fall, they should be put into a cold cellar or out-house and covered with dirt or sand, as they are liable to dry up in a dry room if left uncovered. They ought to be dug carefully, without cutting or bruising, nor should the tops be cut close, nor the side roots be cut off; otherwise they are apt to rot or turn bitter where they are cut or bruised. If put into a warm cellar they are apt to sprout, which soon spoils them; but frost will not injure them at all, neither in the ground nor in the cellar, if covered with sand or earth.

Parsnips are often raised in fields to very good profit; for besides their uses in a family, they are excellent food for neat cattle, sheep, hogs or horses. Beef fatted on parsnips is said to command a higher price in England than fatted in any other way. Milch cows fed on parsnips, are said to give richer milk, and yield more butter, than from any other food. Hogs are also said to fatten very easily on them, and to produce superior pork. All these things prove parsnips to be a very valuable crop, and well worth the farmer's attention.

16. Peas. F, Pois. S. Guisante.—There are many varieties of peas; we however cultivate but four or five kinds.— For the early kinds the soil should be strong and rich; and moderately rich for the later kinds. Fresh stable dung is considered injurious to peas. A sandy loam, enriched with decomposed vegetable matter will produce good peas.— Swamp muck spread on the ground and ploughed in, is a valuable manure. For early crops, more especially, the soil should be light; and a dry, warm soil is the most favorable. All peas raised in a garden, in order to produce a good crop, should be supported with branching sticks or brush. They should be sown in drills, the smaller kinds two inches in depth, at least, and the larger kind still deeper, four inches, some say six inches is none too deep, as they take better hold of the soil, which in a light soil is a great advantage.

We commonly plant two rows, five or six inches apart, for one row of sticks. The space between the rows of sticks must be regulated according to the size of the different kind of vines: for the Early Frame, Early Petersburg, or Early Washington, about three feet apart; the Large Marrowfat or Green Marrowfat require at least four feet space. As the plants rise to three or four inches in height they should be well hoed and cleared of weeds, and the soil drawn up around them while the vines are dry: this should be continued as they rise higher. When from six to ten inches high the sticking should be done. Let the sticks befixed firm in the earth, so as not to be blown down by hard winds. The sticks or brush, as to height, must be regulated according to the height of the peas; some grow much taller than others, and of course need taller brush to support them. Field culture.—The common method of raising field peas is to sow them broad-cast. In this case they should be sown much thicker than many farmers sow them, and be ploughed in. There is very little danger of burying them too deep, it is said they will vegetate and come up if buried a foot deep. Peas sown thin are very apt to fall down, and if the season be wet, they will rot on the ground; but if they are sowed thick, they will cling together and support each other, and yield much better by having more benefit of the sun and air.

Some time, they find they to be and a support event other, and yield midth better Many people are much afflicted with buggy peas, especially in the old settlements. This is occasioned by a small brown bug that deposits its eggs or larva in the young poils. The only effectual remedy against this, that we know of, is to sow the peas late; so that they will not blossom till the period of depositing the larva is past.— For this purpose they should not be sown before the 10th of June. We are informed that a respectable farmer in Rensselaer county sowed his peas on the 10th of June six years in succession, and never found a bug in them; while his meighbors who sowed earlier had their peas filled with bugs. If your seed peas contain bugs, we would recommend to scald them by putting them into a tub or pail, and pouring in boiling water enough to cover them, and stirring them briskly about a minute ; then pour off the water and ada little cold water to them and sow them soon.— This will destroy the bugs without injuring the peas; and they will vegetate the sooner. But if your peas are buggy, your ground will require more seed: because when the chit of the pea is destroyed by the bug in it, the peaw will not come up.

17. Pepper. F. Piment. S. Pimiento.—As these require the whole season to come to maturity, they must be sowed early. Our method is to sow them in a hot-bed very early in the spring, and cover them with glazed sashes, when the weather is cold, to prevent injury by frost. They will be large enough to transplant in May, and may be transplanted in rows about two feet apart each way. Hoe them well and keep them clear of weeds; and if the soil is light and warm, they will come to maturity in good season. The squash pepper is reckoned the best for pickling

18. Pepper Grass, or Curled Cress. S. Berros.—This will grow on any common soil; but a light, rich soil is the most favorable to it. It should be sown in drills, about twelve inches apart, for the convenience of weeding, and may be put in at any time from early in the spring to September. When it is up sufficiently large for sallad, it may be cut up as it is wanted for use; but it soon becomes too large and tough, and therefore should be sown once in two or three weeks in order to ensure a constant supply through the season.

19. Radish. F. Rave. S. Naba.—A light sandy, warm soil produces the best radishes. For the long tap-rooted kinds the ground should be ploughed deep and well worked over to make the soil mellow. They do not require a very strong soil; but if not sufficiently rich, it may be manured with swamp muck or other light vegetable mould. A little lime and strong ashes mixed with this manure, or strewed in the drills before sowing, will be highly beneficial in quickening the growth of the plants and destroying worms which in some soils nearly spoil the roots : for the more rapid the growth, the more tender and better is the root; and for this reason it is difficult to have good radishes very early in the season, without raising them in a hot-bed or in a very warm soil. Hence those raised in June or July, (if the season be not too dry,) generally grow the quickest, and if eaten when young, are the most tender and crisp; though they will do well in May, and even in September, if the weather be warm.

To ensure a constant supply of good radishes, they should be sown once a fortnight during the warm season. They may be sown in drills twelve or fourteen inches apart, and covered half an inch deep. They must not be left too thick, as it tends to make the tops run up while the roots will be small and stringy and consequently tough.

The black or winter radish does not require so much attention; its culture is much the same as the common turnip, and for winter use, may be sown about the same time.

20. Saffron. F. Saffran. S. Azafran.—We generally sow this seed in double drills, about six inches apart, with a space of 3 feet between these double rows, for the convenience of passing and repassing to gather the flowers. They should stand from three to six inches apart in the drills, and be well looked to and kept clear of weeds while growing.— When the flowers begin to appear they should be strictly attended to, and gathered into baskets once in two or three days, as long as they continue to blossom. These flowers may be spread on sheets, or on a clean floor to dry; and when sufficiently dried, may be packed away for use.

21. Sage. F. Sauge. S. Salvia.—This useful herb re quires a good rich soil, and may be sown in drills, about two feet apart. When of sufficient size for culinary purposes, it may be thinned out as it is wanted. The plants intended to be kept over the winter must finally be left at the distance of two feet each way. These may stand through the winter, covered with straw or litter, or they may be taken up and put into the cellar. After the first year they will grow and bear seed a number of years in succession; but new seed should be sown once in three or four years, as young roots produce the most thrifty shoots. The leaves that are to be preserved for use, may be collected and dried, and packed away for future use. Our botanist press them into hard packages and put them up in papers for market—we also grind and sift it, and put it up in that state for the sausage makers.

22.—Salsify or Vegetable Oyster. F. Salsifi. S. Salsifi.— This vegetable, in appearance, resembles a small parsnip; it is raised annually from the seed, and may be cultivated in the same manner as parsnips or carrots, and is as easily raised.

It is a vegetable highly esteemed by those best acquainted with it.

There are various modes of dressing and cooking this vegetable. It is very excellent boiled and mashed up like squash or turnip, with a little salt and butter. Some make soup of it; in that case it should be boiled and mashed fine in order to increase the flavor of the soup; a few pieces of salt codfish added, gives it a good relish. Others prefer it parboiled and then sliced up and fried in batter, or without. A writer in the *Massachusetts Agricultural Repository*, observes that "In its taste it so strongly resembles the oyster, that when sliced and fried in batter, it can hardly be distinguished from it;" and adds, "If your gardeners would introduce it into market, and our citizens once try it, there would be no danger of its ever failing hereafter to be raised. It is in eating from November to May, precisely the period in which our vegetable market is most deficient in variety."

23. Savory Summer. F. Sariette de l'ete.—This plant will grow in almost any soil. It may be sown in drills about twelve or fourteen inches apart, so as to pass a hoe freely between the rows. Let it be kept clean from weeds, and if it comes up too thick, let it be gradually thinned out as it is wanted for use, and it will not require any further trouble. To dry it for winter use, it should be cut when in blossom, and spread on the floor of an upper room or garret, where it can have air, and not be exposed to the sun. When it is sufficiently dry, tie it up in bunches and wrap it in paper, or put it away in clean bags for future use.

24. Spinach or Spinage. F. Espinard. S. Espinaca.—The round leaf spinage, which is the most useful kind, may be sown in April. It requires but little space in a family garden; one row of a suitable length, on the border of a garden, or beside the alley will suffice, but the value of the plant for greens depends much on the richness of the soil. It requires some attention while young to keep it clear of weeds; and if the weather be dry it will need frequent watering.

25. Squash. F. Giraumon, S. Especie de la Calabaza.-Squashes require to be treated much after the manner of melons and cucumbers. The Lima Cocoanut, or Valparaiso squash, as called by some, should be planted early, on a rich, warm soil, as it requires the whole season to come to maturity. This and the Winter crook-neck, as they produce running vines, require to be planted in hills at the distance of six or eight feet, but before they begin to run, the weakest plants should be taken out, leaving not more than two in a hill. The Summer Crook-neck and the Summer-Scollop, being what are called bush squashes, as they have no running vines, may be planted in hills about four feet apart each way. These must be cooked while young and the skin tender, as they are unfit for the table after they begin to be hard. The Summer crook-neck is esteemed as the richest and best summer squash we cultivate ; but it is not so productive as the Summer Scollop. The Lima Cocoanut, when baked in the oven, is considered by some to be equal to the Carolina Potatoe, to which in taste it bears a near resemblance : the first seeds we planted of this squash cost us sixpence a seed.

26. Tomato or Love Apple. F. Tomate. S. Tomatera.— This plant while growing has somewhat the appearance of a hill of potatoes. It is a South American plant, and bears its fruit on the branches, much resembling the squash pepper.— We shall notice but two kinds, the large and small, of which there is no material difference, except in the size, and the ripening of the smaller kind a little sooner; but the larger kind is generally preferred for common use.

To obtain early fruit, the seed should be sown in a hot-bed or in boxes of light, loose earth, about the middle of March.— The bed or boxes should be exposed to the rays of the sun as much as possible, and be secured from the frost, and have a sprinkling of water when the earth appears dry. The plants may be carefully removed into the open ground as soon as the season will permit. They may be set in a row along the border of the garden, allowing three feet distance between the plants, and be supported by a fence or trellis; or they may be planted in rows at four feet distance each way; but in this case, care must be taken to keep the branches from the ground, which may easily be done by setting small crotches on each side of the rows and laying small poles on them.— This will preserve the goodness and increase the quantity of the fruit.

Tomatoes may also be brought to perfection by sowing the seed in a warm, light soil, about the first week in May; and if the situation be favorable, with good management, the product will be abundant.

There are but few who relish the tomato at the first taste : and few who are not extremely fond of it when properly cooked and they become accustomed to it. It is considered by physicians and others acquainted with its effects, not only a very delicious, but a very harmless and wholesome vegetable ; indeed some will give a decided preference to a dish of tomato sauce or a tomato pie, when properly prepared, to any thing of the kind in the vegetable kingdom. The experience of several years in raising and using this vegetable in various ways, enables us to recommend it to all who are desirous of obtaining a cheap and delicious fruit for the table. There is no vegetable more easily raised, and none better pay the cultivator where they are generally known. They are used in various ways, either raw, with sugar, or stewed for sauce, or in friccasses and soups ; for catsup or gravy for meat, and for pies or preserves, as well as for pickles and sweet-meats.

For the information of those not acquainted with the tomato, who may wish to try the experiment, we give the following directions for preparing and cooking. Take them when ripe and red, dip them into scalding water, and take off all the skin, cut in quarters and scrape out the seeds ; then put them into a clean stew pan and let them simmer about fifteen minutes, then put in a little butter and pepper, stir them a few minutes and they are done. Some prefer adding some crumbs of wheat bread or grated crackers. For pies or preserves the tomato requires a little more sugar than the peach to make it equally palatable. The process of making is much the same as with other fruit. Tomatoes may be preserved fresh by covering them with sugar. The green fruit is often pickled, like the cucumber or pepper. When prepared according to the following directions they make an excellent sauce or gravy for meat or fish.

Tomato Catchup or Catsup.—Collect the fruit when fully ripe, before any frosts appear, squeeze or bruise them well, and boil them slowly for half an hour, then strain them through a cloth, and put in salt, pepper and spices to suit the taste, then boil again and take off the scum that rises, so as to leave the liquor in its pure state; keep it boiling slowly until full one third of the juice is diminished, then let it cool and put it into clear glass bottles, corked tight and kept in a cool place for use. After standing awhile, should any sediment appear in the bottles, the liquor should be poured off into other bottles, and again corked tight.

27. Turnip. F. Navet. S. Nabo.-The early flat turnip may be sown for early use in March or April-also in May and June for summer use, as those sown early become rather tough and stringy, and run up to seed in the latter part of the season. They may be sown broad-cast or in drills, fifteen or sixteen inches apart, and thinned out to three or four inches distant in the rows, and if the soil is good, light and mellow, they will thrive well, and afford a healthy and nourishing variety to other summer vegetables. The Flat Field turnip is the most suitable for fall and winter use, and should not be sown till the last of July or first of August, or still later; many prefer the 10th of August. In a favorable season they will do well if sown the last of August or first of September ; they have indeed been found to be much sweeter and better in the southern part of this State than those sown earlier. But with us it is not safe to sow so late, as the cold season may set in early, and stop their growth.

Newly cleared land is found to be the best for these, as it generally produces the largest and sweetest turnips, and they are less exposed to the depredations of insects. A sandy or gravelly loam is reckoned the most favorable soil, and they will generally do well if sown on a green sward that has been turned up to a good depth the preceding spring, and varded with cattle or sheep, with repeated harrowing during the time, in order to mix the manure with the soil. Before sowing, plow the ground again, make it smooth and level with harrowing, and at a time when the ground is sufficiently moistened with rain, sow your seed broad-cast or in drills, as you choose, but care should be taken not to sow too thick, and even then they will doubtless require a considerable thinning. If sown broad-cast, it will require more labor to thin them out and keep them clear from weeds, though the first labor will not be so much as sowing in drills. They should be thinned to the distance of six or eight inches.

Turnips are often injured by the ravages of a small black fly, which in the quickness of its motions very much resembles a flea. Against this there are various preventatives recommended. There is perhaps none better than that mentioned by Abercrombie, which is, to water, at the rate of an ounce of su which will be sufficient for soaking Some recommend sowing ashes or ter the seed has come up. This will generally have a good effect if sowed when the dew is on.

Turnips are an excellent and very healthy vegetable, if properly cooked and dressed; but many people spoil them in the cooking. If boiled in the water with corned or salted meat, (which is a common practice in many families,) they should not be peeled at all. Turnips raised in a suitable soil, will be fair and smooth, and of a sweet flavor, and when first pulled, will wash white and clean without peeling. After being gathered and stowed away in the cellar awhile, the dirt adheres to them ; they may then be put into a pail of warm water, so as to moisten the skin, and scraped with a knife, and washed clean, fit for the pot, without the least necessity of pealing. A turnip is surrounded with a coat or skin under the scarf skin, which in a common sized turnip is nearly the thickness of an orange peel. This skin, in peeling, is often cut through, by which means the turnip, in boiling, becomes completely water soaked, and the sweetness is boiled out; it is then unfit for the table. A better way of cooking turnips of potatoes is to steam them instead of boiling them in water.

But good sweet turnips, raised in a suitable soil, having no rank taste in them, are much better cooked by cutting them into small pieces and stewing them, as the Yankees do their pumpkins for pies. While stewing, mash them up in the kittle, and when sufficiently done, take them up and dress them with a little salt and butter.

For Yellow Swedish or Ruta Baga turnip, see page 8





