

PLAN FOR GARDEN NEEDED TO OBTAIN MAXIMUM RESULTS

Estimate of Needs and Careful
Laying Out of Space Factors in
Home Gardening, Is Advised.

Before thrusting a tool into the ground, it is essential for best results to have a plan of the garden. A plan for a garden is just as necessary as a plan for anything else, to avoid lost motion and wasted effort. Having drawn the garden to scale and decided upon the vegetables, and arranged the order in which they are to be planted, the haphazard work, too often indulged in in garden making, will be avoided and the success of the undertaking is much more certain.

First of all, figure out just how much ground will be utilized for a garden and this should be decided by how many are to be provided with food from the garden.

STUDY GROUND NEEDS

For a family of six one fourth to one half acre will do the trick nicely, provided on the small plot it is not planned to raise a supply of potatoes to last year around, as potatoes are one of the bulk-iest crops.

Study plans offered by experts, seedsmen, government bulletins, or experienced and competent horticultural writers. It is an easy matter to adopt one of the plans to your own use. Often they

1	LETTUCE, FOLLOWED BY STRING BEANS.
2	RADISHES, FOLLOWED BY LATE CABBAGE.
3	ONION SETS (TWO ROWS).
4	SPINACH, FOLLOWED BY CABBAGE.
5	BETS, FOLLOWED BY STRING BEANS.
6	PEAS.
7	CARROTS.
8	PARSNIPS.

PLAN FOR GARDEN 10X10 FEET.

specify vegetables for which you do not care. It is a simple matter to substitute some vegetable of much the same habit of growth that you do want.

Draw the garden plot to scale and arrange the rows the proper distance apart. Tables will be printed from time to time, or any cultural articles on any variety of vegetable is certain to give this information.

Figure how much seed is needed. The usual unit selected in such figuring is 100-foot rows.

SEED IS ESTIMATED

"Following is an estimate of the amount of seed for a garden for four:

Beans, lima, either bush or pole, one pint; string beans, 1 quart; beets, 4 ounces; cabbage, early, 1 packet; late, half ounce; carrot, 1 packet; cauliflower, 1 packet; sweet corn, 1 pint; cucumber, 1 ounce; lettuce, half ounce; onion sets, 2 to 4 quarts; peas, 1 to 4 quarts; parsley, 1 packet; parsnip, half ounce; radish, one ounce; spinach, 1/4 pound in spring, 1/2 pound in fall; squash, winter, 1 ounce; summer, 1 ounce; tomato, early, 1 packet; late, 1/2 ounce; turnip, 2 to 3 ounces.

These seeds represent garden staples. The size of the garden and whether it is to be cultivated by hand or whether a horse can be used will regulate the spacing of the rows. If by wheel hoe or hand tools the rows may be much closer.

ROOT ROOM FACTOR

If a horse is available, two feet is the right distance. Sufficient room to cultivate is all that is necessary with the smaller growing vegetables, with due regard to giving them sufficient root room. Radishes can be placed as close as six inches apart in the rows and young onions will stand a similar crowding. If for mature bulbs, however, more space must be allowed.

The rows should run the long way of the garden, where possible, and should run from north to south, to equalize the distribution of the sunlight on both sides of the row.

With a garden plan or diagram of sufficient size, planting and harvesting dates may be marked upon it and it will serve as a ready reference record.

Walnut Tree as Memorial

Washington, March 12.—(U. P.)—Plant a black walnut tree as a memorial to soldiers, the United States department of agriculture urges. The tree itself suffered heavy in the way through sacrifice to gunstock and airplane propeller production, the department declares, aside from providing much carbon for gas masks and nuts for delicacies.

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ROSES
and Other
Beautiful
Flowers

shipped by express and parcel post to any place in the United States.

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FLORISTS

287 Morrison Street
PORTLAND, OREGON

Fair for School Children of City Proposed to Board

Plans are afoot for Portland school children to have an exhibit, all their own in Portland preceding the county fair at Gresham next fall. The Parent-Teacher council, composed of presidents of the Parent-Teacher associations, has made this suggestion for the county fair board to work out.

This city club would be held in the Auditorium or some other downtown point and would consist of booths from the different schools, together with the usual exhibits of rabbits, poultry and goats. The best booth would win a prize and the best of all the booths would be combined in a big Portland school booth at the county fair.

Portland is met with the necessity of doing this or the alternative of raising funds to build an addition to the boys' and girls' clubhouses at the fair grounds, since it is not large enough to hold booths of both the county and city schools.

Holding a preliminary club fair in Portland would have the added advantage of drawing considerable number of visitors who would be glad to stimulate club work. The Peninsula National bank will give a fair as it did last year, with similar prizes for the best gardens and exhibits. In addition, the bank is furnishing free seeds to all club members. An order has been given on one of the St. Johns seed stores to supply the seeds and send the bill to the bank. There will be 100 club members in St. Johns.

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TRANSPLANTING DECLARED TO BE AMONG FINE ARTS

Fine Ground and Leaf-Clipping
Are Points to Be Observed if
Healthy Growth Is Desired.

Transplanting is one of the fine arts of the garden, upon which its success or failure depends. A little study of the whys and wherefores of transplanting is well worth while. There are some few plants which cannot bear transplanting, but the great majority will and are all the better for it, as a stronger root system and a sturdier growth is the result.

Here are a few pointers on transplanting:

1. Be sure the ground is worked fine to receive the young plant.

2. Clip off at least a portion of the leaves; half their length if the plant is fairly sizable is a good rule.

3. Set the plant nearly to the depth of the seed leaves or first true leaves if the seed leaves are gone.

4. Water thoroughly when transplanting and firm the plant in the ground.

5. See that the roots are well spread out and not bunched in a lump when transplanted. The better the spread the sooner it will take hold.

6. Shade for a few days after transplanting, if possible.

7. Transplant just before a shower, if possible, but don't wait.

8. Either moisten the earth about the seedling so it can be moved with a good lump of earth attached or allow the soil to become partially dry, so the roots can be taken up complete and moved.

9. The latter is advisable only in the case the soil is light and sandy. The first method is the better.

10. It is best to transplant in the cool hours of morning or evening, unless a cool day can be selected. Water only at night on hot days.

11. Four water into the hole when transplanting, rather than on the surface after the plant is in position.

12. Clipping of a portion of the leaves is one of the most neglected features of transplanting and one of the most essential. It is impossible to move seedlings without destroying part of the root system unless they have been grown in individual pots or boxes so they can be turned out without disturbance. The least growth and root growth are theoretically equal in extent, so clipping a portion of the leaves equalizes for the breakage of the roots. If the tops are left entire, an extra burden is thrown upon the broken roots and it takes longer for the plant to reestablish itself. The evaporation from the leaves, if left entire, is greater than the moisture the roots can supply.

There are various devices to make transplanting easy, such as the paper flower pots in various small sizes, which may be bought cheaply. Transplanting from seed-box to another box is easy, as the plants can be managed as to conditions of shade and moisture until established with little trouble. Making bottomless boxes of oiled paper or heavy wrapping paper about the individual plants, so the roots will not be disturbed without disturbing the roots, is an excellent plan. This is convenient for larger growing plants, like tomatoes and eggplants.

The sections in which eggs are packed are a ready-to-hand transplanting device. Merely place the sections in a box filled with earth and place a tiny plant in each section.

The plant food required to produce a crop of weeds in your garden might, if the weeds were removed, increase the edible product of your soil and toil.

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Children Are Urged
To Lay Out Their
Festival Gardens

To interest Portland school children in the growing of festival gardens and in the planting of roses along street parking, H. W. Kent, executive secretary of the Portland Service League, and Charles H. Bagg, have just completed a series of talks in all the high schools, to be followed by similar talks at elementary schools in each sector of the city.

The league's plan involves the selling of seed at cost to the pupils, the growing of a festival garden by each child having the available plot, the organization of the pupils into groups responsible for the rose-planting along the streets in their district, the award of ribbons for the best festival gardens, the decoration of vehicles to appear in the rose parade from these festival gardens, and the appearance in the parade of the prize-winners.

Present attention is being turned to the planting of roses and sweet peas. Later gladioli bulbs will be set out. Seed stores are cooperating in the furnishing of seed and fertilizer at cost.

Transplanting should be confined to plants that cannot successfully be handled any other way.

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Garden Time Is Here

Our stocks are large and complete. Ever since our new crop seeds came in our seed packet department has been busy putting up our "Highest Quality" tested seeds in packets, ounces and pounds. We are ready to give you quick service. Buy now and be ready to plant when the sun shines.

DID YOU EVER see a Market Gardener buying seeds and plants from a grocery, drug or department store? CERTAINLY NOT! He buys from the Seedman, who supplies "Highest Quality." He knows from experience that it pays to trade at a Real Seed Store.

Thousands of Successful Gardeners

pronounce Routledge's "Highest Quality" Seeds and Plants the most dependable true and satisfactory. They order more and MORE each year, and best of all, they recommend us to their friends and neighbors. That's why our business is doubling each year.

YOU can have a prize Garden, beautiful Flowers, perfect Fruit and Vegetables if you only start right by buying Routledge's Highest Quality Stocks—the cost and labor of growing inferior stock is just the same. Remember "ECONOMY IS EXTRAVAGANCE" in seed buying.

Plant
Strawberries Now

Why not raise your own Strawberries? 100 plants will not take up much space and supply a wonderful lot of fruit, especially if you plant "New Giant" Everbearing. "It's a Wonder" catalogue tells all. Rhubarb, New Thornless Blackberries, Loganberries, etc. Fruit and Shade Trees of all kinds.

Rose Bushes To bloom
Don't delay, order now and plant soon as possible. We offer all the popular kinds, 75¢ and up. SPECIAL THIS WEEK: Madame Caroline Testout, pink; Ulrich Brunner, red; and Gruss an Teplitz, scarlet; a few thousand surplus at 50¢ each, \$5.00 per dozen, while they last. Peonies, Iris, Lilies of the Valley, etc. Rhododendrons and Flowering Shrubs of all kinds.

Buy a Garden Cultivator
Saves time and labor, makes gardening a pleasure. No backache or sore knees. Investigate the "Little Midget Seeder" for small gardeners—its cheap and perfect. Let us show you these new tools or read our catalogue.

How Is Your Lawn?
Now is the time to give it attention, rake out the moss and use our Fertilizer to sweeten the soil and kill the moss; then sow some new seed over the thin places and apply a top dressing of "C. M." and "Wonder," our famous odorless lawn and garden fertilizers, and watch the transformation. (See our Fertilizer advertisement elsewhere in this paper.)

New Lawns should be seeded with R.R.'s Evergreen Lawn Grass Seed, a combination of fine-leaved, close-growing grasses that will produce that green, velvety effect so much desired.

"Highest Quality Seeds Only." Price, lb., 45¢ (postage extra).

Plant Sweet Peas Now
No seedhouse in the world offers choicer Sweet Peas than we. Special collections. Our 1921 Prize Collection, 10 new Giant Spencers, each distinct and in a separate packet and correctly named, value \$1.55, special \$1.25. Our Superb Collection, 7 distinct kinds, value 75¢, special 50¢. R. R. Superb Giant Spencers, mixed, oz. 25¢. "How to Grow Prize Sweet Peas" free.

Do You Keep Poultry?
We are the recognized headquarters in the Northwest for Incubators, Brooder Stoves, Hovers, Poultry Foods of all kinds, Remedies and Supplies, Incubators, 85 to 1000-egg capacity; Brooders, 50 to 1500-chick capacity. Large instructive catalogues and books on poultry keeping free.

Baby Chicks, Canary Birds, Cages, Foods and Supplies, Dog and Cat Foods and Remedies, Rabbits, Puppies, Kittens, etc. Special illustrated catalogue of Bird Cages.

Plant Gladioli Every 2 Weeks
Start planting these popular flowering bulbs now and have flowers all season. For new and separate colors, see our catalogue. Gold Medal Mixture, 85¢ Doz., \$5.00 Cr. Choice Mixed, 75¢ Doz., \$4.00 Cr. Popular Mixed, 50¢ Doz., \$3.50 for 100, postpaid.

1921 Catalogue and Guide
This is our 160-page complete catalog that illustrates, describes and gives prices on all our Seeds and Supplies. A reliable, truthful guide for western buyers. Free on request.

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For Short, We Call it "C. M."

Supplies the "Humus" lacking in chemical fertilizers and the analysis shows it to be quite rich in nitrogen, potash and phosphoric acid. It will not burn nor harm the most tender seeds or plants.

This product is made of green cow manure by putting it through a dry-kiln which evaporates the water and kills all weed seed without burning the compost or destroying the fertilizing elements. It is then ground finely and sacked.

Hundreds of our Gardeners and Farmers have discovered its great value and are buying large quantities.

EIGHT TO ONE—You can get a good idea of the value of this concentrated product when we state that it takes 8 to 10 tons in the green or natural state, to make 1 ton ready to use. We are offering, in a most complete dry state, a fertilizer, and compost that heretofore you have

Uses and Directions for "C. M."

FOR ROSE BEDS AND BORDERS
FRUIT AND BERRY BUSHES
GRAIN FIELDS AND MEADOWS

Apply "C. M." broadcast at the rate of 3 sacks per city lot; for large fields, 15 to 20 sacks per acre. It will pay to use a ton per acre.

FOR SEED BEDS

As a top dressing over seed beds, where small flower or vegetable seeds are to be started, nothing else could be better, as it is full of "humus" (like leaf-mold), which keeps the soil moist and open. Flake "C. M." into the top soil, or after seeding sprinkle "C. M." over the surface and moisten it well.

FOR VEGETABLES AND FLOWERS

Use "C. M." on any soil that needs loosening up and enriching. To raise choice vegetables and large beautiful flowers, sprinkle, but sprinkle lightly, "C. M." over the surface and moisten it well.

FOR LIQUID MANURE—Empty half a sack of "C. M." into a 50-gallon barrel and fill with water. Use this liquid straight or diluted fourfold for watering. The increased vigor and growth of plants will almost immediately be noticed.

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FERTILIZER
FEED THE SOIL AND IT WILL PRODUCE
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