

HORTICULTURE

Vegetables for Victory

Large Expenditures for Seed, Tools, Fertilizer Unnecessary, Even Inadvisable, in Present Campaign

By DR. FRANK THONE

See Front Cover

V STANDS for Victory: we all certainly know that by now. V also stands for Vegetables: those short green soldiers, drilled in straight ranks in our gardens, can in their humble, silent way do much toward winning the war through building up our health and morale. A garden gives us health and appetite while we are working in it—and provides the means for satisfying said appetite after it has built it.

So if you have a little piece of land, with soil reasonably fertile, and if you have the patience to go on tending and weeding after the first flush of spring-planting enthusiasm, then by all means plan and plant a Victory Garden. If you have only a little garden, it would be well to keep your planting list short, and put in it the vegetables that pay the highest returns on the space they occupy.

Vitamins and mineral salts are the things that receive most emphasis in present-day garden planning. Outstanding as vitamin vegetables are tomatoes, carrots, snap beans, all kinds of "greens". Worth noting is the fact that in a list compiled by the U. S. Bureau of Home Economics, two rather neglected "greens," collards and kale, outranked familiar and long-favored spinach. Interesting, too, is the fact that while beets

and turnips do not rate very high as vitamin vegetables, their tops are among the best of "greens."

Old favorites, planted in almost every small garden simply because they taste good and provide something fresh after a winter of "boughten stuff," are the standby triad of radishes, onions, lettuce. Lettuce does have considerable vitamin value; the other two just taste good. But include all three by all means.

Before you rush out and buy a lot of seed, measure your ground and see how much you have room for. This is important now, because there is not the superabundance of seed there used to be in prewar years. We formerly imported most of our vegetable seeds from Europe, and we have not yet fully established American seed-growing industries. There is not an actual shortage, but there can be if everybody buys too much and plants too thickly, as home gardeners are apt to do.

So measure your ground, figure how many feet of this and of that you will want, and buy accordingly. Your seed catalog, or the brief printed directions on the seed packets, will tell you. A good rule, unless you have room for a big garden, is to buy the smallest size packet offered in each kind you want to grow. It's easy to get more later if you want them. Several plantings of most vegetables should be made, anyway, to get a

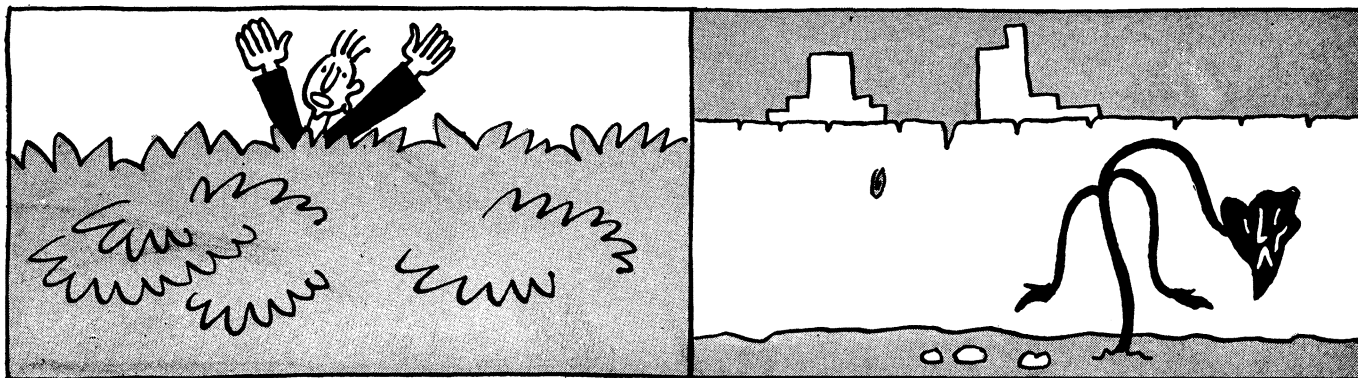
succession of fresh crops coming on through the season.

And whatever you do, save room enough for tomatoes. You can plant several kinds of seed before the danger of frost is past, but you must restrain your tomato enthusiasm until the tender plants can safely stay out all night. By the time you are ready for setting out this most important vegetable you may have harvested and vacated your first radish and lettuce beds, but even this space may not be enough. Even in the smallest garden, you see, foresight and planning are necessary.

Gardening can be carried on very successfully with only a few simple tools. Elaborate equipment is not needed; indeed, in the present emergency, with metals of all kind needed badly for primary war purposes, it is dubious citizenship to buy more than a minimum of garden implements.

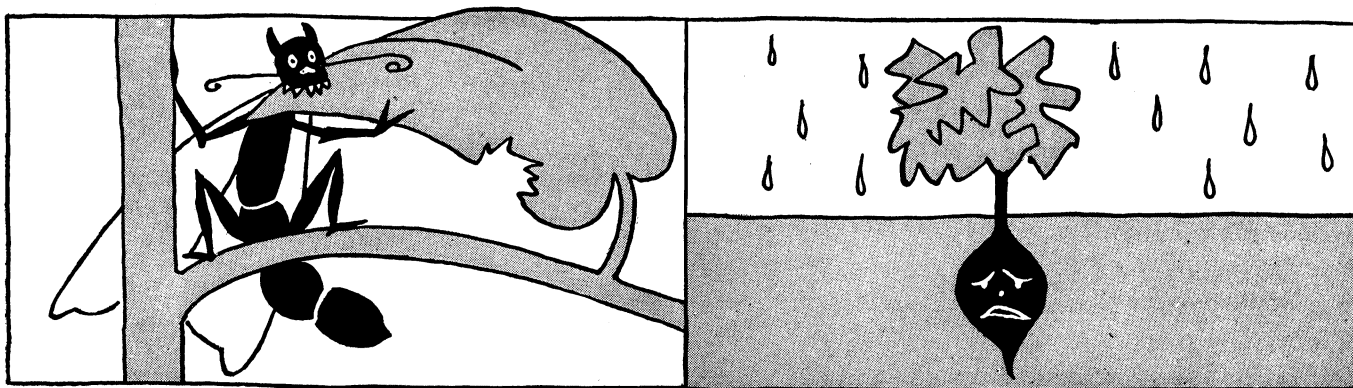
You can get along, in a pinch, with just three tools: a four-tined spading fork, a hoe, and a straight-backed, straight-toothed steel rake. A straight spade comes in handy, but you can get along without it if you must. That goes for a trowel, too; you can make an old butcher-knife do instead. You will also need a pair of sharpened stakes and a long string, to mark your garden rows; this, of course, you can make for yourself.

The whole point is, that it's bad war-time economy to lay out more money in tools and fertilizer than you are likely to get back in carrots and tomatoes.



Don't Use Too Much Seed

Don't Waste Good Seed On Bad Soil



Don't Let the Bugs Beat You To It

But don't let money-saving considerations induce you to buy low-quality tools. That's bad economy, too. Get good tools and take good care of them. Maybe you can make a deal with a neighbor to pool your purchases and take turns using them.

Never leave your fork sticking in the ground, or your rake and hoe lying outdoors overnight, even in dry weather. Dew can encourage rust quite as readily as rain. Clean off all tools every night as soon as you have finished using them, and hang them away in garage or basement. It will not only make them last longer, but will be safer for the family. Children at play often get serious injuries from stepping on the upturned teeth of a rake, or stumbling over the blade of a hoe.

The only other item of expense, aside from seeds and tools, may be fertilizer. Best fertilizer of all is one that was available free for the taking, back in horse-and-buggy days, but is all too often unobtainable now at any price—well-rotted stable manure. Horse or cow, it doesn't matter which, provided you can get it. But it should be well rotted. Manure freshly taken from the stalls has too much raw straw in it, also is apt to contain too many weed seeds.

Next best thing for your garden is a compost heap. You should start one now, so it will be ready by next spring. Just rake up all last year's dead leaves you can get hold of (the moister and mustier the better) and pile them in a back corner of your lot. Throw some earth on them, also a little manure, if you can get it. During the summer, pile all weeds from your garden and the clippings from your lawn on the heap, together with the clean vegetable and fruit parings and trimmings usually thrown into the garbage pail. Every once in a while,

throw a little more earth on the heap.

Soil added to the compost heap has an important biological function: it introduces a complex swarm of fungi, bacteria and small earth-animals that reduce the raw vegetable tissues to the good black humus that makes soil fertile. So the soil you put on should be of the best in your garden, already containing the germs of fertility.

If you cannot get manure now, and have no well-decayed leaf-mold lying about to serve as ready-made compost, you may find it necessary to buy some commercial fertilizer. But again you should calculate your costs, comparing them with what you expect to get out of your garden. Do not make the mistake of trying to make raw clay or dumped-in coal ashes into fertile soil by piling on expensive fertilizer out of a bag. If your soil is hopeless by itself, better not attempt a garden.

No blanket recommendation can be made for the kind of commercial fertilizer. The kind your dealer keeps, for professional gardeners of your own region, is likeliest to be satisfactory for small gardens as well. A 5-10-5 formula is good.

Fertilizer should be applied after the soil is spaded and raked, just before planting. The best way is to lay a strip of the powder on top of the soil, a few inches away from the line where the seeds will go. If you put it right along with the seeds it will "burn" the tender seedlings. If you broadcast it all over the garden, much will be wasted. It is impossible to give a hard-and-fast rule for quantity to use, but roughly about one pound for every 30 feet of garden row should be about right.

Spading up a garden in the spring isn't as simple a job as it looks. There's a very definite trick to it, if you are to do it

Don't Spare the Water

right. Many persons make gardens all their lives without ever turning the soil properly—and most of them never realize the difference between correct and poor spading.

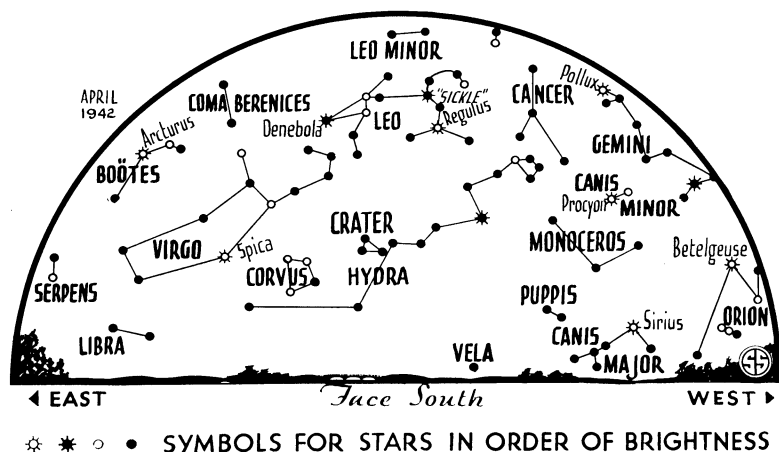
Basic trick in spading is to turn each forkful of soil completely over, so that what was the top is at the bottom, and what was nearest the tine-tips is brought to the top. That is essential, to get the nutrients already in the soil properly distributed, and even more so to get the manure or compost (previously spread in an even layer on top) down where the roots will reach it.

Spading, as done by a vast number of home gardeners, merely stirs the earth about and loosens it, but does not invert it. It is better than nothing, but that is all that can be said for it.

That peculiar twist or toss of the garden fork, that turns the load of earth properly upside down, cannot be described in print. You can get some idea from watching an experienced gardener. But to learn it for yourself you simply have to keep trying until you get it, just as you do to turn flapjacks. Your first few efforts are likely to end in a mess, but after a while you get the hang of it, and from then on it's an unconscious part of your gardening technique.

It does not do to take over-large bites with your fork—that's bad manners in the garden as it is at the table. Besides, too much at a time is apt to bend or break a tine. Four inches or so at a time is a fair load. Drive the fork all the way into the soil with one strong thrust of your foot. Then lift and flip it upside down.

Give each forkful a whack with the back of the fork, to break up the larger clods. Go over the ground with the back of the hoe, to do a (*Turn to page 203*)



6, according to our reckoning. This was the day when Christ ate the Passover feast with the Disciples. The next day, Friday, April 7, was Good Friday, the day of the Crucifixion. The next day was the Hebrew Sabbath, and the day after that, Sunday, April 9, was the first Easter.

In the early days of the Christian church, there was a long and famous controversy, as to the exact date that Easter should be celebrated. The converts from Judaism wished to go on celebrating Passover, which to them had a new meaning. They wanted to observe it immediately after the Full Moon, regardless of the day of the week. But the Gentile Christians wanted to celebrate Easter always on Sunday, since it had been on that day originally.

The Council of Nicaea, in 325 A. D., recognized the latter view, and set the rule for Easter which we still observe. That is, Easter is the first Sunday after the full moon on or after the vernal equinox. In case the full moon falls on a Sunday, it is the following Sunday that is Easter. This was done to prevent Easter and Passover from ever coinciding.

Since Easter varies over a range of 35 days there was, before the war, a movement to stabilize the date on the first Sunday after the second Saturday in April. Of course, this is also connected with the whole problem of calendar reform. Certainly there are many things wrong with our calendar of today, even though we are used to them. Perhaps, in the new and better world that we hope will follow our victory, the calendar may have a long overdue change.

Celestial Time Table for April

Wednesday, April 1, 8:32 a.m., Full moon (this is the Paschal moon, determining Easter). Friday, April 3, 12:00 p.m., Mars

passes Jupiter. Saturday, April 4, 2:00 a.m., Moon nearest, distance 226,700 miles. Wednesday, April 8, 12:43 a.m., Moon in the last quarter. Saturday, April 11, 12:03 p.m., Moon passes Venus. Monday, April 13, 4:00 p.m., Venus farthest west of sun. Wednesday, April 15, 10:33 a.m., New moon. Saturday, April 18, 12:18 a.m., Algol at minimum; 1:04 a.m., Moon passes Saturn. Sunday, April 19, 9:26 p.m., Moon passes Jupiter; 12:00 p.m., Moon farthest, distance 251,900 miles. Monday, April 20, 12:59 p.m., Moon passes Mars; 9:07 p.m., Algol at minimum. Tuesday, April 21, early a.m., Meteors of Lyrid shower, apparently radiating from constellation of Lyra. Thursday, April 23, 2:10 p.m., Moon in first quarter; 5:57 p.m., Algol at minimum. Thursday, April 30, 5:59 p.m., Full moon.

Eastern War Time throughout.

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little more breaking up, if necessary. Finally, work the smaller clods down to a proper granulation with the rake, at the same time smoothing and leveling the surface. The back of the rake, not the teeth, is the right tool for this.

Now you are ready to plant. Set your stakes at either end of your plot, stretch the line between them. If you are using commercial fertilizer, lay some along the line thus marked—a pound for every thirty feet. Work this in by raking lightly. Then move the stakes over a few inches, trace a shallow furrow for the seeds, drop them in and cover them up.

Depth and spacing vary according to the size of the seed and the amount of space the plant takes up when grown. In general, the smaller the seed the shallower the planting. Beans should go two or three inches deep, according to type of soil, beets about an inch, radishes and turnips a half-inch or so, carrots and lettuce only a quarter-inch.

Don't plant too thickly. Most home gardeners tend to do so, anyway. And

in this year of war, when there are seeds enough to go around but none to lavish through over-planting, we should look on our seed-packets almost as cartridge-belts—make every one count.

Planting a garden is undoubtedly the most enjoyable part of the job. But your gardening isn't finished when you have got the seeds in the ground and stand up to straighten out the kinks in your back. ("Half a proper gardener's work," says a perspicacious poet, "is done upon his knees.") A little hoeing, and a great deal of laborious thumb-and-finger weeding, are necessary if you are to reap where you have sown. And if you are not willing to do the weeding, better not start a garden at all: an unweeded garden is largely a waste of labor, fertilizer and seed.

No particular instructions are needed for weeding, except that you keep everlastingly at it. Save all weeds and throw them on the compost heap; thus you will harvest good out of evil.

The one important thing about hoeing is that you do it often, and thoroughly enough to kill all weeds between rows, but not too deeply. Deep hoeing will cut off important feeding roots, for most garden vegetables are shallow-rooted. Frequent light hoeing will maintain a dust mulch on the surface, which will reduce loss of moisture through evaporation during dry spells, and keep the soil in better tilth throughout the season.

Finally, after many days of struggle against weeds and bugs and backache, you will begin to reap your crimson and green and golden rewards. Don't wait too long. Some gardeners, in a quite understandable desire to get the largest possible returns for their expenditure of effort and money, wait until their vegetables have reached maximum size. By that time there is danger of their being over-ripe, hard, tough or stringy. Catch them while they're young, and use them while they're fresh, is the be-all and end-all of the home vegetable harvest.

The illustrations on pages 198 and 199 are from "A Dozen Don'ts for Gardeners" which appear in *Consumers' Guide* (March 1) prepared by the Consumers' Service Section of the U. S. Department of Agriculture.

The interest taken in the home garden by even the youngest in the family is shown in the picture on the front cover of this week's *SCIENCE NEWS LETTER*, which is an official photograph of the Farm Security Administration.

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