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U. S. DEPARTMENT

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BUILDING UP YOUR GARDEN SOIL. partment of Agriculture.

Reserve

Information from garden specialists of the Sy

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If you were to ask any experienced gardener what the first requirement is for U.S. DEPARTMENT OF AGRICULTUME a good garden, ten to one he'd tell you "Good soil." The ideal garden soil is one that's well-drained and well supplied with organic matter...soil that holds moisture and is easy to work.

Now, if you're just starting a new garden, that description probably doesn't fit your plot at all. But don't let that discourage you. With the right kind of treatment, you can build up any reasonably good soil so it will produce fine crops of vegetables.

One of the best ways to build up a garden is to manure it--provided you can get the manure without paying a prohibitive price. Manure does two jobs in the soil: it adds fertility, and it improves structure. You can plow or spade it under, and also use it for a top dressing on the garden. Make sure the manure is well rotted and rather fine, because coarse or strawy manure may interfere with cultivation of the crops...and it won't give as good results as well rotted manure

<u>Poultry</u> and <u>pigeon</u> manures are excellent for the garden, but they're strong, so use them sparingly-- not more than 200 pounds for a garden 30 by 50 feet-and mix them well into the soil, making sure they don't come into direct contact with the seed. <u>Sheep</u> manure is an excellent fertilizer too; but, like poultry and pigeon manure, it's strong and needs to be used carefully.

There's almost no limit to how much menure you can put on the garden, because it's practically impossible to get the land too rich for most crops. Beans, tomatoes, and potatoes are the only ones that seem to suffer from over-rich soil, Animal manures are low on phosphorus, one of the elements necessary for good crops...so if you apply manure, supplement it with superphosphate at the rate of 100 pounds per ton of horse or cow manure, and 100 pounds per one-half ton of sheep or poultry manure.

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If you can't get manure for your garden, use commercial fertilizers instead. On a small garden that's intensively cultivated, you can broadcast the fertilizer and work it into the soil, but it's probably more efficient to apply fertilizer in bands about 2 inches from the rows of seed and a little deeper than the seed. For rows about 2 feet apart, use about one pound of commercial fertilizer to each 25 feet of row...or, to put it another way, for a garden 30 by 50 feet, use about 50 pounds of fertilizer.

Commercial fertilizers enrich the seed bed and also make a good side dressing for the growing vegetables. But remember that they are concentrated, and too much can be worse than too little. Make sure the fertilizers don't dome in contact with seeds or plants.

Another point to keep in mind is that these fertilizers give best results on soil that contains plenty of manure or organic matter...so keep adding organic matter to your garden.

And that brings up the subject of compost. Every garden needs at least one compost pile--many gardeners have two or three--so if you haven't a compost pile, the sooner you start one, the better. Compost, you know, is a mixture of soil and decayed matter. To make it, use alternate layers of soil and such organic material as old leaves, weeds, remains of old crops, and kitchen waste such as the inedible parts of fruit and vegetables. If you have manure, put in an occasional layer of that to help along the decomposition, or add a little commercial fertilizer. Make the compost pile neat and flat-topped, with vertical sides. Keep it moist to help

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decay. Every few months, take a spade and slice downward through the pile from end to end, making a new pile of the slices as you let them fall from the spade. This mixes the compost, and helps it to decompose. After about a year-during which you've turned the compost two or three times--it should be well rotted.

The best use for compost is to improve the physical condition of the soil, and to grow seedlings...cover rows of small seeds...and work into small areas where the soil is especially poor. Compost makes a good top dressing after seeding because it prevents crust formation and helps keep the soil moist. When it's used in this way most gardeners mix it with additional soil because it's so rich.

In addition to using compost, fertilizers, and manure to build up your garden, you may need to lime the soil, if it is "sour!" If the soil's heavy, lime improves the structure. But most garden vegetables thrive best on soils that are slightly acid--in fact, fertile garden soils usually don't need lime--so don't overdo the application of lime. The best thing is to have your soil tested for acidity, and then apply only as much lime as the test indicates. See local garden authorities about getting your soil tested.

Coal ashes from hard coal improve the structure of heavy clay soil, but they don't have any fertilizing value. <u>Wood</u> ashes add potash to the soil--but they're somewhat caustic if they haven't been weathered. You can use up to <u>2 tons</u> of <u>coal</u> ashes on a garden 30 by 50 feet, but never use more than <u>50 pounds</u> of <u>dry un-</u> <u>leached wood</u> ashes on a garden of that size.

If you haven't yet written for your copy of the new bulletin called "Growing Vegetables in Town and City", write now to the U.S. Department of Agriculture, Washington 25, D.C. You'll find detailed information in this bulletin about building up your garden soil so that it will produce a good victory garden for you.

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