

## Winter Preparation of Ground for School Garden



Spring Planting in One of Portland's School Gardens.



The Same Gardens Few Weeks Later

(Special to the Farm Magazine.)

**A**N absolutely necessary thorough and early preparation of the ground for school gardens is strongly emphasized in Oregon Agricultural College Bulletin No. 176, School and Home Gardening for Elementary Schools in Oregon, by M. O. Evans, Jr., supervisor of school and home garden work in Portland for the years 1913 and 1914. In this school bulletin it is declared that all ground which is to be used for garden purposes in 1915 should receive a liberal dressing of manure and be plowed before January 16. An exception of this is made in soils that have been liberally fertilized and cultivated for several years. Very few vacant lots or other grounds available for school gardens have had such treatment as would justify the omission of winter fertilization and plowing. Attention is called to the fact that a few lots of good manure at reasonable prices can be procured in probably every town in the state. The source of this supply should be ascertained at once without any delay at all and the fertilizer hauled on to the field at the earliest possible time.

If the ground to be used is sod it should be plowed or spaded in the Fall, since it takes several months for sod ground properly to settle. In large plots the sod should be well cut up with the disc before it is plowed. A second disking and plowing early in the Spring followed by a third disking and harrowing should put the texture of the soil in good condition for the work of the children. Especial attention is called to the fact

that in the preparation of soil to be worked by children of school age the soil should be put into a better condition of texture than is necessary for soils that are to be worked by adults. "About twice as much work should be expended on it as would ordinarily be done in preparation for the grown person's garden," says Mr. Evans, author of the bulletin. "Even then youngsters will have plenty of exercise getting it in shape to plant."

### Neutralizing Acidity.

Acidity in soils, which is caused by decay of organic matter, is likely to be prevalent in most Western Oregon soils, with the possible exception of parts of Jackson and Josephine Counties. Unless sufficient lime is present to neutralize this acidity it will accumulate and produce a sour condition of soil. Mr. Evans does not hold that it is impossible to produce a good garden on unlimed soil, but that as a general thing much more satisfactory results can be had by applying the lime. In addition to correcting acidity the lime sweetens the soil, liberates plant food and aids materially in keeping down the insect and disease pests which are likely to infest the garden.

The condition of the soil as to acidity may easily be determined with a piece of blue litmus paper, which can be obtained at drug stores. A handful of moist soil may be squeezed about the paper and permitted to remain in contact with it for five or six minutes. If this turns the paper pink the soil is acid and will probably be benefited by an application of lime. Burnt lime should be ap-

plied at the rate of about three-fourths of a ton to the acre. Air-slacked lime or ground limestone should be applied at the rate of about two tons to the acre.

### Wood Ashes Valuable.

Plots used continuously for garden need not be treated with lime oftener than every third or fourth year. Lime or quicklime or hard-slacked lime is more quickly available than ground limestone and may be applied at the time of final harrowing or raking. Ground limestone should be applied somewhat earlier.

Wood ashes are also recommended as valuable on the garden. They should be stored dry and spread upon the soil just before the seeds are planted since many of their valuable constituents are easily leached out. The soft wood ashes, while not so valuable as those from hard wood, contain considerable quantities of plant food and lime. According to the analyses of Professor H. V. Tartar, chemist of the Oregon Station, soft wood ashes, such as are obtained from fuel wood ordinarily used in Oregon, contain approximately 30 per cent lime, 5 per cent potash and 2 per cent phosphorus.

Ashes are especially valuable in lightening heavy clay soils and may be used in any amount up to two tons an acre. If approximately the latter amount is used, the lime treatment may be reduced or entirely dispensed with. Land plaster, gypsum or sulfate of lime has no power to correct acidity. It is regarded rather as a soil stimulant tending to liberate potash in the soil. A small applica-

tion often gives good results for a short time, but the continual use of gypsum will do the land more harm than good.

### Fertilizers.

Applications of commercial fertilizers, if made just before planting or during the growing season, may increase production considerably, but they are expensive and not as a rule needed on ground well manured and plowed in the Fall. Indeed, there is little danger that too much manure will be used if it is plowed before the first of January. Forty tons to the acre is a good liberal dressing, and none too much for ground previously unfertilized. It should not be left lying on top of the ground any longer than is absolutely necessary, since much of the best of it will be washed away by the rains.

In this bulletin, which has been written for the guidance of teachers of school gardening in the public schools of Oregon and recommended to the teachers as their guide in this work by State School Superintendent J. A. Churchill, many other timely features of the important subject of school gardens receive attention. Among these are the influence of gardening on the health and general welfare of the pupils, the methods of supervision, plans and arrangement, planting directions and reports of successful work in the Portland school gardens. Copies of this bulletin are being sent to all the teachers in the state. Others may receive copies by writing to the Oregon Agricultural College for them.

### Alfalfa Is Found Not to Be a Farm Cure-All

**M**ANY farmers have been led through the excitement produced by alfalfa trains, and other promotion methods, to plant alfalfa when they never should have attempted it, according to specialists of the United States Department of Agriculture. These specialists feel that there has been an unnecessary amount of talk about alfalfa and too little actual attempt to demonstrate the limitations that exist with reference to growing that crop.

As a result the Department, while it is helping farmers to cultivate alfalfa and other leguminous plants by preparing bacterial cultures, is also cautioning its demonstration agents to teach the farmer to grow alfalfa where it is desirable to have it taught and where there is promise of success. These demonstration agents are particularly warned not to encourage individual farmers to grow alfalfa unless the climate and other conditions and the soil of the special farm fully warrant the experiment which involves an investment for seed and cultivation, and if the crop is not successful means a waste of the land over a growing season. The question of whether alfalfa will grow is not a simple problem, but involves frequently a complicated group of problems which have to be considered from several different angles and by several different groups of specialists. Mere examination of the soil will not show what is going to happen with alfalfa. The only way to discover whether or not it will grow is to try it inexpensively in an experimental plot, get certain general facts in mind, and then extend the experiment to promising local farms with the help of the farmer himself.

Only recently the Department had requests for 50,000 to 60,000 pounds of alfalfa seed for distribution to some 50,000 or 60,000 farmers. If the Department had acceded to this request, it very easily might have encouraged the farmers in that region to spend additional money for seed when they should not have undertaken the culture of alfalfa at all.

The mere furnishing of seed is only the first step, because its successful cultivation calls for special methods of soil preparation, inoculation, and many other matters not commonly understood by those who have had no experience with this forage and cover crop.

Alfalfa where it can grow properly is undoubtedly of much value to the farmer. In regions where it is already grown the farmer can gain valuable advice by consulting those who are already growing it successfully.

Before becoming a pioneer in alfalfa raising in his district, however, the farmer would do well to consult with his state experiment station and so gain all possible information that will help him to make a success, or else obtain information that will show him fully the danger of attempting to raise alfalfa and make clear to him exactly the risk of money, time and use of land he is taking in attempting the experiment.