**Modern Garden Tools Make Thorough Cultivation a Much More Simple Operation than Formerly**

If fifty-six pounds of lime becomes water-slaked it will weigh seventy-four pounds, and if air-slaked it will weigh more. That is to say, fifty-six pounds of quicklime for agricultural purposes is worth about seventy-four pounds of water—slaked or hydrated lime; one hundred pounds of ground limestone or one hundred pounds of old air-slaked lime, if applied for other purposes than to neutralize or sweeten sour soils.

If quicklime, usually in lumps, has not been ground fine, it is better to water-slake it before trying to apply it. Enough water should be used to convert it to a dry powder and no more, for a sticky water-laden mass cannot be applied. The best time to apply lime is in the fall or early spring, at least some time should elapse between its application and a heavy application of fertilizer.

It is impossible to say how much lime should be applied to a certain area, for much depends upon the condition in which it is found. Market gardeners are very large users of lime, and for a reason. Where lime is used every five or six years, one or two tons per acre should be sufficient on most soils. This practice is to be recommended over very heavy applications once in a lifetime.

The points to be recommended are: Many soils need lime; lime is not a fertilizer; when lime is needed it is used with much profit; fertilizers cannot improve sour soils if said fertilizers are neutral or acid.

# Growing Potatoes for Profitable Results

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Good seed is the first essential in growing a profitable crop of potatoes. The seed for next season should be carefully selected from your own field if you have a good clean crop. Select the smoothest and most uniform tubers from heaviest yielding and healthiest plants in the field. These tubers will give you larger yields than those procured from the store at random. It pays to pay attention to this part of the potato business. In case, however, you have not been able to obtain seed which you know to be free from the potato scab, it is advisable to use preventive measures from the strat. The scab is a disease infecting the tubers of the potato plant, and a single scabby seed potato or even one which is clean but which has been in contact with a scabby one, may ruin a whole crop. The disease may perpetuate itself by remaining in the soil or it may be carried to new ground on a potato bearing the spores of the disease. It is not practical to sterilize or disinfect the soil, but it is practical and possible to do so with the tuber, and if the clean or disinfected seed is planted on new ground the disease may be controlled. To disinfect the seed, immerse them in mercuric bichloride (corrosive subliminate) for two or more hours, using one ounce of mercuric bichloride to eight gallons of water. Another effective method is to use formalin instead of the sublimate, one ounce of formalin to two gallons of water. This treatment of the seed, together with a judicious rotation of crops, is sufficient permanently to control this disease.

In cutting the seed, cut them to one or two eyes, leaving a large piece of tuber for the young sprouts to gain nourishment from until they are able to obtain some from the soil. If cut some time before planting, sprinkle a quantity of air-slaked lime over them.

Land which has been heavily manured the previous year is preferable for the potato crop. Commercial fertilizers have given excellent returns with the potato, but whether or not they can be used to advantage without the addition of some manure, depends on the texture and on the amount of humus contained in the soil. If your land has been previously well manured, so that it is light and friable, fertilizers alone will be best to use. The following is a good formula for potatoes: Two hundred and fifty pounds of nitrate of soda, three hundred and fifty pounds acid phosphate, and two hundred pounds of muriate of potash per acre.

The soil should be well prepared. Have the land in thorough shape before planting. By constant discing and harrowing you pulverize the soil, thus increasing the amount of surface at the disposal of the roots. This means more food for them and hence a larger crop.

In planting, the furrows are best opened with a double mould-board plow and the seed dropped about fourteen inches apart in the furrow. They may be covered with the same implement to a depth of four or five inches, levelling off afterwards with a smoothing harrow. If the ground should harden before the sprouts show, run a weeder over it to break the crust.

As soon as the plants are a few inches high start cultivation, cultivating deep and wide at first, taking care subsequently not to injure the roots.