PLANTING SEEDS.

Any reliable seed house can be depended upon for good seeds; but even so, there is a great risk in seeds. A seed may to all appearances be all right and yet not have within it vitality enough, or power, to produce a hardy plant.

If you save seed from your own plants you are able to choose carefully. Suppose you are saving seed of aster plants. What blossoms shall you decide upon? Now it is not the blossom only which you must consider, but the entire plant. Why? Because a weak, straggly plant may produce one fine blossom. Looking at that one blossom so really beautiful you think of the numberless equally lovely plants you are going to have from the seeds. But just as likely as not the seeds will produce plants like the parent plant.

So in seed selection the entire plant is to be considered. Is it sturdy, strong, well shaped and symmetrical; does it have a goodly number of fine blossoms? These are questions to ask in seed selection.

If you should happen to have the opportunity to visit a seedsman's garden, you will see here and there a blossom with a string tied around it. These are blossoms chosen for seed. If you look at the whole plant with care you will be able to see the points which the gardener held in mind when he did his work of selection.

In seed selection size is another point to hold in mind. Now we know no way of telling anything about the plants from which this special collection of seeds came. So we must give our entire thought to the seeds themselves. It is quite evident that there is some choice; some are much larger than the others; some far plumper, too. By all means choose the largest and fullest seed. The reason is this: When you break open a bean and this is very evident, too, in the peanut you see what appears to be a little plant. So it is. Under just the right conditions for development this 'little chap' grows into the bean plant you know so well.

This little plant must depend for its early growth on the nourishment stored up in the two halves of the bean seed. For this purpose the food is stored. Beans are not full of food and goodness for you and me to eat, but for the little baby bean plant to feed upon. And so if we choose a large seed, we have chosen a greater amount of food for the plantlet. This little plantlet feeds upon this stored food until its roots are prepared to do their work. So if the seed is small and thin, the first food supply insufficient, there is a possibility of losing the little plant.

You may care to know the name of this pantry of food. It is called a cotyledon

if there is but one portion, cotyledons if two. Thus we are aided in the classification of plants. A few plants that bear cones like the pines have several cotyledons. But most plants have either one or two cotyledons.

From large seeds come the strongest plantlets. That is the reason why it is better and safer to choose the large seed. It is the same case exactly as that of weak children.

There is often another trouble in seeds that we buy. The trouble is impurity. Seeds are sometimes mixed with other seeds so like them in appearance that it is impossible to detect the fraud. Pretty poor business, is it not? The seeds may be unclean. Bits of foreign matter in with large seed are very easy to discover. One can merely pick the seed over and make it clean. By clean is meant freedom from foreign matter. But if small seed are unclean, it is very difficult, well nigh impossible, to make them clean.

The third thing to look out for in seed is viability. We know from our testings that seeds which look to the eye to be all right may not develop at all. There are reasons. Seeds may have been picked before they were ripe or mature; they may have been frozen; and they may be too old. Seeds retain their viability or germ developing power, a given number of years and are then useless. There is a viability limit in years which differs for different seeds.

From the test of seeds we find out the germination percentage of seeds. Now if this percentage is low, don't waste time planting such seed unless it be small seed. Immediately you question that statement. Why does the size of the seed make a difference? This is the reason. When small seed is planted it is usually sown in drills. Most amateurs sprinkle the seed in very thickly. So a great quantity of seed is planted. And enough seed germinates and comes up from such close planting. So quantity makes up for quality.

But take the case of large seed, like corn for example. Corn is planted just so far apart and a few seeds in a place. With such a method of planting the matter of per cent, of germination is most important indeed.

Small seeds that germinate at fifty per cent. may be used but this is too low a per cent. for the large seed. Suppose we test beans. The percentage is seventy. If low-vitality seeds were planted, we could not be absolutely certain of the seventy per cent coming up. But if the seeds are lettuce go ahead with the planting.