

On Bailu lands, second crop of paddy is followed by a pulse crop or by a third crop of paddy. Artificial manures are unknown in this village, as in very many other parts. Loose-box manures and burnt earth, excreta of fowls mixed with ash are the only principal manures. Burnt earth is made as follows:—Green branches of trees which are felled for fuel purposes are brought and heaped up here and there in the field. When this is completely dried up in the hot season, a layer of earth of about a foot high is spread over it. Over this layer dried branches are again put to form another layer. Thus a mound about 6 feet high of alternate layer of earth and dried branches is formed. This is then set fire to and the whole mound gradually falls to ashes and burnt earth is obtained in a few days. This important manure is spread over the field in baskets just before the rainy season commences.

B. S. Tolar.

Seed Selection.

The Agricultural Department and others in various parts of the world have demonstrated that, without doubt, very considerable improvement can be made in the quality and yield of many of our staple crops by the adoption of a system of seed selection which could, and should be carried out over a period of years, and in fact, indefinitely, to attain the best possible results.

The following simple system which guarantees an improvement in yield of at least 20 to 50% and laid down by Mr. A. E. V. Richardson may be adopted for cereals or other crops as it involves little labour; but it should be carried out in detail.

Method of Improvement. The method proposed is to apply the same principles to the improvement of cereals as have hitherto been applied to the improvement of stock, choosing the seed only from the best individual plants. An ordinary crop of, say, wheat or paddy consists of a mixture of high yielding plants, average yielding plants, and low yielding plants. When we harvest such a crop the seed obtained is of average yielding capacity, is no better, if as good, as the seed which produced it.

If there were some means of isolating the prolific plants and growing the seed from these plants, we would find that the yielding power of the seed from these plants would be considerably increased, according to the judgment displayed by the operator.

One way of isolating these high yielding plants is to go through a crop just before harvesting and select the best developed and most compact heads from the best developed plants. These heads are threshed, the seed then graded and sown on the plot. Such a plot, because it consists of specially selected seed is called a "Stud plot." A convenient size for such a plot is $\frac{1}{2}$ of an acre. To get sufficient seed for such a plot about 25—30 lbs. of head would be collected. This represents not more than a half-day's work. These heads are threshed, and graded with either sieves or a blower, so that the undersized grains are removed.

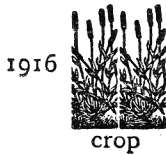
This seed should be sown on a plot of well-manured land in 1917. Before the stud plot of 1917 is harvested, preparations for the second year are made. Another 25—30 lbs. of heads are selected for the second year—the heads this time being taken from the stud plot instead of the general field. The same procedure of threshing and grading the selected heads is carried out, and the stud plot is sown as before on a fifth of an acre in 1918. This stud plot of 1918 has two years' selection behind it—selection of the best from the best.

The produce of the 1917 stud plot is harvested, the seed graded and sown the second year (1918) on as much land as the seed is available will permit. In an average season there should be sufficient graded seed from stud plot to sow at least $2\frac{1}{2}$ —4 acres. This plot we may call a "seed" plot. It is better seed than the main crop of the farm, but it is not quite as prolific as the "stud plot."

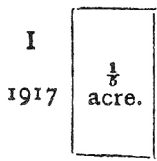
In the second year, therefore, there will be two plots—a stud plot of $\frac{1}{2}$ acre and a seed plot of $2\frac{1}{2}$ —4 acres.

At the 1918 harvest. As before we have to get the seed for the stud plot again selecting the best heads of 1918 stud plot. The seed plot of $2\frac{1}{2}$ —4 acres will be sown from the balance of the 1918 "stud" after the selected heads have been taken.

The seed plot of 1918 will be harvested, and sufficient seed should be obtained to sow about 30 acres in 1919.



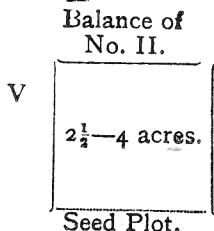
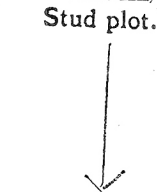
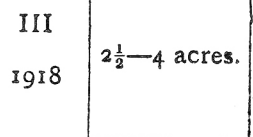
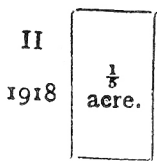
Go through this and select sufficient well formed heads to sow a stud plot in 1917.



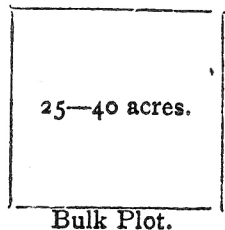
In 1917 each selector will have a stud plot of $\frac{1}{8}$ acre. When the crop is ripe (in Dec. 1917) enough selected earheads are taken to provide the stud plot of 1918. The balance is used for the seed plot of 1918.

The best heads of No. I.

Balance of No. I.



Balance of No. III.
Sown here.



In 1919 the selector will have three plots.