

Fig 140 — Looking across reservoir and four-man foot-power pump, used to lift water to a nursery rice bed, at fields of grain sowed broadcast in narrow beds.

reservoir toward the farmsteads which dot the landscape, and on the left stands one of the pump shelters near the canal bank.

To save time, or lengthen the growing season of the cotton which was to follow, this seed was sown broadcast among the grain on the surface, some ten to fifteen days before the wheat would be harvested. To cover the seed the soil in the furrows between the beds had been spaded loose to a depth of four or five inches, finely pulverized, and then with a spade was evenly scattered over the bed, letting it sift down among the grain, covering the seed. This loose earth, so applied, acts as a mulch to conserve the capillary moisture, permitting the soil to become sufficiently damp to germinate the seed before the wheat is harvested. The next illustration, Fig. 141, is a closer view with our interpreter standing in another field of wheat in which cotton was being sowed April 22nd in the manner described, and yet the stand of grain was very close and shoulder high, making it not an easy task either to sow the seed or to scatter sufficient soil to cover it.

When we had returned from Shantung this piece of grain had been harvested, giving a yield of 95.6 bushels of wheat and 3.5 tons of straw per acre, computed



Fig 141 — Field of wheat with grain four feet, eight inches high, nearing time of harvest, in which cotton is planted.



Fig 142 — View of same field as Fig 141, after the grain had been cut, removed, and the cotton sowed in it was up.

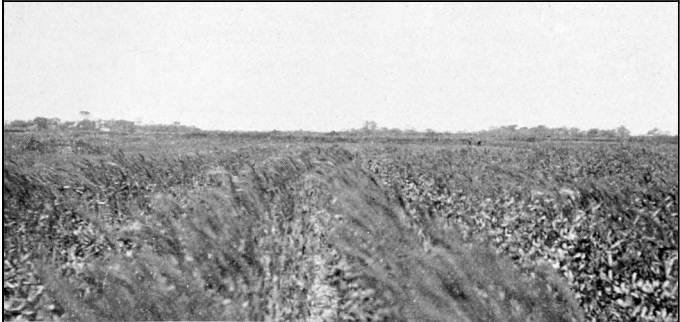


Fig 143— Multiple crops, wheat, windsor beans and cotton. Wheat ready to harvest. Beans two-thirds grown, cotton just planted. Upper view looking between wheat rows, lower, looking between bean rows now covering ground.

thinning.

Starting cotton in the wheat in the manner described is but a special case of a general practice widely in vogue. The growing of multiple crops is the rule throughout these countries

from the statement of the owner that 400 catty of grain and 500 catty of straw had been taken from the beds measuring 4050 square feet. On the morning of May 29th the photograph for Fig. 142 was taken, showing the same area after the wheat had been harvested and the cotton was up, the young plants showing slightly through the short stubble. These beds had already been once treated with liquid fertilizer. A little later the plants would be hoed and thinned to a stand of about one plant per each square foot of surface. There were thirty-seven days between the taking of the two photographs, and certainly thirty days had been added to the cotton crop by this method of planting, over what would have been available if the grain had been first harvested and the field fitted before planting. It will be observed that the cotton follows the wheat without plowing, but the soil was deep, naturally open, and a layer of nearly two inches of loose earth had been placed over the seed at the time of planting. Besides, the ground would be deeply worked with the two or four tined hoe, at the time of