

The mangels were planted at the rate of nine pounds per acre in drills, thirty inches apart. These drills were set up with a double mould board plough, rolled and the seed sown with a hand drill. This rate of planting gave, at the time of the two-leaf stage, a perfect stand. Where fertilizer tests were not carried on, there were sown in the drills, at drilling time, 600 pounds per acre of a mixture of chemical fertilizers, consisting of 350 pounds superphosphate, 150 pounds muriate of potash and 100 pounds nitrate of soda. For the last two years the mangels, when treated this way, have grown faster than the average weeds. When once up and growing nicely they were hoed by hand with a small wheel hoe. They were thus easily and cheaply kept above the weeds, and the horse cultivator did the rest until thinning time. They were thinned about fourteen inches apart and hoed but once thereafter.

Because the field was badly overrun with couch grass, a great deal of preparation was required for the corn land. Many harrowings were given with the drag type of harrow, for too much cutting only defeated our aims. Barnyard manure was ploughed in at the rate of 16 tons per acre. The corn was planted by machine in checks three feet apart each way, for this distance has proven the most advantageous for this district in getting good silage results. The land was harrowed with a drag harrow twice before the corn came up, to keep down the corn spurrey. After the last cultivation with a two-horse two-rowed cultivator (except the finishing off, for which we used the single walking scuffler), it was hand hoed once. In harvesting, the corn was bound and hauled on low-wheeled wagons. The total cost in the silo was \$2.73 per ton.

COMMERCIAL FERTILIZERS.

Several fertilizer experiments were conducted with field plots of mangels during the past season.

In estimating profits, barnyard manure was charged at the rate of \$1 per ton, and all chemical fertilizers at the prices paid. Mangels were valued at \$3 per ton.

NITRATE OF SODA VERSUS NITRATE OF LIME FOR MANGELS.

In a single field test, nitrate of lime did not give quite the amount of crop that the nitrate of soda made. An average of several years' results, where the difference is so little, will be required before any definite pronouncement may be made.

NITRATE OF SODA VERSUS NITRATE OF LIME.

Plot.	Fertilizers.		Yield of mangels per acre.		Cost of fertilizers.	Value of crop per acre less cost of fertilizers.
	Barnyard manure.	Commercial fertilizers.				
			Tons.	Lb.	\$ cts.	\$ cts.
1.	16 tons, applied from stack in spring....	Superphosphate 350 lb.; muriate of potash, 150 lb.; nitrate of soda, 100 lb.	22	395	24 42	42.16
2.	16 tons, applied from stack in spring....	Superphosphate, 350 lb.; muriate of potash, 150 lb.; nitrate of lime, 100 lb.	21	1242	25 55	39.68