

by the application of nitrate of soda or sulphate of ammonia, that plots on which these manures alone have been applied every year have yielded largely increased crops, and the soil as yet shows no sign of exhaustion. In some seasons nitrate of soda has given the best results, and in other sulphate of ammonia—the former doing best in a dry season, and the latter in a wet one. This year the crops of wheat and barley grown from nitrate of soda are far superior to those produced from sulphate of ammonia. Year after year, on plots from which the nitrogenous manure previously applied has been withheld, the yield of corn has been greatly reduced, in spite of the continued application mineral manures, such as superphosphate of lime and sulphates of potash, soda, and magnesia. This season neither wheat nor barley is as good as it has been in many previous years, the light soil at Woburn having been in great need of rain. The barley especially is light. Still, the effects of the various manures are clearly enough to be seen, and the same lessons are taught as in previous years. The nitrogenous manures give striking results, while plots manured with minerals only have little, if any more wheat, and not a great deal more barley on them than the unmanured plots. As usual, the best results of any are attained by the use of very liberal dressings of nitrogenous and mineral manures in combination.

In some experiments intended to test the durability of various clovers, English white has stood best, alsike next, and cow grass third. Dutch white has not stood nearly as well as English. Common red clover has died off in a few years, in spite of any manuring, and Mr. Carruthers concludes that none of the manures yet tried can cure what is known as "clover sickness" in land, and he doubts whether it can be cured by manuring at all.

At the luncheon, Mr. Wells, in thanking the Duke of Bedford for the advantages enjoyed on the Woburn Estate by the Royal Agricultural Society, said that the expense to the Duke was about £1,000 a year. Some of those present visited Woburn Abbey, which, with the park and grounds, is always thrown open on the occasion of the annual excursion.

Ensilage—Growing and Storing.

Yield per acre.—From our weighings this year I am led to think the yield per acre of ensilage corn has usually been overestimated; as also, though to a less degree, the capacity of silos. A ton of ensilage is estimated to occupy fifty cubic feet; and we are told that 30 tons per acre of ensilage is not an unusual crop. With us the green fodder weighed about 30 cwt. to the load, and the same amount of fodder when dried in the stook 30 days weighed only 12 cwt. to 14 cwt. per load. Most of our corn, from causes already mentioned, was considerably dried in shock before it was drawn in. On the average, as we judge from weighing every load that went in, it had dried down to one-half its original green weight. But by estimate, our three silos as now filled should hold 250 tons of green, or slightly wilted, mature ensilage. We put into them, by actual weight, of this half dried ensilage just 189,995 pounds, that is 5 pounds less than 95 tons.

Now, until our corn began to tassel it was all an exceedingly rank, healthy, heavy growth, except the turf ensilage, some 8 acres. The regular hill corn was a "full stand," too, of three or four stalks per hill. While the corn was tasseling and earing, the chinch bugs injured it considerably. And still 24 acres of hill corn and 6 acres of ensilage drill corn went into the "capacious maws" of those three silos! I had supposed half of the area would fill them. It was cut close to the ground, and weighed and cut into the silos ears and

all, and yet 30 acres of it weighed a little less than 95 tons actual weight—a little over three tons per acre of nearly cured corn and fodder. I do not think it would have weighed much over 6 tons per acre green weight, or 8 tons if the chinch bug had not attacked it; possibly 15 tons per acre for the heaviest acre of the ensilage corn in drills, weighed green. If any one has actually weighed on the scales an entire field of ensilage corn, measured the land accurately with chain or tape line, and got a yield of 30 tons per acre. I wish he would report the exact facts in these columns. Weather and bugs permitting, we hope to raise the maximum crop next year on rich, heavily manured land, weigh it all exactly as this year and report facts.

W. J. CHAMBERLAIN.

REMARKABLE BUTTER RECORD!—It seems there are sceptics on both sides of the Atlantic, and the following is how one of them burlesques the extraordinary stories which he reads occasionally in his own American papers:—

The Jersey heifer Maria Jane of St. Sheepert 284.621 A.J.C.C.H.R.S. was dropped January 18th, 1868, and is, therefore, a little over nineteen years old. She is closely related to the Poke Stogis family of Jerseys, her sire having been brought over on the same ship with Poke Stogis 17, while her ancestress on the maternal side is a great-granddaughter of Poke Stogis of Hohenlinden, imported by that great Jersey breeder, Mr. Scooper. The test was from December 6th to 12th inclusive, conducted by the Swampville Jersey Breeders' Association, with every precaution necessary to secure absolute accuracy. The following is the record:—

Date.	No. Milk-ings.	Lb. Milk.	Lbs and ozs. Butter (salted.)
December 6.....	2	124½	5 15½
December 7.....	2	123¾	6 1½
December 8.....	2	121½	5 15½
December 9.....	2	127	6 2½
December 10.....	2	126	6 0
December 11.....	2	125	5 13½
December 12.....	2	119½	4 15½
Total		867½	41 10½

The feed of Maria Jane during this remarkable test was three baskets of pine shavings per day—requisite colour having been given to them by placing green goggles on the cow's eyes—and two buckets of mingled sawdust and cottonseed meal in the proportion of 16 to 1. During two days of the test the thermometer was 37 deg. below zero, and in the remaining days the cow seemed to be labouring under a mild attack of flatulency. Under favourable conditions, I have no doubt Maria Jane will raise her record to 50 lb. Of course, my object in making this remarkable yield known through the columns of your valuable paper is not to advertise the stook in my possession, although I may remark in passing that Maria Jane is due to calve Jane 16th, and if she drops a bull it goes to Mr. Scooper for the sum of 126,840 dols.

Ag. Gazette—Eng.

Liebig's Great Fertilizer.

- (1) Dry peat, twenty bushels.
- (2) unleached ashes, three bushels;
- (3) fine bone dust, three bushels;
- (4) calcined plaster, three bushels;
- (5) nitrate soda, forty pounds;
- (6)