EXPERIMENTS IN 1860.

The following experiments were conducted on the crops of 1860, in order to ascertain which manures raise the greatest weight per acre of mangel, in conjunction with farm-yard dung Field, a light soil; seed drilled on 27-inch ridges first week in May. Dung applied in the ridges at the time of sowing; the artificials sown by hand over the dung to ensure equal distribution. Crop stored in the second week of October.

HEE OF COULDER		Produce.	
No. Manure per Acre.	tons	cwt.	
1-20 cart-loads of good dung	16	4	
220 cart-loads of good dung, 2 cwt.	98	14	
3-20 cart-loads of dung, 5 cwt. blood	20	7.3	
and bone manure, and 4 cwt.		•	
BBID	24	9	
ewt guano	21	15	
520 cart-loads of good dung, 4 cwt.	22	10	
6-20 cart-loads of good dung and 4		10	
cwt. salt	20	4	
720 cart-loads of good and 4 cwt			
Lawes's superphosphate	18	10	
820 Cart-loads of good dung, 4 cwt.			
4 cwt salt	21	10	
	يد س	10	

The advantage of using salt in mangel cultitation is clearly shown by these experiments, the application of 4 cwt. or 5 cwt. per statute are resulting in an addition of from 4 to 7 tons in the weight of the crop. Sir Edward's crops are drilled at 27 inches, but Mr. Peel began with that width, and then got to 30 inches, which he found too small; extending the width, therefore, to 32 and finally to 36 inches, believing the if it is wished to grow roots weighing 16 or 18 lbs. each, they cannot be develoged to that size in rows of much less than three feet spart.

Such were some of the principal points brought out in the discussion, and we cannot woid congratulating the society on the success which has already attended the open weekly meetings. Ample encouragement has been given for persevering in the course recently dopted; for although the peg on which the discussion may hang, as in this case, may not ue iteef of much value, yet it serves to draw out the results of experience from all parts of the vuntry, and that is of importance.

Straw as Food.

BY CUTHBERT W. JOHNSON, ESQ., F.R.S.

It is only in modern days that the value of hav has been fairly estimated. As long as our mestors were content to, feed their live stock in restors were strictly straw yards...or winter them in cold impoverished pastures, straw was valued merely as a means of affording a bare subsistence, during the dreary months of winter, to the half-starved inmates of the homesteads. The dung thus produced was of necessity poor, for the days of oil cake had not arrived: artificial food was then rarely thought of : although everything was sold off the farm, nothing was returned to it; in fact, if nature, had not helped the farmer in a way he never even suspected, his soil would have been in time utterly exhausted. All that the tiller of our soi's then knew was, that when his fields became so impoverished by growing continued crops of the cereals, that these ceased to be remunerative, he had only to leave them for some years to grow a crop of either the self-sown grasses, or those produced by sprinkling the seeds from his hayloft over the land. In this way he used to say that "the land gets rested." He never suspected that, during this resting, as he unmeaningly called it, the soil and the grasses were slowly absorbing from the atmosphere its carbou and its ammonia, and enriching the soil with organic matters, which gradually became sufficient in amount to again support, for a seasen or two, crops of corn.

When, however, root crops were introduced into the field, and oilcake into our homesteads, then began to be properly appreciated the real use of straw, as a nutritive substance. It is true that the best admixture of these is not always carefully ascertained. A capital lecture on this subject, observes Mr. J. C. Morton, in his valu-able edition of "Young Farmers' Calendar," was lately given by Mr. Blundell, of Burseldon, before a Hampshire Farmers' Club. As he truly enough remarked, straw must be more valuable as a feeding material than when used for littering the pens of animals; but to make it so, it must be consumed with roots, oilcake, meal, and other feeding materials. He found that dairy cows in the winter months, if fed on large quantities of roots, particularly mangolds and carrots, refuse to eat straw almost entirely, and become very lean; but they will always eat a full portion of sweet well harvested straw, when they get a moderate allowance of roots-say, for an ordinary-sized cow, 15lbs. of mangold three times a day, the roots being given whole, just in the state they come from the store heap. Again, calves and yearlings, being fed roots in the same way, will eat a large quantity of sraw; and when they have been kept under cover, I have had them in first rate condition for many years past. Also, fatting beasts, when they get a fair allowance of roots, say 65 to 70 lbs per day, with from 3 to 4 lbs. of cake or meal in admixture, will then eat strew with great avidity, and do well and profitably. It is however often the case that bullocks receive 100 lbs. or upwards of roots per day, with a large quantity of cake or meal. often 10 or 12 lbs. each per day. They will then not look at straw, and are obliged to be fed with hay.. The result of this is, that the cost