

Mr. AITCHISON replied that he had not.

Mr. BELLETRY agreed with all the opening speaker had said about thin sowing, was an advocate of thin sowing, when sowing rather late, would put on a little more seed than if sowing early. Something depended on the time of sowing, and also on the variety of wheat sown.

JOHN PRAIT said the first part of Mr. Aitchison's remarks he hardly understood; perhaps he meant fall wheat land. He thought one ploughing for fall wheat might do, but not for spring wheat. He did not approve of cultivating lengthwise the furrows; by doing so the ground would not be in a good state for cutting with a machine; besides, land cultivated better, more equally, across the furrows and ridges; thought that land for spring wheat, that had been in peas or other crops, should be ploughed as soon after harvest as possible, then harrowed well, and ridged up neatly before winter. He did not approve of "cutting and covering" at all; thought it did not expose the land equally enough to the air; that the seeds would not spring and grow equally, some being covered up too deep for growing; would cultivate across the furrows in the spring before sowing. With regard to the quantity of seed, would be guided somewhat by the state of the land; if the land was rather soft, would put on a little more seed—as the horses, while harrowing, then tramped down some seed too deep for growing. Would sow from a bushel and a half to a bushel and three pecks to the acre; had never tried it, but thought drilling would be better than broadcast. The seed would cover better with a drill. His experience had been chiefly with Fife wheat.

ALEXANDER McDONALD said that in the preparation of land for Spring wheat he differed from Mr. Aitchison altogether. He would take green sod, either pasture land or land that a crop of hay had been taken from; would plough it as *lightly* as possible—say not more than three inches deep, let it lie for ten days or so, then roll lengthwise of the furrows; then, if the weeds came up, he would harrow well, as frequently as he could, or as was required to kill the weeds; would ridge up the land well in the fall, and cultivate in the spring across the furrows, and not too deep, as wheat liked a firm surface; would just raise enough of mould to cover the seed nicely; thought the first object in preparing land for wheat was to get it clean, and in good heart, either by manuring or by ploughing down clover, say to plough down the second crop of clover; would not grow wheat after barley in any case; would not sow two grain crops in succession; after peas would plough lightly, as soon as possible after harvest; thought the land was drawing nourishment from the air as soon as it was turned up. Another object was to kill the weeds and the seeds of the weeds; would like to kill at least two crops of weeds in the fall; if he was going to apply manure, would

prefer to do so before the first ploughing; would ridge up the land in the fall, and cultivate in the spring; as he said before, he thought the farmer he got the ground the better the crop of wheat. With regard to the quantity of seed, would consider the state of his land; on land in good heart, would sow from a bushel and a quarter to a bushel and a half; would sow less seed on very rich land and on very poor land than he would on land in medium condition; on rich land wheat stoled out more, and was apt to grow soft in the straw and lie down if thick; and on poor land there was not nourishment for so many plants. On medium soils, club wheat early sown would sow 1½ bushels; of Fife wheat, would sow from 1 to 2 bushels an acre. On our front land he preferred late sowing—not sooner than the 10th of May. Three years ago he sowed some wheat on the 1st of April, and thrashed from that five bushels an acre, the same year sowed the rest of his wheat (on no better land) on the 18th of May, and thrashed from that 24 to 30 bushels an acre. His early sown wheat was almost all taken by the *weevil*.

The PRESIDENT (Peter Sidey) congratulated the members on the interesting discussion that had been elicited. His own opinion on the subject was—that the quantity of seed required depended altogether on the state of the soil and the season. Some years rather thick sowing did best; other years thin sowing. The farmer had just to use his judgment as to the proper quantity of seed for his land. His practice had been to sow two bushels of seed to the acre on all his land. Until within the last few years he could not believe that the better the land the less seed was required, as old farmers, his neighbours had told him; but he had now found it was so. He had found, too, that it did not do well to sow poor land too thick.

Ploughing Match and Double Furrow Ploughs.

A Carlisle (England) paper gives an account of another important trial of Double Furrow Ploughs, which took place at Kirkbythore. The principal English makers, as well as local manufacturers, were represented, and the trial gave much satisfaction to a large concourse of spectators. The following is a statement of the respective draughts of the double furrow ploughs—

Mr. J. Stalker's (2nd prize)	43st 8 10ths
Mr. J. Stalker's	44st
Messrs. Ransome, Sims & Head	44st 2-10ths
Messrs. J. & F. Howard's	45st
Mr. J. Murray's	45st 4-10ths
Messrs. J. & F. Howard's (prize)	46st 2-10ths
Mr. G. Milburn's (Blencairn)	46st 6 10ths
Mr. Corbett's	46st 3-10ths

This seems to indicate that either heavier horses than those in common use among our

farmers, or a team of three, would be required to work these new implements. The correspondent who sends us the account remarks that he was one of a committee who tested the draughts of ploughs at the Provincial Exhibition some years ago at Hamilton, where, out of nineteen ploughs tried, the *heaviest* draught was nearly 100 lbs less than the *lightest* draught of the double ploughs given above.

Agricultural Statistics of Great Britain

In 1869, there were 36,100,153 acres of land under cultivation in the United Kingdom of Great Britain. During 1870, the number was increased to 46,177,370 acres, distributed as follows:—In England, Scotland, and Wales, 30,407,579 acres; Ireland, 15,652,578; and in the Channel Islands, 117,213 acres. There were 11,755,053 acres devoted to corn crops, including beans and peas, of which 9,548,041 were in England, Scotland, and Wales, 2,173,103 in Ireland, and 33,903 in the islands. The amount of land devoted to wheat in England, Scotland, and Wales, was about 200,000 acres less than in 1869, which represented an estimated diminution of 700,000 quarters in the home supply. At the end of the year, the total number of each kind of live stock in the United Kingdom was: Horses, about 2,530,000, of which England, Scotland and Wales possessed about 2,050,000, and Ireland 530,000, cattle, 9,235,000, of which 5,403,000 were in England, Scotland, Wales, and 3,796,000 in Ireland; sheep, 32,786,000, of which the number in England, Scotland and Wales was 28,397,000, and in Ireland 4,333,000; and pigs, 3,650,000, of which England, Scotland and Wales had 2,171,000, and Ireland 1,549,000. During the year there was an increase of 159,000 in the number of cattle.

The *Mark Lane Express*, in its remarks upon the returns of 1870, says:—"The growth of the mangold is gradually but certainly increasing both in England and Ireland, as kohlrabi is also coming more into use, while the cabbage is still but an exceptional crop on the farm, making but little way saving in certain districts, or more properly perhaps with a few individual growers. Beet-root, of which Professor Voelcker has of late become so earnest an advocate, gains but slowly on the public mind, and the whole country last year gave up but four thousand acres or so to its cultivation. If, however, they can manufacture from it as good brandy as that sent out as a sample from Buscot, it would surely pay to do more in this direction. So far real British brandy has but a bad name, but if we can succeed in making sugar we might hope to do something also with spirit. The report states that 'the exact acreage under sugar beet is not known,' although an approximate estimate must be very easily arrived at.