

We remember well, in our early boyhood, seeing the farm-steward, on the 1st September, sowing wheat on a summer-fallow, and on being asked how much seed he was putting on, his reply was: "A sack an acre, Sir H.—"; a sack being, of course, 4 bushels.

We have invariably—in this paper and by word of mouth—advised our farming friends to increase the quantity of seed in proportion to the lateness of the season. We have also advised them to seed poor land more heavily than good land; land far removed from the dung-cart more heavily than land recently manured. All three of these principles received the strongest confirmation in the following extract from an article in the "Agricultural Gazette" of the 8th October, 1900. Of course, in this country, we must read 20th April for the 1st September, and so on, but the proportion of seed to dates holds good:

It is a question of freedom of growth, both above and below ground. We all know that wheat is capable of stooling or tillering out, and that a wheat plant with a foot space all around it will in favourable seasons fill that space with numerous ear-bearing stems. The amount of seed used per acre ought to depend upon the quality of the land. Good land will produce a good crop from a thin plant; but bad land requires to be well covered with seedlings. Some persons, who have not sufficiently considered the subject, think that bad land should be thinly seeded, because it is poor and cannot support a big progeny. On the other hand, they think that good land can support a big crop, and they look upon it in the same manner as they look upon a pasture. If a pasture is rich, it will stand stocking hard; if it is poor, stock must be run thinly over it. They argue similarly upon seeding, and come to the conclusion that thick seeding, like heavy stocking, is suitable for good land. The argument is so misleading, but at the same time so specious, that it is rather difficult to disprove. It is, however, absolutely wrong and palpably ab-

surd. "Bad land is not able to produce "stooling or tillering out of the wheat "plant"; and hence the plants must be set fairly close together. "On very good "land they may be set wide apart, because they will fill up the space by tillering out." Hence a space between young wheat is not undesirable in good land, but will never be bridged over on poor land. The tillering capabilities of wheat on good land are extraordinary, but they scarcely exist on poor land. On good land one seedling may send up fifty ears on as many stems, while on poor land each seedling may only send up one seed stem. Hence it is clear that on poor land the ground must be well seeded.

Another factor which regulates practice is the period at which wheat is sown. "If wheat were sown in August, which it "often has been, it is possible that 4 pecks "per acre might suffice as well as 6 pecks "sown in September; or 10 pecks sown in "October, or 12 pecks sown in Novem- "ber." It is certain that the earlier the period of sowing the less the quantity of seed required. It is also equally certain that a union of circumstances such as good land and early sowing supply the conditions for the smallest quantity of seed per acre. On rich soil, in a sheltered, low situation, and with August sowing, it is quite possible that 6 gallons, that is 3 pecks, of seed per acre might be quite enough. On the other hand, late sowing must be compensated for by heavier sowing.

## 2 The Farm.

ing, and this has been measured by a proposed increase of 1 peck a fortnight. Thus the following quantities of wheat seed has been recommended:

On September	1st,	6 pecks per acre (1½ bushel).
On "	15th,	7 pecks per acre.
On "	29th,	8 "
On October	13th,	9 "
On "	27th,	10 "
On November	10th,	11 "
On "	24th,	12 " (3 bushels).

On high-lying chalk or wold soils it is seldom advisable to sow less than 3 bushels per acre in ordinary circumstances. The attempt to thin seed upon such situations is very likely to result in complete failure.