small grains, if planted in a moist soil deeper than about two and onehalf inches, will, immediately upon showing the surface growth, assert its shallow growing tendencies by throwing out a new set of rootlets about one and one-half or two inches below the surface or immediately below the moisture line. Thus with us it is a mistake to sow too deeply with the idea that such a practice assists in resisting drought. In addition, too, this too deep sowing has other serious disadvantages, such as delayed germination, disposition to smut, tardy maturity and a weakened vitality of the plant generally.

## Quantity of Seed to Sow Per Acre.

All the best thinkers in the dry farming world claim that better results can be secured from moderately thin than from thicker sowing. The usual reasoning of those who support thick sowing as being best in dry countries is that it will produce a heavy thick foliage, which by quickly and thoroughly shading the ground economises and conserves much moisture. But a little inquiry into this popular fallacy will soon dispel it. Recognising that the moisture supply is our limiting factor in erop production, with a given amount in a cubie yard of land it is obvious that, say fifty plants, will exhaust that moisture more quickly than a lesser number would do, as each plant is a miniature suction pump continually drawing upon the soil moisture and evaporating it through its leaves. This process is accelerated by the dry winds which sometimes blow during the hot summer. Given, however, a good reserve of moisture in the land and a reasonable number of plants thereon, the ill effects of such drying winds are not only averted but turned to good account by stimulating rapid maturity. Were the cubie yard of soil in question loaded with one hundred plants instead of fifty it is evident that its moisture would be exhausted in about half the time, and that the supply would be insufficient to meet the heavy demands made upon it during a period of drying winds and excessive evaporation. On the other hand, if the cubic yard of soil has been deeply worked in a district where the soil is peculiarly retentive of moisture and precipitation is unusually generous, too thin sowing would induce excessive stooling and correspondingly delayed maturity, both of which must be avoided in Saskatchewan.

What then should govern us in the amount to sow? If our previous reasoning is correct, that thick sowing is likely to be more susceptible to damage by drought, while too thin sowing runs one into danger by frost, this is a question in the solving of which the tiller of the soil will require to exercise sound judgment, based upon local conditions. As much discretion as would be used in loading a team for a trip to market should be exercised in determining the amount of seed to be sown on an acre of land, for as many factors enter into the question. Just as the weight, condition and temperament of the team, the nature of the load and condition of the wagon, the character of the trail, its present condition, its length, and the weather on the day in question, all enter into the decision as to what load shall be hauled, so the mechanical condition of the field, its probable reserve of moisture, the stage to which the season has advanced, the presence or absence of weeds, and the variety of seed being used are among the factors that must be