

few cases did men report that the subsurface packer was being used immediately after the plough in the case of summerfallows and fall ploughing, though this is the time when it would be supposed that this type of packer would do its work best.

Effect of Packer on Soil Drifting.

One of the problems of the grain growers in quite a number of districts is soil drifting. The better they cultivate their summerfallow the more it blows. This condition (in our soils) is due, of course, to the fact that too much of the original vegetable matter, or root fibre, or humus, as it is variously called, has become decomposed and turned into available plant food by the action of tillage methods and implements. The more thorough the tillage, the less vegetable matter is left, consequently there is no binding agent left in the soil and it readily crumbles down into very small particles.

The action and effect of the surface packer upon soil in this condition has been much discussed, so a question on this point was included in the schedule. An analysis of the replies on this point shows that where drifting is at all general and the correspondent has been able to gather data, the judgment of farmers was overwhelmingly to the effect that surface packing tended to check, if not entirely to prevent, soil drifting. There were a few who thought the packer had no effect in this connection, while a few others thought that the action of the packer was to cause the soil to drift worse than before. Absolute agreement cannot be looked for in a canvass of this nature, so that we are justified from this evidence in assuming that the effect of the surface packer, when used after the drill, is to check if not actually to stop soil drifting. Of course, such a remedy is purely mechanical in its nature, and should in no way interfere with the efforts of the farmer to remove the cause of the drifting, namely, the absence of vegetable matter in the soil in sufficient quantities. Certainly the best, and perhaps the only way to remove the cause of drifting is seeding down to some of the grasses or clovers, thus restoring root fibre to the soil.

The Packer and Even Germination.

In many districts this year uneven germination of the earliest sown grain has been sufficiently extensive as to be quite a factor in the crop situation. On many fields there are likely to be two crops ripening two weeks apart instead of only one ripening evenly. As the field can be cut but once, loss, either in quality or quantity of the total crop is bound to result. Therefore a question was asked as to whether the use of the packer after the drill and its tendency to press the soil firmly around the seed as it lay in the ground, had any noticeable effect upon the evenness of germination.

Here again, the replies received were in substantial agreement to the effect that the action of the packer made a noticeable difference in the evenness of the stand of grain obtained. This was an excellent season for a judgment upon this question to be arrived at, and it must be borne in mind that these replies were received, not from men all of whom own packers, but from the regular correspondents of the depart-