INTERPRETATION OF FIELD OBSERVATIONS ON THE MOISTNESS OF THE SUBSOIL.


INTRODUCTION.

Soil investigators and agronomists do not appear to have recognized at any time the possible practical importance of field observations on the moistness of the subsoil in dry-land regions as a guide to the more intelligent employment of various cultural operations. As the result of some limited field studies in Saskatchewan in 1904 and 1905, one of us suggested that in that province, where the summer fallow is very extensively employed, the ordinary farmer, provided with a 6-foot auger, could form a fair estimate of the moisture conditions of his fields before the spring was sufficiently advanced to allow seeding. He would thus be in position to decide intelligently whether to sow grain upon his stubble fields or to summer fallow them, instead of being governed by the rule of “one year of fallow followed by two years of grain” (1, p. 339). It was suggested that all progressive dry-land farmers would eventually provide themselves with soil augers so that they might keep themselves informed as to the moisture conditions of their fields (2, p. 42). Later studies in western Nebraska and in the Southwest have made it evident that field observations might be of at least equally great practical importance in these dry regions (3, p. 699).

1 The work reported in this paper was carried out in 1907 to 1913 while the authors were members of the staff of the Nebraska Agricultural Experiment Station. Received for publication April 6, 1918.

2 References are to “Literature cited,” p. 278.