TILLAGE: A REVIEW OF THE LITERATURE.1

M. C. SEWELL.

INTRODUCTION.

The largest item of expense in producing cereal and annual forage crops is tillage. The most important tillage operations are plowing and cultivation. Any reduction in the depth of plowing, frequency of plowing, or number of cultivations necessary for economic yields materially reduces the cost of raising the crop. The prevailing opinions are so conflicting regarding plowing and cultivation that a review of the literature seems desirable to determine what conclusions can be drawn from the written evidence on the subject.

EARLY HISTORY OF TILLAGE.

The history of tillage begins with the earliest written records of mankind. Sculpturings on the ancient Egyptian pyramids represent the use of the scythe, a man-power tillage implement of the chopping spade type. Other sculpturings, 4,000 years old, depict a wooden plow drawn by animals.

One writer ascribes the origin of tillage to the wild boar and the observation of ancient races that plants flourished in ground previously rooted by wild boars (38).2 The first tilling of the soil was no doubt practised in order to enable the husbandman to get his seed or plant into the soil. The second step in soil stirring was occasioned by the necessity of combating intruding weeds. The agriculture of

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2 Figures in parentheses refer to "Literature cited," p. 287.