AN EXTENSION PROGRAM FOR THE CONTROL OF SOIL EROSION IN NEBRASKA

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Due to the fact that Nebraska lies in a transition zone with a wide variation from east to west in rainfall, soil areas, and types of farming, the problem of soil washing is present in most of its many forms and intensities.

The problem has been considered from three angles, i.e., the loss of organic matter, the loss of precipitation as runoff, and the formation of value-reducing, machinery-breaking, time-wasting gullies. The exposure of the subsoil by sheet erosion has been considered as a part of the first phase.

THE ORGANIC MATTER PHASE

It is a fairly common remark among Nebraska farmers that plows pull heavier today than they did 30 to 40 years ago when the soil of the state was new. The complaint is that from one to two more horses are needed now on a certain size of plow compared to years ago. Studies by agronomists at the Nebraska Agricultural College show a distinct loss of organic matter in the cultivated soils of the state. We cannot expect to maintain the organic matter in cultivated soils at the height common to virgin soils, but it must be kept above a certain point if crop yields are not to be reduced. It is commonly believed that a reasonable amount of organic matter in the soil is necessary for proper tilth, water absorption, and the production of nitrates. It is the main object of agronomy extension workers in Nebraska to promote cropping systems which will maintain the soil organic matter at a reasonable height. This is believed to be the most fundamental phase of erosion control under Nebraska conditions. This involves legumes and livestock to a very important degree.

SOIL MOISTURE CONDITIONS

It may truly be said that soil moisture is usually the limiting factor in crop production in Nebraska. The same statement will

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