ALL BOTTOMS ARE NOT ALIKE (ARE THEY?)

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We now know more about the soils of the Missouri River bottomlands than Lewis and Clark did. The trees, mosquitos, and tall grasses are gone and well kept farms have replaced them.

The soil surveys of the Missouri River bottomlands in Iowa started in the late forties and the last one was completed in 1975. Soil scientists of the Soil Conservation Service (SCS) and the Iowa Cooperative Soil Survey made these surveys to learn what kinds of soil are in the area, where they are located, and how they can be used.

The “bottom” as it is called by the local people is an area formed and shaped by the Missouri River and covers approximately 605,000 acres.

It is located in extreme western Iowa and has the Missouri-Iowa border on the south, Sioux City on the North, steep loess bluffs on the east, and the Missouri River on the west. It is a long narrow area of nearly level alluvial soils deposited by the Missouri River and its many tributaries. It has been used as a flyway for water fowl in their annual migrations and by Lewis and Clark on their way west. Interstate highways and railroads crisscross the “bottom” from the Missouri state line to Sioux City.

The soil scientists walked over the land with a soil probe checking the kind of soil by color, texture, depth to clay, depth to sand or silt, and amount of lime in the soil. They classified the soils by soil mapping units. Areas of similar landscape and materials are called a soil association. This is the first large soil association in Iowa to be completely covered by a soil survey.

The Missouri River bottomlands are further divided into different soil associations. Near the river the soils are a mixture of calcareous, stratified soils. There are about 270,000 acres in this area and it covers about 44% of the Missouri River bottomlands. In this area sandy soils are more numerous than in the other soil associations. The soils vary from sand (Sarpy) to clay (Albaton), with all variations in between. Some variations are all silt (Haynie),

1Taken from The Profile, the Professional Soil Classifiers of Iowa Newsletter, Number 3, January 1977.