Published soil surveys show that Shelby and Lindley soils comprise about one half of the soils in each of the 10 counties. These soils formed from Kansan glacial drift and have a compact clay loam subsoil. In the sample soil survey, about one half of the Shelby soils were used for cropland, and only about 10 to 15% of the Lindley soils were used for cropland. The Shelby and Lindley soils occur on rather steep slopes, commonly of 10 to 20% gradients. Moreover, the slopes are usually irregular and strongly convex.

"The level and gently sloping soils of the uplands in the Shelby-Grundy-Haig and Shelby-Seymour-Edina soil areas formed from loess and have been classified mainly in the Grundy, Haig, Edina and Seymour series. (In) the Edina soils, wetness is a problem in some seasons because of the inadequate porosity and very slow permeability of its clay subsoil. Haig soils occur on flats and are also wet in some seasons. Seymour and Grundy commonly are gently sloping and are subject to erosion and wetness in seasons of high rainfall because of their silty clay subsoils. Thus, although these soils of the upland are intensively used for intertilled crops, excessive wetness and erosion hazards are sometimes impediments to timely and efficient cultivation.

"Most of the counties have some bottom land, averaging about 10 to 12 percent of the area of each county. Most of the soils of the small creeks and drainageways are used for pasture. The bottom lands along the largest streams and rivers are used intensively for intertilled crops, although yields are quite variable from one season to another. Most of the soils of these bottom lands are subject to wetness in high rainfall, and many are also subject to occasional flooding.

"In the 10-county area a large percentage of the farmland is used for relatively unproductive pasture and woodland. For more than 50 years, only about 1/5th of the farmland has been used for intertilled crops. Crop yields have been low. Improved soil and crop management practices applied to date have not increased the crop yields to the level obtained from more productive soils in many northern counties of the state.

"The low crop yields and the high percentage of the land used for pasture or woodland can be attributed mainly to unfavorable soil resources. The major soil types have fine textured subsoils of inadequate porosity. On the more level land, wetness often interferes with timely cultivation. On sloping land, erosion and in some, wetness, are problems that contribute to low crop yields. Much of the sloping land has irregular and uneven slopes, and modern machine technology cannot be applied very efficiently."

SOILS OF "AMERICAN BOTTOMS"

The Illinoian glaciation which thrust far to the south in eastern Indiana and in western Indiana, did not cover the south central part of the state. On the fringes of this unglaciated region were set up unusual local situations quite different from the glaciated area itself, and different as well from the totally unglaciated portion of the state.

To the thinking of many persons familiar with the area, one of the most unusual of these glacial border phenomena is the "American Bottoms" region of east central Greene County. At this place glacial ice and debris dammed Bridge Creek, a west-flowing stream, at the exact outcrop of the highly jointed Beech Creek Limestone. Unlike other glacially dammed streams, Bridge Creek did