contains a higher percentage of sand and a lower percentage of clay than the Shelbyville till.

A red-brown to rusty-brown leached zone is commonly developed on both ice-laid and water-laid deposits. Texturally, this material is clay-bound pebbly sand or clay-bound sand. Red-brown to rusty-brown staining in sand may be up to 11 ft thick (the deepest seen) but the clay-bound upper portion seldom exceeds 2 or 3 ft. Calcareous till or calcareous sand and gravel is frequently found within 4½ ft of the top of the leached till. Coarse-grained granite pebbles and cobbles are common, and an occasional basic pebble or cobble is present. The pebbles, cobbles, and boulders in the clay-bound zone are usually fresh or but slightly altered.

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Streamflow and Flood-Frequency Studies

The U.S. Geological Survey, in addition to its work of routine stream gaging, is at present conducting special investigations of streamflow under two major classifications. The first is a group of projects that may be classed together as low-flow investigations. The second is a nation-wide flood-frequency study.

About 10 yr ago, Federal agencies engaged in the collection or use of hydrologic data organized the Federal Inter-Agency River Basin Committee. The committee recognized that the most pressing need in hydrologic data was for information on small drainage areas. Since that time, a greatly intensified program of small-stream gaging has been carried on by the Survey. Drainage areas ranging in size down to less than 1 mi^2 are being measured. Small streams are so numerous that procedures are being developed for sampling and for selective measuring of important parts of the range in flow.

Knowledge of the low-flow portion of the streamflow record is highly important for many purposes, including farming, water supply, sewage disposal, and control of industrial waste. During periods of drouth and of the usually recurring low-flow periods, many discharge measurements are made within the affected areas. These measurements are being correlated with the records of long-term index stations where continuous records are obtained, in order to establish relationships allowing the prediction of low-water flow in general.

Knowledge of the high-flow portion of the flow regimen of small streams is needed for design of highway culverts, storm sewers, upstream flood-control works, and other purposes. In many places, peak flood measurements on small streams are being made whenever an outstanding flood occurs. One economical means of obtaining peak-stage records is by means of crest-stage gages, which automatically record the highest stage reached at some particular point on a stream and can be converted to peak-discharge records by means of discharge measurements. Records obtained by these means will supplement data already available on larger streams and will allow the development of flood-frequency curves through a wide range in drainage area.

The rational economic design of many structures such as bridges, levees, dams, or other structures on a floodplain requires a knowledge of the size of floods that may be expected and how often, on an average, floods of some particular magnitude will occur over a long period of time.

Engineers and hydrologists have been working for a long time on the problem of defining flood magnitude and frequency relationships. Peak-flood discharges are influenced by rainfall and by many complex and interrelated physical characteristics of the drainage basins involved. It is obvious that actual records of peak discharge represent an integration of all the factors, so that direct use of discharge records should give by far the best answer to magnitude-frequency relationships.

Techniques have recently been developed by the Survey for determining generalized flood-frequency relationships over wide regions. The method consists of two major parts: (i) the determination of the averages of the highest peaks that may be expected to occur each year at any point (known as the *mean annual flood*); (ii) the determination of dimensionless frequency curves that show the relationship in magnitude of a flood of any recurrence interval to the mean annual flood.

Some flood-frequency studies have been made on a state-wide basis. Reports for some states have already been published; others are being worked on. The ultimate objective is a nation-wide coverage, so that the magnitude of a flood of any frequency may be predicted with reasonable accuracy on any stream in the United States.

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Lysenkoism in Athens

Lysenko and his doctrines of genetics need neither introduction nor explanation. The Western World's geneticists have attacked and almost completely discredited all of his claims. Now we must take from him his last withering laurel sprigs, Original Hypotheses and Bold Guessing.

Already, when the Scythians and other barbarian tribes of proto-Russia were still slumped in savagery, Aristotle, Hippocrates, and Theophrastus to the south were proffering and testing the very ideas now called Lysenko's. The time, 350 B.C.; the place, Athens. We might compare some of those ancient Greek hypotheses with the modern Russian's claims.

Lysenko insists that he can "shatter" the heredity of an organism by placing it in a radically changed environment; thus, he says, he changes wheat from