In the spring of 1958 James Thorp of Earlham College and G. A. Woodruff and F. T. Miller of the Soil Conservation Service joined Charles Enlow's team of agricultural "specialists" sent out by the U. S. International Cooperation Administration to help with the program of agricultural improvement that had been organized by the Government of Kenya. In a period of 18 months the survey team, working under the direction of the Kenya Department of Agriculture, made semi-detailed soil surveys of two areas totaling about 220,000 acres in Nyamza Province, western Kenya. On the second survey they were joined by F. Collier who had just completed his residence work for the N.S. at University College of North Wales. Collier is now carrying on with a third semi-detailed survey in the Rift Valley. Reconnaissance studies were made, also, of three dry areas where irrigation projects have been proposed.

In addition to participating in the semi-detailed surveys, Thorp travelled throughout the Kenya Highlands with E. Bellis, Senior Soil Chemist of Scott Laboratories, and many other agricultural officers, visiting field experimental plots and taking notes on general soil conditions in different areas.

The surveyors found a great variety of soils in this equatorial highland—Gumusols in the subhumid wet-dry areas; many and various kinds of red friable soils, many of which are fairly productive; many soils with laterite horizons, both on ancient peneplain surfaces and on surfaces of geologically recent origin. Some of those soils with laterite had black shrinking-clay surface soils while others had reddish-brown friable clay or clay loam at the plow level. Some laterite-like material has formed on seepy lower slopes where the parent material is volcanic ash probably no more than a few thousand years old. This "laterite" is of the vesicular type, which is only weakly cemented when wet, but hardens with drying; and it contains innumerable bright, fresh crystals of sanidine feldspar, not to mention a few calcium carbonate concretions and even a little soluble salt! Solonetz and Solod soils are very extensive from subhumid to arid regions in Kenya.

The survey party had the great luxury of a small labor force which provided them with about 200 5-foot pits for making soil descriptions and taking samples. Just to be sure to get an idea of the whole picture they followed a standard practice of boring a 5-foot hole in the bottom of each pit, to try to see all of the true soil as nearly as possible.

The party enjoyed the benefit of mass chemical data on a few hundred profiles, provided by the Scott Laboratories, in close cooperation with E. Bellis, Senior Soil Chemist, and his "European" assistants, Dr. Mehlich organized a mass production line for soil analysis, using African assistants for the routine part of the work. Dr. Mehlich's team was able to turn out many thousand individual analyses of soil profiles and composite field samples.

The survey team found their British colleagues to be competent and highly dedicated to their work of trying to teach African farmers better methods of cultivation. The British-organized conservation program has been spectacularly successful.

The surveys made by the I.C.A. - K.D.A. team were on about the same basis as surveys in the United States. As a direct outcome of the findings in one area in Nyamza, an Asian firm is to build a full-scale sugar factory that will provide a cash market for African, Asian and European farmers. The factory is to cost more than two million dollars. The sugar will all be sold in British East Africa which has a sugar deficit.

One advantage of working in Kenya is that one can enjoy ideal climate, magnificent scenery, and opportunities to photograph thousands of big game animals in their natural habitat. Weekends and holidays never need to be dull!

- by James Thorp

WHAT IS SOIL SURVEY?

Soil Survey is an inventory of our soils. The inventory is in the form of maps and reports, many of which are available in public libraries or can be obtained from state Agricultural Colleges and the Soil Conservation Service, U.S. Department of Agriculture.