

obtained from nitrogen and phosphorus.

December 30, 1919. The soils show almost no change from the top down in color or structure. Even the termite hills look uniform throughout. Soil sample 22 was taken from the middle of the anthill photographed as E²-5. No change of color noticeable in the middle of the hill and the texture was relatively uniform. Samples 23, 24, 25, 26 form a profile under rather rich bracken area where soil is darkened by humus. Dark soil is represented by sample 23, below this sample 24 was taken at 12 inches,--red clay. Sample 25 is a more friable red clay at 24 inches, and sample 26 is red clay at 42 inches depth. This is very typical of the soils about here. The dark surface is not always present, for it is only alluvial or low areas which develop this dark surface. Fine quartz comes almost to the surface and pure quartz crystals are more abundant here than anywhere I have been. The soil is poor in phosphorus acid and responds to bone meal.

H²-7. Native girl, showing typical dress worn by natives at Elizabethville. Colors usually dark brown or some appropriate color. Carrying is always done on the head, no matter what the article that is being carried, even a dish with eggs. The dress is composed of a single piece of cloth called americana, usually with a prominent print pattern, thrown about the body just under the arms and reminding one of the sheath gown which was worn in this country some years ago.





H²-8. Manihot glaziovii, S.P.I. 49594, a row of Ceara rubber, used as a street tree in Elizabethville. The tree is now in flower and fruit. This was also collected at Kafue. The seeds were collected at Kafue from trees which were not in leaf. Entirely barren of leaves. It is therefore grown as a deciduous tree. It forms rather dense shade and is an excellent street tree.

H²-9. Is a closer view under a row of rubber trees. Shows the Setaria forming a dense grass cover. Belgian residence at the right in the background.





H²-10. A detail of the vegetation on an anthill. Small ferns and liverworts and begonia.



H²-11. Detail of begonia and fern.



H²-12. A general view from our rooms looking across to the hotel which lies just to the left. It shows native women. The first one is carrying a mortar and pestle. The next one a large pail of water and the one behind also a 5-gallon gasoline can full of water. A damaged photograph shutter made snapshots an impossibility.

One of the chief vines here is a palmate-leaf morning glory, narrow with 5-7 divisions. It has uniform purple or purplish flowers. It covers porches and also grows over ground, where it occurs in great masses. The Grededella is also an important vine found on many fences and often hung with a heavy crop of fruit.

Throughout Elizabethville many native trees have been left standing, and this gives the appearance of a wooded, sparsely settled suburb. Anthills occur everywhere, as it requires days of labor to remove one of these. As a consequence they are usually left or hollowed out to form a cellar for a house. Often used in the parks, as they are usually covered with luxuriant growth of trees, vines and shrubs.

Agriculture here consists of growing crops during wet months or more favored grain crops during the rest of the year. The temperature does not rise high, and now in midsummer ranges from 65-90. It is high for only a short time each day and there is a rapid fall from 1-4 p.m.