

Hickory king, from Orange Free State. S.P.I. 4877-, Holcus sorghum, ordinary Kafir corn from Orange Free State. S.P.I. 48771, Egyptian Kafir corn from Orange Free State. S.P.I. 48778, Pennisetum glaucum, probably grown in Rhodesia or further north.

Left Kimberly at 10 p.m.

Taungs, September 28. Could not see much of the country between Kimberly and Taungs. It seems to be very shallow soil with lime-like material forming subsoil similar to the Kalahari. At Taungs there is only native agriculture; no white farmers. There are plantings at the railway stations and also at the mission. A few temperature readings made at Taungs are as follows:

September 28,	4 p.m.,	90-61° F.
"	29	1:30 pm 90-64° F.
"	30	1:30 " 93-63° F.

These are wet and dry bulb readings.

Taungs is situated in a region of scattered large acacia trees called camel thorn (Acacia giraffae), The trees have yellow flowers and are from 15-30 feet high. The heart wood is very dark-reddish. This tree constitutes the principal source of fire wood for the natives and whites. The grasses do not form a sod, but are somewhat like our desert grassland (not bunches), an open, scattered cover, forming hay after the spring and summer rains and furnish feed throughout the year.

In addition to the camel thorn there is Acacia dentinens, and the low bush Acacia stolonifera. These form the principal wood vegetation.

In very low places the soil is a heavy clay.

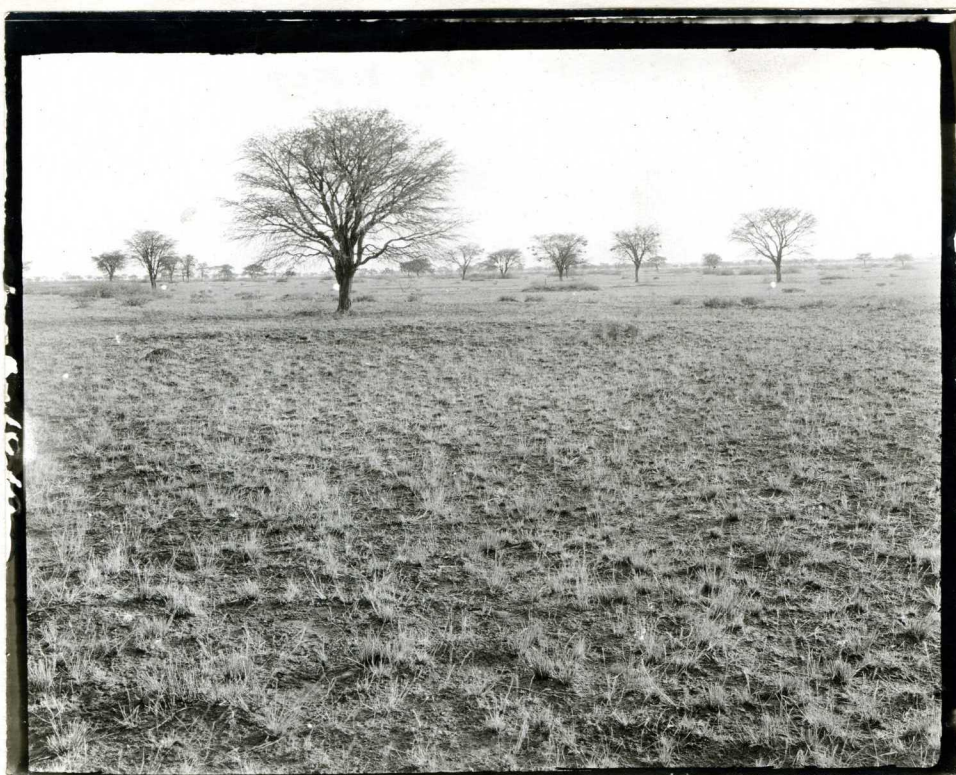


X-11. A view on very dark heavy clay. The cracks in the soil are 2-3 feet deep. On this clay there occur closely grazed mats of grass, a slightly thorned acacia, which seems to be different from Acacia horrida, and a Lycium. The Lycium, which is about the only shrub in this section not covered with thorns is used for fences, gates and doors for the native kraals and huts.

September 29, 1919. Went out early to get photographs of the native vegetation.

X-12. A grass-land showing the open sod, with Kafir plowing in the background. Apparently they do not harrow the ground, for the plow furrows show plainly in the old fields.





Y-1. Shows an acacia desert grass type. The tree is Acacia Giraffae, see Herb. 222, and the lower bushes Acacia stolonifera, - white flowered, very sweet-scented prostrate form, pods large and upright and very thick.

The moving soil here often forms a dune about these shrubs.
The Gutierrezia-like plant is also abundant here.

Y-2. Acacia Giraffae. This tree shows buckthorn (bird) near the ends of the branches. Vegetation as in preceding photograph.





Y-3. A similar photograph, showing a native hut in the background.

We were then taken to the native village by the inspector of native affairs, Mr. Shepherd, and Mr. Oaks, the magistrate, who, after serving us tea on both Sunday and Monday, took us out to the native staat. Here we saw Chief Malala, of the Batlapin tribe of the Bechuanas. He presides over about 1400 square miles of territory. He is not much of a man; was made chief because in the last rebellion against the British he remained on the fence, while the more active and virile chiefs who were conquered were displaced. His people are entirely agricultural. The houses for the most part are made of adobe, a mixture of clay and dung; walls about four inches thick with no wood supports, and about 5-6 feet high. They are reddish in color.



Y-4. Shows native huts with roofs thatched with tamboogu grass, held in place by small branches of lycium and usually a braid of ox hide around the bottom. They are often much thicker and made of sorghum stems. The gates are usually composed of lycium branches, but the kraals are made of acacia.

The town is scattered over a wide area and apparently the grain grown in this section is not stored for any length of time, since I was unable to secure any at this season.



Y-5. A general view over the staat from the acacia-covered hill behind. Shows the thatched houses and the general character of the town.

Here I secured seed of a few of the principal crops grown by these natives. Kafir corn is the principal grain, and is planted on ground plowed after the first spring or summer rain on about the first of November. It is ripe in June or July, when it is cut down with a knife and flailed. The seed is then cleaned in the wind and is used in making porridge, after being ground on a flat stone. The fodder is fed to cattle. No stalks or old plants could be found. Seed of this plant sent in as S.P.I. 48772.

S.P.I. 48795, corn grown by the natives and known only as meles. It would seem from the appearance of this corn that that they are growing a very large variety for a country so subject to drought as is Taungs.

S.P.I. 48793, is a Kafir bean, Vigna sinensis, not carefully

selected and are greatly mixed. They should be grown under conditions such as in the southern great plains or in the south or southwest.

S.P.I. 48765, pumpkin, -Cucurbita maxima. A few seeds secured from Chief Malala.

S.P.I. 48762, watermelon, -Citrullus vulgaris. Seed secured from the same source.

We were received in state by this old chief. By his aids we were ushered into his reception room and here sat down upon an old iron bed with rusty and sagging springs and no cover. He had accumulated in this room a few disreputable pieces such as one might find in a secondhand furniture store. After waiting some time, the chief came in and was greatly excited in telling us his tales of valor and how at different times he had killed lions. A number of moving pictures were taken and I asked the chief for seeds of his principal agricultural crops. He confided in me to the extent that he was suffering badly, had a lame back, had two or three friends also who had lame backs, and if I could get two or three quarts of brandy he could get some seeds for me. It is strictly against the British rule to give the natives liquor, but the resident in charge stated that notwithstanding the rule it was customary for Europeans to give the chief liquor. On our return Mr. Heller brought a quart of whiskey, which was turned over to the chief. He immediately retired and we saw no more of him, and I persisted in demanding the seeds which he had promised. He sent out the seeds reported under the preceding numbers, about five or six seeds of each variety.

These natives are a thoroughly degenerate lot, and are

by no means on a par with the majority of native tribes in Africa. It is said that several of the deposed chiefs still maintain their dignity and command the respect of the natives themselves, although they are not recognized by the British government.

S.P.I. 48753, Acacia caffra, collected from the small trees on the stony ridge, see foreground of Y-5, used only as timber trees and as brush from which to make the kraals.

The land on the ridges is unusually rocky and is picked absolutely clean of vegetation by the goats and sheep which belong to the natives. On the alluvial (possibly aeolian) lower lands the soil is red, deep sandy loam, and a very small percentage of the land under cultivation.

The food of the natives consists of Kafir corn, meles, beans pumpkin, watermelon and meat--goat, sheep, ox and chicken.

Brides are bought with oxen; about one goat to pay tribute to the girl wanted and about 12 oxen to the father of the bride. In every tribe the custom differs. In some the boy and girl live together in the same tent for some time prior to marriage, and are severely punished for any indiscretion.

Chief Malala has three wives.

Intermarriage between the tribes is common.

On the whole they are a degenerate lot, physically small and unattractive and many of them syphilitic. The boys usually wear a small patch of ox hide or fur attached to a loin string, while the girls wear a similar decoration made of strings or hide cut in strips varying from 4-10 inches in length, also beads around the neck and woven wire wristbands. Similar bands are occasionally worn above the calf of the leg. Earrings are common. The chief's

wives each wore^a/springbuck cape.

The women do all the work and are especially proud of their houses, which they build.

September 30, 1919. A terribly windy day, can see but a very short distance. The^{red} dust blows over the open fields and everything is colored by it.



Y-6. A soil profile, the first four feet of uniform red soil over a lime-like subsoil which extends down 10 feet or more. The surface soil is shallower, only 1-1/2 feet thick in places. Soil sample 5 is of the surface four feet, while soil sample 6 is the lime or lighter subsoil.

S.P.I. 48775, Acacia stolonifera, Herb. 223, forms a low bush not over 4 feet high, very white flowers and very fragrant.

September 30, 1919. Taungs to Mafeking. Left Taungs at 3 p.m. in a blinding dust storm. Red sand forms dense clouds and sweeps across the country for miles.

For some distance the character of the country did not change. Then cultivated areas became more extensive. The natives' houses are limited largely to the hills, while the lowlands are cultivated. These fields are now rough and barren, but will be planted to Kafir corn and maize as soon as the rains come. Occasionally the soil was dark in color and apparently alluvial in character.

Dry Harts. Just below this place brush becomes thick and acacias occur more abundantly. This country, although not very good dry farming land, apparently has a good supply of water relatively near the surface. The wells are generally less than 75 feet deep, and it is therefore an excellent country for sheep, goats, cattle and burros, and fairly good crops of maize, Kafir corn, beans, pumpkin and melons are grown. About the depots eucalyptus is planted but is given irrigation.

i-11. Just before Pudimoe. Native juts on hills and plowed land below, on the alluvial bottom. This acacia desert grassland.





i-12. Grassland with a few shrubs and acacias on the hills in background. Where it is rocky the grass is about 12-14 inches high when not grazed, and there are occasionally taller plants 3 feet high. In many places the grass has been burned off. This is regarded by the natives as a benefit to the pasture.

At DeBeers there were large areas just burned. Here is acacia desert grass but no tall trees.

Brussels. Is a cattle station. The lime rock here comes to the surface. Just before reaching this place there was a dense tall grass area (2 feet tall). The grass is coarse and somewhat rushlike. Cattle and sheep are the principal grazing animals of this country, which seems badly overgrazed.