The experiment, as advocated by Mr Burtt, proceeded over a period of approximately 15 years when it was confirmed, in the early 1950s, that Morsitans fly no longer existed in the Abercorn/Mpulungu area. (Since then bush fires each year have swept through the whole unchecked.) Those involved;- Dr Jackson, and A Robertson and W.E.F. Thomson, of Tanganyika Tsetse Dept, stationed Abercorn district). Fire Control: H.E.O'D Mayne 1936-39, H.M. Laskie 1940, N. Venning 1941-44. Fire Control Capitau, Headman Yambayamba (of Isoko) throughout. Experiment handed back from T. Tsetse Control to N.R. Government in 1944 with J.H. Venning in charge till end of experiment.

R.D. Burtt died with Charles Swinnerton in a plane crash while on reconnaissance in the Rukwa Valley in 1958.

TSETSE FLY DANGER IN ABERCORN

Research Officer's Investigation into Position

"DISCRIMINATIVE" CLEARING AND FIREBREAKS

Mr R.D. Burtt, of the Tsetse Fly Research Station in Tanganyika, who has been making investigations on the encroachment of fly in the Abercorn district for the past two months, left by lorry on June 22 for Demera Bay in Nyasaland, travelling via Fort Hill. Mr Burtt visited every part of the district, spending a good deal of time out on Ulendo; he also visited numerous farms, leaving trained natives to continue work while he was out on tour.

Before he left he gave a most interesting lecture on "tsetse fly" at the Abercorn Arms Hotel, in which he put before the residents the entire situation regarding fly advances in the district, and discussed with them all possible methods of eradicating this menace.

Species in Abercorn.

Altogether, he said, some 22 species of tsetse fly were known, of which eight were to be found in Tanganyika, though only three were prevalent in the Abercorn district - Glossina Palpalis, which live and breed on the lake shores and some way up rivers: Glossina Morsitans, a wide-spread variety which live in the Brachystegia and Mwambo Forest country; and Glossina Brevipalpis, which is only to be found in the shade of dense forests and thick musetus.

The life of the tsetse fly was about six months, depending on atmospheric and physical conditions. As its only food was blood it was a hunter and therefore intelligent and with keen sense. The female was viviparous and did not lay eggs like the ordinary fly. After she had gorged herself with blood the egg hatched out inside her, and fed on this blood until, at the end of ten days the grub was born. The grub buried itself an inch under the sand, while the pupa formed during a period of two or three weeks in the dry season and longer in the wet.

Tsetse fly, continued Mr Burtt, were gregarious; they had social instincts and could not live alone.

A Difficult Problem.

A Difficult Problem.

Although sleeping sickness was now well under control, nagana in animals presented a difficult problem and greatly effected development in certain native areas where cattle were the chief source of revenue. Tsetse fly had caused these herds to be driven back into restricted areas, with resultant over-grazing and starvation and a loss of surface soil during the rains.

No Cause for Alarm.

Mr Burtt informed his audience that, after a thorough investigation of the Abercorn district, he had found the situation more satisfactory than he had anticipated. He emphasised, however, that an officer was required to carry on further research, to keep a watchful eye on fly advances at present in progress, and to oversee the maintenance of fire guards, fly barriers, etc. Odd fly, which had been caught in Abercorn, he said, should not cause alarm, as they had obviously all been carried from a distance. Tsetse fly, especially males, were fascinated by moving objects, and when fed, attached themselves to these objects, hoping to find females. Many years ago tsetse fly were prevalent throughout the whole country, but some unknown calamity must have occurred and divided them into belts and caused discontinuous distribution. Advances, thus, were an effort to rejoin into one body.

"Discriminative Clearing".

One method of dealing with this problem was to make clearings, but this was hardly practicable because of the vast expense, and clearings, unless populated, soon reverted into bush. A better method he considered was "discriminative clearing", which meant the cutting out of all bush and vegetation, which might act as a breeding ground for fly. This method had, in parts, had remarkable results.

No really effective method had yet been evolved in dealing with the Morsitans variety, and years of experiment would be necessary, but if fires were avoided the thick bush that resulted would prove a definite barrier. Mr Burtt considered that, if paths were watched, this method would be most satisfactory in the Mpulungu area of the Abercorn district.

During his visit in Abercorn, Mr Burtt said, good natives had, with Mr Glennie's help, been stationed at the barriers, which he himself had advocated, and a large number of fly had been caught - 500 in five weeks, only eleven of which had been found on the actual farms, and seven of these on farm roads.

Since the erection of the barriers, the decreasing number of fly caught on the farms pointed to the fact that they were being carried from a distance, and were not breeding there. Odd fly carried on to the farms in this way probably lived on longer than a period of two weeks, and breeding under these conditions was impossible.

Fires Must be Avoided.

Mr Burtt considered that conditions in the Abercorn district were very favourable, and if fires were avoided and pickets maintained with careful supervision, in a few years the district between the Luanzua and Abercorn should be free of fly. To clear the fly-infested area between the Isoko Valley and the lake, he advocated the organised settlement of natives, so causing change of vegetation and thickening of bush, provided veld fires were avoided.

Very careful watch had to be kept, from year to year, at the head waters of the Lufubu river, from which it was only a matter of two miles to the tributaries of the Chambesi river system; and also at Malombe, only three miles from the escarpment separating it from the Luanzua. These two areas were points of extreme danger. Should the fly reach them, endless labour and expense would be entailed.

Tsetse control, he continued, involved very good organisation and careful watching. If, however, immediate steps were taken to station an expert in those areas, the fly situation in the district should soon be no longer a menace. Lack of interest and delay in action would prove fatal.

Cost of Campaign.

The cost of the suggested fly campaign was found, when discussed, to be very little in the Mpulungu and Isoko areas, though much greater expenditure would be involved at Malombe and Senga Hill.

Answering a question about mechanical infection, Mr Burtt stated that the theory had lately been disproved.

Methods of Control.

Methods of checking fly advances and dealing with the entire situation were discussed. The most effective appeared to be:-

(1) The maintenance of carefully placed barriers;
(2) Extensive fire-breaks, especially in the area between Abercorn and the lake, which would result in thicker vegetation and the natural barriers formed by the Luanzua and Mwambeshi rivers.
(3) "Discriminative" burning in certain small areas.

It was pointed out that one extensive fire would put back the whole campaign for years. Here again Mr Burtt advocated the great need for an officer to oversee the policing of these fires and to take the whole situation in hand without delay.

He added that no alarm should be caused by the few cases of sleeping sickness in natives, recently reported to have broken out at a village in the Abercorn district. under the supervision of Dr Scott the disease was now under control.

COPY OF AN ARTICLE, BY THE ABERCORN CORRESPONDENT, WHICH APPEARED IN THE BULAWAYO CHRONICLE OF [illegible], 1936.