

disease called streak ravaged Uba and most other varieties as well.

THE STATION EXPANDS 1919-1929

On 1st July 1919 Miss Helena M. L. Forbes was employed at the station as botanical assistant in the herbarium and she gradually took over its maintenance and the identification service of plants. She soon became involved in research and in 1920 revised the genus *Cassia* for Natal as well as preparing *The flora of Isipingo* and *The flora of the Malvern district*.

During this period the entomologist in Durban had been seeking an office at the station and subsequently he moved to an old shed just below the herbarium. There was talk of erecting a new office near the entrance for him so that it could be accessible to the public, but in 1921 Van der Merwe moved into the herbarium building instead and occupied the museum room there.

Plant inspection of the imports and exports of live plants and fruit and fumigation of sugar cane cuttings was carried out at the Point by a plant inspector who was supervised by the entomologist. R. H. Harris was inspector until January 1921 when C. C. Kent was employed to replace him.

In June 1920 J. Reyburn was taken on as general lay assistant at the station doing mostly clerical, photographic and maintenance work, while assisting the Mycologist or in the herbarium.

In June 1921 P. A. van der Byl retired from the civil service taking up the appointment of Professor of Phytopathology at the University of Stellenbosch. Dr H. H. Storey became the next mycologist in charge and he was responsible for pioneering work on plant virus diseases in South Africa. His major concerns were mosaic and streak in sugar cane as well as streak disease in maize and rosette in groundnut. To control mosaic in sugar cane, he introduced a campaign for the destruction of old susceptible varieties which were scattered throughout the cane areas. This idea had to be abolished later after Storey discovered that the wild broad-leaved grass *Setaria megaphylla* acted as a reservoir for mosaic, and the aphids feeding on it would continually re-infect the cane. The only solution was to grow sugar cane that was immune or highly resistant to the disease. The monitoring of the spread and control of sugar diseases necessitated the employment of a small staff of disease inspectors. The first of these were Levitt and MacKay and their routine was to travel up and down the Natal coast reporting back to the mycologist on the overall situation. Storey was also responsible for the advisory work on plant diseases in Natal.

In 1923 Miss Forbes started work on the revision of the genus *Psoralea* and an artist, Miss Gower, was employed for a while to paint and help prepare mosaic disease infections for research. During periods when Kent was on leave, Reyburn carried out the plant inspections at the Point, one of the products demanding attention from this time being seed potatoes.

1924 saw the establishment of the Sugar Research Station at Mt Edgecombe, while in June of this year Storey mentions that the rooms occupied by the Natal Entomologist were urgently wanted by officers of the Division of Botany and Plant Pathology to provide room for more technicians to investigate pineapple disease in sugar cane. The entomology buildings were then erected by the Public Works Department in 1925-1926 for £1632 and this third building placed behind the herbarium completed the facilities presently available at the station. As a result of the need for more staff, a scientific assistant post was created for the mycologist and Mr R. F. W. Nichols was employed in January 1925. The post was filled on and off until 1963 when Plant Pathology left the station. Miss A. M. Bottomley from Pretoria assisted Storey for a while. In 1925 the herbarium collection had increased to 17 689 specimens.

In April 1926 the Sugar Research Station opened a new Quarantine Greenhouse which they built at Natal Herbarium. Storey writes in an article published about the new greenhouse, 'The import of plants from foreign countries involves great risk of the introduction of new pests and diseases. Especially is this true when the plants are grown from cuttings and not from seed. Sugar cane is, therefore, a particularly dangerous plant to import without due precautions; and the majority of the serious outbreaks of disease in different cane-growing countries have been caused by the accidental introduction of disease in imported cuttings'. It goes on to say, 'It has recently become plain that the growth of imported cane in quarantine stations located in the open affords insufficient security, since it involves a risk that diseases may become disseminated before their recognition. It was to evade this danger that the construction of a quarantine greenhouse now erected at Natal Herbarium was deemed to be necessary.' The greenhouse was handed over to the custody of the Government Mycologist and considerable research at the Botanic Station resulted in the introduction of many new varieties of cane to the industry. The quarantine greenhouse is still used today but it is administered entirely by Mt. Edgecombe.

To emphasize the importance of the pathological work being done at Durban, another mycologist Dr A. P. D. McClean was transferred from Pretoria to the Botanic Station in mid-1926. He and Storey worked together until February 1928 when the latter left to go to the Amani Research Institute in Tanganyika. McClean then became the next mycologist in charge. Dr Storey (Fig. 5) was considered a very capable and brilliant research worker and he published prolifically. The number of sugar disease inspectors had also been increased with the employment of Sinclair and the seconding of R. H. Halse from citrus canker in late 1927.

The Division of Entomology was joined with Botany and Pathology under I. B. Pole Evans and it was about this time that the entomologist C. P. van der Merwe was transferred to Pretoria, because it was felt that the work in Durban did not warrant the post. Kent remained in the entomology building as plant inspector and assistant entomologist and from