

Mature spots or lesions

ORANGE RUST


The first reports of orange rust in Africa were recently confirmed in Cameroon and the Ivory Coast. Currently, no information is available regarding the effect of the disease on cane yield in these two countries. Orange rust has not as yet been reported in other African countries including South Africa.

ORANGE RUST IS CAUSED BY A FUNGUS (*Puccinia kuehnii*). DURING THE EARLY STAGES OF INFECTION, THE DISEASE IS CHARACTERISED BY SMALL, ELONGATED YELLOW SPOTS WHICH BECOME SURROUNDED BY A PALE GREEN HALO AS THEY INCREASE IN SIZE. MATURE SPOTS OR LESIONS ARE ORANGE TO ORANGE-BROWN IN COLOUR AND TEND TO OCCUR IN CLUSTERS NEAR THE BASE OF THE LEAF. WHILE BROWN RUST (*Puccinia melanocephala*), WHICH IS CURRENTLY WIDESPREAD IN OUR

INDUSTRY, TENDS TO INFECT YOUNG CANE, ORANGE RUST IS REPORTED TO BE MORE COMMON IN CANE OLDER THAN SIX MONTHS.

Orange rust can cause substantial yield losses when severe as the disease reduces stalk mass and stalk number. Orange rust was considered to be of minor importance in the Australian sugar industry until Q124, a previously resistant variety became severely infected in 2000.

Economic losses were estimated to be AU\$200 million. As the spores of the fungus are light and hardy and are spread mainly by the wind, the disease can move considerable distances over a relatively short period of time causing outbreaks which can be difficult to manage. Until recently, orange rust had only been observed in the Asian-Australian-Pacific region but was reported in Florida and a number of countries in Central America in 2007. The disease was observed in Brazil in 2009. In the event of orange rust entering South Africa, it could cause serious losses in our industry, particularly in the north where one variety dominates and the conditions are conducive to its spread. Of the widely-grown South African varieties tested for their susceptibility to orange rust in the United States and Australia, N14, N23, N25, N29, N31, N37, N39 and N41 were reported to have acceptable resistance. N32 developed mild orange rust symptoms in Florida. Varieties N12, N19 and NCo376 have been sent to Australia for testing. SASRI is currently developing an incursion plan to manage this disease.

Growers are advised to contact their Extension Specialist or LPD&VCC Officer for further information. 

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