Indian J. mycol. Res., 24(2), 159-160 (1986)
Printed in India

SOME OBSERVATIONS ON INCIDENCE OF EYE SPOT DISEASE OF SUGARCANE IN WEST BENGAL

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'Eye spot' disease of sugarcane caused by *Helminthosporium sacchari* (van Breda de Hann) Butler was first reported in Murshidabad district during 1978-79 crop season. But, it was recorded as 'leaf spot' (Anon, 1978-79). The monsoon surveys carried out at the Sugarcane Reseach Station, Bethuadahari during the last week of June, 1984 showed the incidence of 'Eye spot' disease of sugarcane in the ratoon crop of BO. 91 (Anon, 1984-85).

Some critical observations which were made regarding the disease symptoms, crop and environmental conditions prevailing the period of its incidence along with the cultural characters of the pathogenic fungus are given below.

The most characteristic symptom of the 'eye spot' disease was at first formation of small water soaked basins, darker than the surrounding tissues, on the leaf. becoming reddish and little elongated, resembling the shape of an 'eye' and turned almost straw coloured in a few days. Finally the central portion of the spot became reddish brown surrounded by straw coloured tissues. Fully matured spots were 7-15 mm in length and 1-2 mm in width. After five to seven days, long reddish-brown streaks or 'runners' developed from the proximal portion of the spot towards the leaf tip along the veins. Thus, in the entire plot, numerous spots and runners were produced on the leaves within a fortnight. With the increase of severity, the spots and runners coalesced together and destroyed the entire leaf blade.

The distribution of the disease was more or less random in the field Severe incidence of the disease (about 80% on clump basis) occured in 6-7 months old ratoon crop B. O. 91, whereas in Co. 1148 ratoon crop in the adjoining plot, there was no incidence. Disease incidence was very negligible (about 2% on clump basis) in B. O. 91 plant crop.

Cloudy weather with the relative atmosphere humidity during that period which was as high as 80-85% coupled with average low nycto-temperatures (25°C) enhanced the incidence of the disease.

The fungus produced only the imperfect state in culture medium. The mycelium was septate. Conidiophores were septate, unbranched olivaceous near the base and lighter in colour towards the tip. These were characteristically bent and had knee-joints at regular intervals, 75-350 x 3-5 μm in size. Conidia were olivaceous to brownish in colour, 3-10 septate, slightly curved with a bulge in the middle and tapering towards end and variable in size, 35-80 x 9-20 μm, the average being 50.5 x 10.0 μm.

Grateful thanks are due to Shri B. Mondal, Director of Agriculture, West Bengal, Dr. D. Mukherji, Addl. Director of Agriculture (Res) West Bengal, Dr. K. Sengupta, Jt. Director of Agriculture (Res), West Bengal and Shri S. K. Laha, Assistant Sugarcane Specialist, West Bengal for their keen interest in the study.

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