

SHORT SCIENTIFIC NOTES

Sechium edule—A New Host of *Glomerella cingulata*

Green fruits of *Sechium edule* locally known as *Chou-chou* or *seeme-badane* is a common vegetable. In January 1972, at Regional Research Station, Mudigere, rotting of green fruits of *Chou-chou* was observed on several vines. Initial symptoms appear as minute, brown water soaked, sunken spots which latter turn to dark brown in colour. Often several spots coalesce together to form a large patch, at times, covering an entire side of the fruit. The affected tissue becomes soft as the rotting sets in. In advanced condition, profuse mycelial growth is seen which turns black when fruiting bodies develop. Isolations from the affected regions yielded a *Colletotrichum* sp. which proved pathogenic when inoculated artificially. The pathogen has been identified as *Glomerella cingulata* (IMI 166177).

The fungus has been reported on several plant species from India, but, there is no record of this fungus on *Sechium edule* and hence this is a new host record.

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A New Virulence of Stem Rust of Wheat Attackin Choti Lerma

A stem rust sample on wheat (HD 4513) received from Wellington (Nilgiris) on analysis yielded race 34. However, a susceptible type pustule was observed on Sharbati Sonora which otherwise is resistant to type race 34. Susceptible type pustule from Sharbati Sonora was isolated and further raised on Agra local wheat for race analytical studies. The test isolate on analysis yielded race 40 as judged by its infection types produced on international differentials¹ of stem rust. The test isolate, however, was found to differ from type race 40 in its infection types produced on auxillary differentials, viz., Charter, Yalta and E 535 being resistant to type race 40 and susceptible to the test isolate.

Each of the single spore cultures, originating from susceptible type pustule on charter, was separately analysed. It was observed that each

single spore culture produced the infection types similar to type race 40 on the international differentials but differed from the type race in infection types produced on the auxillary differentials as stated above.

The test isolate and the type race 40 were further compared on 10 wheat cultivars, viz., UP 215, UP 319, WG 357, NI 5439, HD 4502, HS 1138-6-4, Kalyansona, Moti, Sharbati Sonora and Sonalika. It was observed that all the wheat cultivars mentioned above were susceptible to test isolate and resistant to type race 40. Thus it is evident that the test isolate is more virulent than the type race 40.

In order to assess the real impact of the test isolate of race 40, wheat cultivars such as HD 2009, Choti Lerma, WL 208 and Zoafrane known to be resistant to all the virulences of stem rust and certain promising cultivars such as HB 117-107 and Safed Lerma were also tested. All these cultivars were found to be susceptible.

A special mention should be made of Choti Lerma, a variety being most promising and resistant to all virulences of stem rust occurring in India till recently, was recommended for cultivation in Nilgiri and Palni hills in order to cut down the stem rust inoculum at the source. Now Choti Lerma being susceptible to test isolate (race 40-A) would require the revision of this recommendation. Attempts should now be made to incorporate resistance against race 40-A in Choti Lerma by back crossing it with resistant donor against race 40-A.

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1. Stakman, E. C. and Levine, M. N., "The determination of biologic forms of *Puccinia graminis* on *Liticum* spp.," *Minnesota Agric. Expt. Station Technical Bulletin*, No. 8, 1922.

Tetraneura radiculicola Strand (Homoptera: Aphididae) A New Pest of Rice Seedlings

During the month of January, 1974, a few dry nursery beds of paddy were raised at the Regional Research Station of the University of Agricultural Sciences at Mandya. The seedlings in patches appeared stunted and exhibited leaf yellowing