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PHYSIOLOGIC RACES OF Colletotrichum lindemuthianum  
IN SOUTHEASTERN BRAZIL

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Leaves, stems or pods infected with anthracnose were collected in several bean fields in the southeastern part of Minas Gerais state and also in Rio de Janeiro and Espirito Santo states. Single-spore isolates of that material were inoculated in six differential varieties resulting in the identification of ten races, which belong to six race groups (Table 1). Races of the Alpha group were the most commonly found. The variety 'Cornell 49-242' was resistant to all ten races. Details of this work may be found in Plant Disease Reporter 57:870-872, 1973, and Experimentiae 19:95-118, 1975.

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THE NEW JOTA RACE OF Colletotrichum lindemuthianum

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In an experiment with the new kappa ('Ebnet') race of Colletotrichum lindemuthianum several kappa resistant cultivars became infected. In this experiment also other races, like gamma, delta and lambda had been used, partly in a mixture with kappa. From infected kappa resistant seedlings an isolate was obtained which was able to cause serious infection in seedling tests with Kaboon, Coco à la crème, Coco rose, Bo 22 and Evlutie, resistant to the delta and kappa race of the fungus. Moreover Cornell 49-242 was susceptible to this new isolate. In screening tests with monospore cultures similar results were obtained. Obviously a new race of the fungus had broken down the resistance of the 'Are' gene, originating from Cornell 49-242, and the resistance of some cultivars to delta and kappa.

In agreement with Bannerot and Fouilloux (Versailles, France) the new race was named 'jota'. As far as is known, such a race never occurred under natural conditions. In order to avoid escape of the jota race to the field, screening procedures are executed exclusively during the winter season when no beans are grown.

There is still sufficient resistance available to the jota race. The small, black seeded Mexican bean PI 165.422 and the small, light tan Colombian bean PI 207.262 exhibited a high degree of resistance to jota and kappa both.

Additional information on resistance to the jota race will be published elsewhere. Information about the kappa race was given in the annual report of BIC 1976, p.49-50.