

AKAROPELTOPSIS: THE CAUSE OF SOOTY BLOTCH OF AVOCADOS

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OPSOMMING

*Die oorsaak van Roetvlek op avokados is in die vorige uitgawe van hierdie verslag voorlopig toegeskryf aan *Stomiopeltis citri* Bitanc. Ala verdere ondersoek is gevind dat die oorsaak nie *Stomiopeltis citri* is nie, maar 'n *Akaropeltopsis* sp wat 'n lid is van die *Micropeltidaceae* en gekarakteriseer word deur 16-sporige asci. Die morfologie van *Akaropeltopsis* sp kom tot 'n groot mate ooreen met *Stomiopeltis citri*.*

SUMMARY

*In the previous issue of this report the cause of Sooty Blotch on avocados was tentatively given as *Stomiopeltis citri* Bitanc. Further investigations revealed that the causal organism is not *Stomiopeltis citri* but an *Akaropeltopsis* sp, a member of the *Micropeltidaceae*, characterised by 16-spored asci. Morphologically there is a considerable degree of similarity between *Akaropeltopsis* sp and *Stomiopeltis citri*.*

INTRODUCTION

The mycelium of the Sooty Blotch organism on avocados is superficial and causes no direct damage to the plant, but spoils the appearance of the fruit and decreases the market value. The symptoms are Smokey coloured blotches on the branches stems and leaf veins. The disease seems to be confined to South Africa since no other reports of it occurring on avocados in other parts of the world could be found in the literature.

The confusion about the identity of the causal organisms has been partly cleared since the number of asci have now definitely been determined as sixteen.

The causal fungus

In the previous issue of this report Kotzé and Theron (1979) ascribed the cause of Sooty Blotch on avocados to *Stomiopeltis citri* Bitanc, Specimens were sent to CMI Kew for identification and information. In their reply, they noted that the morphology agrees with that of *Stomiopeltis citri*.

The organism was studied further and the following characteristics were noted: ascostromata are scutate, ostiolate, flat at the base, appressed to the cuticle, round in outline, dark brown with a wall composed of meandrically interwoven hyphae giving a

pseudoparenchymous appearance, glabrous 220—300 μm in diameter x 35—45 μm high. Asci are bitunicate abclavate, sessile, with apices directed to the osteole and contain 16 ascospores per ascus, 40—68 μm x 10—15 μm . Ascospores are hyaline, 2 celled, smooth, abclavate, 14—16 μm x 4—5 μm . Paraphyses are filiform, single, hyaline, 1 — 1,5 μm in diameter.

This description corresponds with that of *Akaropeltopsis* Batista and Peres as described by Batista, Bezerra and Castrillon, et al, 1966. Van Arx and Muller (1975) mentioned that *Akaropeltopsis* may belong to *Stomiopeltis* but has 16-spored asci. They placed *Stomiopeltis* and *Akaropeltopsis* in the Micropeltidae. Batista et al (1966) described *A. machaerifolii* on leaves of a *Machaerium* sp in Brazil. The species on avocado and on *Machaerium* were not compared and therefore a species name cannot be allocated to the South African *Akaropeltopsis*. Attempts are being made to obtain the type specimens from Brazil in order to compare the two fungi.

The fungus was grown on PDA agar. After 4 months the colonies produced ascostromata containing 16-spored asci similar in appearance to those occurring in the field. The asexual stage was not yet observed.

LITERATURE CITED

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