

## Morphology and Taxonomy of *Sesamum Alternaria*

Morphological characters of fungi have been considered as primary criteria in distinguishing the species. Spores isolated from the infected leaves of *Sesamum* exhibited great variation in their morphology. Single spore culture was obtained from the *Sesamum* infected leaf spot on 20 per cent potato dextrose agar medium. In vitro mycelium grew very rapidly and sporulation started after 4 to 5th day of inoculation and the observations mentioned as below:

### Mycelium :

Light, brown, slender, radiating branched and filamentous, septate.

### Conidiophores :

Simple, erect, more or less flexous, yellowish brown, 0-3 septate, arising singly measuring 30-50 X 4.4-6.5  $\mu$  and each bearing conidia singly at the apex.

### Conidia :

Conidia are obclavate, yellowish brown to dark brown in colour, 4-12 transverse septa and 0-6 longitudinal septa, at which they are singly constricted and terminated in a long hyaline beak 30-195 X 2-4  $\mu$ .

The colour of the colonies was either grey or olive green when grown on PDA medium and the colour changed grey to black with the increase of age of the culture. The observations on the spore body, beak and its size made by earlier investigations are given together with the spore measurements observed by the author in the table below:

With the above characteristics in view, the pathogenic organism under study was identified as *Alternaria Sesami* (Kaw.) Mohanty and Behera. Neergaard (1945) Suggested that the genus be divided in to three sections on the basis of morphological characters. Studies during present investigation showed the following characters:-

(i) Conidia formed singly (ii) The spores have long beak. (iii) Spore colour yellowish to dark brown. (iv) Presence of polymorphous spores, comes under section C: Non catenatae.

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TABLE 1. Comparative statement regarding spore size given by various authors

Authores Name	Pathogen	Body		Beak	
		Length	Width	Length	Width
Kawamura (1931)	<i>Macrosporium Sesami</i>	30-111	9-33	20-210	—
Kawamura (1931)	<i>Alternaria Sesamicola</i>	26-80	7-14	—	—
Mohanty & Behera (1958)	<i>Alternaria Sesami</i>	30-120	9-30	24-210	2-3
Leppik & sowell (1964)	<i>Alternaria Sesami</i>	30-100	10-28	25-160	2-4
Rajpurohit (1976)	<i>Alternaria Sesami</i>	30-120	15-30	30-195	2-4