**Table 1** *Aflatoxin contamination in medicinal seeds and aflatoxin-producing potential of A. flavus isolates*

| Medicinal seed | No. of *A. flavus* isolates screened | No. of toxigenic isolates of *A. flavus* | Aflatoxin production | | Range of aflatoxin conc. (μg/g) | | Natural contamination, Afl. – $B_1$ conc.* (μg/g) |
|---|---|---|---|---|---|---|---|
| | | | $B_1$ | $B_1$ and $B_2$ | $B_1$ | $B_2$ | |
| *Argyreia speciosa* | 35 | 15 | 9 | 6 | 0.09–2.81 | 0.05–0.30 | 0.36 |
| *Embelia ribes* | 30 | 14 | 10 | 4 | 0.08–2.66 | 0.05–0.55 | 0.11 |

*Mean level of aflatoxin $B_1$ detected from six and four contaminant samples of *A. speciosa* and *E. ribes* seeds.

*A. speciosa* and four of *E. ribes* were contaminated. Aflatoxins $B_2$, $G_1$ and $G_2$ were not detected as natural contaminants in any sample.

The present study shows that plant samples should be properly checked for the presence of aflatoxin before being used for the preparation of drugs. Otherwise naturally occurring contamination may cause toxic effects.

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## LEAF ROT OF OIL PALM

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DURING a survey on diseases of oil palm (*Elaeis guineensis* Jacq.) in Kerala the authors observed 'leaf rot' symptoms on oil palms at Chithara Estate and also at the Regional Agricultural Research Station, Kumarakom, in December 1987.

The symptoms first appear as small brown spots with yellowish halos on leaflets of the inner whorl. These spots soon coalesce into brown necrotic areas which spread over the whole leaf lamina and later become grey and brittle. The dried-up portions gradually fall off in the wind, resulting in the destruction of the whole leaf lamina. The severity of attack is generally apparent on the tender leaves (figure 1). The disease does not kill the palm outright, but it progresses slowly and steadily until finally the tree succumbs to the disease. The disease

**Figure 1.** Oil palm leaves showing leaf rot symptoms.

has been observed on oil palms of all ages but generally flourishes on palms below 10 years of age.

The pathogen was isolated on potato dextrose agar medium and the pathogenicity was confirmed on oil palm by artificially inoculating healthy plants with a 15-day-old culture of the fungus. The pathogen established infection within 3–5 days when inoculated with or without puncturing. The fungus was identified as *Colletotrichum gloeosporioides* Penz.

Leaf rot disease is a new record from India on oil palm.

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## TWO NEW LEAF SPOT DISEASES FROM INDIA CAUSED BY *ALTERNARIA*

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TWO new leaf spot diseases caused by *Alternaria cassiae* Jurair & Khan and *A. pruni* McAlpine, associated with *Bauhinia purpurea* and *Prunus amygdalis* respectively, have been reported for the first time from India. The collections have been deposited in the herbarium of the Botany Department, Punjabi University, Patiala, and in the herbarium of CMI, Kew, England.

1. Leaf spot disease of *Bauhinia purpurea* Linn. caused by *A. cassiae* Jurair & Khan, Fresen, *Pak. J. Sci. Ind. Res.*, 1960, 3, 71 (figure 1a, b).

Symptoms were observed on the leaves. The infection is in the form of blackish brown spots, distinct and well-demarcated from the healthy tissue, prominent on both sides of the leaf. The infected portions turn brown.

Conidiophores 32–160 × 4–5.4 μm, thick-walled, brown, linear, cylindrical, unbranched, stout, transversely 1–7-septate, septa conspicuous, coming out of host tissue singly or in groups. Conidia 16–100 × 13–21 μm, dark brown, multicellular, muriform, conspicuous, septate with 3–8 transverse, 1–5 longitudinal and 1–6 oblique septa, slightly constricted at transverse septa, oval, cylindrical to obclavate, base obtuse, tapering towards the apex with dilated tip, formed in short chains.

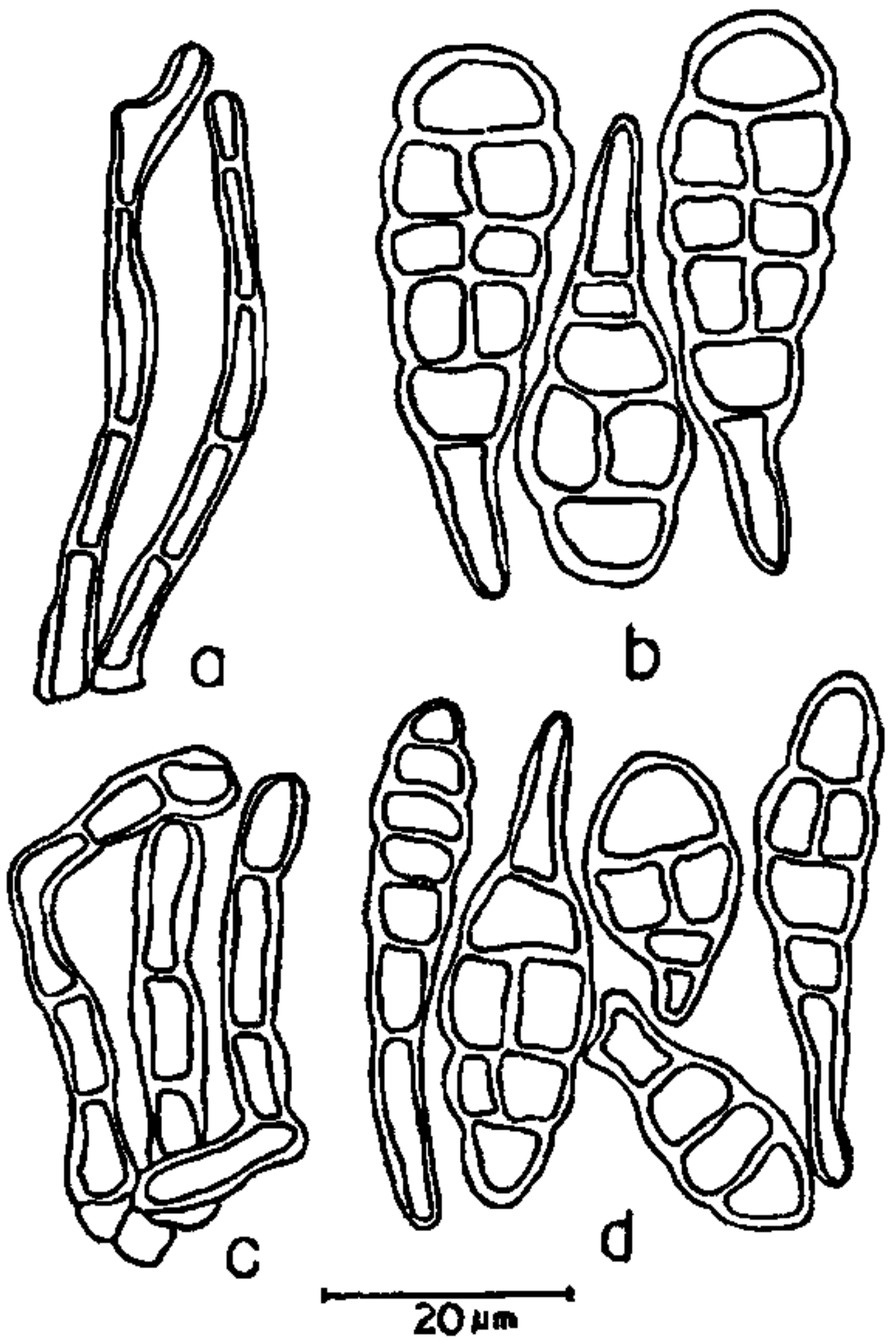


**Figure 1.** *Alternaria cassiae* Jurair & Khan: **a.** Conidiophores, **b.** Conidia; *Alternaria pruni* McAlpine: **c.** Conidiophores, **d.** Conidia.

Collection examined: Punjab; Patiala (250 m), Punjabi University, *Bauhinia purpurea* Linn. (Caesalpiniaceae), Jaswinder Kaur, PUN 715 and IMI 321818, Nov. 3, 1985.

*A. cassiae* is reported for the first time on *B. purpurea*. No species of *Alternaria* has so far been reported on this host[1–3].

2. Leaf spot disease of *Prunus amygdalis* Batsch caused by *A. pruni* McAlpine, *Fungus diseases of stone fruit trees*, Melbourne, 1902, p. 102, (figure 1c, d).

Leaf spots 3–6 mm in diameter, circular, dark brown, without concentric rings, scattered but more towards the margin.

Conidiophores 49–84 × 4–8 μm, light brown, come out of stomata singly or in groups, usually with one conidial scar. Conidia 24–55 × 8–14 μm, light brown, elongated with one-celled beak, obclavate, with 3–6 transverse and 1–2 longitudinal septa, conidial scar absent.

Collection examined: Punjab; Patiala (250 m), Baradari Gardens, *Prunus amygdalis* Batsch (Rosaceae), Mohd. Ramzan, PUN 172 and IMI 321820, Oct. 14, 1979.