Table 1 *Pattern of sporulation of different isolates of Helminthosporium turcicum of maize (on the leaf extracts of different cultivars)*

Medium containing extracts of	Number of spores ($\times 10^4$ spores/ml) of *H. turcicum* isolates					
	Hyd.-2	Hyd.-1	Mandya	Sikkim	Sorghum	Mean
Ade C	5.75	7.15	3.83	0.48	14.96	6.634[a]
PTR	0.74	2.26	4.98	0.24	17.58	5.16[a]
CM 600	49.8	39.5	72.5	1.24	105.58	53.74[b]
Warangal local	59.83	63.0	13.42	7.66	206.16	70.01[c]
CM 202	16.33	45.25	10.66	1.75	237.5	62.298[d]
Mean	26.49[a]	31.432[b]	21.078[c]	2.274[d]	116.65[e]	

S.E. medium 0.9027
S.E. isolates 0.7004
S.E. Medium × isolates 1.5661
C.D. medium at 1% = 3.02
C.D. isolates at 1% = 1.89
C.D. Interaction at 5% = 3.165

The sporulation was the highest in the isolate from sorghum which is in the border line of virulence and it was least in the isolate from Sikkim which was found to be the most aggressive among the isolates tested. The interaction of cultivars and isolate also confirmed the above mentioned trend[2].

The results suggest that the sporultion of *H. turcicum* in maize leaf extract can be used as a good supplementary tool to screen germplasm collection of maize for their reaction to the leaf blight pathogen.

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TWO NEW *FUSARIUM* DISEASES IN KARBI ANGLONG, ASSAM, INDIA

A. K. ROY
Regional Agricultural Research Station, Assam Agricultural University, Diphu 782460, India.

THIS note describes the occurrence of two plant diseases caused by *Fusarium* spp. (hitherto unrecorded in India[1]) from Diphu, Karbi Anglong. Blossom blight of tube rose (*Polianthes tuberosa* L.) caused by *F. equiseti* (Corda) Sacc. and yellowing of water melon (*Citrullus lanatus* (Thunb.) Mansf. (= *C. vulgaris* Schrad.) caused by *F. solani* (Mart.) Sacc. are fairly common. The former disease has not been reported anywhere in the world[2]. Cultures of the fungi have been deposited in the Commonwealth Mycological Institute, Kew (No. IMI 281891 and IMI 269675 respectively).

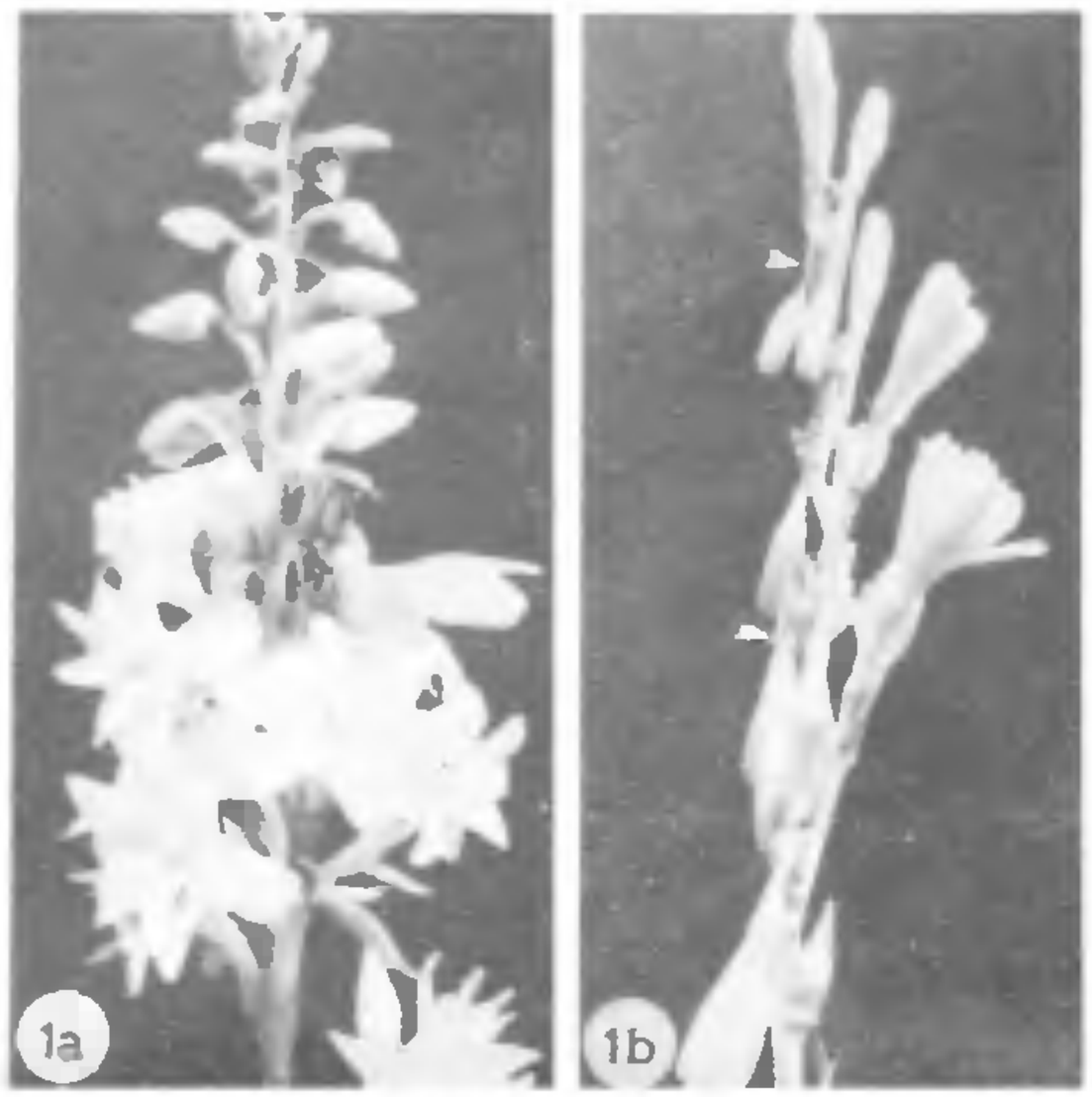
Blossom blight of tube rose

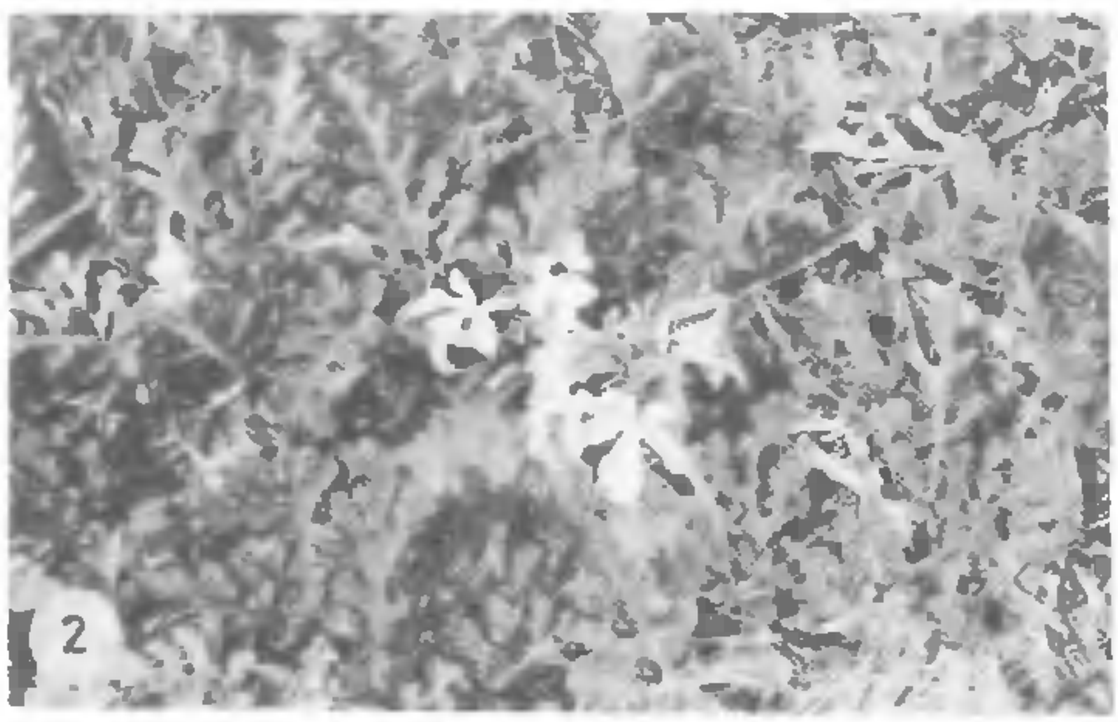
The disease usually appears from October to December. Symptom develops as light brownish (Gray Orange Group 165B of the Royal Horticultural Society Colour Chart) lesions on petals; soon these darken (165A) and the tissues dry up blighting the blossom (figure 1a) which ultimately drops off. Infection may also start on stalk of the flower when the stalk becomes very thin and cannot support the flower upright—the flower eventually hangs downward (figure 1b). Sometimes in extremely humid weather, a small group of flowers at the tip of the inflorescence become brown *en masse* on which fructification of the fungus develops as light pinkish growth discernible with naked eye.

Colony on PDA fluffy, white with pinkish tinge (turning to Gray Orange Group 164D), stroma darker (164A); slight pigmentation in medium. Both conidial and mycelial chlamydospores were found. Inoculation of healthy flowers by spraying spore or mycelial or spore-mycelial suspension produced symptom after two days (inoculated flowers covered with polythene bag).

Yellowing of water melon

The disease was first noticed from April to June 1980 on two exotic cvs. of water melon—'Sugar Baby' and 'Golden Midget'—and since then is being ob-





Figures 1 & 2. **1.** Blossom blight of tube rose. **1a.** two blighted flowers in the middle of the inflorescence. **1b.** infection on the stalks of flowers (darts indicate the thin and collapsed stalks). **2.** Yellowing disease of water melon (a central plant is infected).

served every year during the same time. Symptom first develops as yellowing of the lower leaves of young plants which (yellowing) then proceeds upwards involving all the leaves. The stem may also lose its natural green colour and become yellowish. The yellowed plant remains conspicuously upright among the healthy green plants (figure 2). If fruits are formed, these remain stunted and shrivelled. The plant with the immature fruits die. Culture on PDA floccose, greyish with orange tinge, medium becomes pigmented bluish brown.

In a pathogenicity test, potted plants of 'Sugar Baby', 2 per pot, raised in sterilized soil were inoculated on 27 May 1983 with one-month old fungus culture grown on 2% maize-meal and sand medium. In another treatment, plants were also inoculated with juveniles of the root-knot nematode *Meloidogyne incognita* (Kofoid and White) Chitwood, one week prior to fungus inoculation. Yellowing symptom developed on 50% of the plants inoculated with the fungus and nematode after one-and-half month whereas only one plant out of 8 inoculated with the fungus alone was infected. This indicates that the fungus is a weak pathogen and the root-knot nematodes help its colonization in the host.

F. solani is known to cause rot of different cucurbit fruits[3,4] including water melon in Australia[5] and Nigeria[6]. Fruit rot of bottle gourd is caused by *F. concolor* Rg. in this part of India[7]. In Maldavia region of USSR, *F. solani* also causes wilt of melon[8], but the disease reported here although may exhibit wilt at a later stage, the most pronounced symptom is yellowing of leaves (without simultaneous wilting) and therefore, the disease is named 'yellowing'.

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