

short hyphal branches which develop into a mycelium (Fig. 5).

Specimens have been deposited at the Indian Agricultural Research Institute, New Delhi, and at the Commonwealth Mycological Institute, Kew, England.

The origin of the disease is under investigation.

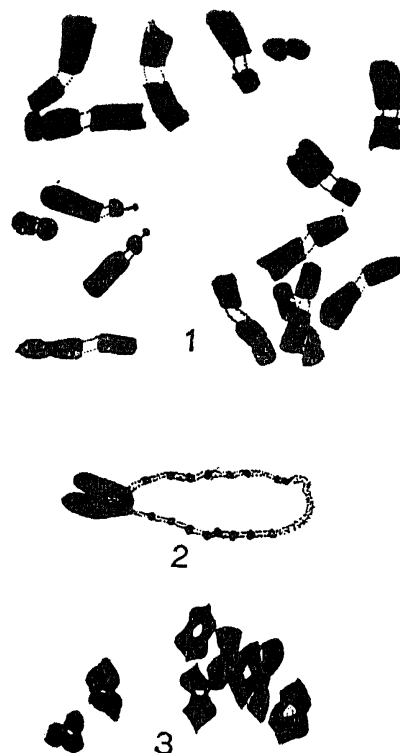
The author is grateful to Dr. Ainsworth of the Commonwealth Mycological Institute, Kew, for confirming the above finding.

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Department and from this population five plants out of six examined, revealed the presence of B-chromosomes in the pollen mother cells. Externally there are no differences between the plants with B-chromosomes and plants without them.

At mitotic metaphase these accessory chromosomes have a length of about half of the shortest pair of the complement and usually lie at the periphery of the metaphase plate (Fig. 1).



FIGS. 1-3

Fig. 1. Mitotic Metaphase showing 2 B-chromosomes, peripherally situated.

Fig. 2. Paired B-chromosomes at Pachytene.

Fig. 3. Metaphase I, 3 B-chromosomes are associated to form a trivalent. All figures,  $\times 1,250$ .

In the pollen mother cells three accessory chromosomes were noted in all the plants and these form associations giving rise to trivalents (Fig. 3). At pachytene these B-chromosomes are characterised by the presence of heterochromatic accumulation at one end and the centromere is sub-terminal. Following the heterochromatic region in the long arm, are present eight chromomeres distributed along the whole length of the arm (Fig. 2). The accessories at pachytene stage are about half of the shortest chromosome of the complement which happens to be nucleolar one. There was no pairing between the B-chromosomes and A-chromosomes of the complement.

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### ACCESSORY CHROMOSOMES IN *Pennisetum typhoides*

So far as known to the writer there was no previous record of occurrence of accessory chromosomes in the genus *Pennisetum*. Recently the writer obtained seed of *Pennisetum typhoides* under the name "Dochan" from Sudan, for cytological study. In twenty-five root-tips examined cytologically accessory chromosomes varying in number from 1-3 in addition to the normal complement of  $2n=14$  were noted in twenty-four root-tips. Plants were raised from the seed in the experimental farm of the Botany