TABLE I

*Dimensions of* Pseudocercosporella ochracea *and* P. gyrocarpi

| | *P. ochracea* | *P. gyrocarpi* |
|---|---|---|
| Stroma | 8·5–36·0 $\mu$ poorly developed and septate | 51–68 $\mu$ well developed and aseptate |
| Conidiophores | 12–62 × 3·5–10·0 Small, septate, clavate, thick walled and 1–4 forked at the apex | $\mu$ 34–68 × 7·5 $\mu$ long, rarely septate, cylindrical and not forked |
| Conidia | 40–140 × 3·0–8·5 $\mu$ 1–14 septate, cylindrical, slightly constricted at septa and yellowish brown | 75–195 × 5·5–10·5 $\mu$ 1–11 septate, obclavate, not constricted at septa, hyaline |

singularia, sicca, acropleurogena, simplicia, recta vel parum arcuata, luteobrunnea, cylindrica vel crasse fusiformia, ad apicem obtusa, truncata ad basim, 4–14–septata, parum ad septa constricta, basim versus manifesta crasse tunicata, juniora cum conidiophoro ad isthmo angusto connexa 40–140 × 3–8·5 $\mu$.

In foliis vivis *Mitragynae parvifoliae* (Roxb.) Korth. leg. S. Singh, 499 typum, in herb. IMI sub numero 200111 conservatum.

Colonies circular, scattered, hypophyllous, dark yellow, 4–12 mm in dia., often effuse; mycelium of hyphae partly superficial, partly immersed, septae, subhyaline, smooth, up to 3·0 $\mu$ in dia.; stroma poorly developed, composed of few cells, yellowish brown, 8·5–36·0 $\mu$ wide; conidiophores arising singly through the stomata, rarely in fascicles, septate, simple unbranched, stout, thick walled, cylindrical to clavate, with paler apex, 12·5–62 × 3·5–10·0 $\mu$; conidiogenous cells integrated, terminal, polyblastic, rarely monoblastic, determinate, cylindrical to clavate, more or less cicatrized, terminally forked (forking 1–4 in number and conspicuously thickened); conidia solitary, dry, acropleurogenous, simple, straight or slightly curved, yellowish brown, cylindrical to broadly fusiform, obtuse at apex, truncate at base, 4–14 septate, slightly constricted at the septa with marked basal thickening, young conidia showing connection with conidiophore by a narrow isthmus, 40–140 × 3·0–8·5 $\mu$.

On living leaves of *Mitragyna parvifolia* (Roxb.) Korth. (Rubiaceae) February, 1976 Leg. S. Singh) 499 type, IMI 200111.

*Pseudocercosporella ochracea* is markedly different from *P. gyrocarpi* Karan and Mulder in having poorly developed and septate stroma; conidiophores small, septate, clavate, thick walled and 1–4 forked at the apex, and cylindrical, small, 1–14 septate, slightly constricted at septa, yellowish brown conidia (Table I).

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## FRUIT GALLS OF *PROSOPIS CINERARIA* (L.) DRUCE—A NEW RECORD

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DURING the collection of plants, poor yield of fruits of *Prosopis cineraria* (L.) Druce, growing on the roadside, Modinagar, was observed. Examination of the affected plant revealed severe infestation of fruit galls (Fig. 1). The mite causing the infection was identified as *Eriophyes prosopidis* Saksena.

The gall on the fruit involves the initiation of a cecidogenetic reaction of the plant in the immature fruit, after the fertilization of the ovary. Extensive cell proliferation in all parts of the fruit results in the formation of an undifferentiated, spongy, parenchymatous mass of tissue and total arrest of development of seeds. Anatomical study reveals that the immature galls have irregular cavities but as growth progresses the cavities become completely obliterated by in growth of irregular septa from the side walls.

The galls are irregularly oval-globose, indehiscent and often many galls agglomerated. They are greenish yellow, smooth and vary in size from 2 to 4 cm in diameter. They have a minute ostiole outside which persists even in mature fruit galls. The cecidozoa was not observed as it presumably escaped after infecting the fruit.

FIG. 1

This is the first report of *Eriophyes prosopidis* Saksena on *Prosopis cineraria* (L.) Druce causing fruit gall in India or elsewhere[1-2].

The authors are thankful to Dr. S. Ghai, Division of Entomology, I.A.R.I., New Delhi, for identifying thepathogen.

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## VARIATION AMONG FLOWERS OF ANDROGENETIC TOBACCO HAPLOIDS

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IN continuation of our communications[1-3] on cultures of androgenetic embryoids of *Nicotiana tabacum* cv. FCV Special, we now report the successful growth to maturity of haploids derived exclusively from the vegetative cell, the generative cell and the chimeral combination of the two. Based on ontogeny the three types of haploids have been designated the 'vegetative' plant, the 'generative' plant and the 'Chimera'. All of them produce abundant flowers but fail to set fruits. These plants, in addition to exhibiting several distinctive vegetative features, consistently show marked floral variations not only among themselves but also in comparison with the diploid. Although the haploid flowers are totally sterile, they share a few common features with those of the diploid like, the retention of the petal colour and possession of the component floral parts. But the three types of haploids reveal consistent individualistic variations with regard to the size of the flower, shape of the corolla tube and the opening of its lobes. Results of a statistical analysis of these variations in flowers are given in Table I. The flower length of the diploid with associated features like the uniform opening of the corolla lobes and the sudden dilation of the upper part of the corolla tube are inherited in the flowers produced by the 'generative' plant (Fig. 1A, $A_1$: C, $C_1$). In the flowers produced by the 'vegetative' plant (Fig. 1B, $B_1$), the average length of the flower is significantly shorter than that in the diploid, and the corolla tube is typically trumpet-shaped, a feature not seen in the diploid. Further, in the flowers of the 'vegetative' plant one or very rarely two adjacent corolla lobes fail to open out, a feature consistently repeated in the flowers borne on the vegetative sector of the chimeral derivative (Fig. 1D, $D_1$). The corolla lobes of flowers on the generative sector of the chimera (Fig. 1E, $E_1$) behave in the same way as those of the diploid and the pure 'generative' plant; however, the flower length stands in comparison with those produced by the 'vegetative' plant and on the vegetative sector of the chimera.

The '*t*' values of 2·26 and 2·44 obtained respectively for the floral lengths of the diploid plant (parent) and the pure 'vegetative' plant, and diploid (parent) and the chimeral plants support our observation that the difference in their floral length is significant whereas

TABLE I

*Results of floral analysis*

| | Flowers of diploid (parent) | Flowers of haploid | | |
|---|---|---|---|---|
| | | Vegetative plant | Generative plant | Chimera |
| Number analysed | 40 | 40 | 20 | 80 |
| Average length* (in cm.) | 4·9 | 4·14 | 4·6 | 4·18 |
| % with infolded corolla lobe | Nil | 97·5 | Nil | 55 |

* Critical value of '*t*' at 5% degree of freedom = 2·074—Significant.
Critical value of '*t*' at 1% degree of freedom = 3·792—Highly significant.

*Since deceased.