solution. The controls were treated with distilled water.

During the course of investigation, the plants treated with ethrel revealed reduction in the number of stamens and absence of pistil in certain flowers (Table I, Fig. 2). Anatomical studies revealed rudimentary pistil in such flowers (Fig. 4), suggesting inhibition at an early stage of flower development. Inhibition of pistil was not witnessed in the control flowers (Table I).

Though there are many reports dealing with the effects of ethylene on flower development and suppression of stamens, to our knowledge, there is no report on the inhibition of pistil in hermaphrodite flowers as a response to ethylene treatments.

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PSEUDOCERCOSPORA CELASTRI SP. NOV. FROM INDIA

WHILE working on some aspect of plant parasitic fungi, the author came across an interesting species of *Pseudocercospora* which differed markedly from all known species of the genus[1-5]. This species was collected in February, 1976, from Telkonia Range of Gorakhpur forest Division. The new taxon appears to be well adopted to its host.

Pseudocercospora celastri S. Singh sp. nov. (Fig. 1)

Coloniae plerumque hypophyllae circulares vel ovales 2–6 mm diam. saepe effusae brunneae vel atrofuscae; hyphae mycelicae immersae hyalinae septatae leaves; stroma bene evolutum atrofuscum subglobosum vel angulare 20–50 μ lata; conidiophora laxe caespitosa subhyalina vel pallide brunneola cylindrica erecta saepe flexuosa septata laevia eramosa, in apicem subinflatum turgescentia, geniculata denticulata 100–250 × 3·5 8·5 μ; cellulae conidiogenae integratae terminales, saepe in conidiophoribus juvenalibus monoblasticae et percurrentia, deinde polyblastica sympodialia e denticulis brevibus latis praeditae, cicatricibus conidicis carentibus; conidia solitaria simplicia acropleurogena obclavata, ad basim conico-truncata, ad apicem subacuta vel obtusa, brunnea vel olivaceo-brunnea rugulosa transverse 2–9 septata, ad septa subconstricta, 30–120 × 3·0–10 μ, saepe ad conidiophora etiam affixa germinantia.

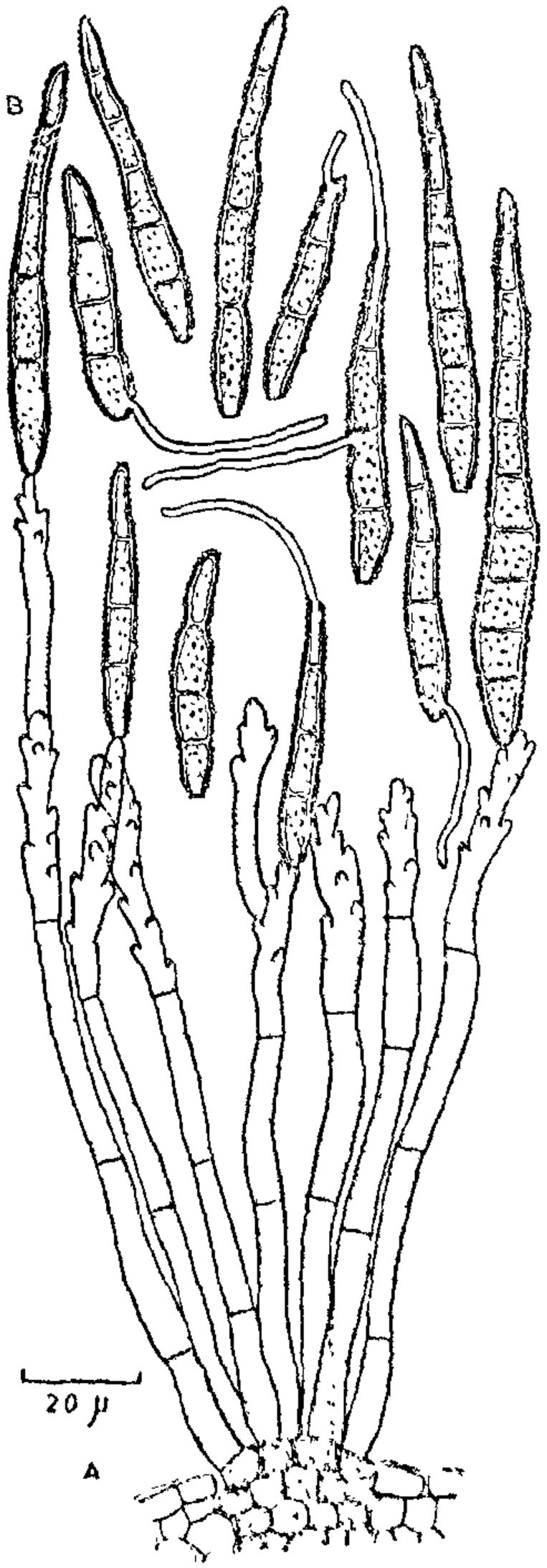

Fig. 1. *Pseudocercospora celastri* sp. nov. A. Conidiophores attached with conidia. B. Germinating conidia.

Hab. in foliis vivis *Celastri paniculata* Willd. leg. S. Singh, 391 typum, in herb IMI sub numero 200119 conservatum.

Colonies predominantly hypophyllous, circular to oval (2–6 mm in diam.), often effuse, brown to dark brown; mycelium of hyphae immersed, hyaline, septate, smooth; stroma well developed, dark brown, subglobose to angular, 20–50 μ wide; conidiophores loosely aggregated in groups, subhyaline to pale brown, cylindrical, erect, often flexuous, septate, smooth, unbranched, blowing out in somewhat swollen apex, geniculate, with conidial denticles, 100-250 × 3·5–8·5 μ; conidiogenous cells integrated, terminal, often monoblastic and percurrent in young conidiophores, later polyblastic, sympodial, denticulate, with short and broad denticles, with no conidial scars; conidia solitary, simple, acropleurogenous, obclavate, base conico-truncate, apex slightly acute to obtuse, brown to olivaceous brown, rugulose, 2–9 transversely septate, slightly constricted at septa, 30–120 × 3·0–10 μ often germinating whilst still attached to the conidiophores.

On living leaves of *Celastrus paniculata* Willd. (Celastraceae) February, 1976, leg. S. Singh, 391 type, IMI 200119.

TABLE I

Dimensions of P. celastri *and* P. terminaliae

	P. celastri	*P. terminaliae*
Conidiophores	100–250 × 3·5–8·5 μ Percurrent	upto 100 × 5–10 μ absent
Conidia	30–120 × 3·0–10 μ rugulose, germinating tube	50–115 × 7–9 μ absent

P. celastri is compared with *Pseudocercospora terminaliae* (Syd.) Ellis[6], which also possesses percurrent conidiophores and rugulose and germinating conidia (Table I). The present form being unassignable to all the known species, warrants its description as a new species.

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INHERITANCE OF PIGMENTATION IN *OCIMUM BASILICUM* LINN.

IN an inter-varietal hybridization programme in *Ocimum basilicum* Linn. (Labiatae) initiated at this Institute, the exotic 'French basil' variety which is reputed as a source of high grade sweet basil oil of commerce[1] was crossed with a local variety 'Kama Kasturi' for transfer of genes conferring resistance to foliar diseases and superiority in growth vigour of the latter. Among the morphological characters distinguishing these two varieties, the differences in pigmentation of aerial parts is conspicuous. The present report deals with the genetics of pigmentation in these two varieties. There seems to be no earlier report on the inheritance of pigmentation in this species.

In Kama Kasturi, besides seedling stem and petiole, aerial parts of adult plants, namely, stem, petiole, inflorescence axis, bracteole and flower are pigmented. Pigmentation is absent at seedling and adult stages in French basil which has green stem and white flowers. The French basil was used as female parent in crosses, to enable easy detection of hybrid seedlings using pigmentation as marker character. The F_1 hybrids resembled the male parent in pigmentation and growth vigour.

A total of 2288 F_2 seedlings belonging to ten F_1 plants were scored for pigmentation along with parents. The frequency of green and pigmented F_2 seedlings of individual F_1 plants gave a good fit for a dihybrid ratio of 1 : 15. The X^2 values varied from 0·0176 (P = 0·80–0·90) to 2·1930 (P = 0·10–0·20). The parents were found to be true breeding.

Pigmentation in adult plants was scored in 440 F_2, 253 French basil and 71 Kama Kasturi plants. Pigmentation was observed only in adult plants of Kama Kasturi and those of F_2 raised from pigmented seedlings. The intensity of pigmentation was found to vary among F_2 plants but such variations could not be categorically assigned to distinct classes.

Based on the present study, pigmentation is ascribed to action of two genes provisionally designated as R_1 and R_2 exhibiting cumulative action. The female parent (French basil) is assigned $r_1r_1r_2r_2$ genotype and the male parent (Kama Kasturi) $R_1R_1R_2R_2$.