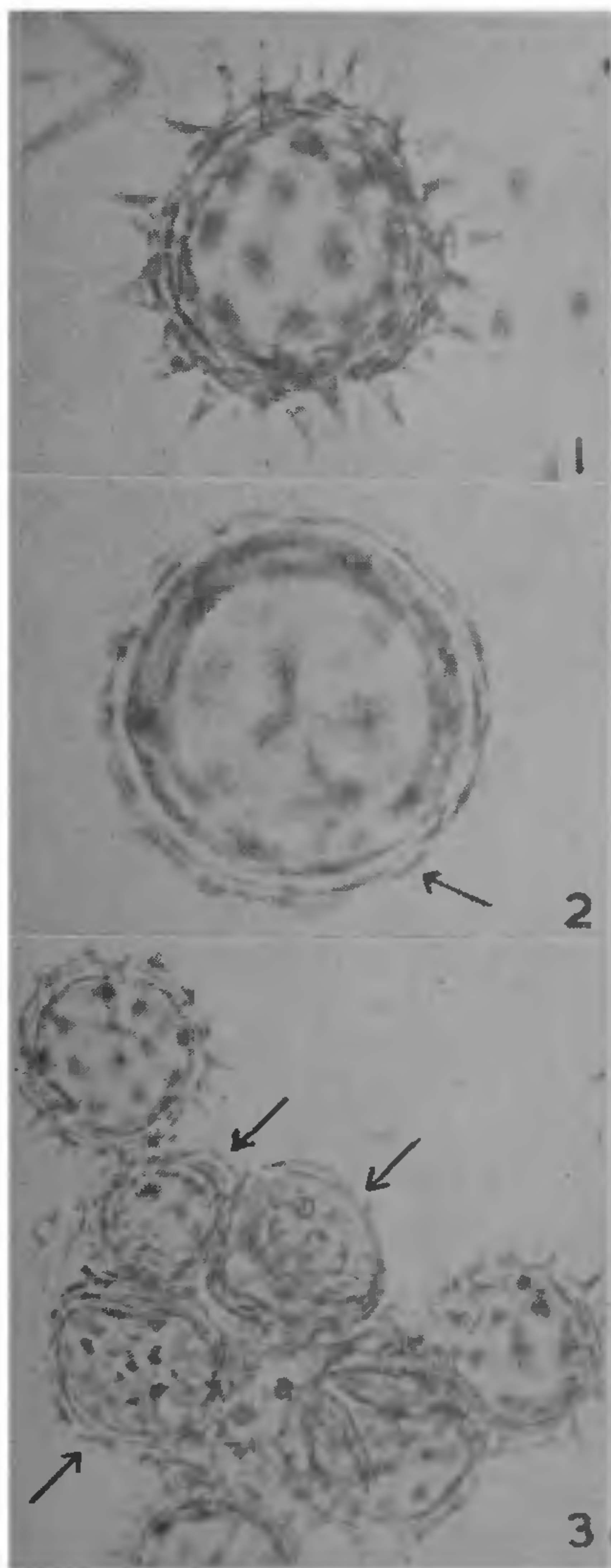


pollen-grains may show similar shape and structure. But it is less common to find major structural variations like presence or absence of spines, pores, etc., in the pollen of the same



FIGS. 1-3. Fig. 1. A normal spinascent pollen-grain, $\times 1,555$. Fig. 2. An abnormal aspinascent grain. Spine bases form small humps (indicated by arrow), $\times 2,020$. Fig. 3. A group of normal and abnormal grains (indicated by arrows). Spines are poorly formed in the grains indicated, $\times 925$.

TABLE I
Structural variations in the two types of pollen-grains in *Wedelia biflora*

Character	Type 1	Type 2
1. Shape	Spheroidal	Spheroidal
2. Size—Average diameter including spine length	27μ (range $25.6-28 \mu$)	19.6μ (range $16.8-22.4 \mu$)
3. Exine thickness	2.4μ	2.4μ
4. Spines	Long, tapered, erect, 4.0μ long	Short, stout and reduced to humps, 1.0μ long
5. Interspinal distance	4.8μ	4.8μ

taxon and the present report is one such case. Some general explanations are offered accounting for the differences seen in the varied forms of the pollen-grains either within the same species or among the closely related species. These include varying internal and external environmental conditions that prevail during pollen development.² It is clear that further experimental research is necessary to identify the causal factors that may control the morphogenesis of the pollen wall.

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SUITABILITY OF DIFFERENT TYPES OF GLASSWARE IN SPORULATION STUDIES ON *CERCOSPORA PERSONATA*

Copious production of spores is induced in *Cercospora personata* (Berk. Curt.) Ell. et Everh., when cultures are exposed to light from "cool white" (TL 40 w., Osram) fluorescent lamps at $23-27^\circ \text{C}$.¹ Enough of near ultraviolet (NUV) radiation is emitted by such lamps to

induce sporulation.² All types of glassware do not transmit radiation of this wavelength (NUV) to the same extent.² In order to select for sporulation studies, a suitable type of glassware from among the ones available in this country, cultures were raised in different brands of Petri-dishes and exposed to light from "cool white" fluorescent tubes. The results are presented in Table I.

TABLE I

Brand name of petri-dish	No. of spores/plate (average of 3 plates)
Pyrex	2,126,000
Corning	1,241,000
Anumbra	1,104,000
Borosil	455,000
D.G.W.	145,000

It is seen that Pyrex Petri-dishes give the best results. Corning and Anumbra are the next best. Borosil and D.G.W. are rather unsuitable for sporulation studies.

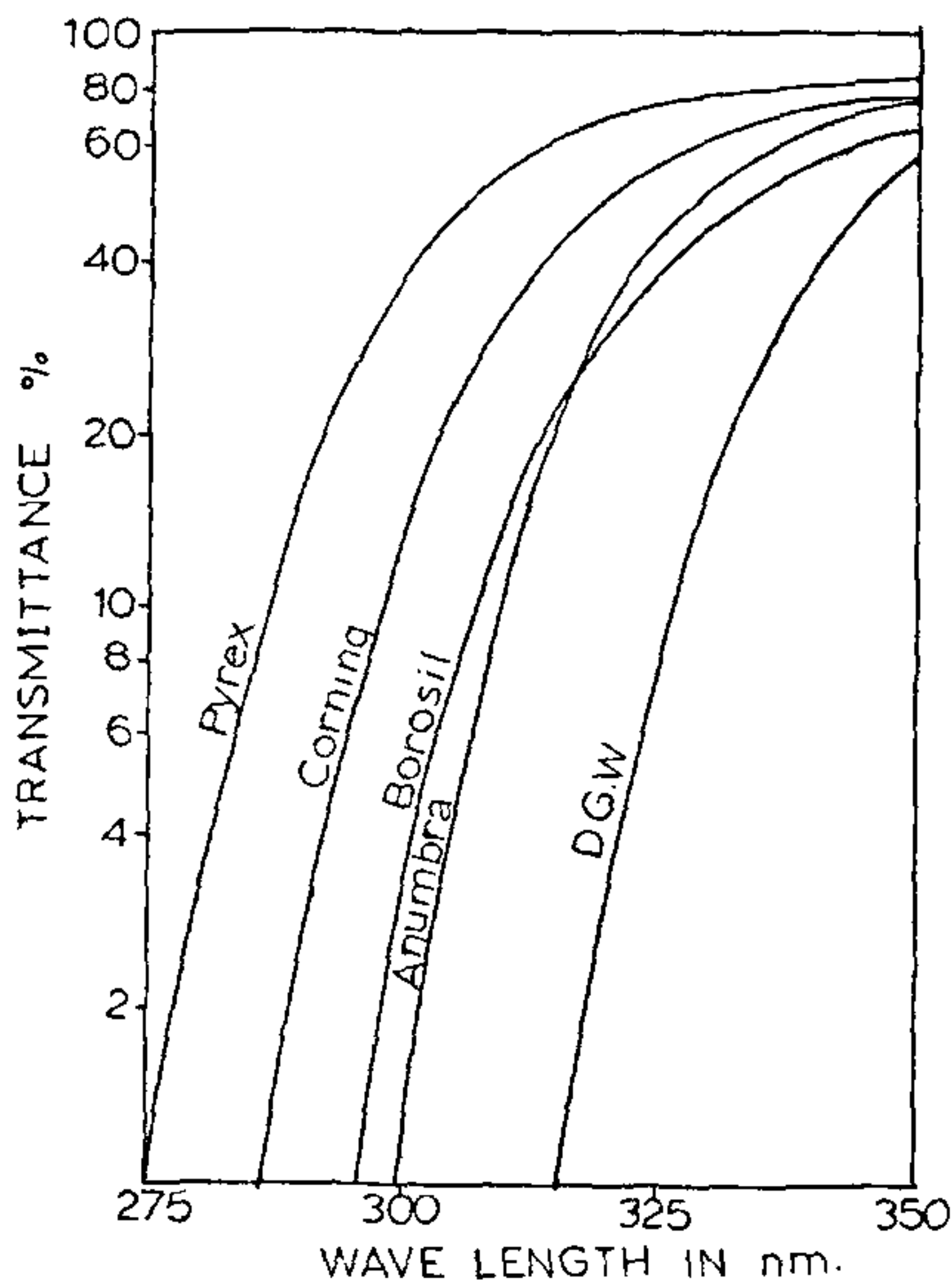


FIG. 1

To find out how these different types of glassware differed in their ability to transmit radiation in the UV region the Petri-dishes were examined in a UNICAM SP-800 recording spectrophotometer. A comparison of the spectral characteristics (see Fig. 1) with the sporulation data in Table I suggests that the

ability to transmit radiation in the region between 325 and 350 nm, seems to determine the suitability of the glassware for getting good sporulation.

In our experiments, Corning brand Petri-dishes have been chosen because of ease of availability.

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University Botany Lab., K. S. BHAMA.
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AN INTERGENERIC CROSS IN THE CUCURBITACEAE (*COCCINIA INDICA* W. AND A. × *BRYONOPSIS LACINIOSA* ARN.)

INTERGENERIC hybridisation in Cucurbitaceae is very rare. There is only one previous report¹ where a cross between *M. charantia* and *T. anguina* was successful but the F_1 did not grow well. In the present investigation, a successful intergeneric hybridisation between *C. indica* and *B. laciniosa* is being reported which was made to understand and establish phylogenetic relationship, breeding affinities, sex expression and mode of inheritance between two wild genera. *C. indica* a dioecious perennial climber with tuberous roots; whereas *B. laciniosa* is a monoecious wild annual climbing herb. Only 5% of crosses between *C. indica* × *B. laciniosa* were successful. Reciprocal cross did not succeed. Altogether, seven fruits with 36 healthy seeds were obtained, but on sowing, only 28 germinated. Six seedlings died later, but 22 seedlings grew luxuriantly.

All the F_1 plants were dioecious with only female flowers (Fig. 3). Most of the developing buds aborted at early stage of development, only a few of them developed into mature flowers. The characters of the parents and F_1 hybrids are compared in Table I.

The characters of *C. indica* dominant in the hybrid were:

- (1) Perennial habit; (2) dioecism; (3) shape and colour of flower; (4) opening time of flower; (5) tuberous root.