

metal and then the copper sulphide is precipitated. This black precipitate is also found at the bottom plates of the Rectifier, and occasionally is drawn out with the lower oils. Y. K. R.]

The Influence of Light on the Germination of Species of *Striga*

SEVERAL workers have observed the high degree of variability exhibited by phanerogamic parasites and it would appear that species of *Striga* are no exception.

In the Botanical Section of the Poona Agricultural College, investigations upon three species of *Striga* that attack *jowar* (*Andropogon sorghum*) namely *S. lutea*, *S. densiflora* and *S. euphrasioides* have been in progress for some time. In the beginning, it was noticed that the first two species required the presence of the host for germination, whereas the third did not. In attempting to germinate the seeds of these three species in petri dishes exposed to light during daytime it was found that *S. lutea* showed some germination, *S. densiflora* gave very little germination and in the case of *S. euphrasioides* the percentage of germination was higher without than with the presence of the host. In order to induce better germination of *S. densiflora*, it was decided to try the effect of keeping the dishes in a dark chamber. Surprisingly, the result was that the seeds of the parasite showed a much higher percentage of germination when kept in darkness. The reaction of all the three species to light and darkness was, therefore, tested with still more interesting results. A typical set of results is tabulated below. The seed of a highly susceptible variety of Sorghum was used in the test.

A word of explanation is perhaps necessary to account for the high range of variation in the results. This must be ascribed to three reasons (a) the progressive maturation of the seeds which is a characteristic of many of the phanerogamic parasites, (b) the inherent variation in the capacity of the host seed to

Species	No. of dishes tested	Treatment	Percentage germination per dish	
			Range	Mean
<i>S. lutea</i>	50	Light	0-52	16.3
„	50	Dark	0-73	38.4
<i>S. densiflora</i>	45	Light	0-11	1.5
„	41	Dark	0-14.2	4.4
<i>S. euphrasioides</i>	50	Without host- Light	11.4-83.1	44.4
„	50	With host- Light	0-64.3	32.6
„	50	Without host- Dark	0-16.1	3.5
„	50	With host- Dark	0-32.7	9.1

induce germination of the parasite seeds, and (c) other causes controlling germination which have not been determined.

From the results it will be observed that *S. lutea* germinates about 100 per cent. better in the dark than in light. *S. densiflora* shows a higher percentage of germination in the dark though the germination is still unsatisfactory. In *S. euphrasioides*, the germination in the light is very much higher than in the dark; but whereas, with host, in the light a lower percentage of germination than without host is observed, in the dark the converse holds good.

It is not possible, at this stage, to explain this peculiar behaviour to light of the seeds of these three species of *Striga*, but it is hoped to throw more light on the problem as the work progresses.

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