

fertility would increase with increase in amount of the medium, but differential results were obtained in the crosses (1) $\text{Em } \underline{A} \text{ (P)} \times \text{Em } \underline{a} \text{ (s)}$ and (2) $\text{Em } \underline{a} \text{ (P)} \times \text{Em } \underline{A} \text{ (s)}$ having 10 ml, 15 ml and 20 ml of medium. When $\text{Em } \underline{A}$ was used as the protoperithecial strain, then the intensity of fertility increased with the increase in the amount of the medium (10 ml $\rightarrow$ 15 ml $\rightarrow$ 20 ml). But when $\text{Em } \underline{a}$ was used as the protoperithecial strain, the reverse was the case. Again, in general, crossing plates having $\text{Em } \underline{A}$ as the protoperithecial strain showed more fertility than did the corresponding crossing plates in which $\text{Em } \underline{a}$ was grown as the protoperithecial strain.

From these results, one could possibly invoke an inherent biochemical difference between the two mating types of *N. crassa*. Howe and Prakash (1969 Can. J. Genet. Cytol. 11:689) postulated that fertility in *Neurospora* is being regulated by some inhibitory substance produced during the asexual process which acts at a distance from the site of origin. In our studies (Islam and Weijer 1969 Neurospora News 15: 24) we have found definite evidence of sexual hormones controlling the different morphogenetic steps of sexual reproduction in *Neurospora* and we could successfully isolate a group of them which were active on certain sexual morphogenetic steps. - - - Atomic Energy Centre, P. O. Box 14, Ramna, Dacca, Bangladesh.

Table 1. Synchronous production of protoperithecia. [Ho C.C. - p. 19]

