

therefore be willing to join with those of other opinions in various practical ways.

There may be considerable overlapping between these sections of opinion, but in spite of theoretical differences, there will be occasions on which all can unite for the time being. War would be impossible if all scientific workers opposed it. Each individual scientific worker should first consider what ought to be done, and then use his influence to see that it is done.

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[The above letter was written independently of the leading article on the same subject which appeared in NATURE of May 9.—Editor.]

Fertile Sugar Cane × Millet Hybrid

A CONSIDERABLE number of *Saccharum* × *Sorghum* hybrids have been produced at this Station during the breeding seasons of 1933-35. The accompanying photograph (Fig. 1) shows seed germinating in the

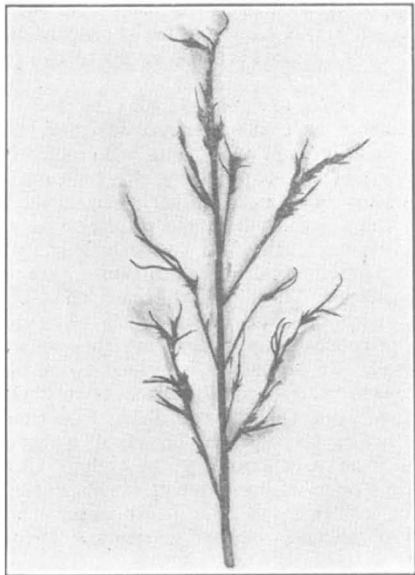


FIG. 1.

inflorescence of a hybrid between the sugar cane variety P.O.J. 2725 ♀ and Guinea corn ♂ (*Sorghum vulgare*). The plant and panicle were both standing upright when the condition was observed, and the plantlets had wilted, presumably from lack of moisture and nourishment.

P.O.J. 2725 is descended from a cross between *Saccharum officinarum* and *Saccharum spontaneum*, and the latter accounts for one-eighth of its make-up.

Hybrids are frequently characterised by a high degree of sterility, and sugar cane seed germinates so rarely in Nature that for many years it was thought that the plant could only be reproduced asexually. It therefore seems of general interest to record this marked fertility in an intergeneric (*Saccharum* × *Sorghum*) hybrid.

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Two Methods of Formation of Dictyosomes from Vesicular Golgi Bodies

OOGENESIS studies have revealed that the Golgi bodies may have a variety of shapes ranging from a granule and a vesicle to a typical dictyosome^{1,2}. We have always been faced with the question whether these shapes are fixed or whether one could be derived from the other. Scattered in the literature on spermatogenesis³ and secretory phenomena^{4,5} we also find batonettes described with double chromophilic rims. If these double-rimmed batonettes have a real existence, what is their relation to the other shapes of the apparatus? From the evidence at our disposal we feel that these types of batonettes could be derived from the vesicular Golgi bodies, the vesicles themselves being derived from granules.

Fig. 1 is a reproduction of a photomicrograph of a growing oocyte of *Clibanarius olivaceus*. At *gg* are shown the Golgi grains in which there is no differentiation into chromophilic and chromophobic regions. These enlarge and give rise to vesicles (*gg*₁) in which the two regions become visible. Rupture of these vesicles (*gg*₂) takes place at varying stages of the growth of the vesicles and gives rise to batonettes of

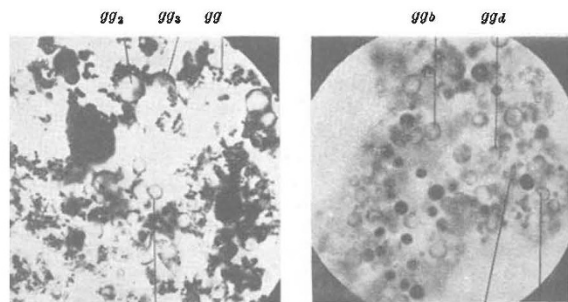


FIG. 1. Oocyte of
Clibanarius. ×900.

FIG. 2. *Lycastis* material.
×900.

varying sizes. A typical batonette formed by such a rupture is shown at *gg*₂. A glance at the photomicrograph will show how the chromophobic area which is enclosed by the chromophilic region in the vesicles comes into relation with the cytoplasm.

In *Lycastis indica* we observed double-rimmed batonettes, which differed from those described in *Clibanarius olivaceus* in having the chromophobic part between the two chromophilic rims. In some of the batonettes the chromophobic part completely disappears. In Fig. 2 are shown the various stages in the transformation of a vesicle into a double-rimmed batonette. Instead of the vesicle rupturing, the final result seems to be attained in a peculiar way. An infolding (*gga*) similar to gastrula formation takes place, and by an extension of the process (*ggb*)