that the pollen grains had germinated and that the pollen tubes had penetrated the stylar tissue.

Demerec's third suggestion remains as a possibility and a fourth may be added which is likewise untested. The failure of ga_1 pollen to fertilize Ga_1^s plants may be independent of stylar interaction altogether, and may involve some abnormal reaction within the ovule, such as inability of the pollen tube to penetrate the embryo sac. None of these explanations, however, are applicable in the case of Ga_1-ga_1 competition since, in the absence of Ga_1 pollen, ga_1 gametes function normally on Ga_1 styles.

A number of cases of cross-sterility in maize may be due to the action of Ga_1^s. This is especially true of the cross-sterility found among varieties of popcorn.[2] Although the point of origin of the Ga_1^s allele is not known, the fact that both Ga_1 and Demerec's cross sterility factor were found in popcorn supports this contention.

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*THE USE OF SODIUM NUCLEATE IN THE STUDY OF THE MUTAGENIC ACTIVITY OF ACRIFLAVINE IN ESCHERICHIA COLI**

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In a previous study,[1] neutral acriflavine was shown to induce mutations from phage-sensitivity to phage-resistance in *Escherichia coli*. The present report concerns an improved method of investigating the mutagenic potency of certain compounds, using acriflavine as a model.

One of the difficulties encountered in working with acriflavine, as well as with numerous other compounds, was the tenacity with which the chemical remains bound to the treated cell. Ordinary washing methods were effective in removing acriflavine only to a limited degree, and thoroughly washed suspensions of treated bacteria were found to contain enough active chemical to limit subsequent growth, and to interfere with