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trolled so accurately, the radiation method should be exploited more fully, even while Knipling's suggestion (1959) for seeking chemical compounds for inducing sterility in the field (species-specific? accurate dosage?) is being undertaken. There are of course many problems faced by entomologists when they inquire into the economic suitability of methods for control of any particular insect species. But with monogamy not necessarily a restriction with the irradiation-of-males method, it seems possible that this could often become the procedure of choice when the most economically desirable method for eradication is being determined, as with experiments now in progress to rid Guam and Hawaii of fruit-fly infestations. It seems possible that the tsetse fly could even be eradicated from Africa by this method; besides radiation biological supplementation of the excellent investigations now being carried out, what would be required is sufficient money for developing large-scale methods of artificial rearing, irradiation, and release.

R. C. VON BORSTEL*

*Istituto di Genetica,
Università di Pavia, Pavia, Italy*

Note

*National Science Foundation senior postdoctoral fellow, on leave of absence from the Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.

The points brought out by von Borstel are good, and I am pleased that he is commenting specifically on the relative effect of monogamy and polygamy in the application of the sterility method of population control when the effect produces dominant lethals in the sperms. I have for some years attempted to correct the misconception that monogamy is a prerequisite to successful application of the approach to population control. In our investigations with several species of insects, including tropical fruit flies and *Anopheles* mosquitoes, there are indications that among such species having polygamous mating habits, the male-sterility method may provide an effective means of control. However, the depressing effect on the population among these species is less than in the screwworm, which is monogamous in mating habits. The probable reason is that irradiation may reduce the number of the sperms or their ability to compete with normal sperms.

In the absence of adequate information on the effects of irradiation on sperms, I stressed the theoretical possibilities of population control among species monogamous in mating habits.

E. F. KNIPLING

*Entomology Research Division,
Agricultural Research Service,
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The division has an annual budget of approximately £A75,000, and has free use of library, central workshops, stores, canteen, clerical, and other facilities. It has a professional staff of 25, including 17 in the research classifications, and a total staff of 33. It has close liaison with industry, public utilities, the universities, and other parts of C.S.I.R.O.

The work of the division includes both basic research and applied research, and is centered about problems of importance to the nation or to development of the science of physical chemistry. Among its present projects are (i) the application of surface chemistry to studies of evaporation control in water storages (Mansfield process), to nucleation to form ice as a starter for rain formation, and to separation processes based on absorption; (ii) theoretical and experimental studies of the properties of liquids; (iii) chemical effects of high pressures up to 250,000 atmospheres; (iv) the chemistry of carbon; (v) metal organic complexes and enzymes; (vi) bush-fire research; (vii) desalination studies. The division's program has varied considerably over the past years and the successful candidate will have ample opportunity to influence future developments.

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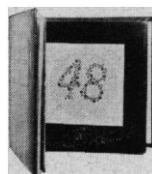
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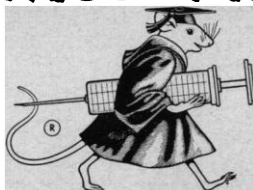
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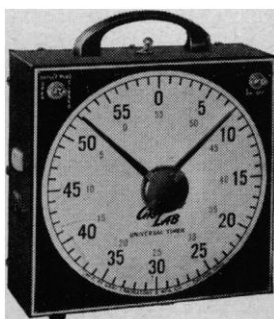
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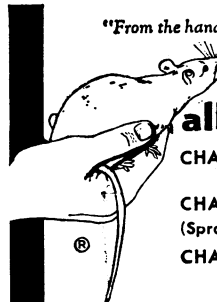
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