A single cyst was found from one plant in each of the Spalding and Yeovil populations and two cysts from one plant in the Oxlode population. This is the first record of the development of females on *B. patellaris*.

Thus, although there is no evidence of resistance-breaking biotypes occurring on the same scale as found with *H. rostochiensis*, individual females able to develop on *B. patellaris* exist and their potential importance should be recognized. Further investigations are needed on the extent to which these biotypes can give rise to populations containing a larger proportion of such individuals. As one of the possibilities considered in breeding sugar beet resistant to beet eelworm is to introduce genes for resistance from *B. patellaris*, a situation favouring the multiplication of these biotypes might result from growing sugar beet × *B. patellaris* crosses in the field.

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Persistence of Tomato Aucuba Mosaic Virus in Dried Leaf Tissue

IN December 1934, in order to keep in a convenient form some material of the strain of tomato aucuba mosaic virus with which I had been working at Rothamsted Experimental Station, some leaves of infected tomato plants were dried in air and put in an envelope.

After I came to this Department, some of this material was used from time to time for inoculating plants in connexion with the experiments being carried out here. The original virus has been transmitted from plant to plant by juice-inoculation for the past 24 years.

The envelope containing the original material (of December 11, 1934) was kept in a cupboard in the laboratory, and it was thought that it would be interesting to see what had happened to the infectivity of the virus after a period of desiccation of 24 years.

A small leaflet weighing 10 mgm. was crushed in a mortar and 10 ml. of water added and the whole thoroughly mixed. After 1 hr., an interval to allow of complete wetting of the dry material, about 0·1 ml. of liquid was rubbed on to each of 16 leaves of plants of *Nicotiana glutinosa*.

The control material was a fresh leaflet of tomato of approximately the same size as that selected for the first experiment. This was infected with the same strain of virus which through the years has been inoculated from tomato to tomato plant.

This material was again thoroughly macerated, mixed with 10 ml. water and left for 1 hr. at laboratory temperature. Similar amounts of liquid were inoculated by rubbing with a finger into each of 16 leaves of *N. glutinosa* plants. The results were as follows:

Material	Total number of lesions on 16 leaves
Dry material (Dec. 24, 1934)	2 + 1 (doubtful)
Control material (fresh)	652

The experiment was repeated using 200 mgm. of dried material in 10 ml. of water. Similar amounts were rubbed on to each of 14 leaves of *N. glutinosa* plants when it was found that, after an interval of 5 days, a total of 15 + 2 doubtful lesions had developed on the 14 leaves.

This same material was left for 24 hr. to allow further wetting of the dried material if this were necessary, and five lesions were found on fifteen leaves of *N. glutinosa* after inoculation and treatment similar to that noted above.

It appears, therefore, that while the activity of the tomato aucuba mosaic virus is very greatly reduced by desiccation and storage in a dry state for 24 years, there is still a little residual activity even after that period of time.

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A Third Species of 'Pepper' in West Africa

Two workers on the peppers (*Capsicum*), Smith and Heiser[1], have recently discovered that among the peppers of Central and South America a new species of pepper, *Capsicum sinense* Jacq. had been present within the species *C. frutescens* L. This new species, which could not at first be detected when *C. frutescens* was itself separated from *C. annuum* L., is now recognizable by the 3–5 flowers at each node, the declinate pedicels, and the circular constriction at the base of the calyx in fruit, quite apart from the sterility barrier between it and the four other species of pepper in Central and South America, namely, *C. pubescens* R. and P., *C. annuum* L., *C. pendulum* Willd., and *C. frutescens* L.

This discovery calls for a verification in other parts of the world where the peppers flourish to see if this new species could be found there. West Africa is certainly one of the areas that are rich in peppers which form an important item of the local dish; but only two species *C. annuum* L. and *C. frutescens* L. have been described[2]. For well over a year now, collection of local varieties of peppers have been made in West Africa with special reference to Ghana. More than sixty varieties have so far been cultivated and described (unreported), and the results show that the new species *C. sinense* is present also in West Africa. Two distinct varieties of this species have so far been distinguished, and these will be described separately elsewhere. Nothing has been found among the collection to answer to any of the other two species in Central and South America. This third species of pepper, *C. sinense*, in West Africa will have to be included in the "Flora of West Tropical Africa" now under revision.

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