

be a safe staple crop in Palestine if proper care were given to the preparation of the field. While the large-seeded flax may compete favourably with wheat, if used only as an oil crop, owing to the price, generally 50% higher, of the bold linseed as compared with wheat. An additional income may be secured by making use of the fibre which can be worked up for ropes and coarse linen goods.

### Field Mice Control in Palestine.

by Dr. F. S. Bodenheimer and H. Z. Klein.

Field mice, the cause of much damage to Palestinian agriculture, seem to be found in only two species: the *Microtus philestinus* Tho. in the south, and the *Microtus syriacus* Brandt. in the north. Their mode of life does not appear to differ in any salient point from that of similar species in Europe. It would seem that southern Palestine forms a geographical limit for the *Microtus*, as no field mice are to be found in the Sinai Peninsula or Egypt.

In Palestine field mice prevail in two regions in particular: 1) the Plain of Philistia, (between Ekron and Ben Shemen) and 2) the vicinity of Nahalal in the Plain of Esdraelon. Their presence in restricted areas is evidently due to peculiar ecological conditions, but hitherto we have been unable to discover its causes.

As a general thing only winter crops are attacked. Vetch is most severely attacked, while cereals suffer only slightly less. Among the irrigated crops alfalfa is more violently attacked than clover. The mice multiply twice during the year: 1) October-November to January, and 2) April-May, after the rains, in harvest time. Their number is noticeably diminished by the heavy winter rains. The damage they do is quite serious; sometimes it comes to 25-50% of the grain returns.

We began our experiments in field mice control at Ben Shemen in 1923-1924. Various means were tried. The only really good results were obtained with Hora implements. Carbon bisulfide gave less favourable results. In 1928 we instituted a special experiment at the Gevat Experiment Station on a larger scale.

The results appear in the Table on page 405. In consequence of these experiments we came to the conclusion that there are three possible methods of field mice control in Palestine: 1) Zelio Wheat; 2) Hora; 3) Calciumcyanide. We prefer Zelio grains to the other methods. We carried out the Zelio grain experiments while the fields were covered with the first green of crops. At this time the mice refuse any other bait. If Zelio grains were efficacious under such unfavourable conditions we may hope for far better results if control is carried out in November-December. On the strength of the expense account (see Table, page 406) we propose the practical application of Zelio grains as a first step.

#### **The Dairy Herd at Ganeigar.**

(Survey of the Dairy Herd and Account of the first annual Examination).

by J. Kvashne (Extension Division) and J. Israely (Ganeigar).

The dairy herd at Ganeigar was established in 1922-1923. It is remarkable for many attributes:

1) The herd developed gradually in consequence of modest and careful purchases. Hence it was possible to introduce orderly and systematic selection from the first. At present 50% of the cattle in the herd are home grown.

2) The health conditions in the herd are very good because of the salubrious climate, the individual care given each animal, and because their feed is well ordered.

3) The milk yields has steadily increased from year to year for each cow. On the average it comes to over 3000 litres per annum. The average cream yield is 126 kg. per cow per annum. The average percentage of cream is about 4%.

#### **The Heredity in Relation to the Thickness of the Peel of the Jaffa Orange.**

by J. D. Oppenheim.

Investigations into the transpiration of the Jaffa orange have shown that transpiration does not decrease in inverse proportion to the thickness of the peel. There is practically no