

The land allotted to this experiment was of typically heavy soil, part marsh. At the beginning of winter 1937, a drainage system was set up.

The results of two years experimentation are now available. This period is inadequate as a basis of final conclusions, but may serve to indicate the principal difficulties in the way and the general lines of investigation yet to be pursued.

Perusal of pasture yield rates in different pasture plots reveals that *Rhodes grass* and *Paspalum* are by far the most important plants for pasture. The inclusion of Sudan grass in the mixture in order to provide green cover early in the first season is probably justified. It is impossible to state at this early date whether Rhodes grass and Paspalum should be sown in mixture or separately. The observed yields in both methods of sowing were quite good. The fear that far greater land areas would be necessary for grazing than when green forage is produced for barn-kept cows is shown to be groundless or at the most highly exaggerated.

The results obtained at Givat Hayim with lucerne in the first year of growth as a pasture crop were negative.

The water requirement of the pasture was low, (500—600 cu. m. per dunam).

The experiments are being continued.

#### TOMATOES FOR EXPORT IN THE JORDAN VALLEY.

(Result of varietal, fertilizer, and pruning experiments conducted by the Extension Division).

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Preliminary experimental shipments by "Tnuvah" of Palestine winter tomatoes to England have given promising results. The future success of this branch of production depends, however, on the solution of several problems of tomato cultivation in Palestine, particularly problems as regards varieties, yield, and the influence of different factors on quality.

The common and most fertile variety of tomatoes in Palestine, the "Marmande", is not suitable for export purposes, and does not meet the requirements of the European market for a medium sized, round and smooth type of tomato. Different varieties which might be expected to meet this requirement while producing a satisfactory yield in the autumn growing season under Palestine conditions have therefore been tested. The preliminary trials indicate several varieties as worthy of further trial. These are listed below, in order of preference, together with their yield rates in kg.

1. STOFFERT'S IMMUNE — 5490 kg.
2. WESTLANDIA — 4485 „
3. LUCULLUS — 4200 „
4. DANISH EXPORT — 3780 „ (early fruit).
5. HETEROSIS — 4320 „

*Fertilization :*

The fertilization tests were carried out with the variety Lucullus. Four fertilizer combinations were tried. The composition of the fertilizer rations, and the yield obtained in kg. per dunam were as follows :

	Double Superphosphate kg.	Ammonium sulfate kg.	Potassium sulfate kg.	Yield kg./d.
1.	30	15	00	4050
2.	30	15	20	4125
3.	30	15	40	4190
4.	30	15	60	4050

It is to be noted that the different fertilizer combinations tried exerted no effect upon the development, yield rate, and disease susceptibility of the tomato plants.