The control of smut diseases of winter cereals in Palestine.

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1. Smuts of wheat (Tiletia tritici and T. levis), of barley (Ustilago hordei), of oats (Ustilago avenae), their distribution and injury is described. The average annual loss amounts to 1% for wheat, 4% for barley and 8% for oats. In some years the loss is very high.

2. Summarised results of 3 years' experiments in the control of smut of winter cereals are given. A detailed account will be published elsewhere.

3. The results of these experiments show that the best disinfectants for winter cereals in Palestine are Germisan (0,25% solution, dipping 1 hour for wheat, 1½ h. for barley and 2 hours for oats), the next best for wheat is Formalin (0,1% sol. and ¼ hour dipping, followed by dipping in water); for barley copper sulphate (1,5% sol., 3 min. dipping), followed by dipping in lime-water.

4. Taking in account the expenses and the specific conditions of the country, the following recommendations with regard to disinfectants are given: for wheat Formalin + water (cost 5,70 P.T. per ha.) or Germisan (11,65 P.T. per ha.); for barley copper sulphate + lime water (7,74 P.T. per ha.); for oats formalin, when seeds are sown in moist soil (14,8 P.T. per ha.) or Germisan in dry soil (27,5 P.T. per ha.).

5. Directions are given for carrying out disinfection.

6. Hints are given how to prevent the reinfection of disinfected seeds.

Poultry Rearing in the Valley of Jezreel 1925/26.

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At the commencement of the year 1925/26 there were approximately 12,000 head of poultry, in the various settlements in the Valley of Jezreel besides turkeys, ducks and geese which are not very widely distributed. The bulk of the poultry reared

in the Valley of Jezreel consists of crosses between local breeds and Leghorns or Rhode Island Reds. Leghorns are increasing and this is becoming the principal breed.

Egg production in many places reached 150—170 per bird per annum. 50,000 eggs were incubated in the Valley of Jezreel during the year and 30,000 were hatched. The percentage hatched was 60 – 70 %.

Diseases: During the summer poultry are attacked by a disease which is caused by lack of green food. In places where green food can be obtained the disease did not occur. Ticks also causes much injury during the summer months.

In the Extension poultry runs at Geva which was etablished this year, much progress is apparent. Incubation results were very good. In september the price of each egg rose 2 milliemes. In other places the price of eggs during the same period was double and treble.

Illustration Vegetable Fields.

Results for the year 1925/26.

1. Fertilizers. Yield in kgs per he ctare:

Locality	Crop	Or. Man. 60 tons	Ar. Man. 60 t.	Or. Man. 60 t. + P.K.N.	Ar. Man. 60 t. + P.K.N.	P.K.N.	Check
Ain Harod	Pumpkin	30,900	18,500	45,150	43,350	28,000	11,850
„ „	Cucumber	40,938	26 335	40,475	34,466	26,835	17,730
„ „	Tomatoes	16,960	14,660	13,305	16,250	13,735	6,657
Dagania II	„	36,350 [1]	38,750 [2]	—	40,390 [3]	—	36,140

Or. Man. = Organic Manure; Ar. Man. = Arabic Manure.

2. Varieties of Tomatoes. Yield in kgs. per hectare.

Variety	Period of fruit production	Yield
"Lucullus"	66 [4] — 132	15,840
"King Humbert"	66 — 125	24,120
"Marktwunder"	66 — 125	13,040

1) Or. Man. 80 tons. 2) Ar. Man. 80 tons; 40 tons Ar. Man. gave a yield of 50,670 kgs!) Ar. Man. 40 tons.

4) Days post sowing.