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GRASSHOPPER PLAGUE APR. - JULY 1945

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EXTRACT from Weekly Liaison Log No. 67 24-30 June (L.O.Sardinia)

(File 160/EC).

4. <u>Grasshoppers</u>. In various trips up the island have observed the great number of grasshoppers, more plentiful in the vicinity of Macomer and farther North. In early May we authorized the loan of 2000 salvage Army tents to the High Commissioner to combat them in the crawling stage, in all my travels throughout the island the past 2 months only saw four civilians destroying grasshoppers. In certain areas when in the crawling stage millions could have been collected and destroyed with a little effort. We authorized the transfer of 150 tons, with authority to draw 300 tons more if required, of sulphur chloride from Army Depots on sale to the High Commissioner's Office, only 50 tons were collected.

My sp.

EXTRACTS

(From File 836/EC)

MONTHLY REPORT FOR SARDINIA

. April

"Particularly critical is the agricultural situation especially the cereal crops due to the lack of rainfall. The grasshopper menace is threatening the crops and the deficiency of materials and means to combat them may lead to wider destruction."

May

"The exceptional drynass and the serious grasshopper menace have destroyed practically the total crop. It is expected that not more than a few thousand tons of grain will be harvested. Therefore, unless an additional supply is forthcoming, the present stocks will be used up by the first half of August at the latest."

Ext 451

ABA/el

Ref:4212/5/BD

MERCHANIZAM:

9 July 1948

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: Roomande Section

Enclosed is a copy of a report sent to this office by the Commissioner of Haples Commune on the grasskapper plague near Battipaglia to be passed on by you to Agriculture Subcommission.

A. B. ARHOLDY.

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To Mecutive Commissioner

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HEADQUARTERS ALLIED MILITARY GOVERNME NAPLES COMMUNE

APO. 394

3 Luglio, 1945

JUL 5 1945

C/1103.

SUBJECT

: Grasshopper Plague.

TO

: HQ. A. C.

(Att. Executive Commissioner).

- As requested verbally, I send a further brief report 1. on the grasshopper plague near Battipaglia and the results of using DDT. with the effect this had on birds eating the grasshoppers.
- My previous report gave the cycle of life of these insects as being slightly too long, it is given approximately as follows:
 - (a) April : eggs hatch and swarms of small hoppers appear.
 - : the insects grow rapidly and are extreme-(b) - May ly voracious, by the end of May they get to a semi-winged stage.
 - (c) June : As the insects cease to be hoppers and take to flying they commence copulation; their attention is then diverted from feeding and they do much less damage. About the middle of June the males, having fulfilled their functions, die.
 - (d) July : females lay their eggs in hard dry ground and then also die.

Natural Enemies of the Grasshopper. 3.

The grasshoppers have certain natural enemies, the chief of which appears to be a wasplike creature known as Zanabris. This insect lays its eggs in the same ground as the female grasshopper and the grubs eat the grasshopper eggs. Wet weather greatly favours 3 the grubs of the Zanabris and other enemies of the grasshopper. Dry weather, as occurred this year, favours the grasshopper. The Zanabris "wasp" feeds on honey from wild flowers and is not likely to be a menace itself.

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Methods of attack on the grasshopper plague are:
(a) - Plough or harrow the ground where the eggs are laid. These eggs are just beneath the surface and easily destroyed, but the gound selected by the females is usually barren hard ground for which special ploughing arrangements have to be made.

(b) * Poison the insects as early as possible in April when they are still very small hoppers. The most satisfactory method has been found to be by the use of bran soaked in water and sodium arsenite. Proportions: Bran 40 lbs - Water 40 lbs - Sodium arsenite 4 lbs. This is spread at a rate of 20 to 30 lbs per acre.

Paris green, or copper arsenite, has been tried but is reported as not satisfactory, not being a strong enough concentrate of poison.

Whatever poison is used has to be laid across exits from the breeding grounds - high rushes or similar crops stop the hoppers and form natural barriers.

D.D.T. This was used by the No. 32 Malarial Control Unit, in the propertions - 5% D.D.T. in Kerosene, as a spray. The unit reports results as a failure. The Italian authorities (Dott. Frauenfelder of Salei no) however, also obtained a small amount of D.D.T. and put this on the surface of a wet ditch. They reported that grasshoppers that came in contact with it died immediately.

I asked whether the poisoned grasshoppers killed birds but was informed that birds do not often feed on the dead grasshoppers as they putrify at once in the heat. In any case, wild birds, even sparrows are scarce in Italy and so an experiment was made with some hens, birds of no value, past laying. The fowls eat the poisoned grasshoppers readily, but the quantity of poison in the insects was so small that the birds did not die. Indeed a happy and unexpected effect of the exotic diet was that the hens' powers were restored and they began to lay eggs steadily.

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6. At Salerno nearly all the available stocks of sodium arsenite are used up, so they will require some more for next year. In the meantime a plan is being prepared of the area where egg laying is known to have taken place and these areas will be harrowed. Early reports give an expenditure of 300,000 Lire on measures to meet the plague but the total will certainly be high er at cost of wages is high. In spite of alarmingly large swarms of grasshoppers that appeared this year damage to useful crops appears to have been small. Grazing areas by the sea have, however, suffered.

The Prefect of Salerno, Dott. Mascoli and his exp perts, Dott. Silvestri and Dott. Frauenfelder, have all worked most cooperatively over this problem.

ADC Tempuile

J. A. C. PENNYCUICK Colonel Commissioner.

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Copy to : HQ. No. 3 District, C.M.F.
HQ. 94th Sub-Area, C.M.F.