

CYPRUS.

REPORT

ON THE

LOCUST CAMPAIGN OF 1894.

(*In continuation of [C. 7149.] September 1893.*)

A Map will be found at page 4.

Presented to both Houses of Parliament by Command of Her Majesty.
11 February 1895.



LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
BY EYRE AND SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.

And to be purchased, either directly or through any Bookseller, from
EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C., and
32, ABINGDON STREET, WESTMINSTER, S.W.; or
JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, and
90, WEST NILE STREET, GLASGOW; or
HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

1895.

[C.—7630.] Price 2½d.

Enclosure in No. 1.

Nicosia, July 21, 1894.

CHIEF SECRETARY,

I HAVE the honour to forward a report from the Inspector of Agricultural Industries on the locust campaign for the past year.

In the year under report, a change has been tried in the method hitherto adopted of combating this pest, and, instead of hiring labour, the locusts have been purchased both in the egg and insect stage.

Experiments were made at Nicosia nearly every day to find out how many locusts, at different periods of their existence, weighed an oke, and from these experiments I have made an average for the week, and I attach a return showing the okes of locusts purchased weekly, the amount paid weekly, the weekly average of locusts contained in an oke, the total number purchased weekly, and the weekly number of locusts obtained for one piastre.

It will be seen that, notwithstanding the high price paid at the commencement of the campaign, the numbers of locusts obtained for one piastre, from the commencement to the 14th April, were more than three times as many as those obtained during the last fortnight of the campaign.

Objections have been raised to the purchase of locusts in the egg stage, but the following figures show that we obtained considerably more locusts for a piastre by this method.

6,334 okes 25 drams of egg cases were purchased last year at 16 piastres the oke, total cost 563*l.* 5*c.p.*; about 2,600 egg cases weigh one oke, and each egg case is calculated to contain 32 eggs: say only one half hatch out—we obtained then 2,600 locusts for one piastre.

As regards the success of the campaign, Mr. Idlibi, who was employed both last year and this to assist in the campaign, and who went round the locust area directly after the purchasing was stopped, is of the opinion that the numbers of locusts left after the campaign this year are as many as were left after the campaign of 1893, but his opinion is not shared by the Inspector of Agricultural Industries, and Mr. Pascal Constantinides and Hassein Atta Effendi, members of the Agricultural Board, both state that the information which they have received from the villages leads them to believe that the campaign was a success.

Last year the reporters on egg deposits made a return, showing how many drams of eggs could be collected by a labourer in a day; the reporters have not yet completed their work this year, but the greater part of Famagusta District is finished, and the report on these villages tends to show that the campaign was a success, for in every village reported on last year and inspected this, considerably fewer eggs are stated to be able to be collected in a day, and in several villages not one-tenth of the amount; the reports showing the area over which eggs have been laid, have not yet been furnished, and until those reports come in, it would be premature to say to what extent the campaign has been a success.

The services of Mr. Idlibi were kindly placed at our disposal by the Receiver-General, and the two paymasters were lent us by the Commissioner of Nicosia and the Chief Medical Officer.

ARTHUR YOUNG,

Director of Survey,

Agricultural Department.

LOCUST CAMPAIGN, 1894.

Week ending.	Weight purchased.		Amount paid, excluding expense of weighing and supervision.			Average number of Locusts per Oke.	Total number of Locusts purchased.	Number of Locusts obtained for One Piastre.
1894.	Okes.	Drams.	£	s.	c.p.			
March 31 - - -	390	239½	375	17	0¼	96,911	37,853,436	559
April 7 - - -	740	209	523	9	1½	95,123	70,440,959	747
„ 14 - - -	1,559	355	620	14	0¼	49,287	76,877,863	688
„ 21 - - -	1,172	239	327	1	7¼	24,643	28,898,318	491
„ 28 - - -	2,195	17	542	7	6½	13,877	30,460,605	312
May 5 - - -	4,408	223	873	0	1	6,599	29,092,071	185
„ 12 - - -	2,740	355	332	17	7¼	4,605	12,621,924	211
Totals - - -	13,208	37½	3,595	7	7½		286,245,176	—

After the campaign of 1893, locust eggs were purchased: 6,334 okes 25 drams of egg cases were purchased at a cost of 563*l.* 5*c.p.*: each egg case contains 32 eggs, and about 2,600 egg cases weigh one oke: on the supposition that only 16 eggs in each case hatch out, it represents that we collected in the egg state 264,597,000 locusts, and paid one piastre for every 2,600 locusts.

The Inspector of Agricultural Industries, in his report, puts the cost of purchase of locust eggs at 646*l.* 4*s.* 1*c.p.*, but in this he has shown about 80% paid for reporters on egg deposits, and for purchase of cantars, sieves, etc., in stock.

The Inspector of Agricultural Industries, in his report, shows 3,598% as paid to the villagers for purchase of locusts: his calculation is made from the numbers of okes collected and price paid. I show above 3,595%, and the difference of 3% is due to fractions, as my calculation was made in a different way, viz., the actual sum paid to the villagers; in these sums fractions of 10 paras were excluded.

ARTHUR YOUNG,
Director of Survey.

DIRECTOR OF SURVEY, AGRICULTURAL DEPARTMENT,

Nicosia, July 16, 1894.

At the close of the locust campaign of 1893, reporters were sent out, as usual, to ascertain the approximate number of eggs that had been deposited. The return having been made up, it showed an increase in the number of eggs than there were the previous years. Attached is schedule showing the estimated egg deposits from 1883 to 1893.

On the 27th June, at a meeting of the Board of Agriculture, it was recommended by the Board that locust eggs should be purchased and paid for at the rate of 16 piastres per oke. This was sanctioned by Government, and the work commenced on 27th July and ended on the 10th December.

The result was that 4,721 okes were purchased in the Famagusta district, and 1,612 okes in the Nicosia district, giving a total of 6,333 okes, which cost, including weighers and supervision, the sum of 646*l.* 4*s.* 1*c.p.*

The Agricultural Board met again on the 4th January, and agreed that it was not advisable to employ labour in the forthcoming campaign, but that it would be advisable to purchase the live locusts, and it was recommended that a sum of 200 piastres per oke should be paid for them when first hatched out—that sum to be reduced at subsequent dates, and the price kept down so that every man working should receive a fair day's wage.

These recommendations having been approved by Government, arrangements were made for commencing work on the 7th March. The centres fixed for receiving locusts were, Pnyllia, Nicosia, Petra, Dhiyeni and Athriænon in the Nicosia district; Pyla and Mazoto in the Larnaca district; and Leopetri, Konkliä, and Lapathos in the Famagusta district.

Four Nazirs were appointed, and each had under his supervision two centres. A memour was sent to each centre to weigh the locusts, and issue cheques for the amount purchased. At Mazoto the work was not expected to be heavy, and as it lay wide of the other infected areas, it was not under the supervision of a Nazir, but was watched by Mr. Mitzi, whose services were kindly lent by the Commissioner of Larnaca.

To Limassol, whence a large number of locusts were expected, a Nazir was sent. He was subsequently removed, as the locusts proved to be very few. I attribute this to the fact that the lands in which the eggs had been deposited had all been brought under cultivation, thus destroying them.

Centres were subsequently opened at Rizo Carpass and Ayia Theviloro, and were placed under the supervision of the Mudir of Carpass, Mr. Dingli.

The first purchases were made on the 21st March at Leopetri, when 3 okes were brought in; on the 26th, 123 okes were purchased. The price then reduced to 150 piastres per oke. From this date the people entered into the work, and a rush was made to collect. At Leopetri centre, which included the worst infected area, viz.:—Famagusta, Paralimni, Ayia Napa, Leopetri and Zylophagc, the work became so heavy that a new centre had to be opened on the 8th April at Kato Varoshia, and the Pyla centre was moved to Zylotymbo.

Such large numbers of people were out collecting that the memours could not keep up with the work of weighing and issuing cheques, consequently assistant memours had to be appointed; even with this extra assistance, the weighers, in badly infected areas,

often had to work up to 10 o'clock at night. The greatest weight of locusts purchased in one day was 297½ okes, on the 4th May, at Petra Dhiyeni. Kato Varoshia centre weighed out 270½ okes on the 2nd May.

The execution done, and the locusts purchased, amounted to 13,208 okes at a cost of 3,598*l.* 8*s.* 5*c.p.*; supervision, formation of centres, transport, messengers, paymasters, and travelling allowances raised this sum to 4,046*l.* 7*s.*, this, with the sum of 646*l.* 4*s.* 1*c.p.* paid for eggs during the winter months, with 107*l.* 13*s.* 5*c.p.* paid for wages of store-keeper, stores, and 2*l.* 10*s.* unpaid wages for the 1893 campaign, raises the total sum spent for the year ending 30th June, 1894, to 4,802*l.* 14*s.* 6*c.p.*

I am of opinion that the work done has been most satisfactory, and I estimate that more than treble the number of locusts were destroyed this year than in any of the previous four years.

The worst infected areas were round the centres at Nicosia, Petra Dhiyeni, Leopetri and Kato Varoshia; this upheld the reports of the egg reporters as to the localities where locusts might be expected, but the estimate of locust eggs deposited was, I think, far in advance of the real numbers.

The following tables show the work done at each centre, and the weight of locusts taken at the different prices.

No.	Centre.	Weight.		Amount.		
		Okes.	Drams.	£	s.	c.p.
1	Phyllia	502	395	137	8	6
2	Nicosia	1,515	204	293	10	12
3	Petra Dhiyeni	2,565	328	523	18	7
4	Athrinon	764	150	216	11	4
5	Pyla after Zylotyambo	612	295	167	9	1
6	Leopetri	2,690	359	1,078	17	1
7	Mazoto	463	212	202	7	2
8	Konkia	791	140	225	19	3
9	Lapathos	880	14	218	16	4
10	Rizo Carpass	185	333	61	11	6
10A	Ayias Theodoros	239	26	36	11	1
11	Limassol	14	138	8	5	5
12	Kato Varoshia	1,981	213	427	1	7
		13,208	37	3,598	8	5

	Value per Oke.	Weight.		Amount.		
		Okes.	Drams.	£	s.	c.p.
At 200 piastros		200	271	222	19	4
" 150 "		521	094	434	17	5
" 120 "		506	095	337	9	7
" 100 "		161	117	89	12	1
" 70 "		1,437	297	559	2	4
" 60 "		399	397	133	6	5
" 50 "		672	238	186	16	5
" 45 "		5	209	1	7	5
" 40 "		4,763	051	1,058	9	4
" 30 "		1,817	014	302	16	6
" 20 "		2,173	277	241	10	5
" 10 "		548	327	90	9	7
				3,598	8	5

The methods employed by the villagers in taking the locusts were as follows:—

When the locusts were small, *i.e.*, during March and part of April, sheets with a hole in the centre, to which a bag was attached, were laid on the ground, the young locusts were driven on to these sheets, the sheets were then caught up by the four corners, and the locusts shaken into the bag; the process was then repeated. The remainder of April and May, the villagers made light muslin bags, and fastened them on to bent sticks, after the fashion of a butterfly net, and scooped up the locusts, transferring them into lined bags whenever they had them in sufficient numbers.

In March an experiment was made with chickens to see what destruction they would cause to the locusts when quite young. In the early morning, before being fed, the

chickens were taken out to a place called Deo Iroullia, near Paralimni, where locusts were plentiful; on being turned out they refused to look at the locusts, and walked about taking other kinds of food. The locusts were very small, and did not seem to attract their notice, although subsequently, when the locusts grew large, the chickens devoured them greedily, but then, from their size, the chickens cannot eat any very large number in the course of the day.

A. K. BOVILL,
Inspector of Agricultural Industries.

RETURN showing the estimated number and distribution of Locust Eggs in Cyprus from 1883 to 1893 in Districts of Nicosia, Famagusta, Larnaca, and Limassol.

	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Number of villages having lands in which eggs were deposited -	133	69	53	60	51	43	54	77	91	107	104
Area of egg deposits in donums -	46,156	25,512	23,662	25,596	14,459	7,891	9,051	20,064	23,746	31,708	34,614
Estimated number of egg cases in millions -	5,076	222½	249	128	38	18	55	213	243	332	578

No. 2.

SIR W. J. SENDALL to the MARQUESS OF RIPON.

Government House, Troodos,
October 20, 1894.

MY LORD,

WITH reference to my despatch of the 9th of August last,* forwarding copies of reports from the Director of Survey and the Inspector of Agricultural Industries on the destruction of the locusts for the past year, I have the honour to attach for your Lordship's information a return showing the number of egg-cases estimated to have been deposited after the last campaign as compared with previous years.

2. The figures show a very satisfactory result, and one that encourages the renewal of the method adopted generally for the first time at the late campaign.

3. The Agricultural Board also, at a meeting held on the 28th ultimo, have recorded their opinion that the plan of collecting locusts both in the egg and live stages is the best one to combat this destructive pest.

4. In my despatch of the 9th of August 1894, I pointed out to your Lordship that the locusts are very scattered, and that the system for trapping and burning has not proved satisfactory.

5. Taking the above into consideration, and also the encouraging fact that the estimated number of locusts left in 1894 is about 70 per cent. less than that left after the 1893 campaign, I will give directions that the purchase of locusts shall be continued for another year.

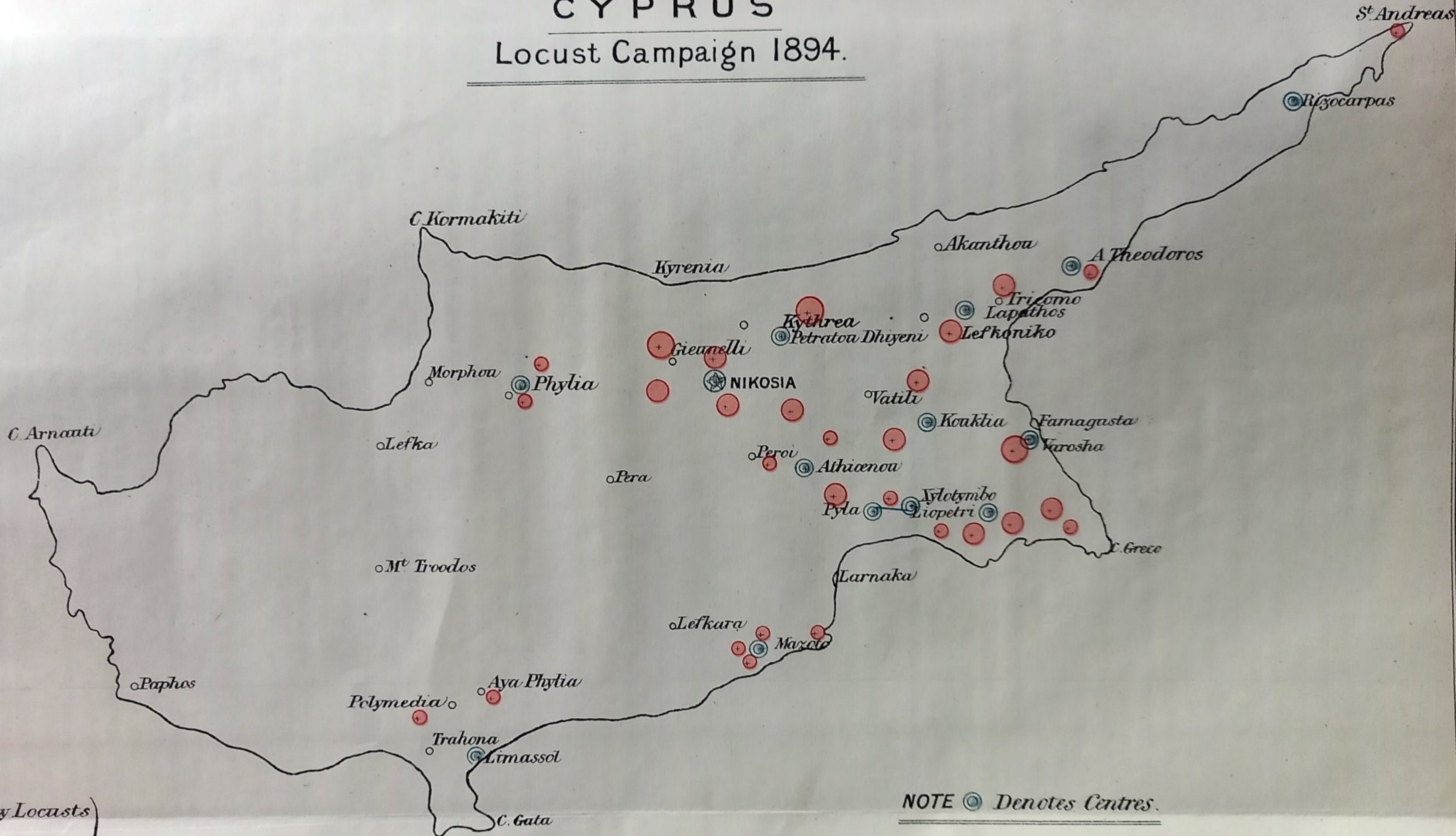
6. I ask that your Lordship will be pleased to direct that, if the reports transmitted by my despatch of 9th August* are to be printed, the table now forwarded may be also printed and attached to them.

I have, &c.

WALTER J. SENDALL,
High Commissioner.

CYPRUS

Locust Campaign 1894.



NOTE (Blue circle with cross) Denotes Centres.

Many Locusts
 Medium "
 Few "
 } Scattered in Patches.