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DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 57 MAY - EARLY JUNE 1983

SUMMARY

A locally produced swarm was controlled in the United Arab Emirates. Control operations were also undertaken in the People's Democratic Republic of Yemen and the Tihama of Saudi Arabia. Small numbers of adults and hoppers were recorded from numerous localities in Pakistan and Rajasthan of India. Scattered adults were reported from northern Ethiopia.

DESERT LOCUST SITUATION, MAY - EARLY JUNE 1983

WEST AFRICA

Meteorology

The Intertropical Convergence Zone (ITCZ) progressed to a mean position of 16°N by the end of May. Its position was shown very clearly on Meteosat imagery. North of 16°N rains were reported from Agades, Iferouane, Arlit, Anouareren in Niger, Gao and Boutilimit. To the south in Mali, Bougouni recorded 47 mm during the second decade, Sik asso 34 mm and Koutiala 22 mm. The Bamako area recorded 14-21 mm during the first 20 days of May. In Upper Volta Bobo Dioulasso recorded 88 mm during the second decade, while Gaoua, Ouagadougou and Boromo recorded 81, 35 and 23 mm respectively. In Niger, Birni N'Konni received 24 mm during the second decade and Gaya 8mm. According to GTS data the Zinder area received 11-79 mm on 25 May, while Niamey recorded 27 mm on 27 May and 21 mm on 31 May. In Senegal there were some weak thunderstorms at the end of May. Dust storms were recorded frequently in the Sahels particularly in Mauritania. Midday temperatures ranged from 35 - 45°C.

Breeding Conditions

The NOAA/AVHRR vegetation index imagery coverage of 19 May for the West African region indicated that the potential for breeding in Mali, Niger and Chad was very low due to the absence of green vegetation. Some localized low density vegetation patches were observed to be present in Mauritania in the area 1730-1830N/1430-1540 W. These areas may develop some potential with the onset of the rainy season.

Locusts

No surveys were undertaken and no locusts were reported.

NORTH-WEST AFRICA

Meteorology

Synoptic charts, supplemented by Meteosat imagery, showed the passage of several cold fronts originating in the Atlantic Ocean. These fronts sometimes affected the northern Sahara but the amount of rain only once exceeded 5 mm in 24 hours, Colomb Bechar receiving 10 mm on 11 May. Several dust storms were associated with the passage of the fronts. The Azores anticyclone affected the Moroccan coast during most of May, weakening the influence of the moist Atlantic airstream and directing relatively dry air towards southern Morocco. Midday temperatures were generally 20-25°C in coastal areas and 30-40°C in the interior.

Breeding Conditions

No NOAA/AVHRR vegetation index imagery was available during this period for the winter/spring breeding areas of the region. On 18 May, the summer breeding areas of southern Algeria were observed to be extremely dry and with no potential for locust population development.

Locusts

No locusts were reported from the Region during May. MCRCCCO was reported clear in March, LIBYA in April.

EASTERN AFRICA

Meteorology

The atmospheric situation was characterized by a quasi-permanent thundery tendancy, which resulted in widespread rains in the Central and Harar Highlands of Ethiopia, the Railway Area and around Hargeisa. Asmara recorded 47 mm on 5 May, Addis Ababa 47 mm on 15 May, Diredawa 76 mm and Hargeisa 94 mm during the last two decades of May. Somalia north-east of the Webi Shebeli apparently received little rain but GTS data were very incomplete. Kenya, Uganda and Tanzania were affected by several rainy periods and according to the fragmentary GTS data maximum daily rainfall totals reached 60 mm in the vicinity of lake Victoria.

Midday temperatures reached about 35°C during sunny weather but dropped to 25°C during stormy periods.

Breeding Conditions

The NOAA/AVHRR vegetation index imagery of 29 May when compared to that of 4 May, showed that due to extensive development of the vegetation in many important areas following the widespread rains in April, the potential for locust breeding in the Region is fairly high. Good vegetation conditions persist on the northern Somali coast in various locations between 4350E and 4500E. The areas around and east of Hargeisa are observed to be very green. In the Rift Valley north of the Railway Line in Ethiopia vegetation was very green in many areas in late May. The Eritrea province was largely observed by clouds; however the cloudfree parts were observed to be dry. The interior of Ethiopia and Somalia was observed to be very green over large areas.

Locusts

ETHIOPIA

A total of 41 immature locusts were captured in Asmara on 11-13 May.

No other locusts were reported from the Region in May. SUDAN was reported clear in April.

NEAR EAST

Meteorology

The quasi-permanent depression over the Arabian peninsula resulted in widespread rains extending from Aden, the Asir and Hijaz mountains to the eastern coasts. Riyadh recorded 196 mm between 6-19 May. A stormy trough lay over the Emirates on 15 May. A persistent trough extending from Central Africa lay over Bab el Mandeb and gave frequent rain over western People's Democratic Republic of Yemen. At the end of May convective rain occured over southern Oman, Salalah recording 24 mm on 27 May. Sandstorms frequently occurred with the thunderstorms. Deily maximum temperatures were in the region of 35°C in coastal areas but reached 40-45°C in the interior.

Breeding Conditions

The NOAA/AVHRR vegetation index imagery for the Near East Region of 22 May showed that green vegetation conditions persisted in the cultivated wadis of the Tihama of Saudi Arabia and the Yemen Arab Republic. The coastal plains were observed to be largely dry except for some areas close to the mountains between 1640-1700N and 4300-4320E. Most of the Yemen Arab Republic and the People's Democratic Republic of Yemen was obscured by heavy cloud cover from which heavy and widespread rains have been confirmed.

The interior of south-west Saudi Arabia as far as the imagery coverage provided infrmation was observed to be dry. For eastern Arabia, imagery coverage was only available for Oman where the green area reported in April at 2100N/5810E still persisted.

Locusts

SAUDI ARABIA

In early June solitarious adults were found in several localities between Qunfidah and the Yemen border in wadi Shafaqa (1833N/4123E) at a density of 250/ha over 40 sq km, in wadi Amq (1745N/4142E) at 50/ha and in wadi Haudh at 40/ha over 25 sq km. In wadi Baysh (1710N/4230E) fourth and fifth instar hoppers and fledglings were found and adults at densities of 50-120/ha were found in wadi Marsala (1645N/4255E). Control operations were undertaken in all infested areas with good results.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Immature and maturing adults at 10-250/ha and 5-10 third instar green and black, fawn and black and yellow and black hoppers per Heliotropium were seen at Wadi Thalan (1319N/4537E) on 22 May. Four mature adults were seen at Khormahsar on 16 May and scattered locusts were seen at Al-Ayn (1348N/4554E) on 11 May and at Jabalaya (1258N/4424E) on 20 May.

In the first fortnight of June high density solitarious copulating adults were observed in scattered Sorghum fields between Bir Masal (1325N/4559E) and El Khabr (1325W/4608E) on 4 June. Control operations using EHC bran bait achieved good results.

UNITED ARAB EMIRATES

On 5 May groups of adults were attracted to lights at Thoban, 5 kilometres east of Al Dhaid (2518N/5552E).

On 22 May an immature swarm was observed intermittently flying south.west and settling on acacias over an area of about 100 sq km between Idhan (2545N/5602E) and Manama (2533N/5603E). The density was 10-400 per Acacia. By 26 May the swarm had reached Falaj Mualla (2521N/5551E) and Al Dhaid. On 29 May it settled on date palms at Alawir (2512N/5531E) and on 1 June part of the swarm reached Ashajer (2438N/5545E).

On 29 May fifth instar hoppers, fledglings and immature adults were found at Alawir. The hoppers ranged from solitaricolor to gregaricolor and were found at densitites of 10-15 per Panicum. The adult density was 50-150 adults per domum (1000 sq metres). Ground control was undertaken using Malathion 57% EC.

OMAN

A small number of locusts (said to be most probably Desert Locusts) have been reported from the Tanuf area (2303N/5727E).

IRAQ was reported clear in March and April. There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

The monsoon regime (and the vast depression which characterises it) developed progressively. Thundery storms were well developed, particularly over central and southern India. Several troughs of norther origin temporarily affected Pakistan and north-west India but rainfall was generally light. Bikaner recorded 95 mm, Barmer 37 mm and Taisalmer 15 mm.

Midday temperatures were about 30°C in coastal areas and $40\text{--}45^{\circ}\text{C}$ in interior areas.

Breeding Conditions

No NOAA/AVHRR vegetation index imagery coverage was available during this period for the winter/spring breeding areas of the Region. The Lasbela region of Pakistan was seen to be dry. The summer breeding areas of India and Pakistan were observed to be extremely dry in late May.

Locusts

PAKISTAN

Small numbers of solitarious adults were seen at numerous localities in Pasni, Turbet, Kharan, Nushki, Kharan, Khuzdar, Dera Muradjamali and Las Bela districts at a masimum density of 750 per sq km. Low density hoppers were recorded in Pasni, Turat, Kharan, Nushki, Khuzdar and Dera Muradjamali districts.

TNDTA

Small numbers of solitarious adults were seen at numerous localities in Jaisalmer, Bikaner and Banaskantha districts or a maximum density of 100 per sq km.

Small numbers of solitarious second to fourth instar hoppers were found at seven localities in Jaisalmer district.

IRAN was reported clear in April. There was no report from AFGHANISTAN.

FORECAST FOR JULY - AUGUST 1983

The period traditionally marks the onset of summer breeding.

In West Africa only small numbers of adults are likely to have overwintered in Mauritania, Mali and Niger. If the ship's report of 15 March refers to Desert Locusts, significant numbers of locusts are likely to reach the summer breeding area of Mauritania and perhaps north-east Mali. Breeding will commence in areas to the north of 17°N which receive rainfall or run-off.

In North-West Africa only small numbers of adults are likely to persist. If there are important northward surges of the ITCZ breeding may commence in the far south of Algeria.

In <u>Eastern Africa</u> the capture of 41 adults in Asmara in mid-May suggests that considerable numbers of adults emigrated from the Eritrea coastal plains and will be available to breed in the summer breeding areas in the interior of Sudan and perhaps the western lowlands of Eritrea. Conditions are favourable for breeding in parts of the northern Somali coastal plains and some breeding is likely to occur.

In the <u>Near-East</u> further breeding will occur in coastal and some inland areas of Yemen PDR and may result in the formation of hopper bands and some small swarms unless controlled. Some adults may persist in sub-coastal plains of the Tihama of S. Arabia.

In South-West Asia summer breeding will commence in Rajasthan and adjacent areas of Pakistan and perhaps in Ias Bela in areas which receive monsoon rains. It will generally be at low density but may result in the formation of groups if rainfall is restricted.

Rome, 16 June 1983

