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DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 50 OCTOBER - EARLY NOVEMBER 1982

SUMMARY

Several swarms were reported from Yemen Arab Republic in late October adjacent to areas in the People's Democratic Republic of Yemen where control was carried out. Breeding was also discovered on the edges of the Rub al Khali in Saudi Arabia in early November. Widespread rain fell over much of Arabia and north-east Africa during October and further breeding is imminent in coastal areas around the Red Sea and Gulf of Aden.

Groups of locusts were reported from the United Arab Emirates and scattered adults from India, Pakistan, Oman and Sudan. Small numbers of adults were reported from Mauritania and Niger and localized breeding was recorded in north-eastern Mali.

DESERT LOCUST SITUATION, OCTOBER - EARLY NOVEMBER 1982

WEST AFRICA

Meteorology

The Intertropical Convergence Zone (ITCZ) withdrew to the south and at the end of the month was situated at about 15°N. The characteristic wave was slightly reduced, and there was also a reduction of the trough to the west of 5°W. The monsoon was only active in maritime countries from Guinea to the Ivory Coast. Sandstorms were observed in Mauritania, Senegal and Mali. In Sahelian countries above average rainfall north of 16°N during the first decade of October was only recorded at Gao (18 mm).

Breeding conditions

The NOAA/AVERR vegetation index imagery for mid-October showed that conditions were unfavourable for breeding in Western Sahara, northernMauritania, Adrar des Iforas, Tamesna of Niger. Conditions were favourable for breeding, however, in numerous localised areas in Malian Tamesna between 1750N and 1905N and 0240E and 0355 E. The vegetation formerly observed in Air continued to desiccate.

Locusts

MAURITANIA

Small numbers of solitarious adults were captured north of Boutilimit at 1804N/1426W.

In September there was a report of hoppers at Messaoud (1751N/1448W) which was not confirmed by a prospector.

MALI

Hoppers at densities of less than 200 per hectare and young adults were present in several wadis in Tamesna, at In Atankara (1820N/O412E) and In Touft (1802N/O348E). Hatching was observed in wadi Laya (1755N/O338E).

NIGER

Two adults were seen north-east of Arlit at 1917N/0753E.

No locusts were reported from CHAD.

NORTH-WEST AFRICA

Meteorology

Disturbances associated with depressions from the Atlantic affected northern Algeria, Tunisia and northern Libya, but not Morocco, which remained under the influence of the Azores anticyclone. Thunderstorms accompanying the disturbances were very variable in intensity, some produced torrential rain at the end of October and beginning of November in Tunisia.

Several sandstorms were reported from the Libyan desert.

Breeding conditions

NOAA-AVHRR imagery showed that there were localised patches of green vegetation in southern Algeria at 1940N/ 0410E. Aerial and ground surveys at the end of August and beginning of September had revealed green vegetation in many wadis in the area 0141E-0315E and 1950N-2055N.

Locusts

No locusts were reported from the Region during October, or between July and September.

EASTERN AFRICA

Meteorology

In spite of large irregularities in GTS data and of gaps which characterize in synoptic network, analysis of charts showed the presence of a complex low pressure area throughout October. The essential characteristic of this low pressure area was the presence and development of numerous troughs and very active thunderstorms. As a result localised heavy rain was observed. Massawa recorded 60 mm on 12 October.

Breeding conditions

Widespread cloud prevented evaluation of breeding conditions in Eritrea, Djibouti and northern Somalia using satellite remote sensing in October but conditions are likely to have become favourable in many areas.

Locusts

SUDAN

Scattered locusts have been reported from the Tokar delta.

There were no other reports of Locusts from the Region.

NEAR EAST

Meteorology

The complex depression which affected Eastern Africa extended along the length of the Red Sea and over most of Arabia. This area of permanent and very active low pressure was accompanied by thunder— and dust—storms. Frequent rains were reported from the southern Tihama of Saudi Arabia and north—east Saudi Arabia. The disturbances did not affect Oman. The eastern part of the Yemen People's Democratic Republic marked the eastern limit of the influence.

Breeding conditions

Ground reports indicate that conditions for breeding improved during the second half of October in Yemen PDR and wadi El Goba (1450N/4515E) and the Tihama in Yemen AR. Other areas in the eastern lowlands of Yemen AR were dry in early November. The extent of the area in the Rub al Khali which was favourable for breeding is not yet known.

Locusts

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Control operations were in progress against third to fifth instar hopper bands and fledglings in the Ataq (1433N/4648E) and Nisab (1431N/4630E) areas up to 26 October. The total area infested was about 600 square kilometres. 1361 hopper bands and 217 groups of fledglings were controlled. Altogether 4565 litres of 20% dieldrin and 1250 kg of 10% BHC dust were used.

Reports from Yemen AR and Saudi Arabia suggest there may have been further breeding in the northern desert areas.

YEMEN ARAB REPUBLIC

On 21 and 23 October one large and one small swarm of mixed maturity were reported flying westwards at Al-Jubah (1518N/4530E) between Harib and Marib, and on 25 October a swarm, possibly the same as one reported from Al-Jubah, was reported flying north-west over Marib (1531N/4520E). Another report sent on 3 November referred to five small and medium sized swarms in the Al-Bayda (1359N/4534E), Harib, Marib and Khawlan (1513N/4428E) areas.

On a ground survey of the Marib, Harib, El-Goba (1500N/4515E) and El-Jawf (1600N/4500E) areas in early November no gregarious locusts or hoppers were seen. A few solitary adults were found in wadi El Goba.

KINGDOM OF SAUDI ARABIA

On 6 November hoppers and groups of mature adults were seen in the Abu Shaddad (1830N/4650E) area on the edges of the Rub al Khali. The adults were flying north-west. Control operations started immediately. Also on 6 November an immature swarm measuring 1 km² was observed at Najran. (1730N/4470E)

No locusts were reported from the Tihama.

OMAN

On 20 October adult locusts appeared in Muscat at densities of 25-100 per hectare. Travellers reported a small swarm at Saham (2410N/5652E) in late October.

UNITED ARAB EMIRATES

On the night of 20 October groups of mature adults appeared at street lights from the east at Fujeirah (2508N/5618E), Dhadnah (2532N/5621E), Dabah (2529N/5609E) and Masfut (2448N/5606E). The next day these were collected

in bags and controlled mechanically. Chemical control using 57% malathion E.C. was undertaken in date palm and citrus groves at Masfut and Hata.

Mature adults were also reported (and samples sent) from Bada Zaid (2339N/5229E) 210 km west-south-west of Abu Dhabi.

IRAQ was reported clear of locusts in September.

There were no other reports of locusts in the Region.

SOUTH-WEST ASIA

Meteorology

The monsoon had a tendency to weaken and the associated depression to fill. Meanwhile there were scattered thunderstorms over Pakistan and north-west India. Light rains were recorded at Bikaner, Jodhpur, Bahawalpur, Panjgur, Nushki, Turbat and Pasni. This instability was perhaps due to residual tropical convergence zones. Weak centres of high pressure started to develop in the Region corresponding to the evolution of the transitional period between the summer monsoon and the winter monsoon. The influence of tropical cyclones was noted intermittently, particularly over southern India.

Breeding conditions

Summer breeding areas continued to dry out and there was no evidence of vegetation in the winter breeding areas.

Locusts

PAKISTAN

Solitarious locusts were recorded from the Tharparkar and Nara deserts at densities of 75-4500 per square kilometre.

INDIA

Scattered adults were recorded at 68 localities in Barmer, Bikaner, Churu, Ganganagar, Jaisalmer, Jodhpur and Nagar districts of Rajasthan and at one locality in Banaskantha district of Gujarat, during the first half of October, the maximum density being 5626 per square kilometre at Dhanana (2642N/7011E) on 1 October. A few second and third instar hoppers were seen at Dhanana and Sam (2650N/7030E) on 1-2 October.

In the second half of October scattered adults were recorded from 36 localities in Barmer Bikaner, Ganganagar, Jaisalmer and Nagaur districts, the maximum density being 7500 per square kilometre in Jaisalmer.

There were no reports from AFGHANISTAN or IRAN.

FORECAST FOR DECEMBER 1982 - JANUARY 1983

There was widespread rainfall over the western half of the Arabian peninsula and the Horn of Africa extending northwards to at least Massawa during October. A number of swarms were produced in the interior of southwest Arabia. Widespread breeding is imminent on the coastal plains on both sides of the Red Sea and Gulf of Aden much of it will be congregans or gregarious. Fledging on a scale sufficient to give rise to another generation of swarms is likely in areas where no control can be carried out.

In <u>West Africa</u> small scale breeding on summer rains will come to an end and only small numbers of adults will persist.

In North-West Africa small numbers of adults may persist in central and western Algeria, southern Morocco and Western Sahara.

In Eastern Africa it is possible that swarms may reach the Red Sea coasts of Sudan and Ethiopia from across the Red Sea, and Gulf of Aden coasts of Djibouti and north-west Somalia from across the Gulf of Aden. Any such swarms and any lower density adults will breed and are likely to give rise to hopper bands. In areas where no control measures are possible fledging is likely to be on a scale to give rise to another generation of swarms during late December and January.

In the Near East the swarms reported in the Yemen Arab Republic in October and the adults reported in the Rub al Khali of Saudi Arabia in early November are likely to move to the Red Sea coasts of the Yemen Arab Republic and Saudi Arabia during November. During spells of south-easterly winds along the Red Sea trench they may reach the northern Tihama of Saudi Arabia and possibly the south-eastern desert of Egypt. There has been widespread rain so breeding will certainly occur and is likely to result in the production of hopper bands even in the first winter generation. Fledging is likely to commence in mid-December. The population in south-west Arabia may be augmented by immigrants from the eastern region.

In <u>South-West Asia</u> small numbers of adults will persist in the summer breeding areas of Pakistan and north-west India. Others will be present in the Mekran of Baluchistan in Pakistan and probably also in south-east Iran. Breeding will not occur during the forecast period.

Rome 15 November 1982

