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منظهة الأغذية والزراعة للأمم المتحدة

Via delle Terme di Caracalla, 00100 Rome, Italy

Cables: FOODAGRI ROME

Telex: 610181 FAO I

Telephone: 57971

AGP Division

Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 54 FEBRUARY - EARLY MARCH 1983

SUMMARY

A ship reported swarms of yellow locusts off the coast of Western Sahara on 15 March. If they were Desert Locusts, it is probable that there has been substantial unreported breeding in Western Sahara or northern Mauritania recently and considerable numbers of adults may still be present. In Sudan groups of adults and hoppers were reported from the Red Sea coast and swarmlets and scattered hoppers were reported from the northern Red Sea coast of Ethiopia. Dense groups of adults and some hoppers were present in the Yemen Arab Republic. Small numbers of adults were reported from the People's Democratic Republic of Yemen, The United Arab Emirates and Pakistan.

DESERT LOCUST SITUATION, FEBRUARY-EARLY MARCH 1983

WEST AFRICA

Meteorology

The Intertropical Convergence Zone (ITCZ) displaced from the equator to the Guinea coast and had a wave at a mean position around 7°N at the end of the period. GTS data indicated there were some showers associated with the ITCZ on 13, 15 and 19 February mainly near the coast. The harmattan was well established over the Sahelian zone and sandstorms were frequently observed. Maximum daily temperatures ranged from about 30°C along the coast to 35°C in the interior at the end of February.

Breeding Conditions

The NOAA/AVHRR vegetation index imagery for the winter/spring breeding areas in Mauritania and Western Sahara acquired on 20 February, indicated that conditions for breeding continued to be unfavourable. One small green area was observed at 2450N/1400W.

Locusts

No surveys were undertaken and no locusts were reported.

NORTH-WEST AFRICA

Meteorology

At the beginning of February a ridge extending from the Azores anticyclone had weakened disturbances from the Atlantic but from 7 February there were heavy rains over the Mighraeb extending as far south as Tamanrasset by 12 February (39.4 mm recorded on 13 February). These rains were local and thundery and were frequently preceded by sandstorms, particularly in Libya. From 20 February drier weather predominated. Maximum temperatures were in the region of 15°C along the coast and from 17-25°C in the interior.

Breeding Conditions

During February breeding conditions in Southern Morocco, Western and Central Algeria were unfavourable due to the complete absence of green vegetation, as indicated by the vegetation index imagery of 16 February. NOAA/AVHRR imagery for Libya was not available for analysis.

Locusts

ATLANTIC OCEAN

On 15 March a ship reported being invaded by swarms of yellow locusts at position 2445N/1527W. The surface wind was ENE 5 knots. Although no specimens have been received it is probable that they were Desert Locusts.

LIBYA

Ground surveys were made to Sarir and Kufra but no locusts were seen.

No reports have been received from elsewhere in the Region.

EASTERN AFRICA

Meteorology

Gaps in GTS data were only imperfectly compensated for by meteorological satellite imagery and indirect sources of information.

Thick cloud over the southern Red Sea gave rise to good rains. These disturbances were clearly visible on Meteosat imagery over Bab el Mandeb on 22 February.

The ITCZ lay over Uganda, Tanzania and Kenya and gave rise to convective and sometimes thundery rain. Maximum temperatures ranged from 27-37°C.

Breeding Conditions

NOAA/AVHRR vegetation index imagery of 20 February indicated that most of the coastal plains of Eritrea were extremely dry and unfavourable for breeding. Ground reports, however, stated that the Red Sea coastal plains of Sudan and northern Ethiopia were favourable for breeding. Cloud cover masked a large part of the Ethiopian coastal areas. Breeding areas in Djibouti were observed to be dry. Large scale green vegetation development was observed on the coastal and sub-coastal plains of northern Somalia between Bulhar and Berbera, generally from 4320E/4435E where conditions for breeding were certainly favourable during February. The interior areas of northern Somalia were observed to be dry.

Locusts

SUDAN

In early February groups of mature adults, some copulating, were present in Khor Karora at densities of 180-2400 per hectare over 180 hectares. Groups of mature adults at densities of 780-1320 per hectare were seen at Jebel Meihtub (1752N/3823E) and Jebel Gedaif (1751N/3824E) over an area of 400 hectares. Groups of mature adults at densities of 2160-2400 per hectare were seen at Khor Balatat over an area of 180 hectares. Groups of first instar hoppers were reported from Jebel Halibai (1756N/3823E) on 3 February over an area of 60 hectares. Most infestations were in Pennisetum cultivations and were being controlled by poisoned bait.

During the second decade of February adult densities at Khor Karora had increased to 450-8400/hectare and some small patches of first and second instar hoppers were seen in the border areas. In the Tokar delta, there were adults at 180-540/hectare and second and third instar hoppers. In late February there were further reports of first instar hoppers and adults at very low densities in the border area.

ETHIOPIA

As stated in Summary No. 53, a report was received on 4 February of some small swarmlets and scattered hoppers from the Karora area. In late February there were small numbers of first to fifth instar hoppers and fledglings in the same area. Fighty litres of 10-20% gamma BHC were applied between 17-25 February. In early March control measures were continued against first-fifth instar hoppers, fledglings and scattered adults.

There were no reports of locusts from elsewhere in the Region.

NEA

NEAR EAST

Meteorology

The Red Sea Convergence Zone persisted during the first half of February and was accompanied by strong westerly winds on 16 February at Medina and Hail. Showers were observed in many areas of the Arabian peninsula, notably in the People's Democratic Republic of Yemen, where there were widespread heavy rains. Aden recorded 171.2 mm against a mean of 3 mm, and the United Arab Emirates, where over 200 mm fell at Fujeira, Kalba and Khor Fakkan on 9-14 and 18 February. There were also widespread heavy rains over Yemen PDR in the first fortnight of February and along the Tihama of the Yemen Arab Republic. Sandstorms were recorded on various occasions in southern Arabia. Maximum temperatures ranged from 15-20°C in the north and from 25-35°C in southern areas.

Breeding Conditions

In early February favourable breeding conditions were observed on the southern Tihama of Saudi Arabia and Yemen AR between 1640N and 1725N by the presence of substantial green areas. Conditions were furthermore observed to be favourable in Yemen AR at around 1510N/4310E, approximately 25-30 km inland from the coast. The coastal plains of Yemen AR and Yemen PDR were observed to be generally dry except for Wadi Bana in Yemen PDR which was green in early February. The vegetation index imagery of 20 February indicated that the green areas on the coastal plains of Saudi Arabia, Yemen AR and Yemen PDR were generally drying out but ground reports indicated they were still suitable for breeding. The southern coastal plains of Yemen PDR were obscured by cloudcover. Most of the coastal areas of Cman were cloudcovered. The interior wadis were observed to be dry. In late February the green areas previously providing suitable breeding conditions around Abu Dhabi were observed to be dry.

Locusts

YEMEN ARAB REPUBLIC

On 15 February groups of copulating adults at densities of 10 000/hectare were found over an area of 10 sq km in the Bajil area, 30 km north-east of Hodeidah. Between 20 February and 2 March laying adults at densities of 1000/hectare and first to third instar solitaricolor hoppers were found over 30 sq km in the same area. In control operations up to 25 February 150 kg of BHC dust and 100 litres of 20% Dieldrin had been applied.

PEOPLE'S DEMOCRATIC REPULBIC OF YEMEN

Small numbers of adults, some copulating, were seen at Khabt al Yemani (1259N/4440E) and Al Khabr (1325N/4698E) in the second half of February.

KINGDOM OF SAUDI ARABIA

Small numbers of adults were reported from the Qunfidah area in February and from the Jizan area in January according to a late report. In early March & low density adults and fourth and fifth instar hoppers, some gregarious, were seen at Mudhailif (1933N/4103) north of Qunfidah.

UNITED ARAB EMIRATES

On a ground survey of the green area between 2535N/5545E and 2555N/5605E, immature adults were found at a density of 6/hectare over 100 hectares at Birarat (2554N/5607E). One gregarious fifth instar hopper was also found. Adults at densities of 2-3 per sq km were also found at five localities in the Liwa casis in late January and early February.

There were no reports from other countries in the Region.

SOUTH-WEST ASIA

Meteorology

Heavy and widespread rain was reported from Baluchistan, particularly between 8-14 February, Pasni recording 75 mm on 12 February. There was further light to moderate rain on 16-17 February. Maximum temperatures ranged from 19°C at Quetta to 27°C at Pasni.

Breeding Conditions

The NOAA/AVHRR vegetation index imagery coverage for the winter/spring breeding areas in Iran and Pakistan indicated that favourable breeding conditions existed throughout the month of February in localized areas in the interior of Baluchistan in both countries, whereas the coastal areas were observed to be dry. Substantial green areas were observed in Iran between 2720N-2910N and 5730E-5900E; 2715N and 6015E-6050E; 2840N/6100E; 2720N/6225E. In Pakistan green vegetation development was observed at 2705N/6405E; 2945N/6505E and in Lasbela at 2555N/6647E; 2455N/6720E.

Locusts

Scattered locusts were seen at two localities in Ias Bela district at a maximum density of 375 per sq km in the second half of February.

No locusts were reported from AFGHANISTAN or INDIA. No report was received from IRAN.

FORECAST FOR APRIL-MAY 1983

Breeding is likely to terminate on both sides of the Red Sea but to become m more widespread around the Gulf of Aden, in the United Arab Emirates, Oman, Southeastern Iran and Baluchistan of Pakistan. If the ship's report of yellow locusts off the Western Sahara refers to Desert Locusts there must have been substantial gregarious breeding in Western Sahara or northern Mauritania and there may still be considerable numbers of locusts present. These are likely to move south towards the Sahel.

In North-West Africa it is probable that there has been substantial gregarious breeding recently in Western Sahara (or northern Mauritania) if the ships report of 15 March refers to the Desert Locust. There may still be substantial numbers of locusts present. These are likely to move south toward the Sahel during the forecast period and it is possible that they may breed. There may be small scale breeding in central and western Algeria and southern Morocco.

In <u>West Africa</u> there may have been substantial breeding in northern Mauritania if the ship's report of 15 March refers to the Desert Locust. There may still be substantial numbers of locusts present. These are likely to move south and it is possible they may breed in Mauritania during the forecast period. Small numbers of adults are likely to persist in restricted areas in Mauritania, Mali and Niger. They may start to breed if there are early monsoon rains.

In <u>Fastern Africa</u> breeding is likely to terminate on the Red Sea coast of Sudan and Ethiopia and the resulting adults will move into the interior. Small scale breeding may occur on the northern coastal plains of Somalia.

In the Near East breeding is likely to terminate in the Tihamas of Saudi Arabia and Yemen Arab Republic and the resulting adults will move into the interior. There have still been no reports of the swarms reported in the interior of Saudi Arabia and Yemen AR in late 1982 but there may still be considerable numbers of adults present and these are likely to breed in the forecast period. Small scale breeding is likely to occur in coastal areas of Yemen PDR and may extend into the interior. Small scale breeding is also likely to occur in the United Arab Emirates and Oman.

In South-West Asia, small scale breeding is likely to occur in south-eastern Iran and Baluchistan of Pakistan. Towards the end of the forecast period adults will migrate eastwards into the summer breeding areas of Rejasthan and adjacent area of Pakistan.

(For technical reasons, the map to go with the summary will be distributed with next month's summary).

Rome 18 March 1983

