



联合国
粮食及
农业组织

FOOD AND
AGRICULTURE
ORGANIZATION
OF THE
UNITED NATIONS

ORGANISATION
DES NATIONS
UNIES POUR
L'ALIMENTATION
ET L'AGRICULTURE

ORGANIZACION
DE LAS NACIONES
UNIDAS PARA
LA AGRICULTURA
Y LA ALIMENTACION

منظمة
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. 83 JULY-EARLY AUGUST 1985

SUMMARY

The overall Desert Locust situation remains calm, with only small numbers of adults having been reported from Mauritania, Niger, Ethiopia, Djibouti, Somalia, Yemen PDR, Pakistan and India. However there have been good early monsoon rains in West Africa, Pakistan and India and as a result locust numbers are likely to show significant increases over the very low levels recorded in the past year.

W/R5739

DESERT LOCUST SITUATION JULY-EARLY AUGUST 1985

WEST AFRICA

Meteorology

The mean position of the ITCZ was in the region of 20°N. Several northward surges of the ITCZ associated with Mediterranean depressions were characterised by heavy rain in the summer breeding areas and also by sandstorms. Amongst the most significant rains reported by the GTS and OCLALAV were the following: 8.8 mm at Agadez on 12 July; 25 mm at Nema and 52 mm at Aioun el Atrouss on 14 July; 53 mm at Menaka on 16 July; there was abundant rain over Mauritania on 19-20 July when the FIT reached 23°N, Rosso receiving 37 mm, Tidjikja 7 mm, Aioun 13 mm, and Bir Moghreïn 9 mm on 19 July; on 20 July Rosso received 44 mm, Atar 25 mm, Bir Moghreïn 7 mm, Nema and Nouakchott 5 mm; Tessalit received 5 mm on 21 July and Bouressa received 52 mm on 21 and 27 July; 37 mm at Tombouctou on 22 July; 26 mm at Tidjikja on 23 July, 12 mm at Kiffa on 24 July; 8 mm at Nema on 25 July; on 27 July Tin Essako received 42.5 mm, Kiffa 26 mm, Aioun 12 mm and Nema 10 mm; Assamaka received 49 mm during the first two decades of July.

On 2 August Meteosat imagery showed the development of further cumulonimbus clouds over West Africa, Rosso received 49 mm, Nouakchott 21 mm, Kiffa 20 mm, Aioun and Boutilimit 17 mm, Tidjikja 16 mm. On 8 August there were further rains over Mauritania associated with the ITCZ, Tidjikja recorded 14 mm; on 9 August Boutilimit reported 8 mm; on 16 August the same station reported 13 mm; on 17 August Dakar reported 49 mm. On 18 August Kiffa received 81 mm during the passage of a large thermoconvective cloud clearly seen on Meteosat. On 19 August Dakar reported 87 mm in 12 hours while Tidjikja recorded 8 mm.

South of the ITCZ there were frequent heavy rains often exceeding 50 mm in 24 hours. Maximum daily temperatures were usually in the range 35-42°C in interior areas and between 25 and 35°C in coastal areas.

Breeding conditions

According to OCLALAV vegetation was well developed in eastern Assaba-Tagant, the Aouker of Tichit and in northern Mauritania. In Mali wadis were in flood north of 17°N as a result of the good rains during the last two decades of July, particularly in the Western and South-Eastern sectors of the Bouressa basin. In Niger annual vegetation was beginning to sprout and perennial vegetation to become green following the good rains of the second half of July in Tamesna and Air.

Locusts

MAURITANIA

One adult was seen at 1646 N/0852 W.

NIGER

One immature solitarious adult was captured at Mbikas (1855 N/0623 E) on 28 July.

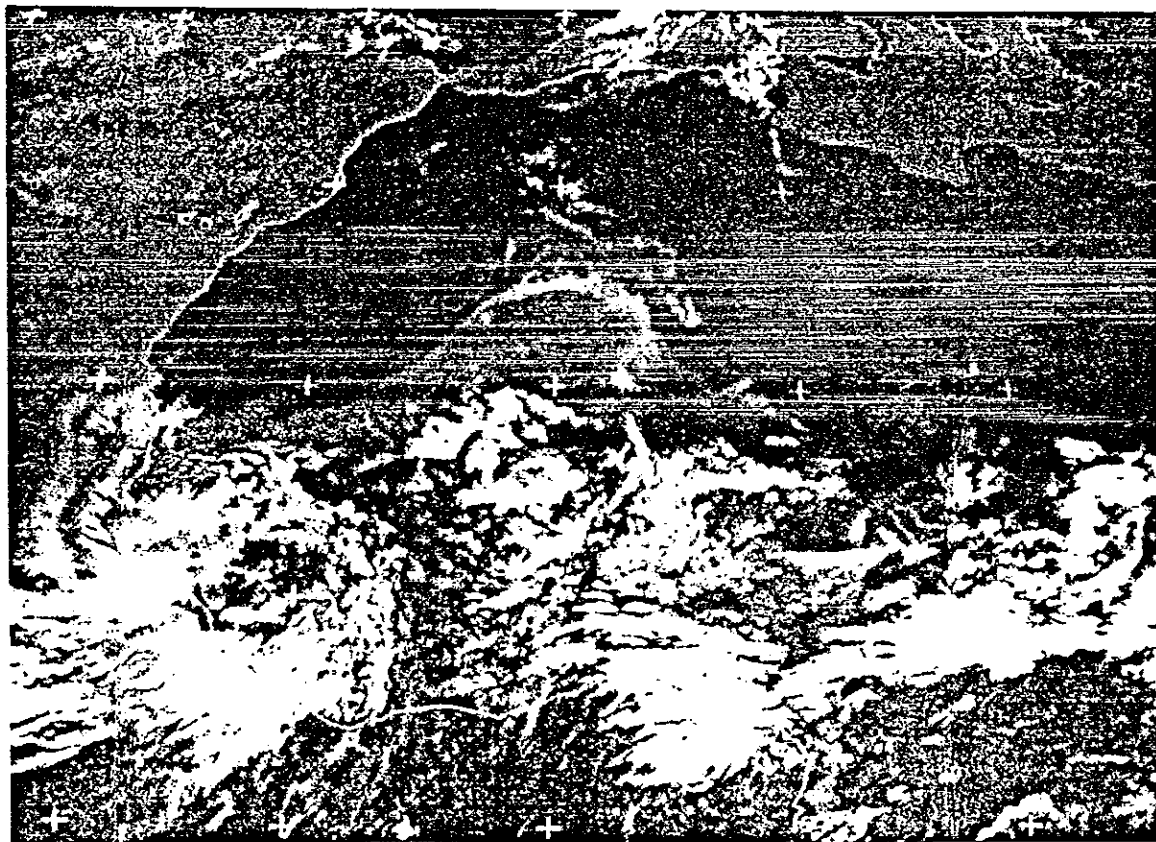
MALI

No surveys were undertaken and no locusts were reported.

NORTH-WEST AFRICA

Meteorology

A Saharian thermal low pressure (1012 mb) area was frequently associated with stormy Mediterranean or Atlantic depressions. The accompanying fronts were clearly visible on Meteosat imagery. However, according to GTS data daily rainfall totals did not exceed 6 mm north of 30°N. Some significant weather was reported from the Sahara, where Tamanrasset received 8 mm on 20 July during one of the northward surges of the ITCZ. On 30 July a powerful storm originating in the Sahel extended northwards to 25°N as shown on the following Meteosat photograph.



Meteosat infra-red imagery at 16:00 hours GMT, 30 July showing a sandstorm covering southern Algeria but extending from as far west as Mauritania to northern Niger.

The following is a brief summary of the mechanisms in the atmosphere which provoke such phenomena:

- a. a large complex depression extends from the British Isles to North Africa, while the Azores anticyclone remains over the Atlantic. As a result a moist airstream of polar origin extends to Italy associated with thundery disturbances
- b. the North African thermal low draws very hot dry air up to 35°N over Algeria, Tunisia and Libya.
- c. the meeting of the two air masses results in frontogenesis and a cyclogenesis over the Mediterranean
- d. the ITCZ, which is already in a very northerly position, becomes involved in the Mediterranean cyclogenesis and this "suction" of the ITCZ results in rains over the Sahara and strong sandstorms

These phenomena can be used by locust organisations as they provide early warnings of the occurrence of heavy rainfall.

Daily maximum temperatures generally ranged from about 46°C in the Sahara to 26°C along the Atlantic coast of Morocco and were usually 30-35°C in Mediterranean coastal areas.

Breeding conditions

No information is available, but it is possible that conditions may have become favourable for breeding in southern Algeria as a result of the rains of late July.

Locusts

No locusts were reported.

EASTERN AFRICA

Meteorology

In Sudan the ITCZ oscillated in the vicinity of Khartoum during July. Associated rains could be followed on Meteosat imagery and were often preceded by sandstorms over Northern, Nile and Red Sea Provinces. The limit between very dry and very humid air was accompanied by numerous and violent thunderstorms over the Ethiopian highlands. Asmara recorded 77 mm on 11 July and heavy rains were reported over the Dessie escarpment and the Railway Area during the first decade of July.

In August the ITCZ started to retreat southwards over Sudan but active thermoconvective activity continued over the Ethiopian highlands.

In East Africa thunderstorms continued, particularly in the vicinity of Lake Victoria, but daily rainfall totals were generally less than 20 mm.

Maximum daily temperatures ranged from around 43°C at Djibouti to 15°C in the Ethiopian highlands during thunderstorms.

Breeding conditions

Vegetation was reported by DLCO-EA to be dry in Djibouti in late July. According to NOAA/AVHRR imagery green vegetation persists north-west of Massawa.

Locusts

DJIBOUTI

On 25 July a ground survey team found 13 isolated immature adults over one square kilometre at 1120 N/4205 E, in an area of dry annual vegetation.

SOMALIA

On 29 July a ground survey team found immature solitarious adults at two localities between Karure (1045 N/4336 E) and Haji Hussein (1040 N/4335 E); 46 adults were flushed in one square kilometre at Haji Hussein.

ETHIOPIA

Two mature adults were captured at Afabet (1612 N/3845 E) on 31 July.

The remainder of the Region was reported clear.

NEAR EAST

Meteorology

The dominant feature was the heat low but its centre sometimes moved towards Iran and gave rise to violent sandstorms in the United Arab Emirates. In the south, the ITCZ extended from about 15°N over the Yemens, along the coastal range in Dhofar via Jebel Akhdar to the eastern Emirates. Some showers and thunderstorms were signalled by the GTS but in July the heaviest rain did not exceed 13 mm in 24 hours. Flooding was reported at Dhala on 9 July and in wadis Maddin and Al-Fajarah on 18-20 July.

Thundery showers were reported over the Hijaz and Asir mountains in July and wadi Samt south of Jizan was in flood in mid-July.

There was further thermoconvective activity over Yemen Arab Republic in August; Taiz reported 17 mm on 13 August and 145 mm on 17 August.

Maximum daily temperatures ranged from 45°C in the interior to 30°C in coastal areas.

Breeding conditions

Conditions were reported to be favourable in some coastal and interior areas of PDR Yemen.

Locusts

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Scattered solitary adults were reported from Haynin (1550 N/4818 E) in wadi Hadhramaut in June.

On 15 July isolated adults were reported from Am Fara (1353 N/4609 E).

YEMEN ARAB REPUBLIC

Grasshoppers and unidentified locusts at Mahwit were controlled on 1 July.

SAUDI ARABIA was clear in June and July, the UNITED ARAB EMIRATES in May and June, and IRAQ in May and June.

SOUTH-WEST ASIA

Meteorology

The large continental low pressure area, characteristic of the south-west monsoon, resulted in widespread thundery rains. The monsoon reached the summer breeding areas on 13-14 July and there were further widespread and repeated rains in Tharparkar, Lasbela, Sukkur and Bahawalpur districts in the third week of July. In the first fortnight of August there were widespread heavy rains in the Tharparkar, Nara and Cholistan deserts and in Karachi, Lasbela and Khuzdar areas, Chhor recording 39 mm on 4 August. In India in the first fortnight of July Barmer recorded 3 mm of rain, Jaisalmer 36 mm, Jodhpur 10.7 mm, Ganganagar 67.8 mm, Sikar 25.3 mm and Bikaner 10.1 mm. According to GTS data Jodhpur 21 mm on 16 July, Bikaner 29 mm on 18 July, 18 mm on 23 July, Jaisalmer 16 mm on 3 August, Jodhpur 17 mm on 5 August, Bikaner 59 mm on 15 August.

Daily maximum temperatures were generally between 35 and 43°C in the summer breeding areas.

Breeding conditions

Conditions were reported to be favourable for breeding throughout the summer breeding areas.

Locusts

PAKISTAN

A total of 26 isolated adults were seen in 11 localities in Uthal, Mirpurkhas and Sukkur districts during the first half of July, the maximum density being 3 per hectare at Kandeiwari (2531 N/6605 E) on 7 July.

During the second half of July 41 isolated adults were seen at 17 localities in Uthal, Mirpurkhas, Sukkur, Rahim Yar Khan and Bahawalpur districts, the maximum density being 4 per hectare at Renelhar (2813 N/7155 E) on 25 July.

INDIA

Scattered adults were found at 3 localities in Barmer and Bikaner districts during the first half of July, the maximum density being 25 per square kilometre at Rohri (2551 N/7013 E) on 6 July. In the second half of July isolated adults were found at 7 localities in Barmer, Bikaner and Jaisalmer districts, the maximum density being 225 per square kilometre at Mokhab (2504 N/7013 E) on 28 July.

AFGHANISTAN and IRAN were reported clear in May.

FORECAST FOR SEPTEMBER - OCTOBER 1985

There have been good rains in the summer breeding areas in West Africa and South-West Asia so that Desert Locust numbers are likely to show a significant increase on the very low levels which have been recorded in the past year. Adults will start to appear in traditional winter-spring breeding areas towards the end of the forecast period.

In South-West Asia there will be widespread but low density breeding in the Tharparkar, Khipro, Nara and Cholistan deserts and Lasbela district in Pakistan, and in Rajasthan in India and some group formations may occur in restricted areas if there is a second generation of breeding. Small numbers of adults will appear in coastal areas of Baluchistan and Lasbela district in Pakistan and some may reach Baluchistan-Seistan in south-east Iran.

In the Near East widely scattered but small scale breeding may occur in the interior of south-west Saudi Arabia and in coastal areas along the Red Sea and Gulf of Aden. Small numbers of adults may reach Oman and the United Arab Emirates from across the Arabian Sea towards the end of the forecast period.

In Eastern Africa there is likely to be localised breeding in areas receiving summer rains or floods in Eritrea and which may result in the formation of some hopper and or adult groups. In Sudan there may be some small scale breeding in wadis on the western side of the coastal range. Adults will start to appear in coastal areas towards the end of the forecast period. In north-west Somalia small numbers of adults are likely to persist on the coastal and sub-coastal plains.

In West Africa widespread initially low density breeding is likely to occur in Hodh, Tagant and Adrar in Mauritania, in the Adrar des Iforas and Tamesna of Mali and in Tamesna and western Air in Niger and some small groups of hoppers and adults may occur if there is a second generation of breeding.

In North-West Africa there may be initially low density breeding in the extreme south of Algeria and some small groups may form if there is a second generation of breeding. Small numbers of adults may reach central and western Algeria and even south-east Morocco towards the end of the forecast period.

