

FOOD AND AGRICULTURE **ORGANIZATION** OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE Y LA ALIMENTACION

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DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 111

NOVEMBER-EARLY DECEMBER 1987

SUMMARY

Intensive control operations continued against swarms in southern Morocco. Widespread breeding was in progress in northern and central Mauritania and possibly in adjacent areas of Western Sahara and Western Algeria. Breeding continued in north-east Mali and some swarms were produced which moved north-west into southern Algeria. dispersed populations were present in Niger.

In Sudan, substantial numbers of adults possibly including some swarms were present in Darfur and Kordofan Provinces and some On the Red Sea coast the main breeding continued in Nile Province. infestations are in the Wadi Oko area.

Elsewhere low density populations of adults were reported from Tunisia, Libya, Egypt and Saudi Arabia.

WEST AFRICA

Meteorology

The Intertropical Convergence Zone lay well to the south of the Desert Locust breeding areas. In northern Mauritania there were light rains at the end of November and beginning of December. Daytime temperatures continued to reach 25°C, some 3°C warmer than normal into the last decade of December. In Mali there were numerous sandstorms.

Breeding conditions

As a result of good rains in August and October conditions were favourable for breeding in northern Mauritania between 22 and 26 degrees north and in central Mauritania. In Mali standing water persisted in south-western Tamesna. In Niger annual vegetation started to dry out in Tamesna from the beginning of November.

Locusts

MAURITANIA

There were numerous reports of swarms and of hopper infestations from central and northern regions.

TAGANT

There were numerous reports of mixed maturity and mature swarms coming from the east and south-east from various localities mainly to the east and north-east of Tidjikja. Copulating and laying was observed.

In the first half of November first to third instar hopper bands were found over an area of 2500 sq. km east and north-east of Tidjikja, and by the end of the month hoppers had reached the fifth instar. Further infestations were found to the west and hatching was continuing. In early December hopper bands were reported from the Khatt (1825N/1225W).

By 25 November 7,190 ha representing 80% of these infestations, had been treated with 5900 kg Propoxur dust 2% and 1280 litres of Fenitrothion 500 ULV in the Tidjikja area. From 10 to 15 December 53 bands of third to fifth instar hoppers were treated in the Khatt using 575 kg Propoxur 2%.

ADRAR

On 5 November a mature swarm was seen at Choum (2118N/1259W) and another was seen in the Amsaga el Beida (2007N/1410W) in early November. Scattered adults were also reported over an area of 50,200 sq. km. Following the migration through the area in October and early November localised hopper infestations were reported from Eirich Guelbi (1957N/1325W), first to fifth instars over 450 ha in late November and Tenmdi (2047N/1247W). 112 ha of third instar hoppers were treated with 1,120 kg Propoxur 2% dust during the first decade of December.

INCHIRI

A settled swarm was reported at Benichab (1957N/1524W) at the beginning of November and ground surveys during the second and third decade of November confirmed that other swarms had passed through the Akjoujt area.

TIRIS-ZEMMOUR

Following several reports of swarms an aerial survey was undertaken in late November. These confirmed that numerous mature swarms had been seen between F'Derik and Bir Moghrein, ranging in size from 1-15000 ha. Reports of copulating and laying from nomads were confirmed by the farmers of early instar hopper bands between 2240 and 2315 degrees N, and these were reported to extend to the frontier with the western Sahara.

During the first two decades of December there were further reports of swarms and hopper bands between Zouerate and Bir Moghrein of swarms at Oum Rouessine (2345N/1138W) and Tourassin (2439N/1124W) and of hopper bands at Oued Itoutaken (2444N/1118W) in the Anajim (2409N/1136W) area.

Ground control operations were in progress. By 12 December 1290 ha of swarms and hopper bands had been treated.

TRARZA

Isolated adults in depressions around Sbaya (1850N/1358W).

HODH CHARGHI

Some copulating and laying adults were reported in early November but no details are available.

MALI

Mature adults continued to lay in small patches throughout the month in Wadis in the Bouressa Basin and in the Tilemsi. On 5 November a mixed maturity swarm was seen in Oued in Adjelroum (1821N/0407E) valley, and in Tamesna during the first two decades of November.

There was further widespread hatching and band formation in Tamesna, the Bouressa Basin and in the western Adrar des Iforas. In late November there was widespread fledging in eastern and southern Tamesna, with adults reaching densities of up to 300.000 individuals per hectare. During the first week of December small immature swarms were reported from Tin Essako (1827N/0229E), Oued In Oumfassen (1810N/0310E) and west of Tin Essako flying west. Further swarms were seen in Oued Eleoudj (1926N/004E) on the 12th, Aguelhoc flying north-west on the 13th, in Oued Tarlit (1944N/0058E) on the 14th, Tintiska (2019N/0141E) flying west and at Irrahrar (2016N/0131E) milling. In Timetrine adults were present at densities of up to 150 000 per hectare mixed with fourth and fifth instar hopper bands.

Up to 6 December 16505 hectares had been treated with 740 litres of Fenitrothion 1000, 10370 litres of Dieldrin 5% and 402 litres of Dieldrin 20%.

NIGER

In early November hopper bands formed in several localities of western Tamesna as a result of laying by migrating swarms during October. A total of 24,000 hectares were treated of which 14,800 hectares by aircraft. At the end of the month there were no further targets but a large dispersed population had survived treatment in Tamesna and Air.

CHAD

There were no further reports.

NORTH-WEST AFRICA

Meteorology

Heavy rains fell in southern Western Sahara in early November, Dakhla receiving 50 mm. There were also good rains in central Morocco and southern Tunisia in late November, where up to 40 mm were received.

Breeding conditions

As a result of the good rains in the Western Sahara breeding conditions became extremely favourable in eastern-central Western Sahara, centred on $23^{\circ}\text{N}/13^{\circ}\text{W}$, and to the west, north and north-east.

Locusts

MOROCCO

There were numerous reports of swarms throughout November from many localities in the south-east and south of this country extending from Figuig to west of Tan Tan, with the main concentrations in the west.

The intensive aerial and ground control campaign against adults continued and by 21 December 186,000 hectares had been treated mainly in the Goulmim and Tata areas.

In mid-December small pockets of hoppers were reported south of Goulmim.

WESTERN SAHARA

The swarm invasion of north-west Africa during October extended into the Western Sahara. Mahbes first reported a swarm on 18 October, Hasi El Farsia (2706N/0951W) on 22 October, Guelta Zemmour on 30 October and Hasi Amsert (2228N/1420W) on 28 October. There were numerous reports from many localities, extending as far south as Bir Gandus (2140N/1625W) and Tichla (2136N/1552W). The scale of the invasion is not yet clear but in mid-December an aerial survey reported swarms on a front of 100 kilometres north of Dakhla.

Copulating adults were observed in the Zemmour in the last decade of November. In mid-December control operations were in progress against hoppers at Farsia and around Guelta Zemmour.

ALGERIA

A swarm flew out to sea from Magrine on 31 October and 1 November.

On 4 November immature adults in an area of 30 hectares were treated in Oued El-Maa in the Tindouf area. Mature swarms returned to the Tindouf area between 25 and 27 November from the west. 1000 hectares were treated. A small swarm was seen at Tindouf on 3 December flying south-east. Control measures were undertaken. On 17 December a 20 sq. km swarm was sprayed in Oued Sobti (2730N/0810W) south of Tindouf.

In mid-December first and second instar hoppers, first reported by nomads, were confirmed in oued Toutrate (2700N/0755W), Oued Meghafra (2710N/0745W) and unconfirmed in Oued N'Sirat (2650N/0745W), 95 kilometres south of Tindouf. Faeces were seen at Guelb el Atrous (2618N/0558W).

In central and southern Algeria small swarms were seen at several localities in the Mouydir-Ahnet area in mid-November. Hopper bands mainly in the first and second instar were also found at a number of localities in central Algeria. By 22 November some hoppers were in the fifth instar. By 22 November 35 hectares of adults and 243.5 hectares of hoppers had been treated.

Between 8 and 13 December there were several reports of swarms flying west and north in the Bordj Beji Mokhtar area (2120N/0055E).

TUNISIA

In late November numerous immature solitarious adults were seen in several localities in the south of the country.

LIBYA

In mid-November some solitarious adults were seen in Hamada el Hamra. A mixed population of Desert Locusts and African Migratory Locusts was present over 500 hectares in the Ubari agricultural scheme in the Fezzan. In late November there was an unconfirmed report of a swarm in the Katroun region (2500N/1500E). In early December four swarms were reported in Murzak. Control operations treated 750 hectares in Kufra and Sarir agricultural schemes.

EUROPE

SPAIN

Groups of mature adults were reported in late October and early November.

EASTERN AFRICA

Meteorology

Moderate rains were reported between Suakin and the Tokar delta in mid-November and good rains fell in the Wadi Oko area north-west of Port Sudan and caused wadis to flood. According to Meteosat imagery there was no rain on the Red Sea coastal plains of Ethiopia or along the northern coastal plains of Somalia.

Breeding conditions

Conditions were favourable for breeeding on the Red Sea coastal plain of Sudan and were still favourable in certain interior areas at the beginning of November, including parts of the Hassaniya.

Locusts

SUDAN

NORTHERN DARFUR PROVINCE

Breeding was reported close to the border with Chad but was not controlled due to lack of security.

SOUTHERN KORDOFAN PROVINCE

There were unconfirmed reports of swarms on 5 November near the boundary with Northern Kordofan.

NILE PROVINCE

First to fourth instar hoppers were present at several localities in the first half of November. Ground control measures were undertaken using 180 litres Fenitrotion ULV, 40 litres of Fenitrotion EC, Malathion 57% ULV and poisoned bait.

WHITE NILE PROVINCE

Immature adults were found at densities of 230-250 per hectare from several localities.

KASSALA PROVINCE

Hoppers were present in the Gash delta at the beginning of November.

RED SEA PROVINCE

On 31 October groups of adults were found at Krimbit in the Tokar delta, and in the next four days these were assessed as being at a density of 240 per hectare over 280 hectares.

In late November adults were found at densities of 1440 - 1860 per hectare in several localities in the Wadi Oko area and medium density hoppers were found in the Habouk area (2120N/2616E). In early November isolated adults were found in the Durdab area and in late November dense third to fifth instar hoppers were found at Khor Arbab (1846N/3537E) over 8 sq. km. Control measures were in progress. Mixed maturity adults were reported at three localities.

ETHIOPIA

The swarm reported near Galuga, 25 km north of Om Ager was later stated to be of Tree Locusts.

There was no other reports from the region.

NEAR EAST

Meteorology

Rain fell on northern and central parts of the Arabian peninsula, the western Hijaz and Asir.

Breeding contidions

According to NOAA/AVHRR imagery conditions were not favourable for breeding on the Tihamas of Saudi Arabia or the Yemen Arab Republic.

Locusts

KINGDOM OF SAUDI ARABIA

Isolated adults were present at very low densities, 1 per hectare over 100 hectares in the Qunfidah area.

EGYPT

Isoalted adults were observed in Dakhla oasis and in Bir Abraq, Shalatein and Abu Ramad areas.

There were no other reports from the region.

SOUTH-WEST ASIA

Meteorology

No rain was reported from the winter breeding area.

Breeding conditions

Breeding conditions were unfavourable.

Locusts

No locusts were reported from the region during November.

FORECAST FOR JANUARY-FEBRUARY 1988

Breeding will continue in Western Sahara, northern Mauritania and western Algeria and is likely to lead to formation of some swarms. Some of these may move north-east but some may remain to breed again the the same area where they were produced. Some swarms may cross the Sahara during periods of warm southerly winds.

In <u>West Africa</u> breeding is likely to continue in northern Mauritania. Some swarms may be produced and some may start to breed again in northern Mauritania. Elsewhere, in central Mauritania, north-eastern Mali and Tamesna and Air in Niger substantial numbers of locusts are likely to be present. The situation in northern Chad is unknown.

In North-West Africa, current breeding in Western Sahara will continue. Some swarms may be produced and breed again in Western Sahara but others are likely to move north-east to southern Morocco and Algeria and may start to lay south of the Atlas mountains. A few swarms may northwards across the Sahara during periods of warm southerly winds.

In Eastern Africa considerable numbers of adults may be present in Darfur and Kordofan Provinces of Sudan. Breeding will continue in the Red Sea coastal plains and inland wadis such as Wadi Oko. Control operations should prevent any major build-up but some hopper bands and small swarms may be produced. Adults are likely to move north during February into Egypt. The situation in Ethiopia is reported calm and is likely to remain so. There is no threat of major infestations in Somalia or Djibouti.

In Near East very small scale breeding is likely to occur in the southern $\overline{\text{Tihama}}$ with the possibility of larger scale breeding in the central and northern Tihama of Saudi Arabia if substantial numbers of adults reach these areas from the west.

The situation in South-West Asia will remain calm.

Rome 28 December 1987

