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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 107 JULY-EARLY AUGUST 1987

SUMMARY

There has been widespread first generation gregarious summer breeding in Niger, Chad, Sudan, Ethiopia and Saudi Arabia and numbers of swarms have been produced. Second generation breeding has commenced in Sudan and is likely to become much more widespread.

Unless these infestations can be effectively controlled second generation swarms will extend the areas infested to North-West Africa, the western Sahalian countries, the Horn of Africa and the Arabian peninsula.

WEST AFRICA

Meteorology

During the first week of July the mean position of the Intertropical Convergence Zone (ITCZ) lay along a line: south of Nouakchott-south of Tidjikja-Kidal-Agades-north of N'Guigmi-north central Chad. During the second decade it was further north over Niger and Chad and in the third decade it lay along the line Nouakchott-Tidjikja-north of Kidal-Bilma-Faya Largeau. In early August it reached 20°N over Mauritania. During the first half of July there was no rain in the main breeding areas in Mauritania and Niger but in Mali Tessalit recorded 18.4 mm, Bouressa 36.8 mm, Tin Zaouaten 17.5 mm and Tin Essako 16.5 mm. During the second half of July there were good rains in Air from 16 to 22 July, causing wadis to flood, Iferouane recorded 40 mm in 19 July, and in Tamesna on 26 July, when in Abangharit recorded 26 mm and, on 3 August. In Mauritania there were also good rains between 20 and 27 July, when Aioun recorded 63.7 mm, Kiffa 90 mm and Nema 45 mm. There was further rain in mid-August when Atar recorded 15 mm on 14 August.

Breeding conditions

During the first two decades of July the most favourable breeding areas were those which received good rain in late May and early June i.e. Air in Niger and in eastern Chad. The rains in late July created very favourable conditions in central Tamesna of Niger where thousands of hectares were flooded. Green vegetation was developing in south-eastern Mauritania towards the border with Mali. In Chad the vegetation which developed south-west of Ennedi after the rain of late May and early June was drying up rapidly in late July, but further areas of green vegetation developed in valleys in the Massif de Maraone in late July.

Locusts

NIGER

In early July a ground survey team found hopper bands of all stages and isolated copulating adults in the Zagada valley (1845N/0907E) and thin density fourth to fifth instar bands in the Faras valley (1905N/0903E). Aerial control started on 21 July and ground control on 23 July against these and similar infestations in numerous localities in eastern Air. By the end of July 20,580 hectares had been treated. By

early August hopper densities had reached 20 per square metre in the Faras valley but chemical control had destroyed most of the gregarious populations. There was, however, a widespread population of low density mature adults ready to lay. On 5 August a mature, copulating and laying swarm covering 120 hectares with individuals at densities of 2-5 per sq. metre was seen in Wadi Zalilat (1835N/0855E). A fledgling swarmlet of 10 hectares was seen in Wadi Tchighazerine (1825N/0905E) and another of 1 hectare was seen in Wadi Baouet (1810N/0905E). 100 km south of Agades on the route to Tahoua solitarigest adults were seen at densities of 20 per hectare over 1,000 hectares.

CHAD

A ground survey in late July encountered widespread hopper and adult infestations in eastern Chad. The largest infestations were north and east of Kalait (1535N/2029E), where swarms and bands of fourth and fifth instar hoppers were seen in all wadis. There were also unconfirmed reports of other infestations to the west and north of this area. Adults were also seen 76 kilometres north of Arada (1508N/2027E) at a density of 350 per hectare over 320 hectares. A small swarm was seen 2 kilometres south of Kalait on 20 July and the next morning several large dense fifth instar hopper bands were found over an area of 2,300 hectares.

To the south, a swarm was reported flying west at Guereda (1425N/2150E) on 7 August. This was treated 30 kilometres west of Guereda on 11 August over an area of 705 hectares. Another swarm was seen 62 kilometres south of Guereda.

In the west infestations were reported at Massenya (1150N/1610E); scattered adults were seen at Moyto (1235N/1635E) and Djedda (1325N/1826E), while a pilot flew through a swarm of locusts, but not yet confirmed as Desert Locusts, at 300 metres over Lake Fitri (1257N/1720E).

There have been no confirmed reports from MALI or MAURITANIA: The swarms reported from MAURITANIA in April are now stated to have been of Tree Locusts.

NORTH-WEST AFRICA

Meteorology

From Meteosat imagery it appears there was frequent rain in north-central Algeria during the first decade of July. There was probably some rain in the extreme south of Algeria during the last

decade of July.

Breeding conditions

According to NOAA/AVHRR imagery conditions were unfavourable for breeding.

Locusts

No locusts were reported from the Region.

EASTERN AFRICA

Meteorology

The ITCZ lay to the south of its long term mean position during July over western and central Sudan but in early August reached 22 degrees north over north-eastern Sudan. As a result, there was little rain over western and central Sudan north of 15 degrees during the first two decades of July. In eastern Sudan rain extended to 17 degrees north in the first and third decades of July and to 23 degrees in the first decade of August. In Northern Ethiopia, much of Eritrea Tigray and Wollo, experienced droughts during most of July although the western lowlands of Eritrea received good rain on 2-5 July.

Heavy rain commenced in Wollo on 29 July and was widespread in early August.

Breeding conditions

Conditions were favourable for breeding in early July in many areas of Sudan following the good rains of late May but were drying and in mid-late July, but will have become suitable once more after the rains of late July and early August. In northern Ethiopia conditions were unfavourable for breeding on the Red Sea coastal plain, except in wadis but were favourable, at least locally, in the highlands.

Locusts

SUDAN

NORTHERN DARFUR PROVINCE

In mid-July reports were received of hatchings from numerous localities in the Karnoi (1505N/2316E) area. During a limited aerial/ground survey on 28-29 July small bands and fledglings at two

localities each 1 sq. km in Wadi Gadir (1505N/2305E) and fifth instar bands and fledglings at two localities each 1 sq. km in Wadi Basma (1505N/2257E). There were also reports of further populations to the north but flooded wadis restricted survey.

On 6 August a swarm of unknown maturity flew over El Fasher heading east and then south. On 7 August another swarm flew over El Fasher heading east. On 9 August a dense mature 4 sq. km swarm was seen copulating and laying at Tawingy (1459N/2415E). Also on 9 August three small egg-fields covering 1.8 hectares were found in wadi Owida (1522N/2328E); laying had occurred on 27 July. A telex from Khartoum dated 13 August stated that "swarmlets and large groups of adults are still present in Karnoi, Kutum and Umm Buru".

NORTHERN KORDOFAN-KHARTOUM PROVINCES

On a ground survey from 25 to 31 July six small hopper bands were found within an area of 3 sq. kilometres around Jebel el Haraza (1505N/3027E), Jebel Galb el Bair (1448N/3016E) and Jebel Umm Durag (1416N/3006E) and controlled.

A mature swarm measuring 15 km x 3 km was seen west-north-west of Omdurman at 1555N/3150E on 12 August; another mature swarm measuring 3 sq. km was seen at 1547N/3215E on 13 August; on 14 August adults were seen at 3-4 per sq. metre at 1555N, between 32 and 3230E and a mature swarm settled at Khartoum. On 15 August a mature swarm settled over Sururab (1555N/3233E). On 17 August a mature 2 sq. km swarm, density 5-10 per sq. metre, was seen at 1549N 3217E. Adults at densities of 1-5 per sq. metre were present in green wadis in many localities in the above general area.

NILE PROVINCE

In early July scattered adults were found over an area of 1,500 sq. kilometres along the west bank of the river Atbara around Umm Shadida (1635N/3515E) and in mid-July scattered mixed maturity adults were found to extend from Umm Shadida to Shababeit (1650N/3555E). Ground control was in progress against second and third instar hoppers and adults in early August.

In the Hassaniya area west of the Nile scattered first to third instar hoppers were found over 60 sq. kilometres around Goz Abu Dulu (1735N/3255E), Abu Halfa (1745N/3250E) and El Garaa (1740N/3255E), in early July. Baiting was continuing against immature adults and groups of first to third instar hoppers in late July and early August.

Scattered hoppers were found 60 kilometres east of Berber in mid-July and were being controlled in early August.

In the Shendi area mature adults and hoppers of all stages were found over 200 hectares in the Taleh (1604N/3341E) area in early July, and second instar hoppers were present in Wadi Abu Hashim (1641N/3327E). Later, ground control measures were mounted against groups of second-fourth instar hoppers and adults.

NORTHERN PROVINCE

Small numbers of scattered adults were found in Wadi Abu Sideir (1706N/3113E) in late July.

WHITE NILE PROVINCE

At Umnabaga 28 kilometres north of Migerinat (1429N/3140E) small groups of first-second instar hoppers and mature adults were found over 90 hectares and were being controlled in early and mid-July.

Further adults were found in late July around Abu Hamra (1355N/3200E), Helba (1415N/3142E), Hashaba (1345N/3125E) and El Shuguig (1428N/3155E).

KASSALA PROVINCE

Ground and aerial control operations were mounted against infestations of late instar hoppers, fledglings and immature adults in the Wadi Odi-Ungwatiri areas. Fifth instar hoppers fledglings and immature adults were found at low densities at Awad, 15 kilometres east of Kassala.

RED SEA PROVINCE

In early July groups of the fourth and fifth instar hoppers were found at Khor Durdeb (1733N/3612E) over 2 sq. km., at Khor Breitak (1742N/3547E) with fledglings over 30 sq. km., at Khor Derbab (1746N/3601E) with fledglings over 1 sq. km. and late instar hopper bands and fledglings were found at Khor Abusalim (1720N/3605E) over 12 sq. km. Ground control operations were mounted against groups of adults in late July. To the north, scattered adults were found over 1 sq. km at Asotrobat (1810N/3600E), fledglings were found over 2 sq. km. at Khore Kamadaw (1824N/3537E) and medium density fledglings were found over 5 sq. km. at Khore Ariab (1847N/3551E) in mid-July.

ETHIOPIA

Mature swarms continued to move slowly southwards through the highlands of northern Ethiopia and laid in many localities giving use of numerous hopper infestations. Breeding continued on the Red Sea coastal plains during July and immature swarms moved southwards into the

highlands and started to breed. The following reports of adults were confirmed:

- 1 July: Adigra (1415N/3925E), 6 sq. km., ground sprayed.
- 2 July: Lake Ashange (1235N/3932E), mature, dense, 30 ha.
- 3-4 July: Mekele, mature, dense; 15 sq. km., sprayed with 1,520 l Fenitrothion and by 5,000 people.
- 8-17 July: Lake Ashange 30 sq. km., flying south-east, controlled by air and ground.
- 13 July: adults reported in Shire, 1,000 ha; Aduwa 80 ha; Raya and Azebo; Bora and Hulet Awlalo Awrajas in Tigray; a swarm near Sokota split into three.
- 15 July: Ashenge, 315 ha controlled by air and ground.
- 18 July: Agordat; Mehoni, egg-laying over 40 ha; Chercher, egg-laying over 2 ha.
- 19 July: Agame, immature, 200 ha; Raya and Azebo 320 ha, of which 160 ha ground controlled.
- 20 July: Selewa (south-west of Mekele) 800 ha, Wajirat (north of Sokota).
- 21 July: Barentu, 400 ha, 169 kg carbaryl; Amba Alage, 600 ha, 88 kg carbaryl; Shire; Yeju. south and west of Waldia (1149N/3935E).
- 22 July: Ala Plain, 107 ha, 85 l applied by ground sprayer
Yeju (Werkessa) ground control
Seraye (Berak) 0.5 sq. km. settled, controlled using 100 l on 23 July.
Barentu, 133 ha, 200 kg carbaryl applied.
- 22-25 July: Hal Hal (north-west of Keren), 367 ha treated with 100 l Fenitrothion 90%, 200 l Diazinon, 50 kg carbaryl.
- 23 July: Sahel, 103 ha., 77 l applied.
- 24 July: Berak, 0.5 x 0.5, 100 l Fenitrothion.
- 24 July: Gaynt, 20-30 ha mature, flying south
Combolcha (1104N/39NNE) scattered adults.

- 26 July: Mekele, 200 ha.
- 27 July: Akele Guzai, 2 sq. km. immature.
Abarda (1515N/3848E), 3 flying swarms requested.
Hawzin (1359N/3926E), immature 200 ha, flying south-east.
Eggella (1420N/3910E), 62 ha, copulating.
- 30 July: Amba Seneyte (1405N/3910E), dense mature, 40 ha.
- 31 July: Tsedia (1407N/3913E), medium density.
- 1 August: Wukro (1348N/3935E), immature, medium density. Sprayed.
- 4 August: Inderta (1331N/3927E), immature, medium density. Sprayed.
- 9 August: Senafe, 1 x 0.5, settled, sprayed.
- 10 August: Debaroa (1506N/3849E), 2 x 1, sprayed 12 August by ICRC aircraft with 75 l Fenitrothion/Malathion.
- 12 August: Deki-Zeru, 1 sq. km., settled, dusted with 400 kg bendiocarb.
- 14 August: Ala Plain, 5 x 1, controlled with 210 l Fenitrothion.
- 18 August: Mai Aini (1448N/3906E), 3.5 sq. km., immature, 175 l Fenitrothion.
Debaroa (1506N/3852E), 3 sq. km., immature, 200 l Fenitrothion.
- 19 August: Edaga Hamus (1411N/3935E) 220 l Fenitrothion.
Zala-Ambessa (1429N/3921E).

On the Red Sea coastal plains aerial control operations were undertaken in the following areas:

- 1 July: Western Hasmet (1554N/3902E) 8 sq. km. 200 l Ensodil.
- 12-17 July: north of Massawa, 10 sq. km.

In the highlands and western lowlands there were reports of widespread hopper infestations in early July in Keren, Sahil, Gash and Setit, Seraye, Akele Guzai and Hamasen Awrajas in Eritrea, where ground control was being undertaken by peasant associations and Ministry of Agriculture ground teams. Later in the month there were further reports from Decamere, Fil Fil, the Anseba valley, Areza (1455N/3834E) and from the coastal plains and foothills around Sheb (1554N/3802E).

In early August there were reports of hopper bands at Keru (1537N/3712E) and of fledglings at Asmat (1611N/3805E).

On 10 August hopper infestations in the Saganeiti (1458N/3914E) area were controlled using Exhaust Nozzle Sprayers.

In Tigray hoppers were reported from many localities in Enderta, Raya and Azebo, Adwa and Temben Awrajas; and in the Tekeze valley west of Abi Adi early instar hoppers were seen with copulating adults.

In Wollo there were reports of hoppers from the Socota area and farmers were requested to collect dust from Koram.

In late July there were reports of widespread hatchings in Fiyel Weha (1325N/3820E) in north-eastern Gondar.

NEAR EAST

Meteorology

Some showers were reported in the Asir and Hejaz mountains.

Breeding conditions

Ecological conditions were unfavourable for breeding.

Locusts

KINGDOM OF SAUDI ARABIA

Hopper bands, fledglings and immature adults were successfully controlled over an area of 400 sq. km between Shaqqah al Yamaniyah and Wadi Doga using 17,000 litres of Fenitrothion.

Scattered adults were reported in Khamis Kushait and Abha.

There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

There were scattered showers in the summer breeding area but most areas were suffering from drought. Barmer recorded 47.9 mm, Jaisalmer 0.9 mm, Jodhpur 3.0 mm., Ganganagar 25.8 mm., Sikar 7.0 mm., Bikaner 4.6 mm., Bhuj 1.2 mm and Deesa 11.8 mm.

Breeding conditions

Conditions were favourable for breeding in those areas which received rain in May and June.

Locusts

PAKISTAN

Scattered adults were found in 41 localities in Uthal, Mirpur Khas, Sukkur, Bahawalpur and Rahimyar Khan districts in the first half of July, the highest density being 1,050 per square kilometre in Sukkur district. In the second half of July the maximum density was 1,200 per square kilometre at Bundri (2830N/7130E). In the first fortnight of August the maximum density was 750 per square kilometre at Punjkoholi (2745N/7059E).

INDIA

In the first half of July scattered adults were found at 23 localities in Barmer, Jaisalmer, Bikaner, Ganganagar and Jodhpur districts, the maximum density being 2,100 per square kilometre at Diatra (2747N/7249E) on 15 July. In the second half of July maturing and or mature adults were found at 70 localities in Bikaner, Jodhpur, Jaisalmer, Barmer, Nagaur, Ganganagar and Banaskantha districts the maximum densities being 3,750 per square kilometre at Baru (2722N/7153E) on 18 July and Kelawa (2655N/7148E) on 27 July.

Low density first to fifth instar hoppers were found at five localities in Bikaner and Jaisalmer districts in the first half of July and at 15 localities in the second half of July.

IRAN

Solitary adults were reported at densities of about 100 per square kilometre in Baluchistan in June.

AFGHANISTAN was reported clear in June.

FORECAST FOR SEPTEMBER-OCTOBER

There has been widespread first generation gregarious summer breeding in Niger, Chad, Sudan, Ethiopia and Saudi Arabia. Unless swarms and second generation breeding can be controlled effectively there will be widespread swarm formation. The forecast period is one of long-range swarm migration. Mali and Mauritania are likely to be invaded from the east, Morocco and Algeria from the south-east, Somalia from the

north-west and western Arabia from the west.

In West Africa, there has been uncontrolled gregarious breeding in Chad resulting in the formation of a number of swarms. Depending on the position of the ITCZ these could move eastwards into Sudan or, more likely, westwards to Niger, where they are likely to breed in Tamesna in Niger and perhaps in Mali. Any swarms produced as a result of second generation breeding in Chad and Niger are most likely to move north-west across southern Algeria to Morocco but some may move west to Mali and Mauritania. They may be augmented by swarms from Sudan.

In North-West Africa any swarms produced as a result of second generation summer breeding in Chad and Niger are likely to move north-west across southern Algeria and reach Morocco in mid to late October.

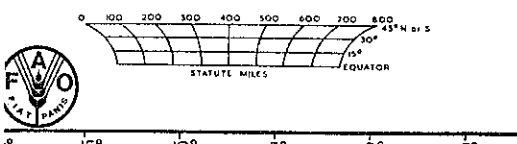
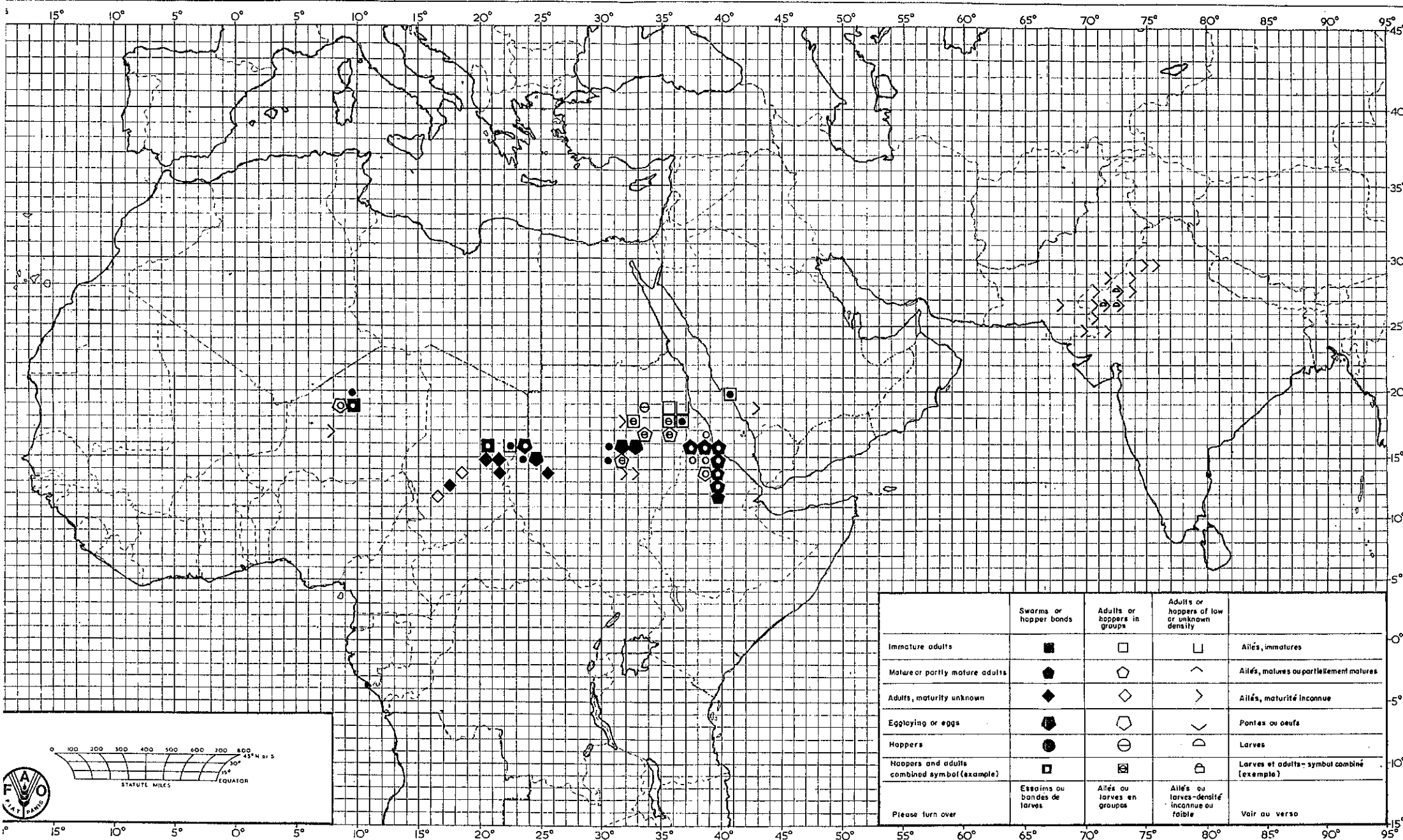
In Eastern Africa second generation summer breeding has started in northern Darfur in Western Sudan and will extend eastwards to the central provinces. Any escapes from western areas are likely to move west but escapes from central and eastern infestations are likely to move east, either to the Red Sea coastal plains or into the Ethiopian highlands where they are likely to join swarms produced locally. These are most likely to move south-east into Hararghe Province and may invade Somalia and north-eastern Kenya.

In the Near East, swarms may reach the Tihamas of Saudi Arabia and the Yemen Arab Republic from the west during October and start to breed.

In South-West Asia breeding will be restricted in Rajasthan and adjacent areas of Pakistan due to the prevailing drought conditions.

Rome
24 August 1987.

Desert Locust Situation Summary No. 107 JULY-EARLY AUGUST / JUILLET - DEBUT D'AOUT 1987



	Swarms or hopper bands	Adults or hoppers in groups	Adults or hoppers of low or unknown density	
Immature adults	■	□	⊏	Ailéés, immatures
Mature or partly mature adults	●	◐	⋈	Ailéés, matures ou partiellement matures
Adults, maturity unknown	◆	◇	⋈	Ailéés, maturité inconnue
Egg laying or eggs	⊕	◐	⋈	Pontes ou oeufs
Hoppers	●	◐	⋈	Larves
Hoppers and adults combined symbol (example)	◼	◻	◻	Larves et adultes - symbol combiné (exemple)
Please turn over	Essaims ou bandes de larves	Ailéés ou larves en groupes	Ailéés ou larves - densité inconnue ou faible	Voir au verso