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AGP Division

Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 98 OCTOBER - EARLY NOVEMBER 1986

SUMMARY

The situation is potentially more threatening than at any time since late 1978.

As a result of good late summer rains, there has been widespread breeding in the summer breeding areas of Mauritania, Mali, Niger, Sudan, PDR Yemen, Oman, Pakistan and India. A number of swarms have been produced despite intensive control operations and considerable number of adults will reach winter breeding areas on both sides of the Red Sea and start to breed.Some swarms may reach northern Arabia and the countries immediately to the north.

Late information

High density immature gregarious adults found along sea-shore between Jeddah and Badr on 21 November.

WEST AFRICA

Meteorology

In early October the Intertropical Front (FIT) was at 15°-16°N over Senegal, Mauritania, Mali and Western Niger and at about 14°N over eastern Niger and Chad. After the widespread but patchy rain in September, October was much drier to the north of 15°N. However there were showers in Malian Tamesna, the Adrar des Iforas and in Inchiri, Adrar and Tagant in Mauritania. On 20 October there was an important pull of the FIT along the Mali-Algeria-Morocco axis with a vortex typical of the interaction between the tropics and middle latitudes. In the last decade of October the harmattan strengthened, producing sandstorms, particularly in northern Mali.

There was still some instability in early November but according to the GTS rainfall did not exceed 3 mm, at Tidjikja on 5 November.

Breeding conditions

According to reports from joint OCLALAV/Morocco ground survey teams, conditions were favourable for breeding in Mauritania north of 18°N, and NOAA/AVHRR imagery indicates the presence of green vegetation in southern Malian Tamesna and in parts of southern Tamesna in Niger.

Locusts

MAURITANIA

According to a late report a small group of adults was seen about 45 km north-east of Kaedi on about 10 October.

A joint OCLALAV/Moroccan ground survey mission surveyed the area south of 18°N and west of 14°W from 18 to 29 October. Immature and mature adults and solitarious hoppers of all instars were widespread at densities of 4-300 per hectare. At Bir El Barka (1703N/1520W) adults were present at a density of 400 per hectare over a small area.

In November ground surveys revealed the presence of much heavier infestations of hoppers, adults and eggs in the area 1800-1910N, 1130-1430W and gregarious populations in the area 1820-1850N, 1330-1400W. The total area needing control was estimated at 85,600 hectares; of which it is only possible to treat 20,000 hectares by ground teams. On 17 and 18 November ground teams treated 1,200 hectares using 1.000 l Fenitrothion 50 and an aircraft treated 2,400 hectares using 900 l Malathion 95%.

MALI

As reported in Summary No. 97, a copulating and laying swarmlet of 5 hectare was seen in Oued Adjerer de Tamaradjant (1927N/0210E). Five other swarmlets all smaller than 2.5 hectares were seen 100 kilometres north-east of Tin Esako at about 1905N/0305E. Hatching was in progress. By 20 October 3,000 hectares had been treated, of which 1,000 hectares were in one area.

A telex dated 3 November confirmed the presence of hopper bands and swarms in numerous localities ranging from hundreds to thousands of hectares and totalling 30,000-40,000 hectares in the area 17-18 degrees N and 1-2 degrees E. Most individuals had already fledged and several small swarms of 100,000 individuals per hectare were seen. Day and night departures are expected during first 15 days of November and some expected to augment late breeding around Tin Esako.

In southern Timetrine weakly pigmented hoppers were present at densities of 2 per square metre. In the Bouressa basin immature and mature, copulating adults were found at densities of up to 200 per hectare. By 30 October a total 8,905 hectares had been treated using 1,293 litres of Fenitrothion 1000 and 930 litres of 20% Dieldrin. By mid-November over 10,000 hectares had been treated.

NIGER

In Air, as reported in Summary No. 97, on 4-6 October 8,800 hectares of laying adults at densities of 1-5 per square metre were treated with Dieldrin by air 60 kilometres north-west of Iferouane. At Tagora (1755N|0810E) 1,000 hectares of copulating and laying adults and second-fourth instar hoppers at densities of 20-30 per square metre were sprayed with Dieldrin by exhaust nozzle sprayer. In the week ending 16 October, hoppers were seen over a small area at Mamanat, 80 kilometres north of Arlit and young hoppers and young adults at densities of 1,500-4,000 per hectare were treated over 400 hectares at Bogorat (1916N|0747E). By the end of October 16,300 hectares of mature adults and hoppers of all instars including first and second instar bands had been treated by air and 517 hectares by ground spraying. Some of the adults were apparently locally produced and others apparently came from the east. By the end of the month there were large numbers of scattered adults which moved probably concentrate in areas of green vegetation.

In Tamesna mature adults were seen over 3 hectares at Anou Melen (1912N|0550E) and mature and immature adults over 5 hectares at Ekecheker (1910N|0546E) up to 8 October. On 13-14 October 800 hectares of first and second instar hoppers and grey and yellow adults at densities of 50-100 per square metre were sprayed in these areas. On 8 October mature in immature adults were found at densities of 200-300 per hectare over 600 hectares at Aghlen Niklen (1756N|0536E) and were being controlled.

A ground survey of northern Tamesna from 15 to 29 October revealed hoppers of all instars and immature and mature adults in numerous patches of green vegetation 30-100 kilometres south-west of Assamaka. There were also first and second instar hopper bands. By the end of October 3,400 hectares had been treated with Fenitrothion 1000 at 250 gr active ingredient per hectare.

There were also immature adults in almost all areas of green vegetation west of In Abangharit at densities of less than 10 per hectare.

There have been no confirmed reports from CHAD.

NORTH-WEST AFRICA

Meteorology

As reported in Summary No. 97 there were several examples of cyclogenesis and frontogenesis over the Maghreb from the beginning of October resulting in significant rainfall. The rainiest day was 19 October when the pull of the FIT mentioned under West Africa gave 17 mm at Adrar and 33 mm at Beni Abbes. Later the influence of the Azores anticyclone predominated over Morocco, Algeria and Tunisia while there were thundery cold fronts over Libya. Rainfall estimates from Meteosat imagery suggest there was substantial rainfall over Algeria during October.

Breeding conditions

Following good rains in September, annual and perennial vegetation was well developed in wadis and wadi outflows.

Locusts

ALGERIA

According to late reports poisoned BHC bait was applied against mature adults at three localities totalling 70 hectares south of El Golea in early August.

In September there were reports of solitary adults in two patches totalling 2.5 hectares at In Guezzam and small numbers of adults at six localities in the extreme south of the country.

EASTERN AFRICA

Meteorology

In Sudan the heavy rains of September continued into the first decade of October. The ITCZ lay at about 10°N by the end of the second decade and some localised thermoconvective activity continued up to that latitude until early November. In Ethiopia there were thunderstorms over the highlands during the first and third decade of October. In Somalia north-easterly winds became established over northern areas and, as pressure fell, they penetrated further south.

Along the Red Sea, Port Sudan recorded 7 mm on 23 October and there was further light rain on the following days.

Breeding conditions

Breeding conditions were favourable in many of the traditional summer breeding areas, extending from Darfur to Kassala and Red Sea Provinces. In late October wild vegetation was drying and crops were being harvested but green vegetation persisted in many areas. The Tokar delta was favourable for breeding due to earlier flooding. The northern coastal plains of Somalia were generally dry.

Locusts

SUDAN

During October Desert Locust infestations became much more extensive and were found in all northern and central provinces. The presence of several thin density swarms was reported from 20 October.

Red Sea Province

Control operations against 18 square kilometres of hoppers and adults in Khors Talguharai (1817N/3556E) and Ariab (1839N/3557E) were completed using 120 litres of Diazinon E.C. Dense second, third and fourth instar hopper bands were found over 60 square kilometres in Khors Hambokeib (1713N/3603E) and Humei Acteb (1709N/3602E) in late October. Ground control operations using Fenitrothion EC and Diazinon were in progress and an aircraft was being sent to the area.

In the Tokar delta copulating adults were found in five blocks totalling 1,120 hectares at densities of up to 1,500 per hectare in early November.

Kassala Province

In the Gash delta aerial and ground control was in progress against hopper and adult infestations at Metatib (1603N/3612E) and Tambai (1553N/3607E).

Hopper infestations of all instars were being ground controlled over an area of 3,000 square kilometres in the Khor Odi, Hamashkureib (1650N/3630E), Ungwazeri (1655N/3603E) and Gadamai (1707N/3603E) areas.

White Nile Province

In the Ed Dueim district hoppers of all instars and adults infested a total area of some 90,000 hectares causing up to 25% crop damage. By 12 Novemeber a total of 17,800 hectares had been treated by air and 3,700 hectares had been treated by ground units using at least 13,300 litres of concentrated pesticides and 113,000 kg of poisoned bait.

Northern Province

In the Ed Dabba area first to third instar hopper bands were being controlled over an area of 6 square kilometres in the Baiyuda (1733N|3207E) area and first to third instar hopper groups were being controlled at Abu Sedair (1910N|3110E).

Nile Province

In the Ed Damer area there were numerous groups of first to third instar hoppers some starting to form marching bands to the west of the Nile (17°N,32-33°E) and at Wadi Abu Haraz (1803N|3339E). Ground and aerial control was in progress. 11,577 litres of Fenitrothion ULV has been applied up to 21 November.

In the Shendi area ground control was in progress against hoppers, including first and second instar bands, in the Abu Sayala and El Eraif areas west of Hajar El Tair (1633N|3255E). There were also dense second to fourth instar hoppers over 800 hectares at Hamoreiba (1617N|3403E) and El Nagaa (1617N|3319E).

Northern Kordofan Province

As reported in Summary No. 97, first to fourth instar hoppers were found at 11 localities totalling 8,500 hectare in the Jebel Mughanus area (1411N|3048E). On 20 October a thin density immature swarm covering 20 square kilometres was seen flying very low from east to west in the area. It was sprayed from the air on 21 October. Further swarms were sprayed in four other localities in the same area on 24 October. There were also numerous hopper infestations to the north of El Obeid, around Ummr Sayala and in the Hamrar El Wiz (1409N|3008E) areas. Three aircraft were operating in the general area up to mid-November, when some 60.000 hectares had been treated.

First-third instar hopper bands were also found at Gabral Saeed (1607N|3155E) and Abu Ashush (1555N|3130E). They were baited.

Northern Darfur Province

First-to-third instar hoppers were found over an area of 470 square kilometres west of El Fasher, where hatching started on 27 September. In early November there was further hatching west of Tawila (1330N|2454E). High density groups of second to fifth instar hoppers and fledglings at a density of 1,000 per hectare was reported over an area of 250 hectares at Kusim (1336N|2504E), and Fledglings were seen at Abu Sineita (1345N|2457E) and Birka (1342N|2502E). Ground and aerial control operations were in progress.

ETHIOPIA

Scattered adult Desert Locusts mixed with dense grasshoppers were sprayed over 1,300 hectares at Humera (1415N|3635E) on 7-8 November.

SOMALIA

Ground surveys found scattered adults at several localities between Bossaso (1114N|4900E) and Jaurb (1050N|4546E) between 1 and 4 October, the maximum density being 65 in one kilometre at 1107N|4738E.

No locusts were reported from elsewhere in the Region.

NEAR EAST

Meteorology

Widespread rainfall was reported from the southern Tihama of Saudi Arabia and the Tihama of Yemen Arab Republic and the Asir mountains, extending north and inland to Hail, Taima and Tebuk. PDR Yemen was dry. The Red Sea Convergence zone was located between 15° and 20°N.

Breeding conditions

Breeding conditions were started to be favourable in the southern Tihama of Saudi Arabia and the Tihama of the Yemen Arab Republic.

Conditions were also favourable for breeding in eastern coastal areas of PDR Yemen.

Locusts

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Seven small second and third instar hopper bands were seen 25 kilometres east of Hisn Bilad. New hatching occurred at Irqah where the infestation covered 500 square kilometres and at Maseb, where the infestation covered 100 square kilometres. In late October 45 small bands were controlled between Hisn Bilad and Hawrah (1349N|4735E). Ground control using BHC dust, Fenitrothion and Dieldrin was in progress.

YEMEN ARAB REPUBLIC

Scattered adults were seen on the northern Tihama at Zohra and wadis Habl and Hayran.

KINGDOM OF SAUDI ARABIA

There were adults at densities of 600 per hectare over an area of 4 square kilomtres at Khabt Rukuba (1637N|4257E) in late October, and as adults at lower densities in several other localities south-east of Jizan.

OMAN

According to a late report for July, August and September adults were found at densities of 50-80 per square kilometre at Khor Bureimi (2154N|5748E) and at Wadi Shakla (2223N|5952E).

In a telex dated 14 October, it was stated that ground surveys had located hoppers and adults forming groups in the Sharqia. Later, it was stated that ground control operations were successfully mounted against gregarious breeding in Wadi Sal (2207N|5937E) and Wadi Mur (2214N|5942E) between 4 and 22 October using 50 l Dichlorfos 50 EC, 107 litres Fenitrothion 25 EC and 85 kg Lindane dust.

EGYPT

On 11 November an immature swarm reached the Gwarb Elmawhour area (2540N|2840E) and scattered over 50 square kilomtres. It was controlled by BHC bait.

There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

Continental high pressure persisted and the north-est monsoon became established over the summer breeding areas, where there were scattered showers in the second half of September and the first half of October.

Breeding conditions

Conditions were becoming unfavourable for breeding.

Locusts

PAKISTAN

As reported in Summary No. 97, a 4 square kilometre mature swarm settled at Kanewari (2625N|6958E) on 17 September and a loose group adults was seen at Samrahu (2625N|7003E) on 19 September. Small pockets of hatchlings were controlled over 2 square kilometres at Kanewari on 29 September using 50 kg BHC 12.5% dust. Scattered adults were found at 39 localities in Uthal, Mirpur Khas, Sukkur, Bahawalpur and Rahimyar Khan districts during the second half of September, the maximum density being 4050 per square kilometre at Khewari (2650N|6847E) on 27 September. Scattered hoppers were also found at nine localities in Uthal, Mirpur Khas, Sukkur, Bahawalpur districts.

In the first half of October scattered adults were found at 75 localities in the Uthal, Mirpur Khas, Sukkur, Bahawalpur and Rahimyar Khan districts, the maximum density being 7,500 per square kilometre at Chhao (2625N|6915E) on 10 October. Scattered hoppers were found at five localities.

In the first half of November the maximum density of scattered adults was 4,750 per square kilometre at Chhao on 8 November.

INDIA

In the second half of September three thin density mixed maturity swarms ranging in size from 3 to 8 square kilometres were reported from the Kelawa (2655N|7148E), Shahgarh (2708N|6959E) and Mitha Bhinda (2659N|6952E) areas of Jaisalmer district on 16 and 26 September and were controlled on 17-18 and 27 September. Scattered second to fifth instar hoppers were seen at Barju (2821N|7310E) on 26 September. Scattered adults were found at 76 localities in Bikaner, Ganganagan, Churu, Nagaur, Jodhpur, Jaisalmer, Barmer and Bamaskantha districts, the maximum density being controlled at Barju on 26 September. Aerial and ground control operations were undertaken against adult concentrations in the Jaisalmer district and ground control operations were conducted against late instar hoppers and group of adults in Bikaner district. 6,560 kg of BHC 10% dust and 500 kg of Malathion ULV were used to treat 5,477 hectares.

In the first half of October control operations were mounted against gregaricolor third-fifth instar hoppers and adults and the remnants of a loose swarm in three localities in Jaisalmer district totalling 94 hectares using 450 kg BHC 10% dust and 46 kg of Malathion ULV. Scattered adults were reported from 25 localities in Barmer, Bikaner, Churu, Jaisalmer and Bamaskantha districts, the maximum density being 1,550 per square kilometre at Shahgarh and Dungewala (2737N|7007E) on 11 and 15 October respectively.

IRAN

In July adults were present at a density of 60 per hectare over an area of 650 square kilometres north-east of Chahbahar. Control operations were conducted against solitaricolor fourth and fifth instar hoppers.

AFGHANISTAN was reported clear in August.

FORECAST FOR DECEMBER 1986 - JANUARY 1987

There has been widespread breeding in the summer breeding areas of Mauritania, Mali, Niger, Sudan, PDR Yemen, Oman, Pakistan and India and a number of swarms have been produced. Control operations have been mounted in all areas but considerable number of adults are likely to reach winter breeding areas and breed.

In West Africa adults surviving control measures in Mauritania, Mali and Niger are likely to concentrate in greener vegetation such as Schouwia so that further groups or even small swarms may reform. Breeding will terminate.

In North-West Afica breeding will end in extreme southern Algeria but considerable nuber of adults, possibly including groups may be present in eastern, central, southern and western Algeria, south-estern Morocco and western Libya.

In Eastern Africa swarms produced in the interior of Sudan are likely to move either north-east, or eastwards to the Red Sea coasts of Sudan and Ethiopia, where breeding is likely to become widespread.

Small scale breeding will probably occur on the northern coastal plains of Somalia.

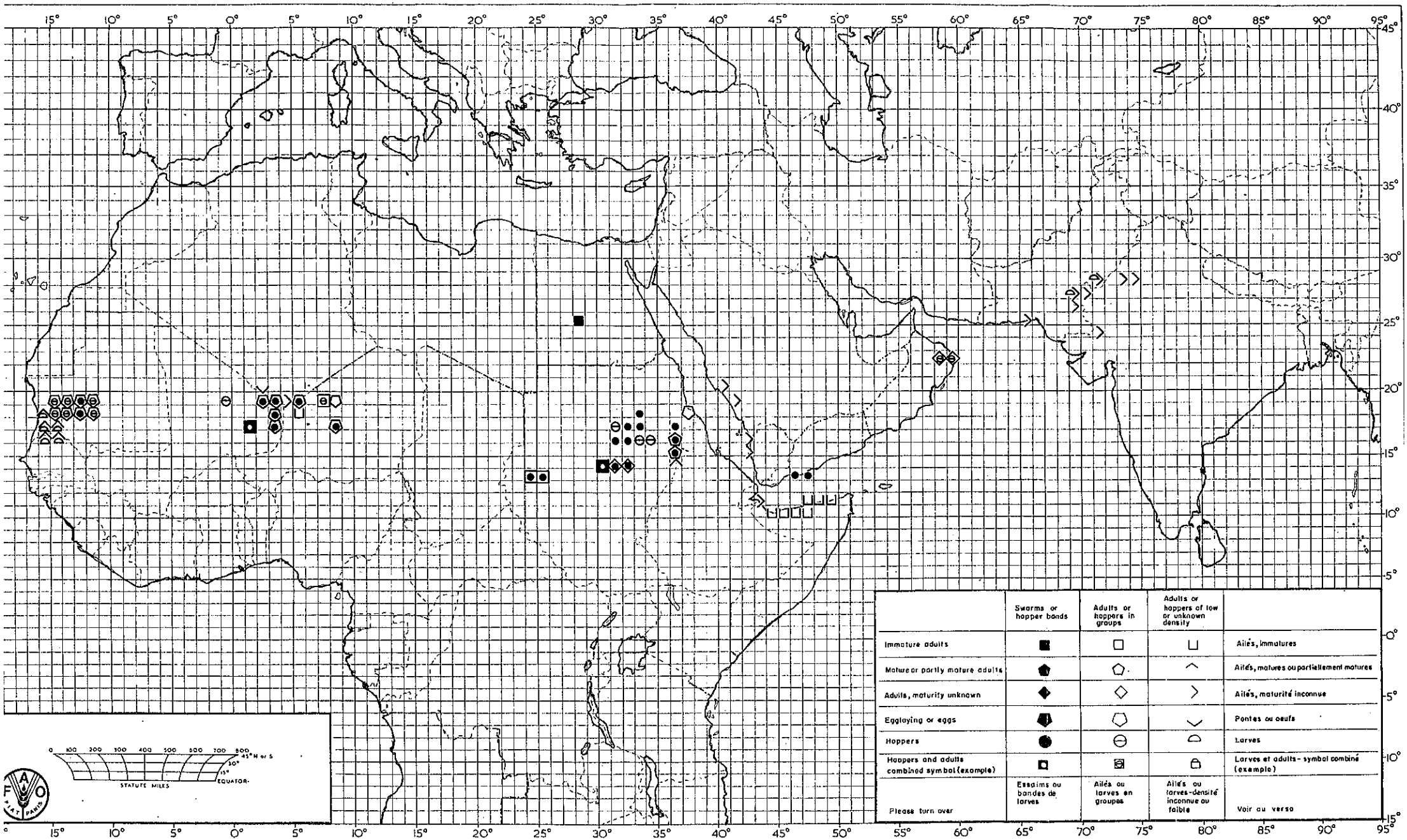
In the Near East, considerable number of adults, probably including some swarms are likely to reach the southern, central and northern Tihama of Saudi Arabia and some may reach Israel, Jordan, the interior of Saudi Arabia and even Southern Syria and Southern Iraq. Breeding will start on the Tihama of Saudi Arabia and is likely to result in the formation of hopper bands. Small scale breeding is likely to occur in the Yemen Tihama and in coastal and sub-coastal areas of Yemen PDR.

In South-West Asia increasing number of adults will occur in Baluchistan of Pakistan and Baluchistan-Seistan of south-east Iran. Considerable number of adults will remain in the summer breeding areas.

Rome
24 November 1986

1986

Desert Locust Situation Summary No. 98 OCTOBER-EARLY NOVEBER/OCTOBER-DEBUT DE NOVEMBRE



	Swarms or hopper bands	Adults or hoppers in groups	Adults or hoppers of low or unknown density	
Immature adults	■	□	⊔	Ailés, immatures
Mature or partly mature adults	⬟	⬠	^	Ailés, matures ou partiellement matures
Adults, maturity unknown	◆	◇	>	Ailés, maturité inconnue
Egglaying or eggs	⬟	⬠	⌄	Pontes ou oeufs
Hoppers	●	⊖	⌓	Larves
Hoppers and adults combined symbol (example)	◘	▣	⌂	Larves et adults - symbol combiné (example)
Please turn over	Essaims ou bandes de larves	Ailés ou larves en groupes	Ailés ou larves-densité inconnue ou faible	Voir au verso