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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 110

OCTOBER-EARLY NOVEMBER 1987

SUMMARY

The scale of summer breeding south of the Sahara has been far greater than anticipated. Mali was invaded by swarms in early October and Mauritania in late October. Breeding continues in both countries and is widespread in Mauritania. Algeria and Morocco were invaded by swarms on a broad front in the second half of October. Intensive control operations have been mounted in Morocco. The situation in northern Chad is unknown but further breeding was reported in western Sudan.

WEST AFRICA

Meteorology

During the first two decades of October the ITCZ fluctuated around 18°N over Mauritania, 15°N over Mali and 12°N over Chad. By the end of October it lay close to Dakar, Nioro du Sahel, Mopti, Niamey to south of Lake Chad. To the north of the front winds were generally easterly or north-easterly.

Breeding conditions

Following the good rains in September breeding conditions were favourable over large areas of Mauritania, in parts of the Adrar des Iforas and in parts of Tamesna of Niger.

Locusts

MAURITANIA

During October there was a protracted and large scale invasion of Mauritania from the east. From the 23rd swarms were reported and by mid-November swarms had been reported from many areas and there was widespread breeding.

The first reports were of small numbers of adults and hoppers from the two Hodhs, Tagant and Assaba; of isolated mature and laying adults in northern Tagant, southern Adrar and Inchiri and of isolated adults in northern Brakna and Aouker in the first two decades of October. On 23 October a thin density swarm of mixed maturity was reported 300 km north-east of Atar; on 24 October a swarm was seen flying west at 1850N, 1158W and on 26 October a swarm settled at Oujeft (2002N/1303W). In late October swarms were also reported at Kallaouya (2136N/1043W) and Leibher south-east of Atar. In early November a swarm was seen at Choum (2118N/1259W) flying north-west and swarms were seen north and north-east of Fderick (2240N/1242W) in the Tiris, at Rachid (1846N/1141W) on 5 November and 45 km north of Tidjijka.

By late October hopper bands had been found at Benichab (1916N/1520W), 30 km north of Akjoujt, 60 km south-west of Atar, 80 km east of Tidjijka and at Assi-el-Khar (1905N/1148W). 60 ha of hoppers were controlled at Ederoum (1821N/1135W).

By mid-November further swarms were reported in the regions of Adrar, where one swarm was reported to be 45 km long. Tagant where then were also first, second and third instar hopper bands particularly east of Tidjijka, Inchiri and Hodh Charghi. There were also further reports of swarms in Tiris-Zemmour.

Aerial and ground control is in progress in Adrar and Tagant.

MALI

On 8-10 October several immature swarms were reported from Tamesna (flying west), the Bouressa basin and north-west Adrar des Iforas. On 14

October an immature swarm was seen in Oued Tin Essako. On 15 October a swarm was seen at Tessalit and on 16 October a swarm was seen 45 km east of Kidal. Swarms had been present earlier in the Tin Essako sector as there were hatchings and second and third instar hopper bands over hundreds of hectares. By 8 November there were fifth instar bands. There were also mature adults, copulating and laying, over thousands of hectares in the eastern Adrar des Iforas in late October. An Algerian Ground team was controlling the infestations and had treated 8,655 hectares by the end of October. Ground control continued in November but nomads were objecting to the use of pesticides. By 23 November 21,250 hectares had been treated and it was estimated that further 10,000 hectares needed to be controlled.

NIGER

In early October ground units controlled fourth and fifth instar hoppers and fledglings in Air and a swarm of solitarious adults was seen at night at Tegguidan Tessem (1757N/0612E).

From 7 October there was an invasion from the east. Adults at hight densities were reported at Bilma and there were numerous reports of swarms moving west and north-west initially from Air. Many swarms were small and immature and probably formed from untreated hopper infestations in Air, but others were larger. One swarm measuring 17 km by 7 km was seen at Arlit on 7 October and a mature swarm measuring 4,7 sq. km was sprayed at Arlit on 9 October. Between 10 and 14 numerous immature and mature swarms were seen in western and southern Air moving rapidly west and north-west and some were reported to have reached Assamaka and In Guezzam on the Algerian border. An aircraft sprayed 21,600 hectares. By 20 October Air was free from swarms, but there were immature adults at densities of 500-1000 per hectare over several thousands of hectares in north-eastern and southern Air. An aircraft sprayed 2,800 hectares of immature swarmlets by 30 October.

In Tamesna third generation hoppers appeared in mid-October 150 kilometres west of Arlit and in the north-west close to the borders with Mali and Algeria. By 8 November 9,500 hectares of hoppers and settled adults had been treated by ground and air in Tamesna.

The Algerian team had treated 43,000 hectares by 23 November.

CHAD

Ground and aerial control operations continued in the Biltine, Ennedi and Borkou prefectures. By the end of October 48,599 hectares had been treated. There were also reports from the Fada and Faya areas. In Kanem 40 hectares of solitarious second and third instar hoppers and mature adults were treated and there was a report of an infestation 100 km east of Ziguei, which was being investigated.

ATLANTIC OCEAN

Small numbers of yellow-brown locusts came on board a ship between 1058 and 1200 hours GMT on 3 October at 1530-1536N, 1752W: The wind was NNE 3 knots. Species not known.

A single yellow locust came on board a ship at 1140 hours GMT on 12 November at 1155N., 2517W. The wind was NE force 4.

NORTH-WEST AFRICA

Meteorology

October was marked by the strengthening of the Azores anti-cyclone and an anti-cyclone over eastern Europe. Between lay a trough extending from the Iberian penninsula to the central Sahara. Heavy rains fell in the Tassili-n-Ajjer in early October and in the southern Western Sahara in early November. Dakhla received 50 mm.

Breeding conditions

Conditions will have been favourable for breeding in Tassili-n-Ajjer and will be becoming favourable in southern Western Sahara.

Locusts

The region experienced a large scale invasion by swarms during October.

ALGERIA

Scattered locust were reported by a survey team based on Timéaouine on 14 October. On 17 October swarms were reported by nomads at Tindouf. Subsequently, swarms were reported at In Guezzan, Reggane, Adrar (where 600 hectares were sprayed), Timimoun and El Golea on 21 October. On 25 October a swarm was reported at Ain Safra. On 26 October swarms were reported from Sidi Bel Abbas north of the Atlas mountains, where heavy damage was reported on 28 October, and four swarms were reported from Djanet.

On 29 October a swarm was reported flying west 170 km north of In Salah and another was reported flying west 170 km south of El Golea. 320 hectares of adults were treated at Beni Abbes. On 30 October a swarm was reported at Tindouf. The last swarm was reported on 4 November.

On 8 November some scattered adults were found around Djanet.

In mid-November some significant populations were reported from Ahnet and Mouydir north of Silet. Up to 23 November 238 hectares of first and second instar hoppers have been treated in three stations.

MOROCCO

Mainly young immature swarms reached Morocco on a broad front in the third decade of October. By the end of the month swarms totalling 30,000 hectares had been reported from Tata, Zagora, Mahbes, Tadus, Errachidia, Bouarfa, Figuig and Oujda. During November further swarms arrived from the south and by mid-month 100,000 hectares of swarms had been reported, and 91,500 hectares of swarm had been sprayed, mainly by air in the Tan Tan, Goulimine and Tiznit areas by 24 November. No new

swarms were reported after 22 November. Some adults were reporting to be copulating in Oued Dra. Heavy damage to palm trees was reported at Zagora.

LIBYA

Scattered adults were reported from the Hamada El Hamra in mid-November. A mixed population of Desert Locusts and African Migratory Locusts was present over 500 hectares in the Ubari agricultural scheme in the Fezzan.

EUROPE

Locusts

SPAIN

Groups of locusts were reported from south-eastern Spain on 31 October-1 November.

EASTERN AFRICA

Meteorology

No rain was reported from the Red Sea coastal plains of Sudan or Ethiopia or the northern coastal plains of Somalia. There were scattered showers in the interior of Sudan.

Breeding conditions

Conditions were unfavourable for any further breeding in the interior of Sudan.

Locusts

SUDAN

NORTHERN DARFUR PROVINCE

At the beginning of October there were late instar hopper bands and fledglings in the Karnoi, Kutum, Jebel Warra, Tiné and Umm Baru areas. An aircraft applied 1,600 litres of Fenitrothion against four targets on 30 September and 1 October and ground control units treated 2,580 hectares. During the first week of October the swarms moved south and were reported from the Kebkabiya area on 8-12 October. Further breeding was reported close to the Chad border in early November but was not being controlled because of lack of security.

SOUTHERN DARFUR PROVINCE

Swarms reached the Zalingei area from the north on 10 October and caused considerable damage to sorghum and millet. Swarms totalling 80 sq. km were sprayed from the air on 14-20 October with 2,580 litres of Fenitrothion and Diazinon.

NORTHERN KORDOFAN PROVINCE

Several small thin density swarms were seen in the Ban Gadid ($1450\mathrm{N}/2910\mathrm{E}$) and Sodiri areas. On 8-11 October aircraft applied 1,000 litres of Fenitrothion to settled adults and ground units treated 310 hectares in three localities in the Ban Gedid area, and on 15 October 100 litres were applied against settled adults north-west of El Obeid. A fledgling swarm was seen at Umm Grein ($1605\mathrm{N}/2845\mathrm{E}$) on 12 October but there were lower density hoppers and adults over an area of 4,000 hectares.

In the Hamrat El Wuz area ground units treated 2,590 hectares of late instar hopper and fledglings around El-Marikh (1515N/2945E) and 810 hectares in wadis El Manirch and Idd El Turuk (1530N/2947E).

WHITE NILE PROVINCE

On 6 October an immature swarm measuring 0.5 sq. km flew over E1-Mugeirinat (1428N/3142E) and was controlled.

KHARTOUM PROVINCE

Control operations treated 4,225 hectares of late instar hoppers and fledglings between Goz Abu Dulu and Wadi El Mughadam during the first half of October.

NILE PROVINCE

In the first half of October, ground teams controlled hopper bands and low density fledglings within an area of 42,250 hectares in the Goz Abu Dulu area $(17^{\circ}\text{N}/33^{\circ}\text{E})$, but further groups of first instar hoppers were found at El Hadeid (1721N/3248E) and Abu El Bagger (1722N/(3747E)) on 21 October and a medium density mature swarm flew over El Mahamiya (1712N/3342E) heading north-east. It was reported to measure 84 sq. km.

Small groups of hoppers and adults were also controlled along the river Atbara. On 19 October a medium density swarm was reported at Sidon (1719N/3427E).

NORTHERN PROVINCE

Adults were reported in the Ed Dabba area.

KASSALA PROVINCE

Scattered adults reported from Wadi Odi area.

ETHIOPIA

A swarm measuring 50 sq. km was reported near Galuga, 25 km north of Om Ager flying east on 18 Novembre.

There were no other reports from the Region.

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NEAR EAST

Meteorology

There were frequent showers over the Asir and Hijaz mountains. Some rain also fell on the northern Tihama and around Jizan. Heavy rains were reported from Taima, Tebuk, Jawf and Hail.

Breeding conditions

Ecological conditions are suitable for breeding on the Tihama.

Locusts

KINGDOM OF SAUDI ARABIA

Small numbers of maturing adults were found on the shore at Jeddah in early November.

YEMEN ARAB REPUBLIC

Small numbers of adults were reported from Jawf and Marib.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Control operations against second to fifth instar hopper bands and fledglings continued in the Nisab, Wasit, Wadi Markhah, Wadi Matarif, Wadi Said, Dhalim and Wadi Jifa areas until 15 October. About 950 bands and 64 groups of fledglings were controlled within an area of 500 sq. km. 1,400 litres of Fenitrothion 96% and 2,600 litres of Endosil 20% were applied. By late October-early November only scattered adults ere found in Wadi Markhah, Wasit and Wadi Said.

IRAQ and KUWAIT were reported clear in October; OMAN was reperted clear in August. There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

The drought continued in the summer breeding area in the first fortnight of October.

Breeding conditions

Ecological conditions were unfavourable for breeding.

Locusts

PAKISTAN

Scattered locust were seen at 10 localities in Uthal, Mirpurkhas and Sukkur districts during the first half of October, the maximum density being 300 per square kilometre at Katchkararo (2520N/6710E) on 8 October. In the second half of October scattered adults were seen at 9

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localities in Uthal, Mirpurkhas and Rahimyar Khan districts, the maximum density being 300 per sq. km at Gondi (2450N/7050E) on 18 October.

INDIA was reported clear in October, AFGHANISTAN was clear in July and August.

FORECAST FOR DECEMBER 1987-JANUARY 1988

The scale of summer breeding south of the Sahara and the extent of the escapes was far greater than anticipated. Control appears to have been highly effective in Morocco but extent of the infestations and the effectiveness of control operations in Mauritania, Western Sahara, Mali, Chad and Western Sudan is uncertain. Winter breeding will occur in countries bordering the Red Sea.

In West Africa widespread but staggered breeding will continue in Mauritania and fledging will occur throughout the forecast period. If there are areas of uncontrolled breeding some swarms may form. There may disperse, under the influence of the harmattan or persist as swarms and move west or they may move north during periods of southerly winds. In Mali breeding will terminate. If swarms are produced they may move west or remain in situ and will probably disperse. In Niger control will probably prevent swarm formation and low density adults will persist. The situation in northern Chad is unknown. There may be extensive populations which are likely to overwinter in situ. It is possible that some swarms may move slowly south with the retreat of the ITCZ and reach northern parts of the Gulf of Guinea states.

In North-West Africa intensive control in Morocco has probably controlled the main wave of swarms from south of the Sahara but further more limited control may be necessary to eliminate any remnants. Further limited invasion from the south is still possible during periods of southerly winds. Breeding in southern Morocco will probably be on a small scale. In Western Sahara breeding will be on a larger scale and hopper bands will form but development will be slow due to low temperatures. In Algeria remnants of swarms may enter from Morocco and pockets of breeding may be rather widespread in the Sahara, and some adult groups may form, which may move north into agricultural areas during periods of warm southerly winds. Scattered adults may reach Tunisia. It is still possible that swarms may enter southern Libya from the south or west.

In Eastern Africa there may be substantial numbers of adults in Western Sudan. Survivors of control in the central provinces are likely to move to the Red Sea coastal plains of Sudan and northern Ethiopia, where breeding will commence. Small numbers of adults may occur in the northern coastal plains of Somalia and will start to breed.

In the <u>Near East</u> it is possible that the southern Tihama of Saudi Arabia may be invaded by swarms from the west, but more likely that only scattered locust will be present. Breeding will commence but the scale will depend on whether swarms reach the area. Small numbers of adults will probably occur on the Tihama of the Yemen Arab Republic and small numbers of adults will persist in Yemen PDR.

In <u>South-West Asia</u> small numbers of adults will occur in Baluchistan of Pakistan.

24 November 1987 Rome 一个人人 对抗病性神经病病的 獨議院

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