FAO

LOCUST, OTHER MIGRATORY PESTS, & EMERGENCY OPERATIONS GROUP

DESERT LOCUST BULLETIN No. 170

GENERAL SITUATION DURING OCTOBER 1992
FORECAST UNTIL MID DECEMBER 1992

During October, breeding continued in southern Mauritania, and as a result, early instar hopper bands were seen at three locations. Control operations were in progress and treated more than 9,000 ha by the end of the month. In Niger, significant breeding occurred in central Tamesna where high densities of mature adults and hoppers were seen early in the month. In South-West Asia, small scale breeding occurred at a few localities in Rajasthan of India and perhaps in adjacent areas of Pakistan where ecological conditions remained favourable as a result of the unusually good rains last month. Conditions will become less favourable in all of these areas as vegetation dries out and no further breeding is expected to occur. During the forecast period, low numbers of adults are likely to appear in winter/spring breeding areas and lay when rainfall occurs.

The forecast period is one in which summer breeding comes to an end and ecological conditions become dry, forcing adults and hoppers into the few remaining patches of green vegetation. As a result, it is common to find locusts at densities higher than during the summer. However, only limited populations are expected to be present at a few locations in southern Mauritania, southern Adrar des Iforas of Mali and Tamesna of Niger.

During this same period, adults continue to move towards winter/spring breeding areas of North-West Africa, the Red Sea coastal areas and Baluchistan of Pakistan and Iran. There are signs that this movement has already begun in some areas: adults concentrated in western Mauritania in mid October, groups of adults were present in the Sahara of central Algeria, immature adults appearing on the southern side of the Atlas Mountains in Morocco and scattered adults were present in the Eastern Region of Sudan.

The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by telefax, telex, FAO pouch, or mail by the Locust, Other Migratory Pests, and Emergency Operations Group, AGP, FAO, 00100 Rome, Italy.
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WEATHER AND ECOLOGICAL CONDITIONS

Based on field reports, METEOSAT and ARTEMIS satellite imagery, and Météo-France synoptic and rain data.
Rainfall terms: light = less than 20 mm of rain; moderate = 20 - 50 mm; heavy = more than 50 mm.

During October, no further rainfall occurred in the Desert Locust summer breedings areas of West Africa and Sudan. The ITCZ remained south of these areas, around 13°N and continues to move further south as is normal for this time of year. As a result of no rain falling, vegetation is becoming dry and conditions for breeding unsuitable in nearly all places except for some patches remaining in parts of central-southern Mauritania, in some wadis of the southern Adrar des Iforas of Mali and in parts of Tamesna of Niger.

In North-West Africa, seasonal rains commenced during the first week of the month as a result of several eastward moving Mediterranean depressions. However, these rains, mostly light to moderate, were concentrated in areas north of the Atlas Mountains in Morocco and Algeria. Ahead of these depressions, there was a warm southerly airflow which may allow locust adults to move northwards from summer breeding areas; otherwise, night temperatures in desert areas have become too cold to allow flight.

In the winter/spring breeding areas along the Red Sea, cold clouds were present over the southern Tihama of Saudi Arabia to the coastal plains west of Aden nearly everyday during the first decade of the month. It is expected that light to moderate rain occurred in some of these areas and, as a result, vegetation conditions should be improving. On the southern Red Sea coast of Sudan, clouds and light rainfall were reported between Tokar Delta and the Ethiopian border during the first week of October; breeding conditions are expected to be improving in these areas. Cold clouds were also present at times over the southern coast of Ethiopia, northern Somalia and the eastern coast of Yemen.

Unusually significant cold clouds were seen over central areas (20-23°N/48-51°E) of the Empty Quarter in Saudi Arabia, from 5-6 October where moderate to heavy rainfall may have occurred.

In South-West Asia, widespread light to moderate rains fell during the first week of October from Rajasthan in India to the Mekran of Pakistan. In India, Barmer reported 17 mm and Bikaner 27 mm; in Pakistan, Lasbela received 17 mm, Panjgur 15 mm and Gawadar 12 mm. Moderate rainfall was reported at a few places in Khipro and Cholistan deserts during the last decade of the month.

AREA TREATED IN OCTOBER 1992

India	no details available
Mauritania	9,370 ha

DESERT LOCUST SITUATION

See the last section of this Bulletin for a definition of terms used in reporting the current locust situation.

WEST AFRICA

MAURITANIA

During the last decade of September, scattered mature locusts were present in the south at a total of 46 locations (out of 79 surveyed) in Hodh el Gharbi, northern Assaba, southern Tagant, northern Brakna and north-eastern Trarza. At one location in northern Brakna (1822N/1258W), control operations were carried out against copulating adults, at densities of 1,200 per ha, on 200 ha. Copulating adults and third and fourth instar hoppers were seen at several locations north and north-east of Aioun El Atrous. In Hodh El Chargui, scattered immature adults were seen at 9 locations west of Nema.

During the first decade of October, mature adult populations extended into central Tagant, southern Adrar and western Trarza where copulating was seen at three locations in the latter region. In Hodh El Chargui, adults were slowly maturing and low densities of hoppers, mostly early instars, were present east of Oualâta at 1722N/0646W on 4,000 ha.

During the second decade, control operations treated 555 ha of early instar bands in northern Brakna at one location (1823N/1251W) where earlier copulation had been seen in late September. Groups of adults were seen copulating in the same area and surveys found few adults elsewhere, except for isolated mature adults in central Tagant, as most green vegetation had dried up. In Hodh El Chargui, a few immature and mature adults were seen and control operations commenced at 1722N/0646W against hoppers, treating a total of 6,200 ha.

During the third decade, control operations continued against hopper bands at the northern Brakna location, treating 2,420 ha. There was an unconfirmed report of early instar hopper bands in the same area on the 26th. Elsewhere, no locusts were reported.

NIGER

A late report stated that isolated immature adults were seen in Agadez on 22 September and again on the 29th. Further south-west, isolated mature adults were present near Tillabery at Ikrafane (1516N/0339E) on the 28th and at Sanam (1450N/0401E) on the 30th.

In October, scattered mature adults and second to fourth instar hoppers were seen at six locations during a survey in central Tamesna from 6-9 October. Adult densities were generally low except for two locations where up to 1,000 per ha were reported; whereas, hopper densities were higher, generally 500-1,000 per ha, and at one location 10-50 per sq. metre due to drying vegetation. Some adults were seen copulating and a few bright yellow males were caught.

CHAD

During October, scattered adults were seen over 15 ha near Korom (1955N/1744E) in northern BET on the 5th. Surveys were in progress and further details are expected.

No locust information had been received from other countries in the region up to 31 October.

NORTH-WEST AFRICA

MOROCCO

A late report stated that a few solitary adults were seen in the south-west near Dakhla at Bir Gandouz (2333N/1535W) on 18 September.

Scattered immature adults were seen at 12 locations south of the Atlas Mountains between Figuig (3206N/0114W) and Ouarzazate (2955N/0655W) on 28 October. These adults probably arrived from the central Sahara.

ALGERIA

Groups of mostly mature adults were seen in the Adrar region on the evening of 26 October. These have probably arrived from the summer breeding areas of the Sahel during periods of warm southerly winds. Further details are awaited.

No locust information had been received from other countries in the region up to 31 October.

EASTERN AFRICA

SUDAN

Solitary adults were seen copulating and laying in the Derudeb area (1703N/3705E) in the Eastern Region during the first week of October.

ETHIOPIA, DJIBOUTI, KENYA, TANZANIA, UGANDA

A late report stated that there was no locust activity during September.

SOMALIA

No locust reports have been received up to 30 September.

NEAR EAST

YEMEN

A late report stated that isolated adults were seen during September on the central Tihama at Al Mansowrih (1441N/4318E), Al Hosynih (1417N/4321E), Al Kotia (1455N/4313E) and Al Torbah (1503N/4258E).

No locust information had been received from other countries in the region up to 31 October.

SOUTH-WEST ASIA

PAKISTAN

During the second half of September, low densities of adults were present in Lasbela, Tharparkar, Cholistan and Nara deserts at a total of 30 locations with a maximum density of 900 per sq. km at Chooriwala (2858N/7240E) in Cholistan on the 17th.

During October, adults persisted in these same areas but at a slightly higher density. During the first half of the month, adults were present at a total of 39 locations with a maximum density of 1,250 per sq. km at Karahiwala Dhar (2819N/7139E) in Cholistan on the 8th. During the second half of the month, adults were at a total of 31 locations with a maximum density of 1,350 per sq. km at Laranwali (2804N/7123E) on the 23rd.

INDIA

During the first half of October, scattered adults were present at a total of 16 locations in Rajasthan, primarily in Bikaner District, but also in Barmer, Jaisalmer, Jodhpur and Churu Districts with a maximum of 1,000 per sq. km at Kanoi (2652N/7034E) of Jaisalmer District on the 6th. Solitary late instar hoppers were reported at one location each in Bikaner and Churu districts.

No locust information had been received from other countries in the region up to 31 October.

FORECAST UNTIL MID SEPTEMBER 1992

Forecasting terms used in this section to indicate the chances of a particular event happening are indicated below; every term is arranged within each category from most to least probable:

high probability	will, probably, almost certain, likely, expected
medium probability	may, might
low probability	possibly, perhaps, unlikely

WEST AFRICA

MAURITANIA

Locust numbers are expected to decrease in the south as a result of current control operations and because vegetation will continue to dry out, and no further breeding is anticipated. During November, adults will move towards the west and north-west, reaching Inchiri and Adrar; however, by the end of the month, nighttime temperatures are expected to be too cold to allow flight.

MALI

The situation remains unclear; however, a low numbers of adults are likely to be present in the southern Adrar des Iforas where earlier breeding probably occurred. During the forecast period, numbers will decrease as adults move towards the west and only a few are likely to remain by the end of the forecast period.

NIGER

As vegetation begins to dry up in Tamesna, adults will concentrate at relatively high densities in remaining green areas. However, these populations will decrease as adults move towards the winter/spring breeding areas during November, and by the end of the forecast period, only scattered should remain.

CHAD

A few adults may be present and will persist in the north near Tibesti.

BURKINA FASO, CAMEROON, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL

No significant developments are likely.

NORTH-WEST AFRICA

ALGERIA

Adults present in the southern and central Sahara will persist and may breed if rainfall occurs during the forecast period.

MOROCCO

Scattered adults will persist along the southern side of the Atlas Mountains and in the extreme south-west, and breed if rainfall occurs during the forecast period.

TUNISIA and LIBYA

No significant developments are likely.

EASTERN AFRICA

SUDAN

Small scale breeding is expected to continue during the forecast period in the Gash Delta area of the Eastern Region. Low numbers of adults will almost certainly appear on the Red Sea coast, mainly south of Suakin, and start to breed in areas where rainfall occurs.

ETHIOPIA

Low numbers of adults may appear in the Western Province and on the Red Sea coast and start to breed in areas where rainfall occurs.

DJIBOUTI, KENYA, SOMALIA, TANZANIA and UGANDA

No significant developments are likely.

NEAR EAST

SAUDI ARABIA

Low numbers of adults may be present on the southern Tihama and breed in areas of rainfall.

YEMEN

Low numbers of adults will persist on the Tihama and breed in areas of recent rainfall. Scattered adults may be present along the coastal plains west of Aden, and perhaps in the interior near Wadi Al Jawf, Sabatyn and Wadi Hadhramaut.

OMAN

A few adults may appear on the Batinah coast during the forecast period as a result of movement from the Indo-Pakistan summer breeding area.

UAE

A few adults may appear on the Fujarah coast during the forecast period as a result of movement from the Indo-Pakistan summer breeding area.

BAHRAIN, EGYPT, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, QATAR, SYRIA, and TURKEY

No significant developments are likely.

SOUTH-WEST ASIA

PAKISTAN

As vegetation begins to dry up in the Tharparkar and Cholistan deserts, adults will concentrate at relatively high densities in those areas of remaining green vegetation. However, these populations will decrease as adults move towards the west during November, and as a result, low numbers of adults will appear in coastal areas of the Mekran during the forecast period.

INDIA

As vegetation begins to dry up in Rajasthan, adults will concentrate at relatively high densities in those areas of remaining green vegetation. However, these populations will decrease during the forecast period and only a few scattered adults are likely to remain.

IRAN

A few adults may appear in the south-east during the forecast period.

AFGHANISTAN

No significant developments are likely.

3 November 1992

Desert Locust: summary
Criquet pèlerin: situation résumée

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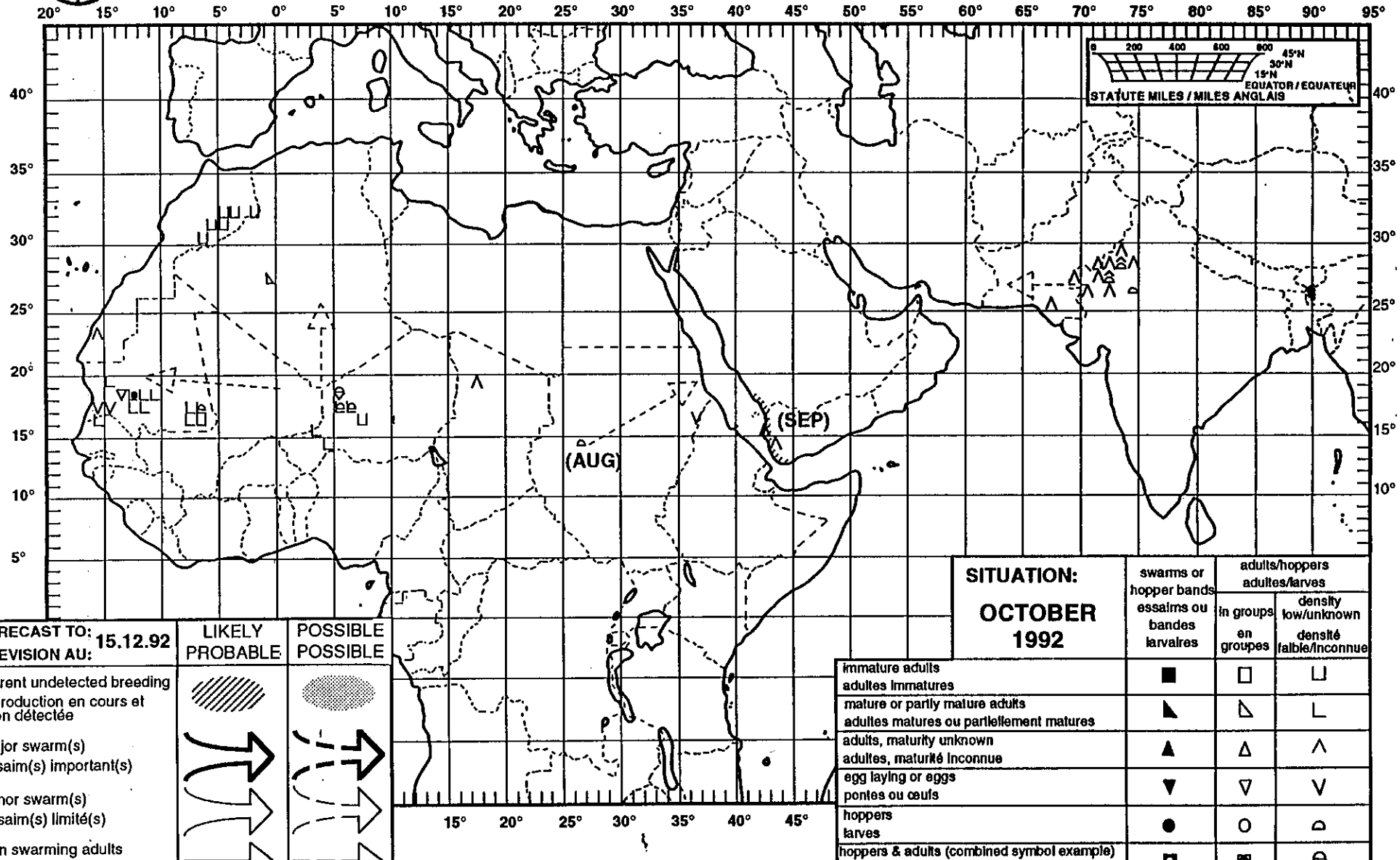

FORECAST TO: / PREVISION AU: 15.12.92	LIKELY / PROBABLE	POSSIBLE / POSSIBLE
current undetected breeding / reproduction en cours et non détectée		
major swarm(s) / essaim(s) important(s)		
minor swarm(s) / essaim(s) limité(s)		
non swarming adults / adultes non essaimant		

SITUATION: OCTOBER 1992	swarms or hopper bands / essaims ou bandes larvaires	adults/hoppers adultes/larves: in groups / en groupes	adults/hoppers adultes/larves: density low/unknown / densité faible/inconnue
immature adults / adultes immatures	■	□	⊔
mature or partly mature adults / adultes matures ou partiellement matures	◣	◺	L
adults, maturity unknown / adultes, maturité inconnue	▲	△	^
egg laying or eggs / pontes ou œufs	▼	▽	V
hoppers / larves	●	○	∩
hoppers & adults (combined symbol example) / larves et adultes (exemple symboles combinés)	◘	◙	⍾