



FAO



EMERGENCY CENTRE FOR LOCUST OPERATIONS

DESERT LOCUST BULLETIN No. 174



The Desert Locust situation remains threatening in countries along the Red Sea as rains continued to fall during February maintaining favourable breeding conditions over a widespread area and allowing the formation of additional swarms. A further wave of swarms reached the Tihama of Saudi Arabia on 10-20 February. Substantial aerial and ground control operations are in progress. The situation has improved in Sudan due to control and emigration. In Eritrea, control operations are in progress against infestations of hopper bands and small swarms although operations are not possible in some areas due to safety reasons. In Yemen, field teams are treating those populations that have started to form sprayable targets.

The situation is difficult to forecast with any precision since it depends on how long the winter-spring rains continue and how effective control operations are in the Red Sea area. Rainfall will affect the timing and scale of emigration. A continuation of the rains will allow at least one, if not two, more generation to breed, resulting in a delayed, but potentially large, migration towards the east and west, and perhaps south, in the late spring. If rains cease in March, populations will move earlier and the scale is expected to be lower. The possibility of populations reaching northern, central and eastern Arabia anytime during the forecast period cannot be excluded.

Thus it is extremely important to organize and mount effective control operations against all gregarious and gregarizing populations while they are still more or less confined to the Red Sea and Gulf of Aden coastal plains.

There have been no reports of other significant infestations outside the Red Sea area.

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, ECLO/AGP, FAO, 00100 Rome, Italy.

Telephone: (39-6) 5797-4021 or -4578

Telefax: (39-6) 5797-5271

Telex: 610181 FAO I



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 February, the weather in locust breeding areas continued to be influenced by eastward-moving Mediterranean depressions originating over the Atlantic.

In the eastern Mediterranean, a strong depression developed on 1 February and moved east over the Persian Gulf, resulting in widespread moderate to heavy rains from northern Arabia to Oman and southern Iran between 2-7 February. For example, in Saudi Arabia Wejh on the northern Tihama reported 63 mm and Ahsa in the central interior received 65 mm; Kuwait reported 22 mm, Qatar 71 mm, Bahrain 38 mm, Abu Dhabi 90 mm, Dubai 82 mm, Ras Al Khaimah (UAE) 133 mm, Kassab on the Musandam peninsula of Oman 105 mm, and Bender Abbas in Iran 70 mm. Breeding conditions are expected to be improving in all areas that received rain. A second depression moved from the eastern Mediterranean and intensified over northern Arabia on the 22-23rd. There were warm southerly winds in front of the depression and light rains fell in central and eastern parts of the Arabian Peninsula.

Rains also continued to fall along the Tihama of Saudi Arabia and Yemen as well as the coastal plains west of Aden. Unusually heavy rain fell in late February over the central highlands and southern coast of Yemen where Aden reported 250 mm in two days (annual average is 37 mm). As a result, conditions will remain favourable for breeding in coastal areas for the next few months.

Although no heavy rain fell on the Red Sea coast of Sudan during the first half of the month, vegetation was reported green and the soil moist in coastal areas south of Port Sudan. On the 20th, heavy rain was reported at Port Sudan and isolated showers were seen near Aitarba. Breeding conditions continue to be favourable near the Egyptian/Sudanese border. Conditions also remain favourable along most of the Eritrean coast from Karora to Djibouti. During the first half of February, Djibouti received 52 mm.

In North-West Africa, several depressions moved across northern Morocco, Algeria and Tunisia to Libya and north-western Egypt during the month, resulting in light to moderate rain fall in coastal areas north of the Atlas mountains. Conditions south of the Atlas were reported to be generally dry in Morocco and Mauritania where only traces were reported in a few locations in the north. In central Algeria, light rains, associated with a local depression may have occurred over the Grand Erg Oriental of Algeria extending toward Tunisia on the 23rd. By the end of the month, another depression extended over north-western Africa, producing light to heavy rains mainly on the coastal plains north of the Atlas from Morocco to Libya. There was an unconfirmed report of 60 mm in north-eastern Al-Hamada Al-Hamra of Libya on the 27th.

No rain was reported in Pakistan and India during the first half of the month. However, during the last decade, some rains were received mainly in the northern regions of Pakistan and these extended



AREA TREATED IN FEBRUARY 1993

Sudan	37,000 ha
Ethiopia (Eritrea)	15,800 ha (November 1992 - 8 February 1993)
Saudi Arabia	485,000 ha (November 1992 - 28 February 1993)
Yemen	10,000 ha (13-31 January)



WEST AFRICA

No locust information had been received from countries in the region up to 28 February.

NORTH-WEST AFRICA

MOROCCO and ALGERIA

No locust activity was reported during January.

No locust information had been received from other countries in the region up to 28 February.

EASTERN AFRICA

SUDAN

During February, there were 27 reports of new generation immature and mature swarms in coastal areas, mainly near Aitarba, covering about 13,900 ha, and reports of hoppers and fledglings covering about 6,080 ha at 17 locations. There were also reports of adults continuing to drift in from Eritrea.

By late February, the situation had improved probably due to control and emigration. The extent and density of currently infested areas appear to be much smaller than originally forecast. However, breeding continues in the Tokar Delta and conditions remain favourable in previously infested areas near Suakin and Aitarba, where small populations persist.

ETHIOPIA

During January, aerial control operations continued on the northern coastal plains of Eritrea between Mersa Teklai (1730N/3840E) and Karora (1750N/3830E) against numerous infestations of late instar hopper bands and fledglings, and five small immature and mature swarms.

During February, breeding continued in all coastal areas where some infestations were reported to be quite dense. Aerial control operations were undertaken during the first week in the Jebel Adarit (1715N/3852E) area against several small swarms and infestations of hoppers and fledglings ranging in size from 1 x 2 km to 7 x 11 km. No control operations were undertaken from the 8-15th.

In mid month, two dense infestations of hoppers and adults covering areas of about 40 x 24 km and 12 x 15 km were reported north of Massawa. New infestations were also reported on the coast south of Massawa near Zula (1514N/3940E) where 200 ha were infested with 2nd to 5th instar hoppers and immature adults on the 18th. It is possible that locust infestations are also present on the southern coast to the Djibouti border.

DJIBOUTI, KENYA, TANZANIA and UGANDA

No locust activity was reported during the first half of February.

SOMALIA

No locust reports have been received up to 28 February.

NEAR EAST

SAUDI ARABIA

During January, there were 54 reports of swarms, ranging in size from 4-16 sq. km, on the Tihama, primarily near Tafil (2035N/3940E), but also in the Jizan and Qunfudah areas. Most of these were small mature swarms and laid upon arrival.

A further wave of swarms, mostly 2-3 sq. km but a few up to 20 sq. km in size, began arriving on the Tihama on 10 February, again mostly in the Tafil area where arrivals continued up to the end of the month. Several swarms also arrived in the Jizan area and about 300 km north of Jeddah in the Badr

region up to mid month. In all, there were 88 reports of swarms. Local breeding was reported to be in progress in Jizan and Qunfudah. Substantial ground and aerial control operations were in progress in all areas.

YEMEN

During February, several hopper bands were reported from Wadi Hayran (1614N/4258E) and at five locations near Az Zorah (1544N/4300E) on the 8th. However, most of the populations were spread out along the Tihama from Bayt Al-Faqih (1430N/4320E) to the Yemen border and consisted of high numbers of solitary adults and hoppers in which only a few were gregarizing and becoming sprayable targets. Scattered adults and hoppers were also reported on the coastal plains west and east of Aden during the first decade of the month.

EGYPT

There was an unconfirmed report of two immature swarms near Sophya (2211N/3635E) in early February. Surveys are in progress and details are awaited.

No locust information had been received from other countries in the region up to 28 February.

SOUTH-WEST ASIA

PAKISTAN

No locust activity was reported during the second half of January and the first half of February.

INDIA

During the second half of January and the first half of February, scattered adults were reported from Rajasthan at 3 locations of Jaisalmer district, at a maximum density of 2400 adults per sq. km at Dhanana (2642N/7011E).

During the second half of February, scattered adults were reported at two locations of Jaisalmer and one location of Bikaner with a maximum density of 1200 adults per sq. km at Dhanana of Jaisalmer.

No locust information had been received from other countries in the region up to 28 February.



WEST AFRICA

MAURITANIA

Isolated adults are almost certainly present in a few locations of Inchiri, Adrar, northern Trarza and Tiris Zemmour.

MALI

Isolated adults may be present and will persist in a few locations of Tamesna and in Adrar des Iforas.

NIGER

Scattered adults are almost certainly present in parts of central and northern Tamesna and Air.

CHAD

Isolated adults may be present in northern Tibesti.

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

No significant developments are likely.

NORTH-WEST AFRICA

MOROCCO

Isolated adults may be present in a few locations of the extreme south-west.

ALGERIA

Isolated to scattered adults may be present in the Central Sahara in areas of any recent rain.

LIBYA

Isolated adults may be present at some places of Al Hamada al Hamra in areas of any recent rain.

TUNISIA

No significant developments are likely.

EASTERN AFRICA

SUDAN

Breeding will continue in coastal areas south of Port Sudan which may lead to substantial infestations depending on control effectiveness, the continuation of the rains, immigration and emigration. Populations are likely to be augmented by adults drifting in from adjacent areas of Eritrea. If any significant rainfall occurs along the northern coast, adults are likely to appear and lay in these areas during the forecast period.

ETHIOPIA

Breeding will continue in coastal areas from Karora to Massawa which may lead to substantial infestations depending on control effectiveness, the continuation of the rains, immigration and emigration. Infestations are likely to extend further south along the coast to the Djibouti border.

DJIBOUTI

Scattered to small numbers of adults may be present and breeding on the northern coastal plains. Surveys are recommended in these areas during the forecast period.

SOMALIA

Although the situation remains unclear, moderate scale breeding may be in progress in areas of recent rains on the north-western coastal plains.

KENYA, TANZANIA and UGANDA

No significant developments are likely.

NEAR EAST

SAUDI ARABIA

Small swarms will continue to arrive on the Tihama where favourable conditions will allow them to mature and breed. Adults are likely to move further north along the Tihama and lay in areas which have received recent rains. Adults, and perhaps a few swarms, can appear at any time during the forecast period in northern and central interior areas where they are expected to lay in areas of recent rains.

YEMEN

Current infestations will persist and continue to breed on the central and northern Tihama. During the forecast period, gregarizing populations are expected to become increasingly concentrated in these areas and hence present suitable spray targets while other populations may move further north along the Tihama. The scale of infestations will depend on control effectiveness, the continuation of the rains, immigration and emigration. Breeding conditions are expected to remain favourable on the coastal plains west of Aden where additional infestations may appear during the forecast period.

EGYPT

Breeding will continue on the southern Red Sea coastal plains near the Sudanese border. Infestations may be augmented by adults and perhaps a few small swarms arriving from the south which are expected to lay during the forecast period. Adults are likely to move further north along the coast and lay in areas which have received recent rains.

UAE

There is a possibility of substantial numbers of adults arriving from the west and laying in areas of recent rains where scattered adults may already be present.

OMAN

Scattered adults may be present and start to breed in areas of recent rains on the Northern Batinah and may be augmented by adults arriving from the west during the forecast period.

KUWAIT, QATAR and BAHRAIN

During the forecast period, there is a possibility of substantial numbers of adults arriving from the Red Sea area and laying in areas of recent rains.

IRAQ and JORDAN

During the forecast period, there is a possibility of substantial numbers of adults arriving from the Red Sea area and laying in areas of recent rains in the extreme southern border areas.

ISRAEL, LEBANON, SYRIA and TURKEY

No significant developments are likely during the forecast period.

SOUTH-WEST ASIA

PAKISTAN

Isolated adults may be present in coastal areas of the Makran and breed if rainfall occurs during the forecast period.

IRAN

Isolated adults may be present and breeding at a few locations on the coast of Baluchistan that received recent rainfall.

INDIA

Isolated adults will persist in Rajasthan.

AFGHANISTAN

No significant developments are likely during the forecast period.



A briefing meeting was held at FAO-HQ on 1 March to inform donors about the Desert Locust situation and outlook and to present details about assistance provided so far and the needs for the next few months.

FAO has provided a TCP project to Yemen for technical assistance, training and equipment (US \$210,000) and is preparing one for Sudan and Eritrea for pesticides, technical assistance and operating expenses (US \$370,000).

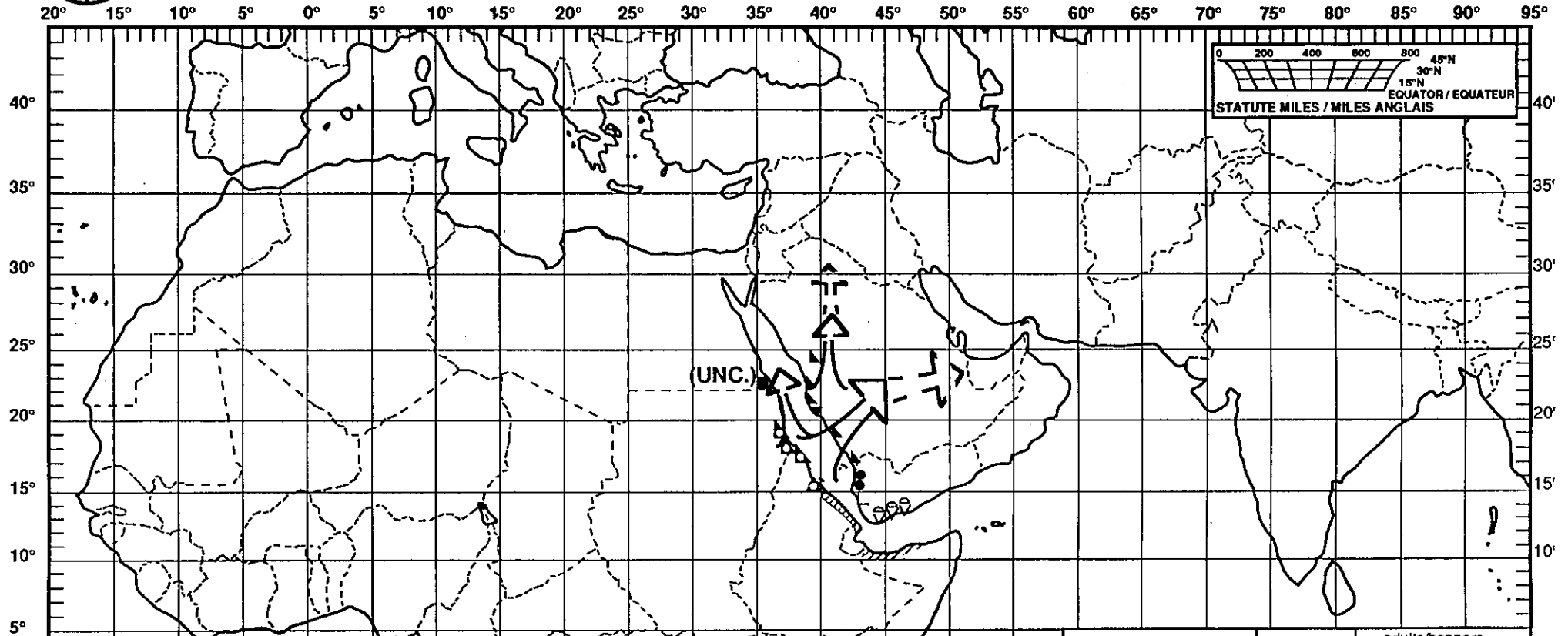
2 March 1993



Desert Locust: summary

Criquet pèlerin: situation résumée

No. 174



FORECAST TO: PREVISION AU:	15.4.93	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:
MARCH 1993

	swarms or hopper bands essaims ou bandes larvaires	adults/hoppers adultes/larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures	■	□	⊏
mature or partly mature adults adultes matures ou partiellement matures	▲	△	∟
adults, maturity unknown adultes, maturité inconnue	▲	△	∧
egg laying or eggs pontes ou œufs	▼	▽	∨
hoppers larves	●	○	◐
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)	◼	◼	◼