Locust Watch
Locusts in Caucasus and Central Asia

LOCUST BULLETIN No. 14

FAO - Plant Production and Protection Division (AGPM) 16 May 2012

Situation level - Moroccan Locust (DMA) in Afghanistan: CAUTION

Situation level - DMA elsewhere, Italian Locust (CIT) and Migratory Locust (LMI): CALM

General Situation during May 2012 Forecast until mid-June 2012

The locust situation was generally calm in April in Caucasus and Central Asia (CCA) countries, except in Afghanistan. Hatching and hopper development started in most countries as weather conditions were progressively becoming suitable from southern to northern CCA. Control operations were carried out in Afghanistan, Tajikistan and Uzbekistan over 127,000 ha, including 80,000 ha in Afghanistan. Control operations started also in Azerbaijan. During the forecast period, hatching and hopper development will continue or start in all countries; consequently, the number of hectares treated will increase.

Caucasus. No hatching was reported in **Armenia**. Moroccan Locust (DMA) hatching was reported in **Georgia** and **Azerbaijan**, where control operations started. Hopper development will continue in May in both countries. Italian Locust (CIT) hatching should start in May in Armenia and Georgia.

Central Asia. DMA hatching started in April in most countries, delayed by almost one month as compared to previous years., As a result, control operations were carried out in **Afghanistan**, **Tajikistan** and **Uzbekistan**. More than 127,000 ha were treated in these three countries, which corresponds to less than one fourth of the area treated in the same three countries in April 2011. Control operations were also probably in progress in **Turkmenistan**. More hatching and subsequent hopper development and group formation will occur in all countries during the forecast period, and control operations will intensify.

Weather and Ecological Conditions in April 2012

Weather conditions are slowly improving, becoming progressively suitable but later than usual for locust hatching and hopper development.

In **Caucasus**, mild to variable weather prevailed.

In Armenia, variable weather prevailed throughout the country and rain fell at times. During the first decade of April, the average temperature was below normal by 1-3°C but higher by 2-4°C during the second decade and by 3-6°C during the third one. Temperatures ranged from 0/+3°C to 24/28°C in lowlands, from -3/+2°C to 22/24°C at foothills and from -2/-7°C to 16/20°C in mountainous areas. The spring field work continued in April. Fruit tree flowering continued in lowlands and hills; the growing season of crops started in mountainous areas. The natural vegetation was mostly green in all regions, dense in lowlands and at foothills, and medium to dense in the mountainous areas.

In Azerbaijan, the weather was relatively cool and average daily temperatures were of 14-16°C; rains fell at times. Therefore the ecological conditions were suitable for hatching and hopper development. The wind speed was of 5-10 m/s. Natural vegetation was green and growing but the cover was sparse; cereals were at seedling stage.

In Georgia, the temperatures increased by at least 15°C as compared to the previous month and ranged from 16 to 21°C. The weather conditions were suitable for hatching. Pastures, crops and vegetable were developing; natural vegetation had a medium cover.

In **Central Asia**, the weather was highly heterogeneous throughout the region ranging from dry and already warm conditions in the south to still cool ones in the north.

In Afghanistan, storms passed over the country in March but the rains were weak and there was a significant decrease of rainfall as compared to the previous months and to March 2011. In the mountains, snow continued to fall in March and the extension of snow cover was more important than in 2011. Temperatures increased less than usual for this period of the year. No weather information was available for April.

In Kyrgyzstan, the temperatures were 1 to 5°C below the normal during April. The higher temperatures were recorded in Jalal-Abad and Chui oblast (16 and 22°C respectively) and the lowest one in Talas in early April (-0.9°C). The vegetation was green with a height varying from 3 to 5 cm and its cover was medium.

In the Russian Federation, during April, the weather was cool (daily temperature of 12°C) and there were rain- and snowfalls in the southern areas of the Central Federal District (FD). The weather was unstable in the North Caucasus and Southern FDs with average daily temperature of 15-20°C. In the Siberian FD, the average temperature was of 4.1°C and it rained at times.

In Tajikistan, from 1st to 21 April, the weather was warm throughout the country with rainfalls at times; average night temperatures varied from 8 to 12°C and day ones from 22 to 30°C. These warm and relatively dry conditions were not suitable for vegetation development. From 24 to 30 April, storms with torrential rains occurred, which damaged the crops.

In Uzbekistan, the average day temperature was of 16°C during April. Rains fell at night throughout the month and the humidity was of 30-35%. Under these suitable conditions, the vegetation developed well, its height varied from 10 to 15 cm (3 cm last year at the same period) and, as a whole, and was 8 times more abundant as compared to the same period in 2011.

Area Treated in April 2012

Afghanistan	80,510 ha (7-30 April)
Azerbaijan	Control operations started in late April but figures not yet available
Tajikistan	11,007 ha (15-27 April)
Uzbekistan	36,000 ha

Locust Situation and Forecast

(see also the summary on page 1)

CAUCASUS

Armenia

• **SITUATION**

No hatching was observed during surveys carried out in April.

• **FORECAST**

Delayed by cool and rainy weather, CIT hatching should mainly take place in May, during the first half of the month in lowlands and by the end of the month at foothills; it should start during the first half of June in the mountainous areas.

Azerbaijan

• **SITUATION**

Surveys were carried out in April in the DMA egg-laying sites identified during autumn 2011. Up to 10% of the egg-bed sites were examined in the selected areas. DMA hatching was first observed in mid-April in Djeyranchol area, in the western part of the country, along the border with Georgia. Surveys were also in progress to identify new hatching areas and related targets for treatments. Ground control operations started during the third decade of April using hand-held and tractor-mounted sprayers to apply pyrethroids. No data on areas treated so far have been provided.

• **FORECAST**

The increase of temperatures will favor DMA hatching, whose peak is expected in May, as well as hopper development. Control operations will continue during the forecast period.

Georgia

• **SITUATION**

DMA hatching was first detected on 28 April in Kvemo Kartli region (Marmeuli municipality), where gregarious 1st instar hoppers were observed, and in Shida Kartli (Kareli municipality), where the 1st instar hoppers were solitary. Surveys were on progress to gather pertinent data and organize and conduct control operations accordingly.

• **FORECAST**

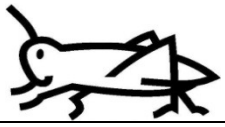
DMA hatching will continue at the beginning of the forecast period and CIT should start during the first half of May. With the increase of the temperatures, hopper development should occur under suitable conditions.

CENTRAL ASIA

Afghanistan

• **SITUATION**

During surveys carried out in March in the northern and north-eastern parts of the country, no DMA hatching had been observed, probably delayed by cold weather.



In April, surveys were carried out in 9 northern provinces, namely Baghlan, Balkh, Faryab, Jowzjan, Kunduz, Samangan, Sar-i-Pul and Takhar, and resulted in control operations on 80,510 ha against DMA 2-3 instar hopper bands.

• **FORECAST**

It is expected that DMA fledging will start during the 2nd decade of May in the northern and north-eastern provinces. Control operations will continue during the forecast period.

Kazakhstan

• **SITUATION**

No report was received in April.

• **FORECAST**

Under weather conditions similar to the ones of 2011, DMA hatching should extend to central and northern parts of its distribution area during the second half of May while fledging is likely to start during the 2nd decade of May in the southern provinces. CIT mass hatching should occur during the 1st half of May in South-Kazakhstan and newly-hatched hoppers should appear from the 2nd decade of May in northern areas. First LMI hatching should be reported by mid-May in South-Kazakhstan.

Kyrgyzstan

• **SITUATION**

DMA hatching started at the end of the second decade of April in Jalal-Abad province where small groups of 1st and 2nd instar hoppers, at a density ranging from 17 to 25 hoppers/m², were found on 24 April over 800 ha out of a 2,000-ha area surveyed in the Ak-Sui region.

• **FORECAST**

DMA hopper development will continue in May in Jalal-Abad province and mass hatching is expected

during the 1st decade of May in Osh and Batken provinces. CIT hatching is expected during the 2nd half of May in Chui, Talas and Naryn provinces.

Russian Federation

• **SITUATION**

The results of end-of-winter locust and grasshopper surveys carried out in April in 4 Federal Districts (FD) were the following: average of 1 egg-pod/m² on 11,4% of the surveyed area in the Central FD; average of 2,8 egg-pods/m² on 37% of the surveyed area in the Southern FD; average of 0,83 egg-pod/m² on 72% of the surveyed area in the North Caucasus FD and average of 11,6 egg-pods/m² on 94% of the surveyed area in the Siberian FD. DMA hatching started during the 3rd decade of April in the North Caucasus FD and the average density was of 47 hoppers/m² over 31% of the surveyed area.

• **FORECAST**

During the forecast period, DMA hopper development will continue while hatching and hopper development of CIT and LMI will start. Fledging of the three species should take place at the end of the forecast period.

Tajikistan

• **SITUATION**

During April, DMA and CIT hatching occurred respectively in the southern and northern parts of the country. Therefore, hatching and hopper monitoring continued for the second consecutive month. Up to the 27th April, these operations concerned 87,000 ha (34%) out of almost 253,000 ha to be surveyed during the spring. A bit more than one third was infested as follows: 14,490 ha in Khatlon oblast (DMA), 10,100 ha in RRS (DMA) and 4,740 ha in Sughd (CIT). Control operations started on 15th April and 11,007 ha were treated up to the 27th April. The targets were mainly gregarious DMA hopper bands but early instar CIT hoppers were also controlled. As compared to last year at the same period, 40% more tractors and related sprayers are in place but the number of hand-held sprayers available in the field and of staff involved in control operations decreased by 62% and 45% respectively.

During the second and third decades of April, seminars on locust control management and locust monitoring were held in Khatlon province and RRS and attended by more than 160 persons. Similar workshops will be organized in Sughd province in early May.

• **FORECAST**

DMA and CIT hopper development will continue during the forecast period.

Turkmenistan

• **SITUATION**

No bulletin was received for April.

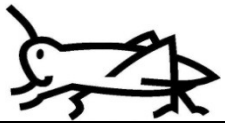
• **FORECAST**

DMA adults should appear at the beginning of the forecast period.

Uzbekistan

• **SITUATION**

DMA hatching was observed from 12 to 18 April in the south, in Kashkadarya and Surkhandarya provinces. It was observed on 25 April in central and northern parts, namely in Navoi, Samarkand and Jizzah provinces. In late April, 1st and 2nd instar hoppers prevailed; the average density was of 30/40 hoppers/m² but could reach up to 150/200 hoppers/m². Field observations confirmed that the main outbreak areas are located along the borders with Tajikistan and Turkmenistan. So far, 36,000 ha have been treated which represents 36% of the area treated in 2011 at the same period and results from the negative impact of the 2011 drought on locust development and breeding. Neither CIT nor LMI hatching was reported.



• **FORECAST**

DMA fledging should occur at the end of the forecast period. CIT and LMI hatching should start during the 2nd half of May and the 3rd decade of that month respectively. Control operations will continue against DMA hopper bands but at a much smaller scale as compared to 2011.

Announcements

Locust warning levels. A colour-coded scheme indicates the seriousness of the current situation for each of the three main locust pests: green for *calm*, yellow for *caution*, orange for *threat* and red for *danger*. The scheme is applied to the Locust Watch web page dedicated to the current locust situation ("Locust situation now!") and to the regional monthly bulletin header. The levels indicate the perceived risk or threat of current locust infestations to crops and appropriate actions are suggested for each level.

Locust reporting. During calm (green) periods, countries should report at least once/month and send standardized information using the national monthly bulletin template. During caution (yellow), threat (orange) and danger (red) periods, often associated with locust outbreaks and upsurges, updates should be sent at least once/week. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to Annie.Monard@fao.org. Monthly information received by the 5th of each month will be included in the CCA Locust Bulletin to be issued by mid-month; otherwise, it will not appear until the next bulletin. Reports should be sent even if no locusts were found or if no surveys were conducted.

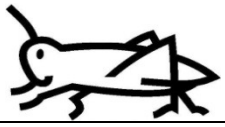
April events and activities. The following activities were ongoing or occurred:

- From December 2011, preparation of the monographs on the three CCA locust pests.
- National FAO Technical Cooperation Project (TCP) for Tajikistan and Regional Project under the FAO-Turkey Partnership Programme (FTPP) are still under approval;
- Recruitment of National Consultants for the preparation of the national monthly bulletins and of National Consultants for the remote sensing study still on progress for some countries .
- Delivery of equipment for locust survey and control operations and demonstration purpose (sprayers, PPE, GPS, survey kits and satellite phone) still on progress for some countries.
- Technical assistance and training workshop provided to **Kyrgyzstan** on locust monitoring on 16-20 April (A.V. Latchininsky).
- Joint cross-border survey between **Kyrgyzstan** (Osh oblast) and **Uzbekistan** (Andijan, Namangan and Fergana oblasts) carried out on 21-23 April.
- Technical assistance and training workshop provided to **Azerbaijan** on ULV spraying techniques on 19-23 April (S. Lagnaoui).
- Joint survey between **Georgia**, **Azerbaijan** and **Armenia** carried out in Georgia (Kakheti region) on 25-27 April.

Note: the above activities were implemented thanks to funding from FAO Regular Programme, FAO Technical Cooperation Programme and USAID.

May events and activities. The following activities are scheduled:

- Joint survey between **Afghanistan** and **Tajikistan** scheduled in Tajikistan (Khatlon Region) on 30 May-3 June.
- Technical assistance and training workshop to **Afghanistan** on locust monitoring, initially planned in May, has been rescheduled on 5-9 June and



relocated in Tajikistan for security reasons (S. Ghaout).

- Technical assistance to **Turkmenistan** on ULV spraying techniques (S. Lagnaoui) is scheduled the second half of May but is still subject to feed-back from the country.
- Joint cross-border survey between **Uzbekistan** and **Turkmenistan** should also be organized (subject to feed-back from the latter country).
- Reports/Studies on remote sensing and Geographic Information Systems (GIS) applications used for locust monitoring and management under preparation at the national level.