Locust Watch
Locusts in Caucasus and Central Asia

LOCUST BULLETIN No. 18

FAO - Plant Production and Protection Division (AGPM) 18 September 2012

Situation level – Italian Locust (CIT) in the Russian Federation: THREAT
Situation level – CIT elsewhere, DMA and LMI: CALM

General Situation during August 2012 Forecast until mid-October 2012

As locust pests were completing their life cycle, the campaign ended in all Caucasian and Central Asian (CCA) countries except in Armenia and the Russian Federation, where control operations were still being undertaken. Remaining locust populations will disappear progressively and no further development is expected this year. Nevertheless, the situation was still considered as serious by the Russian Federation.

Caucasus. In **Armenia**, control operations were carried out on 2,100 ha against Italian Locust (CIT) infestations. Locust life cycle was coming to an end elsewhere in the region and no control operations were undertaken.

Central Asia. Control operations were on progress in the **Russian Federation** but only on a limited area as compared to the previous months; so far this year, more than 1.63 million ha were treated in that country. The locust control campaigns were completed in all other Central Asian countries. During the forecast period, CIT and LMI adult populations will lay eggs and start progressively disappearing.

Weather and Ecological Conditions in August 2012

Hot and dry weather prevailed throughout all CCA countries except in Kyrgyzstan. Natural vegetation was dry except in Armenia.

In **Caucasus**, hot and dry weather prevailed in Armenia and Azerbaijan.

In Armenia, the weather changed as compared to the previous month becoming hot with light rains only. Temperatures ranged from 14/18°C to 38/40°C in lowlands, from 11/15°C to 35/37°C at foothills and from 9/12°C to 27/32°C in mountainous areas, which represented an average increase of almost 4°C as compared to July. The natural vegetation had a medium cover and was mostly green in all regions but started drying out in some places. Harvesting of grain, fruit and vegetable crops continued.

In Azerbaijan, the prevailing weather was hot and dry. The average daily temperatures were of 36-38°C with peaks up to 41-42°C, which represented an increase of more than 2°C as compared to July. No rain fell in August for the second consecutive month. Natural vegetation was dry in all traditional locust habitats and adjacent crops were at ripening stage.

In **Central Asia**, hot and dry weather prevailed except in Kyrgyzstan where the temperatures started decreasing.

In Afghanistan, the weather was hot in July with temperatures ranging from 30.2°C in Bamyan Province up to 45°C in Jalalabad Province. After unusual dry conditions during the previous months, light rains fell as scattered showers in the east, southeast and northeast. No weather data was available for August. Cereal harvest started in mid-May and was completed in July in the lowlands. In the midlands, it was in progress during August; it was expected to start in September in the central highlands and in the extreme northeast and in October at the highest heights. In areas where winter crops were already harvested, the planting of second crops had started in July.

In Kyrgyzstan, the average monthly temperature was normal, of 14-16°C in Naryn, 19-23°C in Chui and Talas and 23-25°C in Batken and Jalal-Abad. During the first decade, the temperatures ranged from 16/21°C at night to 29/34°C during the day and decreased during the second (15/20°C at night; 30/35 during the day) and third (10/15°C at night; 21/26 during the day) decades, dropping as low as 1/6° at night and 13/18°C during the day at the end of the month in Naryn. Rainfall was above normal (up to 27-31 mm at foothills). The maximum wind speed was of 3-15 m/s. The vegetation was dry with a sward height varying from 0,5 to 3 cm and a medium cover.

In the Russian Federation, the weather was hot and sunny in the southern areas of the Central Federal District (FD); the average daily temperature was of 24°C with maximum temperature of 36°C, which represented an increase of 3°C as compared to July. The weather was mostly hot and dry in the North Caucasus and Southern FDs with average daily temperature of 30-36°C and maximum reaching 46°C, almost similar to July. In the Volga FD, hot and dry weather prevailed with average daily temperature ranging from 25-27°C, similar to previous month; sporadic rains fell in some areas. In the Siberian FD, the weather was warm with average daily temperature of 19-23°C, representing a slight increase as compared to July; there were irregular rainfalls.

In Tajikistan, the daily average temperature was of 40-42°C in Khatlon, 36-38°C in Region of Republican Subordination (RRS) and 37-39°C in Sughd, almost similar to July but lower by 3-6°C as compared to August 2012.

In Uzbekistan, the average day temperature was of 37°C and the night one of 22°C, representing a decrease of 4°C as compared to July.

Area Treated in August 2012

(as per information received from countries)

Armenia	2,100 ha
Russia	21,080 ha

Locust Situation and Forecast

(see also the summary on page 1 and maps on last page)

CAUCASUS

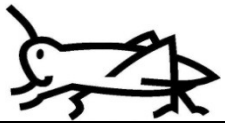
Armenia

• **SITUATION**

Surveys continued during August and solitary CIT populations were seen in additional sites as compared to July and almost everywhere in monitored areas. During the second fortnight, mating and egg-laying were observed in the valleys and at some foothills. Control operations were undertaken in six provinces (Aragatsotn, Ararat, Kotayk, Shirak, Syunik and Vayots Dzor) over a total area of 2,100 ha, where the locust density exceeded the harmfulness threshold.

• **FORECAST**

CIT mating and egg-laying will occur in September at foothills and in mountainous areas. Later during the forecast period the locust populations will progressively disappear because of natural mortality.



Azerbaijan

• **SITUATION**

DMA egg-laying came to an end in the north-west (Djeiranchel, Eldar steppes) and in the east (Garas, Padar plain) and was followed by natural death. Dry and warm weather conditions favored DMA mating and egg-laying, particularly in the north-west. No control operations were undertaken in August. A total of 57,900 ha was treated in 2012, which represents an increase of almost 16% as compared to 2011.

• **FORECAST**

With progressive natural disappearance of locusts, no further development is expected this year.

Georgia

• **SITUATION**

The locust campaign was completed in July and no survey or control operations were carried out in August. A total of 11,672 ha was treated in 2012, more than 5 fold the area treated last year.

• **FORECAST**

With progressive natural disappearance of locusts, no further development is expected this year. However, due to serious CIT activity in 2012, caution is recommended for the next campaign.

CENTRAL ASIA

Afghanistan

• **SITUATION**

Revised figures indicated that control operations were carried out on 58,132 ha in July, the last month of the 2012 locust campaign. A total 200,831 ha was treated during the whole campaign, which represents a decrease of almost 15% as compared to 2011.

• **FORECAST**

With the completion of locust life cycle, no further development is expected this year.

Kazakhstan

• **SITUATION**

No report was received for August.

• **FORECAST**

DMA and CIT populations have probably disappeared after completion of egg-laying. LMI life cycle is expected to end at the beginning of the forecast period.

Kyrgyzstan

• **SITUATION**

In August, summer surveys of mating and egg-laying CIT populations were undertaken on 7,783 ha; up to 5 adults/m² were observed on 4,689 ha. No control operations were carried out. Therefore, the figures for the whole campaign remained the same as indicated in July, i.e. 27,963 ha treated by ground, of which 8,870 ha against DMA in Batken, Jalal-Abad and Talas, and 19,093 ha against CIT in Chui and Naryn. This represents half of the area treated in 2011.

• **FORECAST**

With the completion of CIT life cycle, no further development is expected this year.

Russian Federation

• **SITUATION**

The results of hopper and adult surveys carried out in August in 5 Federal Districts (FD) were the following: average of 7.3 hopper/m² on 42% of the surveyed area and of 1.9 adults/m² on 13.7% in the Central FD; average of 23.3 hoppers/m² on 45% of the surveyed area and of 16 adults/m² on 46.3% in the Southern FD; average of 12 hoppers/m² on 80.3% of the surveyed area and of 42.1 adults/m² on 47.5% in the North Caucasian FD; average of 13 hoppers /m² on 49.2% of the surveyed area and of 7.25 adults/m² on 45.5% in the Volga FD; and average of 8.3 hoppers/m² on 46.2% of the surveyed area and of 6.5 adults/m² on 52.7% of the surveyed area in the Siberian FD. Hopper development and fledging continued in all FDs in

August and mating and egg-laying started.

Control operations were carried out on 21,080 ha, almost 25 times less as compared to July. So far during the campaign, a total area of 1,636,800 ha was treated using 1,796 ground sprayers and 96 aircraft. The situation continued to be considered as very serious.

• **FORECAST**

During the forecast period, egg-laying will continue and adults will start disappearing.

Tajikistan

• **SITUATION**

In August, national staff carried out survey operations to identify egg-laying throughout the country. No control operations were undertaken. Therefore, the figures remain unchanged concerning the area of 66,738 ha treated during the 2012 locust campaign, less than half as compared to 2011.

• **FORECAST**

With the progressive disappearance of adult populations, no further development is expected this year.

Turkmenistan

• **SITUATION**

No bulletin was received for August.

• **FORECAST**

No further development is expected this year.

Uzbekistan

• **SITUATION**

The locust campaign came to an end in July and no further operations were carried out in August.

Therefore, the figures remain the same with a total treated area of 282,523 ha in 2012 (a decrease of 30% as compared to 2011). Egg-pod surveys will be undertaken in November and December.

• **FORECAST**

With the progressive disappearance of adult populations, no further development is expected this year.

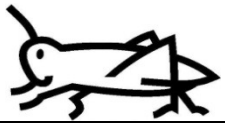
Announcements

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.

August events and activities. The following activities were in progress or occurred:

- From December 2011, preparation of the monographs on the three CCA locust pests.
- Study on remote sensing and geographic information systems (GIS) applications used for locust management in CCA: duty trips of Ms N. Muratova, GIS Expert, to the UK and to FAO-headquarters, Rome, Italy, in August 2012.

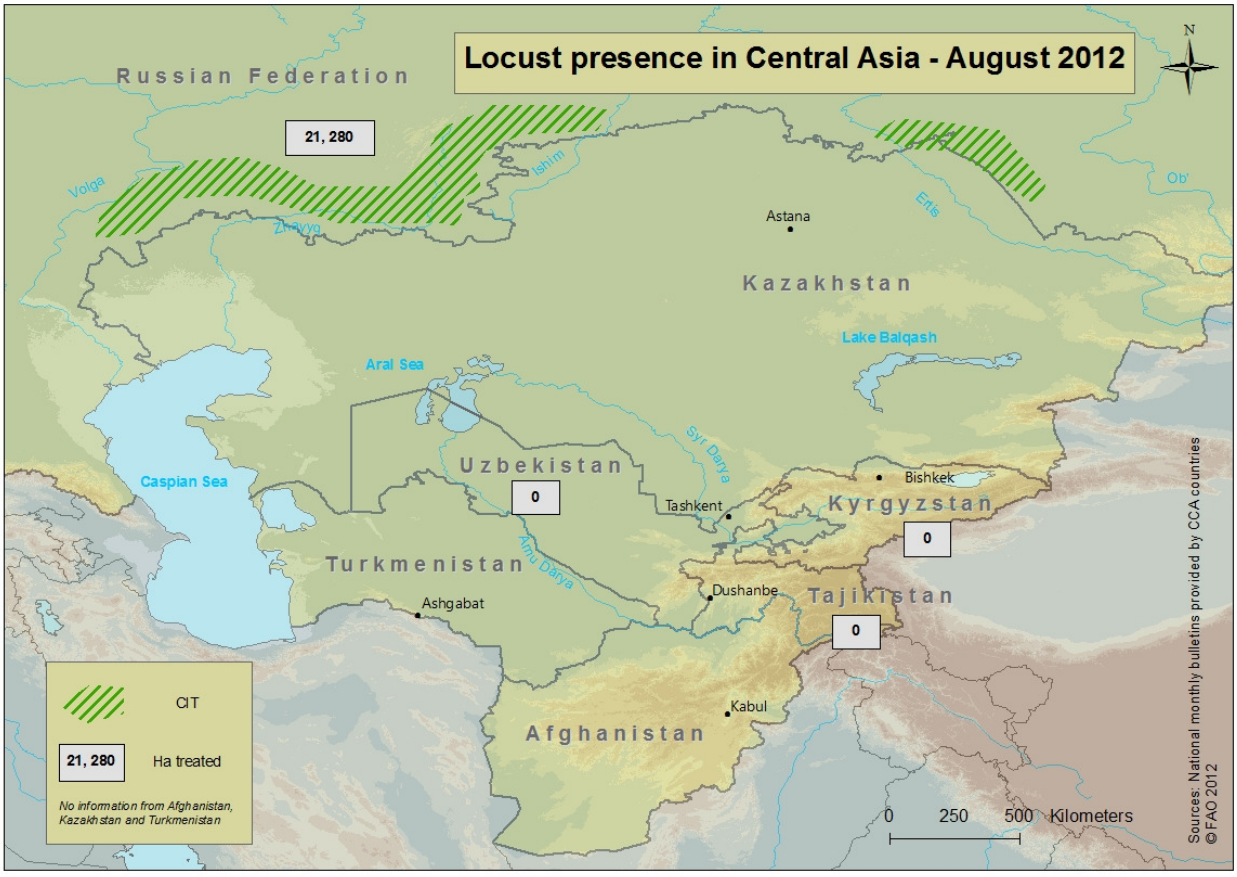


- E-committee on background documentation on locusts in CCA continued its work.
- E-committee on pesticides registration for locust control in CCA continued its work.
- Invitation letters for the next Technical Workshop on locusts in CCA, Bishkek, Kyrgyzstan, 12-16 November, officially sent to all countries.

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

September events and activities. *The following activities are scheduled:*

- Study on remote sensing and geographic information systems (GIS) applications used for locust management in CCA: duty trips of Ms N. Muratova, GIS Expert, to Uzbekistan scheduled in early October 2012. End-of-mission report to be produced.
- E-committee on background documentation on locusts in CCA to end its work.
- E-committee on pesticides registration for locust control in CCA to end its work.
- Reports on cross-border or joint surveys carried out with FAO assistance during spring/summer 2012 still to be received by FAO from some countries.


Locust presence in Central Asia - August 2012
Russian Federation
21, 280
Volga
Zhayyq
Ishim
Ertis
Ob'
Astana
Kazakhstan
Lake Balqash
Aral Sea
Syr Darya
Caspian Sea
Uzbekistan
0
Tashkent
Bishkek
Kyrgyzstan
0
Turkmenistan
Amu Darya
Dushanbe
Tajikistan
0
Ashgabat
Kabul
Afghanistan
CIT
21, 280
Ha treated
No information from Afghanistan, Kazakhstan and Turkmenistan
0 250 500 Kilometers
N
Sources: National monthly bulletins provided by CCA countries
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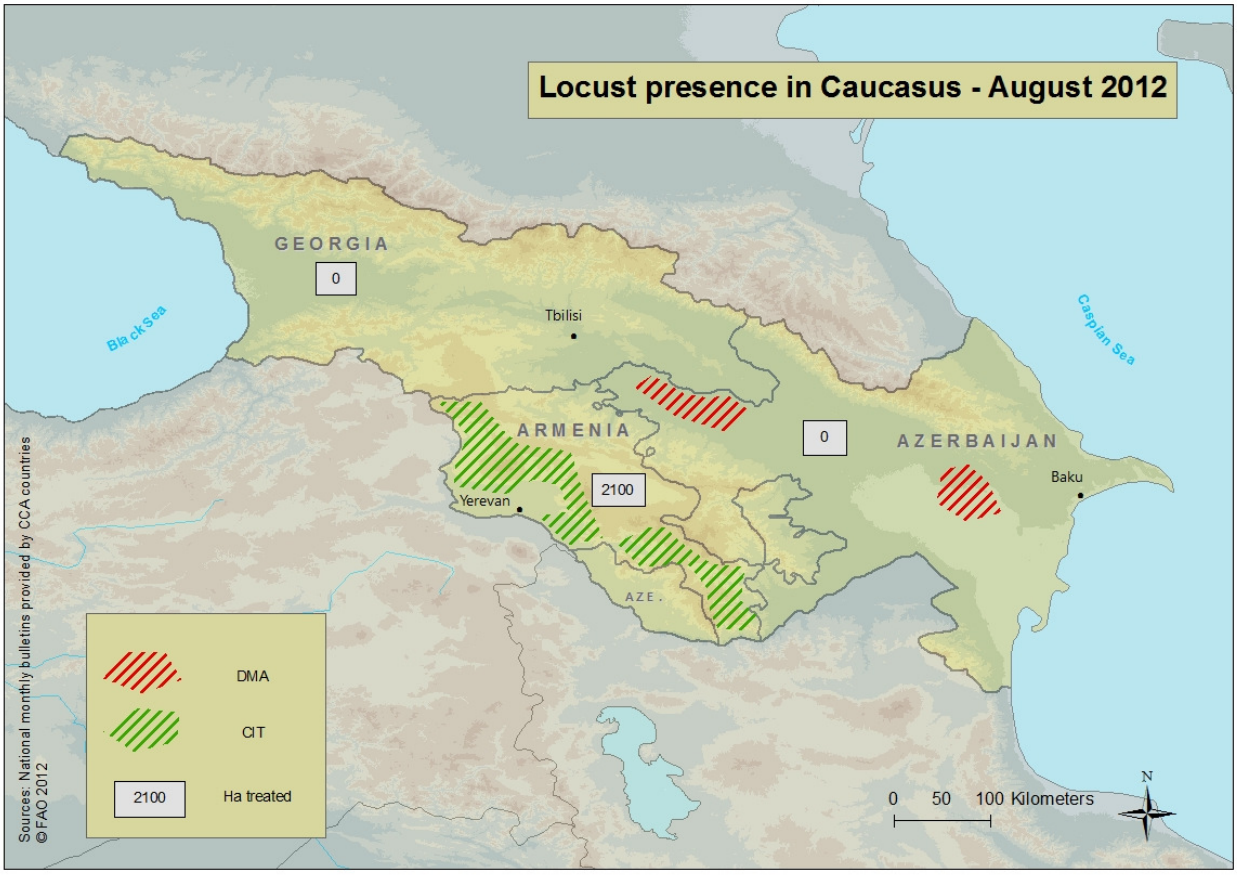
Locust presence in Caucasus - August 2012
GEORGIA
0
Black Sea
Tbilisi
Caspian Sea
ARMENIA
0
AZERBAIJAN
Baku
Yerevan
2100
AZE.
DMA
CIT
2100
Ha treated
0 50 100 Kilometers
N
Sources: National monthly bulletins provided by CCA countries
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