Locust Watch
Locusts in Caucasus and Central Asia

LOCUST BULLETIN No. 26

FAO - Plant Production and Protection Division (AGPM) *15 October 2013*

Situation level: CALM

General Situation during September 2013
Forecast until March 2014

The locust situation was calm in Caucasian and Central Asian (CCA) countries as remaining adults progressively disappeared with the exception of Armenia, where Italian Locust (CIT) mating was still observed. No control operations were carried out and no further locust development is expected this year.

Caucasus. Last adult populations progressively disappeared in **Azerbaijan** and **Georgia**, while CIT mating and egg-laying were still in progress in **Armenia**.

Central Asia. Autumn surveys of egg-beds and egg-pods were in progress in **Kazakhstan** and **Russia**, on a total of 513,069 ha and 132,760 ha respectively, as well as in **Tajikistan**.

Weather and Ecological Conditions in September 2013

The weather was mainly dry and warm in Caucasus while it was mostly cool and rainy in Central Asia.

In **Caucasus**, the weather was mostly dry and warm.

In Armenia, the weather was generally warm with some rains. The average temperature was normal with little deviation. Temperatures ranged from 9/14°C to 30/34°C in the lowlands, from 5/8°C to 28/32°C at foothills and from 0/6°C to 25/27°C in mountainous areas, which represented a decrease in the lowest temperatures and an increase of amplitude compared to the previous month. These weather conditions were suitable for agricultural work, which continued during the month with harvest of grain, grapes, melons, vegetables and industrial crops. Work for winter crops also started.

In Azerbaijan, the weather was mostly dry and hot in September for the 3rd consecutive month with temperatures of 23/28°C reaching up to 28/30°C and representing nevertheless an increase of 10°C compared with August. There were 5 rainy days in total. Natural vegetation was dry, with a low cover.

In Georgia, the weather was dry and warm with temperatures of 20/25°C.

In **Central Asia**, temperatures decreased and rain fell.

In Kazakhstan, warm weather prevailed. In the South, the weather was clear with variable cloudiness and some rains. The average daily temperatures ranged from 14.6 to 23.5°C with maximum up to 33°C, and minimum night temperature dropping to 0.6°C in the mountains close to Almaty. Relative humidity varied from 23 to 88%. North and south-westerly winds prevailed at a speed of 1-13 m/s. In the East, the

weather was dry with cool and rainy nights. Average day temperature was 11.6°C with a minimum of -4°C and a maximum of 28°C. Relative humidity was of 64.9%. North-westerly winds prevailed at a speed of 3-8 m/s. In the West, September was characterized by cold and rainy weather with variable cloudiness. Average day temperatures ranged from 14.7 to 20.3°C with a minimum of +0.2°C and a maximum of 23.5°C. The relative humidity varied from 34 to 84%. Prevailing south- and north-westerly winds had a speed of 1-16 m/s. In the North, the weather was variable with warm periods followed by cool and rainy days. The average day temperatures ranged from 4.5°C to 12.7°C, with a minimum of -0.3°C and a maximum of 22.7°C. The relative humidity was of 32-98%. Northerly- and south-westerly winds prevailed at a speed of 1-15 m/s.

In the Russian Federation, the weather was mainly cool and rainy. In the southern areas of the Central Federal District (FD), the weather was cool and rainy with an average daily temperature of 14°C and a relative humidity ranging from 84 to 89%. In North Caucasus and Southern FDs, the weather was characterized by moderate daily temperatures (average of 15/22°C) and high humidity (52.8 mm of rain). In the Volga FD, the weather was cloudy and heavy rains fell. The average temperature was 16.1°C. Relative humidity ranged from 54 to 57%. In the Siberian FD, the weather was mainly warm with little rain during the first half of the month, but from the beginning of the second decade onwards cool weather with some days of frost and frequent showers prevailed. The average temperature was of 12/18°C and relative humidity ranged from 65 to 80%.

In Tajikistan, day temperatures were of 32/36°C and night ones of 14/21°C, which represented an increase of 4/6°C compared to September 2012.

Area Treated in August 2013

No control operations carried out in September.

Locust Situation and Forecast

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

CAUCASUS

Armenia

• **SITUATION**

In September, no new locust infestation was detected, locust situation was calm throughout the country and no control operation was carried out. CIT development continued. Egg-laying and locust death were observed in lowlands and at foothills. In mountainous areas, mating and egg-laying were in progress.

• **FORECAST**

CIT biological cycle will come to an end with the natural death of locusts. No further development is expected this year. In 2014, it is anticipated that cumulated CIT infested areas could extend and reach at least 3,000 to 4,000 ha.

Azerbaijan

• **SITUATION**

In September, ultimate DMA egg-laying was observed and the remaining adults disappeared.

• **FORECAST**

No further locust development is expected this year. Autumn survey of egg-pods will start in the forthcoming weeks in order to plan for the next locust campaign.

Georgia

• **SITUATION**

No survey or control operations were carried out in September.

• **FORECAST**

No further development is expected this year.

CENTRAL ASIA

Afghanistan

• SITUATION

In September, no egg-bed surveys were carried out due to insecurity. The areas expected to be infested in 2014 remained unchanged, amounting 135,000 ha. Based on the results of a meeting attended by locust campaign supervisors and Plant Protection and Quarantine technical staff, as well as on updated inventories of equipment and remaining pesticide stocks, the budget for the 2014 locust campaign was estimated at almost USD 751,000.

• FORECAST

No further development is expected this year.

Kazakhstan

• SITUATION

Autumn survey of DMA egg-pods started on 3rd September in South Kazakhstan over an area of 8,400 ha, of which 588 ha were infested; up to 7% of the egg-pods were damaged. In Zhambyl, egg-pod survey was completed on an area of 3,100 ha, whose 785 ha were infested; in that area, egg-pod damage ranged from 0.01 to 4.5%. As a whole, surveys were carried out on 12,000 ha, egg-pods were found on 1,373 ha and damage reached 7%.

In the North, CIT egg-laying followed by natural death of adults continued. The density of egg-pods ranged from 0.2 to 64.2/m² (39.5 to 64.2 egg-pods/m² in Akmola and up to 350 egg-pods/m² in Kostanay). The number of eggs per pod was of 45. Egg-pod damage ranged from 3.3 to 33% in Pavlodar and from 5 to 70% in Kostanay. In the South, the density ranged from 0.5 to 12 egg-pods/m². In South Kazakhstan, egg-bed surveys started on 3rd September but no egg-pods were found. In Almaty province, damage to egg-pods reached 14% while no damage was observed in Kyzylorda. The number eggs per pod varied from 30 to 45. In the West, the density of egg-pods ranged from 1 to 133/m² (ranging from 76 to 85 egg-pods/m² in Aktobe). The number of eggs per pod averaged 45 and damage ranged from 1 to 35%. In Karaganda province, the egg-pod density was of 1 to 15/m² and damage ranged from 2 to 14%. As a whole, monitoring of CIT mating and egg-laying was carried out on 13,944,600 ha, of which 5,028,147 ha were infested (up to 5 adults/m² on 1,332,681 ha, up to 10 adults/m² on 1,775,338 ha and more than 10 adults/m² on 1,920,128 ha). The autumn surveys of egg-pods were carried out on 389,292 ha; egg-pods were found on 140,328 ha with damage reaching up to 70%.

In the North, the density of LMI egg-pods ranged from 1 to 10/m² in Kostanay and 0.1 to 0.3/m² in Akmola. There were 47 to 84 eggs per pod. In the South, the density was of 0.5 to 1.5 egg-pod/m²; the highest density was observed in Almaty province (3 egg-pods/m²). The number of eggs per pod ranged from 67 to 90. In Almaty province, damage was of 2-8% while no damage was observed in Kyzylorda. In the West, the density was of 1-2 egg-pods/m², the number of eggs varied from 56 to 62 and damage was of 7.5%. As a whole, monitoring of LMI mating and egg-laying was carried out on 3,724,600 ha, of which 873,265 ha were infested (up to 500 adults/ha on 242,940 ha, up to 1,000 adults/ha on 287,130 ha and more than 1,000 adults/ha on 343,195 ha). The autumn surveys of egg-pods were conducted on 111,777 ha, egg-pods were found on 25,680 ha with damage ranging from 0.1 to 20%.

• FORECAST

No further locust development is expected this year.

Kyrgyzstan

• SITUATION

No report was received for the month of September.

• FORECAST

No further locust development is expected this year.

Russian Federation

• **SITUATION**

There were still some erratic flights of adults in some areas, but the progressive natural death of locust pests was observed. Egg-pod surveys began to assess the importance of wintering eggs. So far, in the Volga Federal District (FD), egg-pod surveys were carried out on 115,400 ha of which 71,700 ha were infested at an average density of 2.4 egg-pods/m². In the North Caucasus FD, 2,060 ha were surveyed and egg-pods were found on 3 ha at a density of 0.2 egg-pod/m². In the Southern FD, 15,300 ha were surveyed and egg-pods were found on 5,100 ha at a density of 2.3 egg-pods/m². The analysis of the egg-pod surveys will serve to establish the forecast for the 2014 locust campaign. The area sprayed with pesticides during the 2013 locust campaign amounted to1,337,250 ha.

• **FORECAST**

No further locust development is expected this year.

Tajikistan

• **SITUATION**

In September, surveys of egg-laying sites continued and egg-laying was observed in the summer pastures. It was confirmed that chemical treatments were carried out on a total of 105,754 ha, of which 56,355 ha in Khatlon, 36,019 ha in Sughd, 11,900 ha in RRS, and 1,480 ha in Gorno-Badakhshan. The final results of the 2013 locust campaign were presented to the media by the technical staff.

• **FORECAST**

No further locust development is expected this year. Egg-bed surveys will continue during the forecast period and their results will be used to establish the workplan of the next locust campaign.

Turkmenistan

• **SITUATION**

No bulletin was received for September.

• **FORECAST**

No further locust development is expected this year.

Uzbekistan

• **SITUATION**

No bulletin was received for September.

• **FORECAST**

No further locust 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.

September 2013 events and activities. The following activities were carried out:

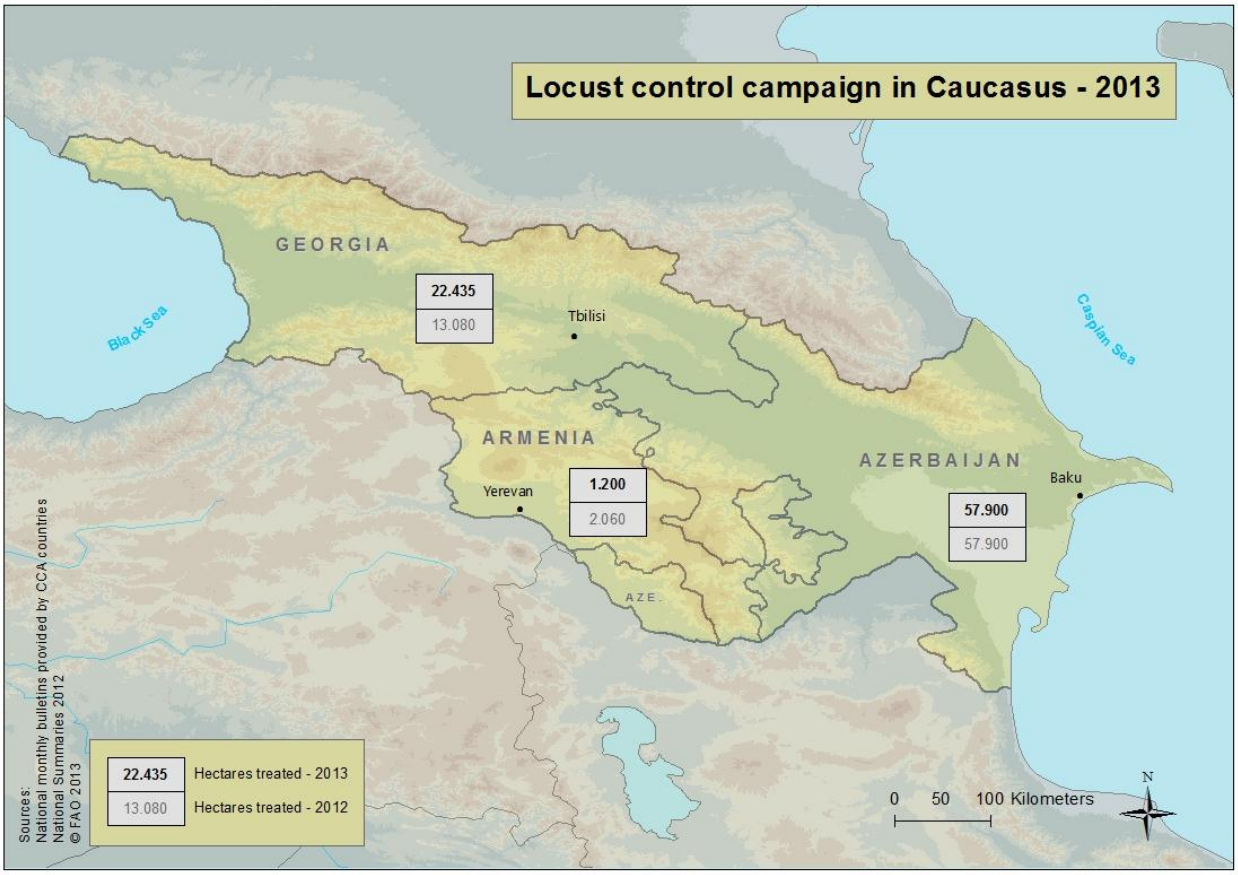
- **Training session on mitigating and monitoring the impact of locust control operations on human health and the environment** delivered to 12 Kazakh plant protection/locust experts by Mr H. van der Valk, FAO Environmentalist, on 9-13 September 2013, in Aktobe, **Kazakhstan**.
- Conventional pesticide delivered in **Kyrgyzstan** in mid-September against the national FAO project (TCP/KYR/3305).

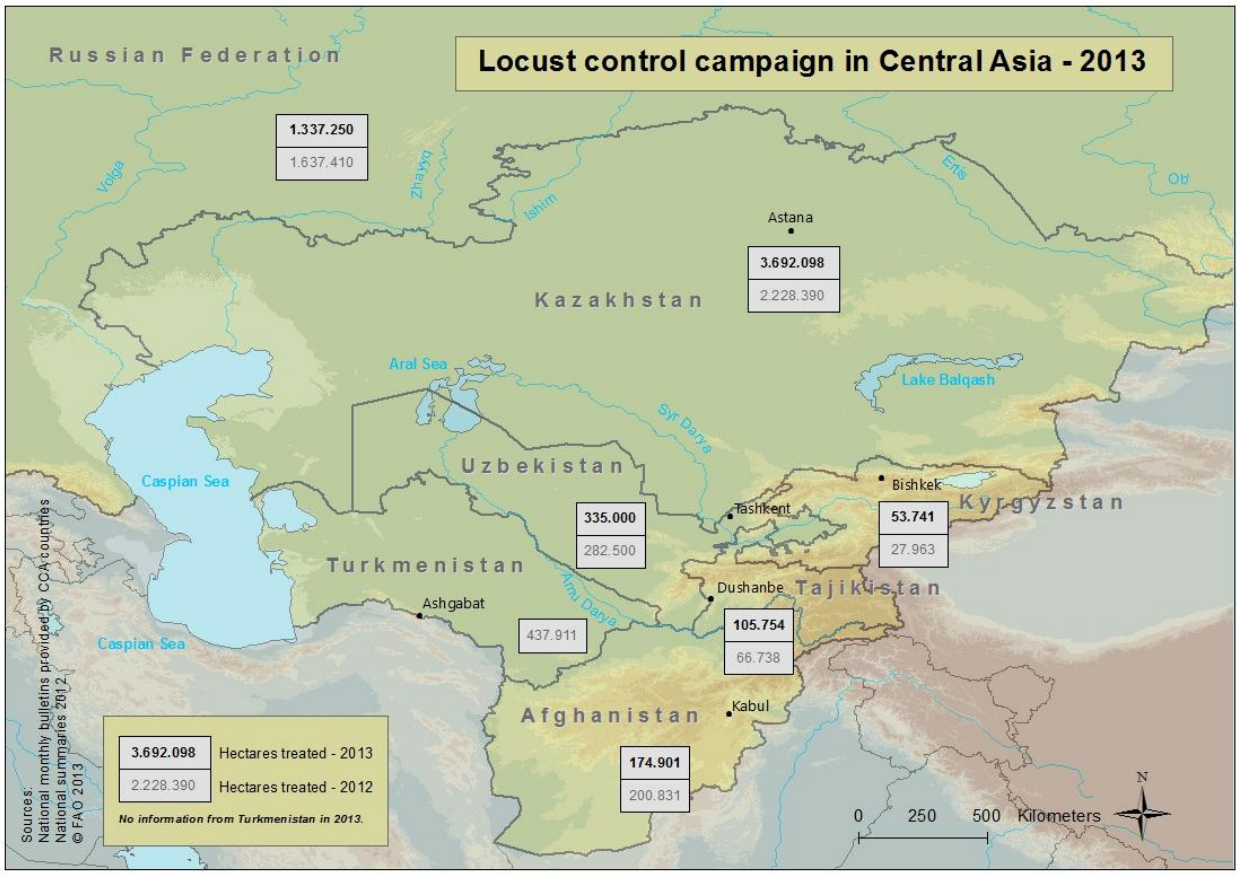
October 2013, events and activities. The following activities are scheduled:

- Preparation of the two workshops to be held in **Tashkent, Uzbekistan**:

(1) the **Locust Geographical Information System (GIS) Workshop on 6-8 November 2013**; and

(2) the **Technical Workshop on Locusts in Caucasus and Central Asia on 11-15 November 2013**.


Locust control campaign in Caucasus - 2013
GEORGIA
22.435
13.080
Tbilisi
Black Sea
Caspian Sea
ARMENIA
AZERBAIJAN
Yerevan
1.200
2.060
Baku
57.900
57.900
AZE.
Sources:
National monthly bulletins provided by CCA countries
National Summaries 2012
© FAO 2013
22.435 Hectares treated - 2013
13.080 Hectares treated - 2012
0 50 100 Kilometers
N


Russian Federation
Locust control campaign in Central Asia - 2013
1.337.250
1.637.410
Volga
Zhayyq
Ishim
Ertis
Ob'
Astana
3.692.098
2.228.390
Kazakhstan
Aral Sea
Lake Balqash
Syr Darya
Uzbekistan
Caspian Sea
Bishkek
Kyrgyzstan
335.000
282.500
Tashkent
53.741
27.963
Turkmenistan
Dushanbe
Tajikistan
Amu Darya
Ashgabat
437.911
105.754
66.738
Caspian Sea
Kabul
Afghanistan
174.901
200.831
Sources:
National monthly bulletins provided by CCA countries
National summaries 2012
© FAO 2013
3.692.098 Hectares treated - 2013
2.228.390 Hectares treated - 2012
No information from Turkmenistan in 2013.
0 250 500 Kilometers
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