



LOCUST BULLETIN No. 7



FAO - Plant Production and Protection Division (AGPM)

15 October 2010

Situation level for DMA, CIT and LMI elsewhere: CALM

General Situation during September 2010

Forecast until mid-November 2010

Locust situation was calm in September with completion of the life cycle of the three locust species in all CCA countries. No control operations were carried out except in Armenia during the first days of the month. DMA egg-laying ended in Azerbaijan, CIT populations were laying eggs in Armenia and LMI adults were disappearing in Kazakhstan. No further locust activity is expected until next year. Autumn egg-bed surveys should be completed in almost all CCA countries by mid-November.

Caucasus. CIT mating and egg-laying occurred in Armenia while DMA egg-laying came to an end in Azerbaijan, where egg-bed surveys were about to start.

Central Asia. No control operations were carried out in September in Central Asian countries and activities focused on egg-bed surveys. DMA and CIT populations have disappeared and natural mortality of LMI adults was observed until late September in Kazakhstan. Egg-bed surveys were carried out in Kazakhstan and Tajikistan and started in Kyrgyzstan.

Weather and Ecological Conditions in September 2010

Generally warm and dry conditions prevailed in September in CCA but temperatures decreased everywhere.

In **Caucasus**, the weather was still warm during September but temperatures started decreasing.

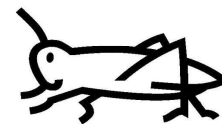
In Armenia, the weather was mostly warm during September with only a few rains and thunderstorms reported for 4-5 days. Day temperatures ranged from 11-14°C to 34-38°C in lowlands, from 10-13°C to 32-36°C at foothills and from 6-10°C to 27-30°C in mountainous areas; this represents an average decrease of 2 to 4°C as compared to August, except in the foothills where the opposite was reported. In all areas, sowing of winter cereal crops is ongoing.

In Azerbaijan, the first fortnight of September was still hot but temperatures started decreasing by mid-month. Day temperatures dropped to 21-26°C, a decrease of more than 20°C as compared to the previous month. There were four rainy days during September. In DMA habitats (foothills, hills, plains and fallow lands), annual vegetation was dry and the growing season was completed in adjacent crops.

In **Central Asia**, the weather was generally warm but lower temperatures dropped of at least 6°C as compared to August.

In Kazakhstan, the weather was generally clear and still relatively warm during September but, except in the South, the temperatures dropped of 6 °C; some rains were recorded in particular in the East. In the southern part, weather was still warm with some showers and a progressive decrease of temperatures. Day temperatures varied a lot, from 14 °C to 27 °C and up to a maximum of 39 °C. The minimum night temperature was of 6 °C in mountainous areas of Almaty region. Relative humidity ranged between 14 and 60%. South-and north-easterly winds prevailed, at an average speed of 1-15 m/s. In the East, weather was stable and some showers fell (20.5 mm over the month). Average day temperature was of 13.7 °C with minimum of 0 °C and maximum of 36.5 °C. Relative humidity varied from 22 to 81%. Prevailing north-easterly winds had a speed of 1-14 m/s. In the West, weather was warm and dry with very little rain, which resulted in the drying-out and death of large crop areas also affected by crop pests. Day temperatures ranged a lot from 8.6 to 31.8 °C, with minimum of 6 °C and maximum of 40 °C. The relative humidity varied from 11 to 82%. South- and north-easterly winds had a speed of 1-10 m/s. In the North, weather was unstable with variable temperatures, cold northerly winds and some local rains. Day temperatures ranged from 2.6 to 25.5 °C with minimum dropping to 0 °C and maximum of 38 °C. The relative humidity ranged from 20 to 96%. South-westerly and north-easterly winds prevailed at a speed ranging from 0.1 to 14 m/s and occasionally up to 47.4 m/s. In all regions, harvesting of cereal crops was almost completed; alfalfa was growing after the third mowing, and fruit and berries harvest was ongoing or completed depending on areas.

In Tajikistan, average day temperature was of 30-32 °C in Khatlon province (south-west), 27-29 °C in the Region of Republican Subordination (central part) and of 28-30 °C in Sughd province (north), which represents a decrease of up to 12 °C as compared to



August. At mid-month, the weather was cloudy throughout the country.

In Uzbekistan, there was still a lot of water in the Amudarya delta, where the temperatures reached 34 °C

Area Treated in September 2010

Armenia 2,560 ha (in August and early September)

Locust Situation and Forecast

(see also the summary on page 1)

CAUCASUS

Armenia

• SITUATION

CIT development continued in September: mating and egg-laying were observed in lowlands and foothills, and massive mating was reported in mountainous areas during the second fortnight. Chemical control operations against CIT continued in early September. So far in 2010, a total of 2,560 ha have been treated in 13 farms of the Gegharkunik (centre-east) and Shirak (north) provinces, with an effectiveness of 84-93% and 91.5-92.4% respectively. CIT was also observed in Aragatsotn (west) province but no treatment was carried out because of pesticide shortage.

• FORECAST

CIT natural death will occur during October and no further development is expected this year.

Azerbaijan

• SITUATION

In September, egg-laying of DMA adult populations came to an end under suitable conditions and adults started disappearing both in the North-West (Djeiranchel, Eldar steppes) and in the South-East

(Garas, Padar plain). No control operations were carried out in September. Preparations were ongoing for the autumn egg-bed survey, whose objective is to identify density of egg-pods and eggs, and egg-pod distribution. All interested parties, especially local populations and farmers, were informed of the completion of the anti-locust campaign and of the forthcoming egg-pod surveys.

• **FORECAST**

No further development is expected this year.

Forecast for the next year will be established after analysis of the egg-bed survey results.

Georgia

• **SITUATION**

No bulletin was received for September.

• **FORECAST**

No further development is expected this year.

CENTRAL ASIA

Afghanistan

• **SITUATION**

No report was received in September.

• **FORECAST**

No further development is expected this year.

Kazakhstan

• **SITUATION**

During extensive surveys of DMA egg-beds covering more than 1.35 million ha, observed egg-pod density was less than 1.4/m² in Jambyl province and of 10/m² in South-Kazakhstan province. Number of eggs per pod ranged from 19 to 28. The percentage of damaged egg-pods varying from 0.05 to 7.7.

Following completion of CIT egg-laying, extensive surveys of egg-beds were carried out on more than 13.6 million ha. In the South, egg-pod density ranged from 0.2-3 to 8-15/m² and the number of eggs was comprised between 17 and 38. A maximum of 45 eggs was recorded in Almaty province. Percentage of



damaged egg-pods did not exceed 0.5-6%. In the West, the density of egg-pods varied from 0.05-0.6 to 3-9/m² with a maximum of 15 egg-pods/m² recorded in West-Kazakhstan province. The number of eggs per pod varied from 21 to 45, and the percentage of damaged egg-pods from 1.7 to 10%. In the North, natural disappearance of adults was observed in September; the density of egg-pods varied usually from 0.01 to 9.8/m² but in Pavlodar province it ranged from 0.16 to 160/m² and locally from 604 to 812/m². The number of eggs per pod was of 10-14 to 43-50. Damaged and parasitized egg-pods ranged from 0.1 to 36%. In East-Kazakhstan province, egg-pod density varied from 0.1 to 5/m² with 18 to 42 eggs per pod. Up to 47.2% egg-pods were damaged.

Natural disappearance of LMI adults was observed until late September. Extensive egg-bed surveys concerned more than 4.8 million ha. In the South, high density of 15 egg-pods/m² was reported in Kyzylorda province while density did not exceed 0.2-1.5 egg-pods/m² elsewhere. The number of eggs per pod ranged from 52 to 110; about 25% of the egg-pods were damaged or parasitized. In the West, egg-pod density ranged from 0.04 to 3.5/m², number of eggs per pod varied from 40 to 65 and percentage of damaged egg-pods from 3.5 to 7.2. In East-Kazakhstan province, there were 0.1 to 5 egg-pods/m² with 30 to 89 eggs/pod. Damaged and parasitized egg-pods reached 62.5%.

• **FORECAST**

With completion of locust life cycles and related disappearance of all adult populations, no further locust activity is expected until next year.

Kyrgyzstan

• SITUATION

Several grasshopper species were present during September in Jalal-Abad province, where they caused damage to various crops. In two districts, an increase of the distribution area of *Tettigoniidae* was also noted, with density exceeding locally 20 individuals/m², and damage reported. Nevertheless, the most dangerous agriculture pest remained DMA, whose control was sometimes hampered by rough field conditions in mountainous areas. Egg-bed surveys started in Jalal-Abad province.

• FORECAST

Forecast concerning the appearance of locusts at the beginning of the next campaign may be available in early November after completion of the egg-bed surveys and analysis of the results.

Tajikistan

• SITUATION

Egg-bed surveys were carried out in September over an area of 235,600 hectares and egg-pods were found on 161,700 ha. The density of egg-pods varied from less than 1 to more than 20 per m² as follows: < 1 egg-pod/ m² on 7,100 ha; 2 egg-pods/m² on 27,800 ha; 3 to 5 egg-pods/m² on 42,500 ha; 5 to 10 egg-pods/m² on 40,500 ha; 10 to 20 egg-pods/m² on 31,700 ha and more than 20 egg-pods/m² on 12,100 ha.

• FORECAST

Based on the results of the egg-bed surveys, a draft budget for the 2011-2015 campaigns has been prepared and submitted to the Ministry of Finance and the final decision is awaited.

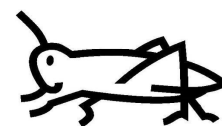
Turkmenistan

• SITUATION

No bulletin was received for September.

• FORECAST

No further development is expected this year.



Uzbekistan

• SITUATION

No locust information was received for September.

• FORECAST

Most of the locust populations should have disappeared. An egg-bed survey may take place in late October or early November.

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's 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.

New information on Locust Watch in Caucasus

and Central Asia. Recent additions to the website (<http://www.fao.org/ag/locusts-CCA/en/index.html>) are:

- Agenda and working papers of the forthcoming Technical Workshop on Locust Control.

Latest information on implementation of FAO regional project TCP/INT/3202 (D).

2010 events. The following activities occurred or are scheduled:

- Regional **Technical Workshop on Locust Control** will be held on 18-22 October, in Dushanbe, Tajikistan.