

LOCUST BULLETIN No. 58

FAO - Plant Production and Protection Division (AGP)

18 September 2018

CAUTION in Uzbekistan (LMI)

Situation level: CALM elsewhere or for the other locust pests

General situation during August 2018 Forecast until mid-October 2018

Italian Locust (CIT) mating and egg-laying continued in Armenia, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation and Tajikistan. Migratory Locust (LMI) mating and egg-laying continued in Kazakhstan, Uzbekistan and the Russian Federation. During the forecast period, locusts will complete their natural cycle in most areas. Control operations ended in all countries; since the beginning of the national campaigns, about 3.5 million ha have been treated in Caucasus and Central Asia (CCA), which is close to the area treated in 2017 (3.6 million ha).

Caucasus. CIT mating and egg-laying continued in Armenia and Georgia. During the forecast period, CIT populations will disappear.

Central Asia. CIT mating and egg-laying continued in Kazakhstan, Kyrgyzstan, Russian Federation and Tajikistan. LMI mating and egg-laying continued in Kazakhstan, the Russian Federation and Uzbekistan. Situation remains unclear with LMI in remote areas near the Aral Sea in Uzbekistan, especially where water receded recently. During the forecast period, CIT populations will disappear in most countries. In August, 27 760 ha were treated (in Kyrgyzstan and Russia).

Weather and ecological conditions in August 2018

Warm weather with temperatures close to the climatic norms prevailed. Precipitations were generally lower than the multiannual averages and the natural vegetation dried out.

In **Caucasus**, and more specifically Armenia, the weather was hot and dry with daily temperatures ranging from 30 to 38 °C in the lowlands, from 25 to 35 °C in foothills and from 20 to 30 °C in the mountains. Medium density vegetation dried out. Throughout the country, harvesting of cereals, fruits, grapes and vegetables continued and preparations for winter crop sowing started.

In Georgia, the weather was hot with daily temperatures ranging from 10.5 °C (minimum) to 38.5 °C (maximum). There were 100 mm of precipitation. Grassland vegetation of medium density dried out.

In **Central Asia**, the weather was variable with temperatures close to or above the climatic norms and precipitations lower than usual.

In Kazakhstan, the weather was variable. In the South, the weather was changeable, with hot sunny days followed by cloudy days with rains. The average daily air temperature ranged from 18.4 to 33.5 °C, with minimum of 12.0 °C at night and maximum of 42.0 °C. Relative air humidity ranged from 17 to 82% and precipitations fell in



the range from 1.0 to 58.5 mm. North-easterly and north-westerly winds prevailed at a speed of 1-8 m/s and up to 24 m/s in gusts. In the East, the weather was unstable with warm sunny and cool cloudy days with precipitations. The average daily temperature was of 18.9 °C with minimum of 7.0 °C and maximum of 34.0 °C. Relative humidity was of 61% and precipitation amounted 70.0 mm. South-easterly and north-westerly winds prevailed at a speed of 1-7 m/s and up to 12 m/s in gusts. In the West, the weather was variable with sunny and cloudy days and low precipitations. The average daily temperature ranged from 14.0 to 32.5 °C, with minimum of 8.1 °C and maximum of 38.0 °C. Relative humidity ranged from 16 to 82% and precipitation ranged from 0.8 to 16.7 mm. South-easterly and north-westerly winds prevailed at a speed of 1.0-7.0 m/s and up to 12 m/s in gusts. In the North, the weather was variable and rainy with warm and cool days and gusty winds. The average daily temperature ranged from 7.1°C to 28.5 °C, with minimum of 5.0 °C and maximum of 35.0 °C. Relative humidity ranged from 30 to 96% and precipitations ranged from 0.3 to 144.6 mm. North-westerly and south westerly winds prevailed at a speed of 1-11 m/s and up to 25 m/s in gusts.

In Kyrgyzstan, the weather was dry with average monthly temperatures ranging from 15 to 17 °C, which is close to the climatic norm. At night, the temperatures ranged from 7 to 12 °C and during the day from 18/23 °C to 25/30 °C. Precipitation was below the norm and ranged from 13 to 42°mm. Vegetation was dry with a 2-4 cm height and a low density.

In the Russian Federation, the weather was warm with local rain showers. Average temperature ranged as follows: in the North Caucasus Federal District (FD), from 22 to 35 °C; in the Southern FD, from 23 to 34 °C; in the Volga FD, from 11 to 25.0 °C; in the Ural FD, from 12 to 27 °C; in the Siberian FD, from 15 to 29 °C; and in the Far East FD, from 15 to 20 °C. In all FDs, the precipitation amount of was generally moderate or low.

In Tajikistan, the average temperature was one to two degrees °C higher than the norm: 35 °C in Khatlon, 33 °C in Sughd and 34 °C in Districts of Republican Subordination (DRS). Throughout the country, harvest of cotton started as well as the second campaign of

vegetable, forage and legumes sowing. According to the forecast, September temperatures will be 2 to 3 °C higher than in 2017.

Area treated in July 2018

Georgia	7 504 ha	(July & August)
Kyrgyzstan	2 570 ha	(CIT)
Russia	25 190 ha	
Total	35 264 ha	

Locust situation and forecast

(see also summary on page 1)

CAUCASUS

Armenia

• SITUATION

Egg-laying of probably limited Italian Locust (CIT) populations continued mostly in Ararat district.

• FORECAST

During the forecast period, the natural cycle of CIT will complete.

Azerbaijan

• SITUATION

No report received.

• FORECAST

DMA eggs will remain in the soil until hatching next spring.

Georgia

• SITUATION

CIT finished egg-laying.

• FORECAST

During the forecast period, CIT natural cycle will complete.

CENTRAL ASIA

Afghanistan

• SITUATION

No report was received.



• FORECAST

DMA eggs will remain in the soil until hatching next spring. It is expected that the infested areas will decrease in 2019.

Kazakhstan

• SITUATION

DMA egg-pod surveys took place in August in South Kazakhstan and Zhambyl provinces on 41 700 ha of which 7 320 ha (18%) were infested. Percentage of egg-pods damaged by natural enemies ranged from 3 to 9%.

Summer CIT surveys during mating and egg-laying took place on 12 600 000 ha including on 1 049 100 ha in August. The infested area was 1 129 600 ha (9%) including 491 100 ha (4%) above Economic Threshold (ET) of 5 adults/m². The most infested provinces were West-Kazakhstan (253 500 ha), Almaty (222 100 ha) and Zhambyl (119 400 ha). No treatments against CIT were carried out in August.

LMI surveys during mating and egg-laying were carried out on 3 300 000 ha out of which 370 600 ha were infested (11%) including 74 100 ha with densities exceeding 1 000 adults/ha (2%). No treatments against LMI were carried out in August.

• FORECAST

CIT fledging followed by mating and egg-laying will continue. LMI mating and egg-laying will take place.

Kyrgyzstan

• SITUATION

CIT surveys during mating and egg-laying were carried out on 3 060 ha in Naryn province of which 2 570 ha (84%) were infested at an average density of 6-30 adults/m². An area of 2 570 ha was treated.

• FORECAST

CIT natural cycle will complete during the forecast period. CIT and DMA egg-bed surveys will start in October.

Russian Federation

• SITUATION

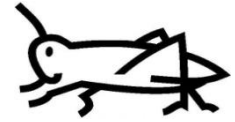
During surveys in August, locust adults were found on 217 740 ha, including 55 790 ha (26%) above ET. In addition, non-swarming grasshopper adults were found on 531 220 ha, including 23 410 ha (4%) above ET.

More specifically, in the Central FD, an area of 50 ha was infested by locust adults at a density of 0.1-1 individuals/m² while an area of 18 420 ha was infested by grasshopper adults at a density of 0.19-2.0 individuals/m². In the South FD, locust adults infested 65 730 ha at a density ranging from 10.5 to 480 individuals/m²; adult grasshopper infestations were found on 37 990 ha at a density ranging from 0.79 to 15 adults/m². In North Caucasus FD, locust adults infested 138 830 ha at a density ranging from 17.15 to 150 adults/m²; adult grasshopper infestations were recorded on 111 540 ha at a density ranging from 3.02 to 15 adults/m². In the Volga FD, adult locust infestations were found on 6 800 ha at a density ranging from 0.9 to 3 adults/m²; adult grasshopper infestations were recorded on 66 460 ha at a density ranging from 0.93 to 7 adults/m². In the Ural FD, an area of 1 030 ha was infested with locust adults; adult grasshopper infestations were recorded on 55 740 ha at a density ranging from 1.22 to 14 adults/m². In the Siberian FD, adult locust infestations were found on 5.290 ha at a density ranging from 0.67 to 3 adults/m²; adult grasshopper infestations were found on 202 710 ha at a density 2.82-45 adults/m². In the Far East FD, no locust adults were observed but adult grasshopper infestations were recorded on 38 360 ha at a density ranging from 3.50 to 6.83 adults/m².

An area of 25 190 ha was treated mostly in South, North Caucasus, Volga, Ural and Siberian FDs.

• FORECAST

Locust and grasshopper natural cycles will complete during the forecast period.



Tajikistan

• SITUATION

CIT natural cycle completed. Egg-bed surveys for both DMA and CIT were carried out on 244 641 ha. No anti-locust treatments were carried out in August.

• FORECAST

DMA and CIT eggs will remain in soil until hatching next spring.

Turkmenistan

• SITUATION

No report was received.

• FORECAST

DMA eggs will remain in the soil until hatching next spring.

Uzbekistan

• SITUATION

No detailed report was received. CIT natural cycle probably completed. As far as LMI is concerned, the situation remains unclear and requires attention in the remote areas near the Aral Sea, especially where water receded recently. LMI egg-laying may have continued.

No anti-locust treatments were carried out in August.

• FORECAST

DMA and CIT eggs will remain in the soil until hatching next spring. LMI natural cycle will complete except in the areas with recently receded water in the Aral Sea zone.

Announcements

Locust warning levels. A color-coded scheme indicates 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

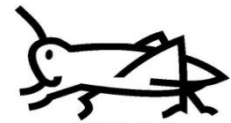
standardized information using the national monthly bulletin template. During caution (yellow), threat (orange) and danger (red) periods, often associated with locust outbreaks and upsurges, updates should be sent at least once/week. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to CCA-Bulletins@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 2018 events and activities

- **Human Health and Environmental issues:** last field visit, as part of the third set of missions, of the Human Health and Environmental Monitoring Team carried out on 1-4 August in Sughd, Tajikistan;
- **Practical Guidelines on pesticide risk reduction for locust control in CCA:** translations made and reviewed in Kyrgyz and Russian and in progress in Dari and Tajik; illustrations under preparation;
- **2018 Technical Workshop on locusts in CCA, 19-23 November, Bishkek, Kyrgyzstan:** FAO official letters of invitation issued;
- **Final evaluation of project GCP/INT/238/JPN launched:** following development of Terms of Reference for the evaluation (July), recruitment of two International Consultants, Senior Locust Management Expert, Team Leader, and Senior Evaluator, Team Member completed;
- **Procurement of locust survey and control equipment:** process ongoing for last remaining items.

Forthcoming events and activities in September 2018

- **Asian Migratory Locust situation in the Aral Sea area, Karakalpakstan, Uzbekistan:** assessment



mission scheduled the third decade of September, in presence of the FAO Locust Officer;

- **Training/Refresher courses on ASDC and CCALM use and management, including QGIS:** scheduled on 20-22 September in Bishkek, Kyrgyzstan, and on 24-29 September in Dushanbe, Tajikistan - to the benefit of Afghan and Tajik Locust Experts for the latter;
- **Practical Guidelines on pesticide risk reduction for locust control in CCA:** translations in progress and/or under review in Dari and Tajik; illustrations under preparation;
- **2018 Technical Workshop on locusts in CCA:** official nominations from countries expected by 30 September 2018;
- **Final evaluation of project GCP/INT/238/JPN:** mission of the evaluation team in Kyrgyzstan and Tajikistan scheduled in late September/early October;
- **Procurement of locust survey and control equipment:** process ongoing for last remaining items.
- **Resource mobilization:** ongoing process.

