Locust Watch
Locusts in Caucasus and Central Asia

LOCUST BULLETIN No. 27

FAO - Plant Production and Protection Division (AGPM) 18 April 2014

Situation level: CALM for the three locust pests

General Situation during March 2014 Forecast until mid-May 2014

Due to lower than usual temperatures, locust hatching in Caucasus and Central Asia is delayed and expected at later dates than usual. Only in Afghanistan the hatching of Moroccan Locust (DMA) has already started in late March, immediately followed by the first hopper treatments. In Tajikistan, DMA hatching is expected in early April while in Kazakhstan, Kyrgyzstan, Uzbekistan and probably Turkmenistan, it is expected in mid- to late April. In Caucasus, locust hatching will take place in April in Azerbaijan and Georgia (DMA) and in May in Armenia (Italian Locust, CIT).

Caucasus. Temperatures remained low in March and no hatching was reported. In **Armenia**, heavy snow fell at the end of the month. In **Azerbaijan**, DMA hatching is expected in early April and anti-locust treatments should start in mid-April. In **Georgia**, temperatures were too low for locust development and DMA hatching should not start before late April.

Central Asia. DMA hatching started in late March in **Afghanistan**, where 500 ha were treated against hoppers. In **Kazakhstan**, **Kyrgyzstan**, **Tajikistan**, **Turkmenistan** and **Uzbekistan**, DMA hatching is expected to start from early April, at least two weeks later than usual; it will be followed by hopper treatments. Italian Locust (CIT) and Asian Migratory Locust (LMI) should hatch in May.

Weather and Ecological Conditions in March 2014

The persistence of generally cool weather conditions such as lower than normal temperatures and snow was unfavourable to locust egg development and delayed hatching, except in Afghanistan.

In **Caucasus**, unstable weather prevailed.
In Armenia, precipitations fell throughout the country during March, including heavy snow on 30 March. Total rainfall was of 28 to 32 mm in mountainous areas, 12 to 33 mm in foothills and 5 to 10 mm in lowlands. Daily temperatures were slightly above average ranging from +19° to +24°C in lowlands and from +10° to +15°C in mountainous areas. In lowlands spring pruning fruit trees and vines took place. Apricot trees started blooming since mid-March in Ararat Valley. Late snow, generating a cover of more than 50 cm, and night frosts caused serious damage to agriculture.

In Azerbaijan, weather was generally mild with low precipitations in February. In March, weather was cool with average temperatures of only +5 to +8°C. Hence weather conditions were unsuitable for locust egg

development and hatching. Spring ephemeral plants were greening.

In Georgia, cold weather prevailed in the East, the traditional locust habitats, where snow cover lasted for 10 days and temperatures were below -10°C for a couple of days in March. Therefore, locust development was delayed.

In **Central Asia**, cool weather prevailed except in some parts if the Russian Federation.

In Afghanistan, the weather was mostly cool and rainy in March. Crops were in the greening stage.

In Kazakhstan, the weather was unstable in March. Precipitations in the form of rain and snow fell throughout the country except for the western region. Average daily temperatures ranged from -5° to +17.0°C in the South, from -2.5° to +18°C in the East, from -1.5° to +11.3°C in the West and from -15.7° to -2.5°C in the North. Minimal temperatures were -12°C in the South, -28°C in the East, -23°C in the West and -24°C in the North. Relative humidity ranged from 50 to 100%.

In Kyrgyzstan, the weather was cool with frequent precipitations during March.

In the Russian Federation, weather was variable with higher than normal temperatures in March. In Southern regions of Central Federal District, weather was mostly warm and dry. Snow melted entirely 21 to 23 days earlier than usual. Average daily temperature was -2.7°C, i.e. 3.0°C above normal. In North Caucasus and South Federal Districts, temperature ranged from -0.7° to +2.2°C, which is 2.4°C above normal. In Siberian Federal District average temperature ranged from -9.5° to-14°C, which is within the normal range.

In Tajikistan, precipitations fell in the form of snow in February and again on 23 March. Minimal air temperatures were from -38° to -46°C in the east of Gorno-Badakhshan Autonomous Oblast (GBAO), from -20° to -29°C in the North (Sughd Oblast), from -12° to -26°C in the West (Khatlon Oblast) and from -12° to -28°C in the central part of the country (Region of Republican Subordination, RRS). In March, daily temperatures were from +2° to +12°C at night and from +3° to +17°C at day, which is 3 to 6°C below the 2013 temperatures. As the soil humidity was sufficient, a good grass cover is expected throughout the country, except in GBAO.

In Uzbekistan, the weather was cool in March. Average temperatures were +20°C during the day and +2°C at night. Grass cover in pastures was good exceeding 400 plants/m², with height of 40 to 50 cm.

Area Treated in March 2014

Afghanistan 500 ha (29 March – 2 April 2014).

Locust Situation and Forecast

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

CAUCASUS

Armenia

• SITUATION

No survey or control operations were carried out and no hatching reported in March.

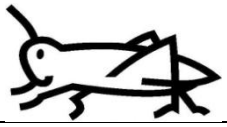
• FORECAST

Hatching of Italian Locust (CIT) is expected in late April in lowlands, and in May in other areas. No development of the two other locusts is expected unless they fly in from neighboring countries. According to preliminary forecast anti-locust, treatments in 2014 are planned on 4 500 ha.

Azerbaijan

• SITUATION

Moroccan Locust (DMA) egg-pod survey to assess overwintering egg survival and determine hatching dates took place in March on up to 20 per cent of egg-bed sites identified in 2013. No DMA hatching was reported.



• **FORECAST**

Mass DMA hatching followed by hopper development is expected in April. It is anticipated that control operations will start in mid-April.

Georgia

• **SITUATION**

National Food Agency did not carry out yet any anti-locust activity since the beginning of 2014. In late April, National Food Agency plans to conduct an open tender and purchase pesticides for aerial anti-locust treatments.

• **FORECAST**

Moroccan Locust (DMA) hatching is expected in late April.

CENTRAL ASIA

Afghanistan

• **SITUATION**

During surveys on 29 March, DMA first-instar hoppers were found in four provinces: Takhar, Kundoz, Samangan and Balkh. In Samangan, control operations carried out from 29 March to 2 April treated 500 ha with Insect Growth Regulator (IGR) in Ultra-Low Volume (ULV) formulation (active ingredient: diflubenzuron). Control operations will start soon in the three other provinces.

• **FORECAST**

Hopper development will continue during the forecast period and fledging is expected in second half of April.

Kazakhstan

• **SITUATION**

DMA spring egg-pod surveys are being carried out in the South. Out of 1,200 ha surveyed so far, egg-pods were found on 0.1 ha. Average number of eggs in egg-pod was of 26 to 28 eggs, which nears the average. About 7 to 9% of egg-pods were found infested by parasites or affected by diseases. CIT spring egg-pod survey was carried out on 1,100 ha; no egg-pods were found so far.

On 27-28 of February in Uralsk, an international meeting on locusts and other dangerous agricultural pests took place between Ministries of Agriculture of Kazakhstan and Russia. Twelve regions of Russian Federation and seven Kazakhstan Oblasts which share common borders participated in the meeting and discussed planning of joint anti-locust operations in 2014.

• **FORECAST**

DMA hatching should start in late April. Other species (CIT and LMI) will start hatching later.

Kyrgyzstan

• **SITUATION**

No hatching of any of the three locust pests was reported.

• **FORECAST**

Moroccan Locust (DMA) is expected to begin hatching in 1st and 2nd decades of April in the South, in Jalal-Abad and Batken oblasts.

Russian Federation

• **SITUATION**

Egg-pod surveys are being carried out in the South to assess the overwintering egg survival. According to preliminary reports, egg mortality during winter period was negligible.

• **FORECAST**

Non-swarming grasshoppers and locusts will start hatching in southern regions. In general, it is expected that locusts will continue to decline in most regions in 2014 but that risk of outbreaks will persist in some areas of Volga Federal District. Control operations are planned on more than 1,400,000 ha.

Tajikistan

• **SITUATION**

During March surveys, no hatching of the locust pests was reported. Preparations for control campaign are ongoing, with tractor sprayers and other ground equipment ready for work. Ministry of Agriculture issued a decree №3 dated 7 January 2014 "On creating a Republican Headquarters for locust control." On March 12 the first meeting of the Headquarters took place. It was led by the Minister of Agriculture of Tajikistan. The Republic allocated 5,436,000,000 somoni (equals to USD 1,134,864) for locust control operations in 2014.

• **FORECAST**

DMA hatching is expected in the 1st decade of April in the South (Khatlon) and the 2nd decade of April in northern (Sughd) and central (RRS) regions. Hatching will be precipitated by increasing temperatures in April which are expected to be 5 to 8°C higher than in previous years. Hatching of non-swarming grasshoppers in GBAO will occur in late May. CIT hatching is expected in late April in Sughd.

Turkmenistan

• **SITUATION**

No bulletin was received but mass DMA hatching should have started in late March or will start in early April. According to the information received during CCA annual workshop, DMA infestations will increase in 2014. It is expected to carry out control operations on 600,000 ha which is 23% higher than in 2013 (486,000 ha).

• **FORECAST**

DMA hatching will continue through the forecast period.

Uzbekistan

• **SITUATION**

No hatching or control operations were reported in March. In March, four regional locust control organizations seminars to prepare for the locust control campaign took place with participation of scientists and specialists from Tashkent.

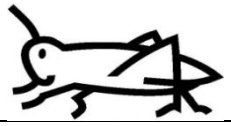
• **FORECAST**

DMA hatching is expected to start in the 1st decade of April in the South (Surkhandarya oblast), along the borders with Tajikistan and Afghanistan. It is planned to control locusts on 350,000 ha. Spraying equipment, including 26 vehicle-mounted Micronair ULV sprayers and eight AN-2 aircraft, is distributed among the regions. Locally manufactured pesticides (active ingredients: lambda-cyhalothrin and imidacloprid) will be used in control operations.

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.

December 2013 – February 2014 events and activities.

- **Delivery of office material** to Tajikistan in December 2013 (against national project).
- **Delivery of survey kits** to Turkmenistan in December 2013.
- **Recruitment of National Consultants** in CCA countries for the preparation of the national monthly bulletins.
- **Fellowships (post-graduate study allocations):** preparation of the selection criteria list for candidates and hosting institutions by the e-committee composed of locust experts from CCA.

Forthcoming events and activities in April 2014.

- **Locust Geographic Information System (GIS):** The FAO Consultant, GIS Expert N. Muratova will visit the Russian Federation on 18-23 April, Georgia on 23-29 April, Kazakhstan and FAO HQs in May to collect field data (Georgia) and develop the regional GIS at national and regional levels. A regional training on automated system of data collection (ASDC) will also be delivered to the benefit of Georgia, Armenia, Azerbaijan and the Russian Federation on 26-28 April in Georgia (Kakheti).
- **Locust monitoring and information management training** to the benefit of Turkmenistan and Uzbekistan, initially planned in early April in one of the two countries, has been re-scheduled in August 2014.
- **CCA annual technical workshop** tentatively planned for November 2014 in Georgia.


Locust presence in Central Asia, Russia and Afghanistan - March 2014
RUSSIAN FEDERATION
Ishim
Volga
Zhayyq
Ertis
Ob'
ASTANA
KAZAKHSTAN
Aral Sea
Lake Balqash
Syr Darya
UZBEKISTAN
BISHKEK
Caspian Sea
TASHKENT
KYRGYSTAN
TURKMENISTAN
DUSHAMBE
Am Darya
ASHGABAT
TAJIKISTAN
KABUL
AGHANISTAN
500
LMI
DMA
CIT
1000
Ha treated
Sources: National monthly bulletins provided by CCA countries
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0 250 500 Kilometers
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