



DLCO-EA QUARTERLY NEWSLETTER

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MIGRATORY PESTS SITUATION JANUARY - MARCH, 2015

DESERT LOCUST:

During January and February, the Desert Locust situation remained very serious mainly on the northern coast of the Red Sea coastal areas of Eritrea, and in the winter breeding areas along the central Red Sea coast of Sudan. During March, due to lack of rainfall and drying conditions, the situation became less serious mainly towards the end of the month. Although, hopper bands and groups of gregarious immature and mature adults were present in green areas in the above mentioned locations. It was also reported that a swarm was seen in the western lowlands of

NEW APPOINTMENTS

1. The new DLCO-EA Director, **Dr Stephen W. Njoka** has officially assumed the position as of the 5th January 2015 and has been leading the Organization succeeding the former Director Mr Gaspar A. Mallya.
2. **Mr. Kassahun Yitaferu** has been appointed as the new Chief Research Officer of the DLCO-EA positioned in Headquarters since 1st January 2015 and he is responsible for planning and coordinating research and training activities in the organization.
3. **Mr Moses Mafabi** has been appointed as Research Officer in DLCO-EA, whose Duty Station is in the Operation Coordination Office in **Nairobi**, Kenya and reported to duty in February 2015. Mr. Mafabi is involved in Quelea research and training.



Eritrea on 13th of March.

Areas showing some locust activities

FAO-DLIS January, 2015

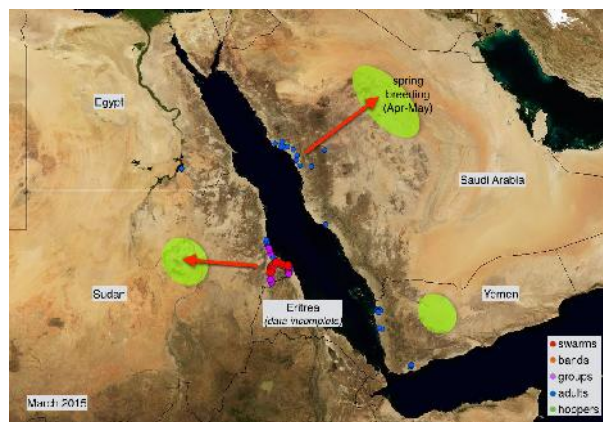
During the first quarter of the year, more than 100,000 ha of infestations, out of which 45,000 ha of by air were treated in

Sudan. While in Eritrea, ground control teams treated mixed infestation of locusts on more than 3,000 ha. One **DLCO-EA Spray Aircraft** has been deployed in the coastal areas of Sudan and participated in the survey and control activities.



**Areas showing some locust activities
FAO-DLIS February, 2015**

Areas showing some locust activities. FAO-DLIS March, 2015



GRAIN EATING BIRDS (*Quelea quelea*):

During the first quarter of the year, *Quelea* birds infestations were reported in Siaya and Kitui County, Kenya damaging irrigated Rice and Sorghum respectively. Consequently, a DLCO-EA aircraft was deployed and in cooperation with the MoA was able to control more than 11 million birds, which were roosting on 10 hectares of Reeds and Papyrus.

Quelea outbreaks were also reported in Shinyanga and Mwanza Regions, Tanzania during February and March but control operation was not initiated.

ARMYWORMS (*Spodoptera exempta*)

During January - March, 2015 the situation in the Member Countries remained generally calm. However, some early infestations have been reported in the Primary Breeding areas in Tanzania and Kenya.

ACTIVITIES ON COMMUNITY BASED ARMYWARM MONITORING, FORECASTING AND EARLY WARNING (CBAMFEW) PROJECT

1. District Meetings:

In year three program of the project, two districts for each country (Ethiopia, Kenya and Tanzania) were selected. 2 district meetings were held to introduce the CBAMFEW initiative, select the villages to participate in the program and get nominees for Training of Trainers(TOT) training.

Participants in the meeting included district staff of the Ministries of Agriculture, Livestock Production, farmers' representatives and other stake holders.

Objectives of the meetings were:

- To introduce the CBAMFEW initiative and explain the different steps involved in the implementation.
- To discuss roles of key stake holders in CBAMFEW.
- To discuss criteria for selection of villages for the CBAMFEW initiative.

Other technical areas discussed included:

- Economic importance of Armyworms,
- Armyworm biology and migratory behavior
- Importance of armyworm forecasting

At the end of each meeting, the participants were eager to implement this new initiative to armyworm forecasting.



District meeting- Raya Azebo district (Ethiopia)



District meeting Mbeya rural district- (Tanzania)

2. Training of Trainers:

Training of trainer's is one of milestones in the implementation of Community Based Armyworm Monitoring, Forecasting and Early warning project in Ethiopia, Kenya and Tanzania.

The training was conducted in Tanzania and Kenya in January and March, 2015 respectively for four days in each country.

The trainees came from year three project districts of Kibwezi and Taveta in Kenya and Mbeya rural and Ikungi of Tanzania.

A total of thirty (30) participants attended the training.

The objectives of the training were:

- To train eight district agricultural officers on various topics on armyworm biology
- Implementation of the project and forecasting; so that they become trainers of community forecasters
- To explain to them on the project and to prepare them for their districts.

The course was divided into 3 parts as follows:-

- Part One: - Theory part
- Part Two: - Practical Part
- Part Three: - Field visit to successful farmer forecaster

The theory part of the training course covered the following topics:

- Overview of project document
- Armyworm biology and seasonal movement

- Armyworm forecasting and forecasting tools
- Year three milestones
- How to conduct village meetings and baseline surveys
- Lessons learned from year one and two
- How to conduct farmer forecaster's training
- The use and application of cell technology in armyworm forecasting project
- Project monitoring and organizing field days.



Participants during field visit 2015

The practical part of the training:

During the practical, trainees were shown how to use the forecasting tools i.e. Rain gauge and pheromone traps, also how to record these data in forecasting forms and following forecasting rules. This was followed by field condition exercise in which two weeks forecast was set and the trainee were required to keep record in the form and calculate forecast. Also the armyworm film was shown for participants to see how Armyworm are serious pest, also to see how the forecasting and early warning is useful tool in controlling this pest.

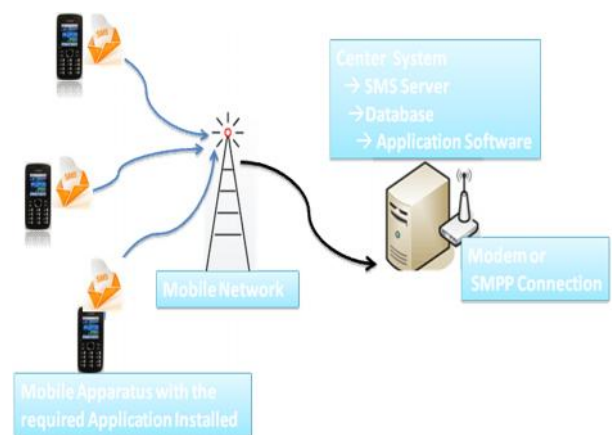


Group photo at Macha Resort kibwezi on 3rd March

3. Introducing Mobile Based Data Collection(MBDC):

DLCO-EA has developed Mobile based data collection for reporting armyworm outbreak alerts issued by the community forecasters. This novel technology was developed through Community Based Armyworm Monitoring, Forecasting and Early Warning Project funded by USAID/OFDA.

SMS technology was developed for reporting armyworm outbreak alerts issued by community forecasters. This technology was first introduced in Fedis district, Ethiopia.



SMS reporting system is quick and enables experts and higher officials where the message is received for decision making and to know the status of armyworm outbreak at grass root level in the village and district during the armyworm season in order to mobilize resources for timely operation and further alert extension and development agents and farming community at large through available communication means.

SMS based data collection is mostly preferred method in a place where internet connection is not reliable and the target users who feed the data to the central system has no experience of using the internet.

The implementation phase requires three main components which must be integrated with the developers team to make easy to use interface to the end-users of the project coordinators to access the received messages like an ordinary email message , without any knowledge of the back-end systems on their personal computer.

The Main Parts/components of the SMS Data Collection are:

- Mobile Apparatus with Application Software
- Central SMS server [Rcv and Snd Msg]
- Database and Application Software

The messages sent from the Community forecasters will be first accepted by telecom operators and it will forward to the central system via wired or wireless connection as defined by the scope of the project, finally the system will process the received message as required by the National armyworm coordinators for analysis and Early warning.

The Short Message Service (SMS) parameters were developed by an IT expert that was further verified and improved through preliminary field test with some community forecasters Sixty (60) Cell phones, SMS Modem, software license, web software installation and training for national coordinator and district coordinators and Developmental Agents in Ethiopia was implemented in the below mentioned front line districts.

District	Region
1. Benatsemay	Southern region
2. Teltele	Oromia region
3. Medawelabu	Oromia region
4. Liben	Oromia region
5. Shewarobit	Amhara region
6. Efratana gidim	Amhara region

Regional Workshops Attended:

1. CRC/SWAC Inter Regional Workshop on the use and improvement RAMSES Vesion4 and eLocust3:

The FAO's Commission for Controlling the Desert Locust in the Central Region (CRC) Western Region (CLCPRO), South West Asia (SWAC) and the Desert Locust Information Service (FAO-DLIS) organized an inter-regional Desert Locust Information Officer workshop for one nationally designated Locust Information Officers from each frontline country during the period 22 - 25 February 2015, held in Hurghada, Egypt. The workshop objective was to strengthening the national early warning and reporting systems through informal discussions on the use and improvement of the various tools used by the National locust information officers in their daily work. The workshop was also an ideal opportunity to review the functionality and operationally of the new version RAMSESV4 and elocust3.

The workshop was attended by DLCO-EA Senior Information and Forecasting Officer, Mr. Felege Elias.



Participants of the Workshop

2. Contingency Planning Workshop:

The Aim of the Workshop:

- To reach common understanding among participating Central Region (CR) front-line countries on the rationale and the procedures of regional and national contingency planning in the context of CRC's locust emergency prevention strategy
- The Commission and participating National Desert Locust Control Centres/Units are using contingency planning tools and procedures on a routine basis as part of their normative activities
- The workshop was conducted in an interactive manner, leaving sufficient room for participants to contribute with their experience to the findings. The proposed programme included a series of practical exercises in the field as well as in the classroom

- The Director and Senior Information and forecasting Officer DLCO-EA participated in a 5 days Contingency planning workshop Hurgada, Egypt on 15- 20 February, 2015
- The meeting was convened by the Central Region Commission for Controlling Desert Locust (CRC).

TRAININGS:



Quelea Training:

National Training in Sudan on Quelea management has been carried out in Khartoum from 16th - 20th March 2015 for participants in Plant Protection Department from the Ministry of Agriculture. The training was successful and imparted a good knowledge of quelea management, a pest that pose a serious threat to cereal crops in the region.

LOCUST RESEARCH ACTIVITIES:

The adverse impact of chemical pesticides on the environment, human health and the high cost necessitate the requirement to adopt and support the use of safer control agents particularly, those considered to have minimum effects on the environment and low mammalian toxicity and also to improve the current application techniques in locust control.

To this end, a trial was carried out under realistic locust habitats, near Agati village, Tokar Delta at the Red Sea coast of Sudan during the winter breeding season in February, 2015.

Application of Insect Growth Regulators (IGR), Nomolt:

The application of insect growth regulators Nomolt (450 ml/ha), as it's a barrier treatment proved efficacy against DL nymphs, hence this will reflect in minimizing total area treated, environmental hazard and the cost. The result of this trial proved that using IGR as a barrier treatment is feasible for controlling the nymphal stages of DL, particularly after the ban of organochlorine pesticides.

Application of IGR, Nomolt and Green Muscle:

The combination of half doses of the IGR Nomolt (225 ml/ha) and half dose of biopesticide (GM) resulted in rapid mortality rate, due to the fact that the IGRs weaken the cuticle of the insects, and thus facilitate the infection of insects with *Metarhizium*. Thus, this combination is highly recommended to be adopted in control strategy of DL nymphs. *Metarhizium* is characterized by high specificity and environmental friendly impact. It is also recommended that to use this combination for further research, especially as barrier treatment method. IGRs Nomolt demonstrated persistence up to several weeks and same with Green Muscle (GM) particularly, under favourable conditions. Therefore, such combination can be sprayed as barriers to control Nymphal stages of DL.

Application of PAN (Phenylacetone nitrile):

Hopper control achieved on pheromone PAN integrated with GM (more than 60% control in 9 days). It was reported that PAN-exposed hoppers have also been found to become more susceptible to bio-pesticides and fractions of the recommended doses give mortalities comparable to those achieved with the full doses. These findings agree with our result obtained by treatment hopper bands of Desert Locust with half of the recommended dose of PAN and half of the recommended dose of Green Muscle gave more than 60% control in 9 days.

UP COMING EVENTS:

Regional Training on Migratory Pest Management 20 - 24 April, 2015. Nakuru, Kenya

DLCO-EA AIRCRAFT SITREP AS AT 31ST MARCH 2015

A/C REG.	5Y-BCJ Beaver	5Y-BCK Beaver	5Y-BCL Beaver	5Y-KRD Beaver	5Y-DLA Caravan	5Y-DLO Baron	5Y-BBB Islander	5Y-DLD Turbo Beaver
C OF A DUE DATE	IN PROGRESS 15/04/2015	07/09/2015	IN PROGRESS	IN PROGRESS	19/02/2015	IN PROGRESS	IN PROGRESS	19/06/2015
CHECK III	05/04/2017	10/06/2015	IN PROGRESS	IN PROGRESS	N/A	IN PROGRESS	IN PROGRESS	02/03/2017
PROP. 5 YR OVERHAUL	28/07/2016	29/07/2016	10/02/2018	IN PROGRESS	28/05/2018	IN PROGRESS	IN PROGRESS	21/07/2017
A/F HOURS	123:35	570:05	00:00	00:00	3264:55	00:00	00:00	34:45
ENGINE (S) HRS	284:45	173:35	882:05	00:00	3102:10	PORT: 00:00 STBD: 00:00	PORT: 1556:10 STBD: 1556:10	369:20
PROP. HRS	129:25	290:50	300:55	00:00	1002:40	PORT: 1346:25 STBD: 1278:05	PORT:216:00 STBD:216:00	252:10
LOCATION	C OF A RENEWAL NAIROBI	LOCUST SUDAN	MAINTENANCE NAIROBI	UNDER ACCIDENT REPAIR	MWANZA UNHCR	MAINTENANCE NAIROBI	MAINTENANCE NAIROBI	RED LOCUST TANZANIA

NB

 **IMMEDIATE ATTENTION**

 **TO BE NOTED**

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