

**Emergency Transboundary
Outbreak Pest (ETOP) Situation
Report for October with a
Forecast till mid-December, 2011**

Summary

The desert locust (SGR¹) situation remained relatively calm in October in Sahel West Africa, North Africa, the Red Sea coasts and the Indo-Pakistan borders. Some scattered adults were observed in Chad, Mali, Niger, Sudan and Pakistan and small-scale breeding occurred in western Mauritania and coastal areas in Pakistan. Ground operations controlled adult groups and/or solitary individuals on 1,200 ha in northern Mali and 60 ha in western Mauritania, respectively. No locusts were reported elsewhere during this period (CNLA/Mauritania, CNLAA/Morocco, DLCO-EA, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Ethiopia and PPD/Sudan).

Forecast: Adult SGR will move from the summer breeding areas in southern Mauritania to the winter breeding areas in northwest Mauritania and from the interior of Sudan, to the Red Sea coasts in Sudan, Saudi Arabia and Yemen and begin breeding on the onset of the winter rains. Scattered adults will persist in northern Mali, Niger and Chad. Small-scale breeding is likely in southwestern Morocco, central Sahara in Algeria and southwestern Libya during the forecast period. Breeding may also occur in parts of Pakistan

¹ Descriptions of all acronyms can be found at the end of the report.

where massive rains and flooding occurred in August and September. Other counties will likely remain calm during the forecast period. Vigilance should be maintained in all outbreak areas (CNLA/Mauritania, CNLAA/Morocco, DLCO-EA, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Ethiopia and PPD/Sudan).

Other ETOPs

Red (Nomadic) Locust (NSE): NSE situation remained relatively calm Tanzania and only low to medium density adult populations persisted in other outbreak areas in Malawi and Mozambique, and Zambia. The seasonal rains that fell in October in Tanzania, Malawi and Mozambique outbreak areas may have triggered mating and egg-laying (IRLCO-CSA).

Forecast: Hoppers will begin appearing from December on in the outbreak areas in Tanzania, Malawi, Mozambique and Zambia. The International Red Locust Control Organization for Central and Southern Africa (IRLCO-CSA) will conduct surveys in these countries to identify areas of potential hopper and band infestations (IRLCO-CSA).

Madagascar Migratory Locust (LMC): No update was received at the time this report was compiled. However, locust activities that were present during the previous month likely continued developing (AELGA).

Forecast: Normal to above normal rainfall is predicted in October through December and could extend into January to March. Breeding and hatching are expected to progress in several places in the central gregarization zone and other zones during the forecast period. Vigilance, timely field

assessments and reporting as well as rapid interventions are recommended to avert and prevent unexpected surprises (AELGA, FAO-CNA).

Note: *During the 2010-2011 locust emergency campaign in Madagascar, the United States Agency for International through the Office of Foreign Disaster Assistance (OFDA) responded in time and favorably to the appeal issued by FAO to support the campaign operations spearheaded by the FAO-CNA. That response was crucial in assisting host-country to address the ETOP problem. **End note.***

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): No update was received from CAC at the time this report was compiled. However, some locust activities are likely in the region (AELGA).

Armyworm (AAW): AAW season has commenced in Tanzania where the pest was observed on 35 ha of cereal crops in Sumbawanga district in Rukwa region in Tanzania. There was no report of AAW from other IRLCO-CSA or DLCO-EA member countries during this period (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW will likely continue further developing in Tanzania and by the end of November and into early December, most IRLCO-CSA countries will likely experience some level of AAW activities (IRLCO-CSA, PPD/Ethiopia).

Quelea (QQU): Low to high density populations and roosts of QQU birds were detected in the rift valley areas

and eastern Ethiopia where sorghum crops were at risk. QQU activities were also reported in irrigated rice in Nyanza province in Kenya and in Kilimanjaro region in Tanzania as well as in irrigated wheat in Mashonaland West and Mashonaland East provinces of Zimbabwe (DLCO-EA IRLCO-CSA).

Forecast: QQU activities will continue threatening crops during the forecast period as populations will begin progressively spreading to several areas (DLCO-EA).

OFDA/AELGA (Assistance for Emergency Locust and Grasshopper Abatement) will continue monitoring ETOP situations in all regions and issue updates and advices as often as necessary. **End summary**

Progress in SGR Frontline Countries:

SGR frontline countries (FCs) in Sahel West Africa, namely **Chad, Mali, Mauritania** and **Niger** have established autonomous national locust control units (CNLA) responsible for DL activities.

Funds provided by the African Development Bank, USAID, the World Bank, France, FAO, host-governments, neighboring countries and others enabled the FCs to equip CNLAs with necessary tools, materials and infrastructure as well as help train staff to prevent and respond to SGR outbreaks and avoid the threats they pose to food security and livelihoods of vulnerable communities.

CNLAs' efforts to avert mitigate or respond to potentially devastating SGR outbreaks and invasions need to be supported and encouraged.

OFDA ETOP Activities

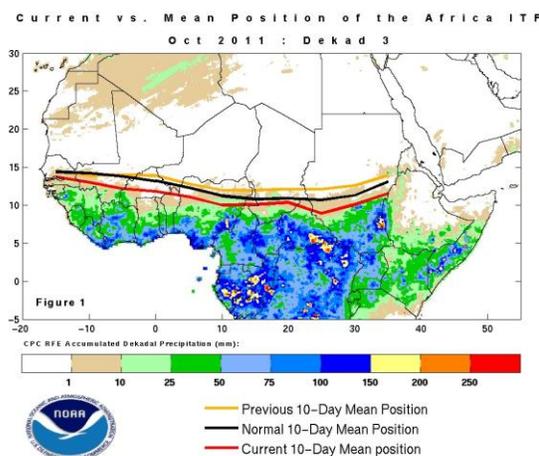
- OFDA/TAG continues its initiatives in pesticide risk reduction through stewardship network (PRRSN) programs to ensure safety of vulnerable people as well as protect their assets and the shared environment against pesticide pollution. OFDA/TAG successfully launched two sub-regional PRRSNs in Eastern Africa and the Horn. The Horn of Africa PRRSN initiative has created a sub-set Association under the rubric of Pesticide Stewardship Association and received registration status in Ethiopia (PSA-E). Prospective partners have begun expressing interests to dub or work with the association. PSA-E will likely serve as a blue print or a guinea pig for similar structures in the future.
- Discussions that began several months ago to launch similar PRR initiatives in North Africa and the Middle East were halted by the ongoing situation in the regions. A dialogue is underway in other regions.
- OFDA continues its assistance in capacity strengthening to mitigate, prevent, respond to and reduce risks of ETOP emergencies and associated pesticide human health threats as well as environmental pollutions.
- OFDA is supporting through FAO a program to strengthen national and regional capacities in Central Asia and the Caucasus (CAC) to coordinate locust monitoring, reporting, prevention and mitigation efforts and abate the threats they pose to food security and livelihoods of vulnerable communities.

All SITREPs can be accessed on our website at:

http://www.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/locust/

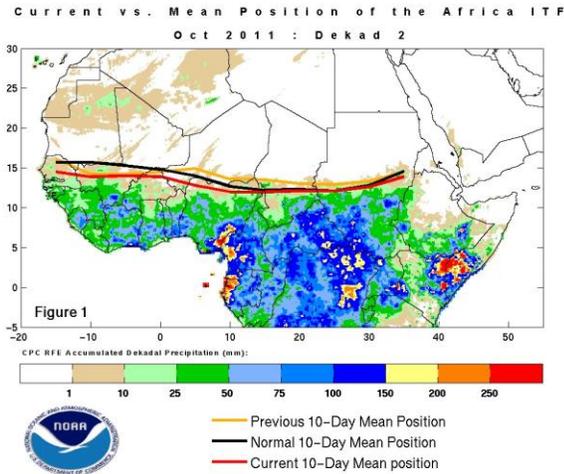
Weather and ecological conditions

From October 21-31, 2011, the Inter-Tropical Front (ITF) progressed south over eastern and western Africa with the mean western portion located at approximately 11.6N (1.3 degrees south of the climatology mean and 1.7 degrees south of the previous dekad's position). This was caused by strong northerly winds that prevailed for the past three dekads and resulted in early termination of the seasonal rains across the Sahel and causing heavy, above-average rains along the Gulf of Guinea. The eastern portion of the ITF was approximated at 10.2N (1.3 degrees south of the climatology mean position 2.5 degrees south of the previous dekad's position). The Front was pushed further south of climatology due to strong northerly winds and reduced moisture over eastern Africa and below average rainfall was observed across central and western Sudan (NOAA, 11/2011).



From October 11-20, 2011, the ITF moved southward across eastern and western Africa compared to the previous dekad. The mean western portion of the ITF was located approximately at 13.3N, 1.2 degrees south of the climatology mean and 1 degree south of the previous dekad's position. Anomalous and

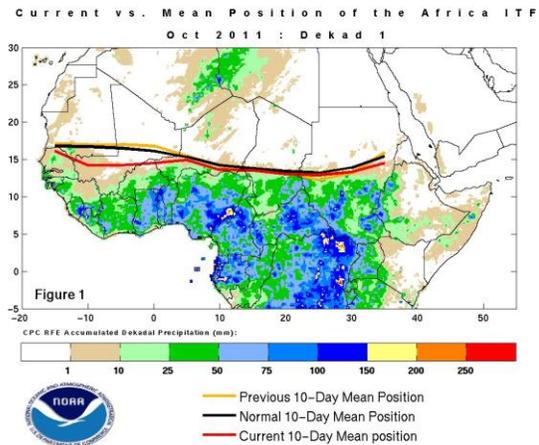
strong northerly winds helped push the ITF well south of the climatology position over West Africa. This has resulted in an earlier than average end to rains across portions of the Sahel in West Africa.



The eastern portion of the ITF was around 12.7N, 0.3 degree south of the climatology mean position and south of the previous dekad's position by 0.7 degrees. The location of the ITF over eastern Africa during the second dekad of October is the closest it has been to climatology in several dekads. As such, rainfall has been near-average across eastern Africa.

From October 1-10, 2011, the Front shifted southward over western portions of Africa while it slightly moving northward across localized eastern portions. The mean western portion of the Front was located at approximately 14.3N (1.8 degrees south of its previous dekads' position and 1.5 degrees south of the climatology mean). Persistent and strong northerly winds helped push the ITF south of the climatology mean during the past dekad resulting in little rainfall over western Mali and Senegal. The eastern portion of the Front was approximated at 13.4N (0.6 degrees south of the climatology mean and

0.2 degrees south of the previous dekad's).



While the far eastern portions of the ITF continued to move south, a late increase in moist, southerly winds caused a slight northward movement of the ITF over central and western regions of Sudan (see Map, NOAA, 10/2011).

Hot weather prevailed in most of the NSE outbreak areas in October. Moderate to heavy rainfall was recorded at Masenge (31mm) near Wembere plains and at Kaliua (81mm) near Malagarasi Basin in Tanzania. Dry conditions persisted in other NSE breeding areas in Ikuu-Katavi plains and Rukwa Valley plains. Makoka and Ntaja 2 stations near Lake Chilwa/Lake Chiuta plains in Malawi recorded 102.1 mm and 17.6 mm of rain, respectively. Light to moderate rainfall was recorded at Mafambise (18 mm), Dondo (15mm), Nhamatanda (22mm) stations near Buzi-Gorongosa plains of Mozambique during this period (IRLCO-CSA).

From October to December, 2011, most of contiguous Southern African Development Community (SADC) is expected to receive normal to below-normal rainfall with the exception of northern parts of Tanzania and southern Madagascar where above-normal rainfall is predicted. The rest of the continental SADC and most of Madagascar and Mauritius are likely to receive normal to above-normal rainfall (SARCOF).

From January to March, 2012, the south eastern continental SADC as well as the northern parts of Tanzania and Madagascar are expected to receive above-normal rainfall. The western flank of contiguous SADC is expected to receive below normal rainfall (**Note:** October to March is the main rainfall season over most of southern Africa. Owing to the differences in the rainfall-bearing systems, the rainy season has been divided into two three-month periods, i.e. October to December and January to March **End note**) (SARCOF).

Note: Changes in the weather patterns and the shift in the ecology of landscape are believed to exacerbate the risk of pest outbreaks and resurgence. Regular monitoring and reporting are essential.

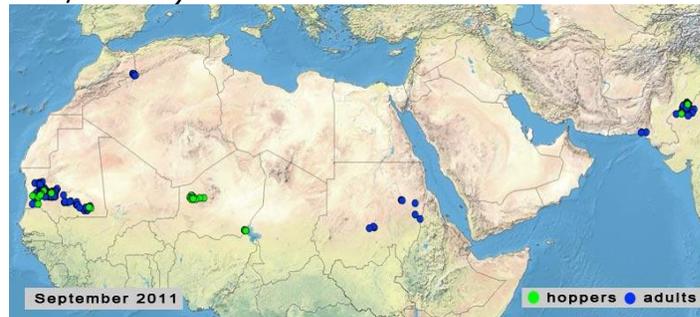
End note.

Detailed accounts of ETOP situation, activities and ecological conditions are presented below.

SGR - Western Outbreak Region: The SGR situation remained relatively calm in October in Sahel West Africa and North Africa. Only scattered adults were observed in Chad, Mali and Niger. Small-scale breeding was reported in western Mauritania and ground operations treated adult groups on 1,200 ha in northern Mali and solitary individuals on 60 ha in western Mauritania. No locusts were reported elsewhere in the region during this period although some scattered solitary adults may be present in some countries (CNLA/Mauritania, CNLAA/Morocco, FAO-DLIS, INPV/Algeria).

Forecast: Low numbers of adults will move from the summer breeding areas in southern Mauritania to the winter breeding areas in the northwest. Scattered adults will likely persist in northern Mali, Niger and Chad. Small-scale breeding is likely in southwestern Morocco,

central Sahara in eastern Algeria and perhaps, southwestern Libya during the forecast period. Other counties will most probably remain calm during the forecast period. Vigilance should be maintained in outbreak and avoid surprises (CNLA/Mauritania, CNLAA/ Morocco, DLCO-EA, FAO-DLIS, INPV/Algeria, PPD/Ethiopia and PPD/Sudan).



(SGR breeding observed in parts of summer breeding areas, FAO-DLIS, 11/2011)

SGR - Central Outbreak Region: Survey operations were carried out in October in the summer breeding areas in North Kordofan, White Nile, Khartoum, River Nile and Kassala States covering more than 36,100 ha of which some 40 ha were reported infested with low density solitary, scattered mature adults at 100-150 insects/ha in River Nile and Kassala States. Vegetation was drying to dry and soil was dry in most places except in irrigated areas and in North Kordofan where light rain fell on October 16th. No locusts were detected in Ethiopia or Somalia, Yemen or Saudi Arabia during this period. Small-scale locust activities are probably underway in Yemen but surveys are undermined by the ongoing security problem (DLCO-EA, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

Forecast: Low numbers of adults will move from the summer breeding areas in Sudan, Saudi Arabia, Yemen and perhaps Eritrea to the winter breeding areas along the Red Sea coasts and begin breeding with the onset of the winter rains. Vigilance should be maintained to prevent unexpected developments (AELGA, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

SGR - Eastern Outbreak Region: The SRG situation remained relatively calm in October in the summer breeding areas along the Indo-Pakistan borders largely due to early termination of the Monsoon rains. Only scattered adults and small-scale breeding were reported in coastal areas west of Karachi in Pakistan (DPPQS/India, FAO-DLIS).

Forecast: As floods continue receding and conditions become favorable in Tharparkar in southeast Pakistan where massive rains and flooding occurred in August and September, winter breeding will likely commence. Vigilance and timely interventions are crucial to avoid any invasions and outbreaks (DPPQS/India, FAO-DLIS).

Red (Nomadic) Locust (NSE): NSE situation remained relatively calm during October although medium-density residual adult populations may have persisted in Ikuu-Katavi, Malagarasi Basin and Wembere plains of Tanzania. Low to medium density adult populations persisted in other outbreak areas in Lake Chilwa/Lake Chiuta plains in Malawi and Mozambique, as well as in Buzi-Gorongosa and Dimba plains of Mozambique and Kafue Flats of Zambia in October (IRLCO-CSA).

Forecast: The first rains which fell during October in outbreak areas in Tanzania, Malawi and Mozambique may have triggered mating and egg-laying. Hoppers will likely begin appearing from December on as most NSE outbreak regions will have received adequate rainfall in November. Hopper band outbreaks are expected during the forecast period in Ikuu-Katavi, Malagarasi Basin, Wembere plains in Tanzania where medium to high density residual populations were present. A similar situation is likely in Buzi-Gorongosa and Dimba plains of Mozambique and in

the Kafue Flats of Zambia and Lake Chilwa/Lake Chiuta plains in Malawi. IRLCO-CSA will be undertaking surveys in Tanzania, Malawi and Zambia to identify potential areas for hopper band infestations (IRLCO-CSA).

Madagascar Migratory Locust (LMC): No update was received at the time this report was compiled. However, given that a wave of hatchings and hoppers and bands were detected during the second dekad of September in the center and north of Horombe, locust populations in the transient gregarization zone, in Ranotsara, Zomandao, in the Horombe plateau and Ranohira in the southwest of Jangany, the solitaro-transient adults in Analamary, hatching that began in September in Betroka in Isoanala, a swarm that was sighted in the Manambien circle in Babaria in the first week of September, and an immature adult swarm discovered in Belomotra and Andranovory plateau, it is likely that locusts continued developing during October in these regions and elsewhere in the country.



(A locust swarm seen in the Belomotra Andranovory plateaux, 13 September, 2011, Photo – FAO)

Forecast: Considering the normal to above normal rainfall predicted from October through December which will likely extend into January to March, breeding and hatching are expected to continue in several places in the primary breeding and invasion areas during the forecast period. Timely field assessments and reporting as well as preventive interventions are essential to avert any unexpected surprises. If so, rapid interventions will be required to prepare for such scenario (AELGA, FAO-CNA).

Moroccan (DMA), Italian (CIT) and Migratory (LMI): No update was received from CAC at the time this report was compiled. On September 9, AELGA Senior Technical Advisor observed mixed populations of immature and mature adults and various stages of hoppers in the vicinity of an old Albania city archeological site southeast of Gabala in northeastern Azerbaijan. A couple of solitary adult locusts that resembled *Acrida oxycephala* were also detected at the site during that time. The acridids were seen in grasses but not posing any threats to crops.



(Locust prone CAC countries, FAO)

Australian Plague Locust (APL): The spring hoppers have all emerged in South Australia and the New South Wales Riverina by late October, but hatchings in southern Victoria will extend into November. High density hoppers and a number of bands developed in several locations in South Australia during October. Several bands also developed in part of the south-eastern Riverina in mid-October. Small hatchings were reported in Victoria and more hoppers will likely become more visible. Hopper populations are much smaller this spring than last year and significant swarm infestations are unlikely in any region.

Forecast: Localized high density hoppers and band activities will likely continue in parts of South Australia in early November giving rise to adult populations. Fledging will occur in the Corowa-Jerilderie area of

the Riverina in mid-November, resulting in a local increase in adult populations. Swarms will likely form in some areas. Localized hopper developments and fledglings are likely in Victoria during November with most hatchings expected in the Grampians district. Rainfall in November could trigger summer breeding in some locations (APLC).



(Australian plague locust, source: APLC)

Timor and South Pacific: No update was received in October in Timor and South Pacific.

Armyworm (AAW): AAW outbreak was reported in Sumbawanga district of Rukwa region of Tanzania. The pest was seen attacking cereal crops on some 35 ha. There were no reports of AAW outbreaks from other IRLCO-CSA or DLCO-EA member-countries during this period (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW will likely continue further developing in Tanzania and by the end of November and into early December, most IRLCO-CSA countries will likely experience some level of AAW activities. Pheromone and Ph-traps have been distributed to IRLCO-CSA member-states to monitor moth occurrences and forecast potential outbreaks. AAW trap operators are advised and encouraged to regularly monitor their traps and report moth catches. Plant protection units are advised to use pheromone trap data for short and medium-term forecasting of armyworm outbreaks. Community forecasters are encouraged to participate in monitoring and forecasting as available AAW (AELGA, DLCO-EA, IRLCO-CSA).

Quelea (QQU): Low to high density populations and roosts of QQU birds were detected in Southern Peoples, Oromiya, Amhara, Somali and Harari Regions of Ethiopia. The birds were posing a threat to a near maturing sorghum field although most of the fields are still at an early stage and have yet to become vulnerable to QQU attacks. Control operations treated 350 ha of roosts and colonies from 15-27 October. A DLCO-EA spray Aircraft controlled four QQU roosts on 70 ha on sugarcane field in Kilimanjaro region. The birds were attacking irrigated rice in Moshi District. QQU birds were also reported attacking irrigated rice in Nyanza province in Kenya where aerial control was carried out using a DLCO-EA spray aircraft. Four additional roosts were also detected in Ahero area in Nyanza province where rainfall hampered control operations.



(A QQU bird colony roosting on acacia)

QQU birds were reported threatening irrigated wheat crops on 1,405 ha in Mashonaland West and Mashonaland Central provinces of Zimbabwe. Ground control was launched against the birds (DLCO-EA, IRLCO-CSA).

Forecast: QQU birds will continue being a threat to sorghum and other small-grain crops in Ethiopia and irrigated cereal crops in Kenya and Zimbabwe until harvesting will be completed (DLCO-EA, IRLOC-CSA).

Facts: QQU birds can travel ~100 km/day looking for food. An adult QQU bird can consume 3-5 g of grain and perhaps destroy the same amount each day. A colony composed of a million birds (very common) is capable of consuming and destroying 7-10 tons of seeds/day (enough to feed 15,000-20,000 people for a day).

Rodents: No rodent outbreak or infestation was reported during this month, but the pest remains a constant threat to both pre- and post-harvest crops and produces in many countries around the globe.

Several raptor birds, such as barn owl, Tyto Alba and other animals are known nature's biological control agents that contribute to maintaining the balance between outbreaks and a period of lull.

Front-line countries where ETOP outbreaks first occur are advised to remain vigilant. Countries in the invasion zones should maintain the capacity to monitor and avoid any unexpected surprises. DLCO-EA, IRLCO-CSA, national PPDs, CNLAs, DPVs, ELOs, and others are encouraged to continue sharing information with partners and other stakeholders as often as possible. Lead farmers, community forecasters, etc., should be encouraged to be on the look out and report any ETOP sightings to field agents and other contact persons.

Inventories of Acridid Pesticide Stocks

With the exception of 1,260 ha sprayed in Mali and Mauritania combined, and QQU operations in Ethiopia, Kenya and Zimbabwe, no pesticide use was reported during this month.

Mindful of the fact that pesticides become obsolete once past their shelf-lives, ETOP-prone countries, particularly those with large stocks, but are less likely to use them within a reasonable time, are encouraged to test their inventories regularly and determine whether they should use, retain, share or discard them

immediately. All options should be explored to avoid severe human health impacts as well as huge environmental and financial burdens associated with handling and disposing of large stocks of obsolete pesticides.

A judiciously executed triangulation of stocks from countries with large inventory to where the need exists is a double-edged alternative that is worth considering.

Note: The core message of **pesticide stewardship [networking] Program** is to strengthen the national and regional pesticide delivery systems by linking partners at different levels and thereby reduce pesticide related health risks, avoid environmental pollution and improve food security as well as ultimately contribute to the national economy. **End note.**

Estimated (acridid) pesticide inventories

Country	Quantities in '000l/kg ^{\$}
Algeria	1,800~
Chad	108.09~
Eritrea	43.9~
Egypt	Data not available
Ethiopia	2.5+~
Libya	Data not available
Madagascar	1.6c + 0.00g + 1.1b
Mali	208.8d~
Mauritania	435.3~
Morocco	4,100~
Niger	28.24+
Senegal	156~~
Saudi Arabia	Date not available
Sudan	860"
Tunisia	167.6~
Yemen	33.00 + .527 kg GM

These quantities include ULV, EC and dust formulations
 ~ data not necessarily current
 ~~ as of September 28, 2011
 l = Mali donated 21,000 l for RL in Malawi, Mozambique and Tanzania late last year and

FAO facilitated the triangulation + quantity reported in Agadez @ left-over stocks of Chlopyrifos from the 2003-5 DL campaign was tested for quality and found to be usable through 2012 This includes EC, ULV and Dust for all crop protection uses
 GM = GreenMuscle
 b = biopesticide (Madagascar)
 c = conventional pesticides (Madagascar)
 g = insect growth regulator (Madagascar)

LIST OF ACRONYMS

AAW	African armyworm (<i>Spodoptera exempta</i> - SEX)
AELGA	Assistance for Emergency Locust Grasshopper Abatement
AME	<i>Anacridium melanorhodon</i>
APL	Australian Plague Locust
APLC	Australian Plague Locust Commission
CAC	Central Asia and the Caucasus
CERF	Central Emergency Response Fund
CIT	<i>Calliptamus italicus</i>
CLCPRO	Commission de Lutte Contre le Criquet Pélerin dans la Région Occidentale (Commission for the Desert Locust Control in the Western Region)
CNLA/CNLAA	Centre National de Lutte Antiacridienne (National Locust Control Center)
CRC	Commission for Controlling Desert Locust in the Central Region
CTE	<i>Chortoicetes terminifera</i>
DDLC	Department of Desert Locust Control
DL	Desert Locust
DLCO-EA	Desert Locust Control Organization for Eastern Africa
DMA	<i>Dociostaurus maroccanus</i>
DPPQS	Department of Plant Protection and Quarantine Services

DPV	Département Protection des Végétaux (Department of Plant Protection)	PPSD	Plant Protection Services Division/Department
ELO	EMPRES Liaison Officers	PRRSN	Pesticide Risk Reduction through Stewardship Network
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases	QQU	Quelea quelea
ETOP	Emergency Transboundary Outbreak Pest	SARCOF	Southern Africa Region Climate Outlook Forum
GM	Green Muscle (a fungal-based biopesticide)	SGR	Schistoseca gregaria
ha	hectare (= 10,000 sq. meters, about 2.471 acres)	SWAC	South West Asia DL Commission
IRIN	Integrated Regional Information Networks	TAG	Technical Assistance Group
IRLCO-CSA	International Red Locust Control Organization for Central and Southern Africa	USAID	Unites States Agency for International Development
ITCZ	Inter-Tropical Convergence Zone	UN	the United Nations
ITF	Inter-Tropical Convergence Front = ITCZ)	ZEL	Zonocerus elegans, elegant grasshopper
FAO-DLIS	Food and Agriculture Organizations' Desert Locust Information Service		
Kg	Kilogram (~2.2 pound)		
L	Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)		
LMC	Locusta migratoriacapito		
LMM	Locusta migratoria migratorioides (African Migratory Locust)		
LPA	Locustana pardalina		
MoAFSC	Ministry of Agriculture, Food Security and Cooperatives		
MoARD	Ministry of Agriculture and Rural Development		
NOAA	National Oceanic and Aeronautic Administration		
NSE	Nomadacris septemfasciata		
OFDA	Office of U.S. Foreign Disaster Assistance		
PHD/S	Plant Health Directorate/ Services		
PPD	Plant Protection Department		

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To learn more about our activities and programs, please, visit our website at:

http://www.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/locust/