

# SUPPORTING THE MANAGEMENT OF FALL ARMYWORM IN AFRICA AND ASIA: BEST PRACTICES AND LESSONS LEARNED

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## CHAT TRANSCRIPT

**JUNE 18, 2020**

### PRESENTERS

*Robert Bertram, USAID Bureau for Resilience and Food Security*

*Joe Huesing, Huesing Agricultural and Educational Consulting LLC*

*Sarah Page, Catholic Relief Services*

*Paul Jepson, Oregon State University*

*Dan McGrath, Oregon State University*

*Boddupalli Maruthi Prasanna, The International Maize and Wheat Improvement Center*

### MODERATOR

*Zachary Baquet, USAID Bureau for Resilience and Food Security*

Ashfaque Ahmed: HI Ashfaque Ahmed from CAB International here

Justice Frimpong : Hello

Venkatesh N: Hi Venkatesh from Linda

Venkatesh N: India

Ashfaque Ahmed: Ashfaque Ahmed from Pakistan

NOLAND NASOL: D

Justice Frimpong : Hello from Ghana

Adam Ahmed: Hi Justice!

Zachary Baquet (USAID/RFS): Greetings All! Thank you for joining! Zachary Baquet in DC with USAID Bureau for Resilience and Food Security.

Ramesh Babu Sakthivel: Hello to everyone

SREENIVAS ADDONI GINNU: Dr. A.G.Sreenivas from India

SREENIVAS ADDONI GINNU: Good evening to all

Stephen Arthur: hello! i am Stephen Arthur from Ghana

Jagdish Jaba: Jagdish Jaba ICRISAT India

NOLAND NASOL: Davao City, Philippines

Mary Asante 2: hello Am Mary Asante from Ghana

Sanjeet Kumar: Hi from Taiwan!

JENAUH JOB JAMILI: I'm from Bacolod City, Philippines

Rodeyns Nicolai: Prepresenting Naseco (1996) Ltd, A leading maize seedcompany based in Uganda

Jennifer harte: Hi Zack~~~ nice to see your name! Jennifer Harte here.

JEBAMONI RABINDRA: Hi Rabindra from India

Nawab Ali: Hi Everyone, Nawab Ali form India

Byomkesh Talukder: Hi Everyone

Zachary Baquet (USAID/RFS): Hi Jennifer! How are you?

John Dave Abella: Hello! I am JD Abella from the University of the Philippines.

Peter LUNGU: Hello everyone. I am Peter Lungu from Malawi

Oluwaseun Omikunle: Good evening Everyone. Am Dr. Omikunle, Plant breeder/Agronomist from Nigeria

Jennifer harte: I'm wonderful, irrespective of the complexity of this era.

Zachary Baquet (USAID/RFS): Welcome Rabindra and Nawab Ali! Thank you for joining us today

Joshua Masinde: Hi. Joshua Masinde from Kenya.

Nordia Cunningham: Hello everyone. Nordia Cunningham from Jamaica.

Ivan Rwomushana: Joining in from CABI Africa, Nairobi, Kenya

Monique Charron: Monique Charron from Vets without Borders Canada

Joseph Bangnikon 2: Joseph Bangnikon, PCI/USA

Suresh L.M: Hi Everyone, Suresh,L.M. from Kenya

Melvin Ebuenga: Hello everyone, I'm from the National Crop Protection Center, UPLB, Philippines

Geoffrey Nyapom: Geoffrey Nyapom from Kenya

Zachary Baquet (USAID/RFS): Good day to you Joshua, Nordia, and Ivan! Glad you could join us today

Jennifer harte: Zack, thank you for this lessons learned opportunity~~~ looking forward.

Pauline Simmons: Hello everyone. Pauline simmons, USDA, Foreign Agricultural Service

Barbara Caoili: Hi. I'm from the College of Agriculture and Food Science, University of the Philippines Los Banos

MD. SHAHADATH HOSSAIN: Assalamu alaikum everybody! This is Dr. Shahadath from Bangladesh

RABIU ADAMU: Rabi Adamu , Hi to everyone joining from IAR,ABU Zaria Nigeria

Bame Segaiso: Hi! Bame from Botswana.

Mark Tokula: Hi Everone. Mark Tokula Umudike Seeds Nigeria

Zachary Baquet (USAID/RFS): @Jennifer We are glad to provide these opportunities to share our learning and learn from others.

Yubak GC: Hi, every one, Good evening. I am Yubak from FAO, Bangkok!

Zachary Baquet (USAID/RFS): Welcome Yubak! Thanks you for joining!

Mawufe AGBODZAVU: Hi, from IITA, DRC

Ramesh Babu Sakthivel: Good evening Dr Prasanna Sir

Akila Hadji: Hi everyone. I am from Department of Agriculture Sri Lanka

Prasanna Boddupalli: Hi Yubak, good to have you! Welcome!

John Dave Abella: Hello! I am JD Abella from the Institute of Weed Science, Entomology, and Plant Pathology, University of the Philippines Los Banos.

Zachary Baquet (USAID/RFS): Hi Mark, Bame, and Barbara! Good to have you here today!

Jonathan Schofield: Greetings from Catholic Relief Services, Baltimore

Aashif Iqbal Khan: Hello to everyone, Aashif Iqbal Khan, CIMMYT-Nepal

Veronique Praz: Hello from DRC M FAW project, Veronique Praz, COP

Veronique Praz: Hello Dan, Nice to know you will be one of the speakers!

precious mpofu: Hello to everyone, Precious Mpofu from Botswana

Daudi Daudi: Hello. Daudi from Tanzania

Juma Mwinyimkuu: Hi, from Ministry of agric, Arusha Tanzania

Bosibori Bett: Hello everyone....! I am Bosibori Bett from Plant Health Australia.

Tej Thapa: Greetings from Kathmandu, Nepal

Obert Maminimini: Good afternoon/morning, depending on location. Will you share the presentations with participants?

Zachary Baquet (USAID/RFS): Welcome Jonathan, Aashif, Veronique, and Precious! Glad you have joined us today!

Peter Chinwada 2: Hello everyone. I am Peter Chinwada, IITA, Zambia.

Benoit Gnonlonfin: Hello everyone, this is Benoit

Paul Wagstaff: Paul Wagstaff from SHA, based in Ireland

Adefunke Adewole: Hello. This is Adefunke from One Acre Fund Nigeria

Jennifer harte: @Rob, loved the glimpse of your friendly face!

Dan McGrath: Peter Chinwada good day sir

Obert Maminimini: Hello to you all. I am Obert Maminimini, FAO Zimbabwe.

Zachary Baquet (USAID/RFS): @Obert, yes we will share the slides. We will also share the recording after the event.

Regina Eddy: Peter, great to hear from you! Also great to see so many of our partners.

Veronique Praz: Thank you Zachary! The entire DRC M-FAW Technical Team will attend

Dan McGrath: good to see familiar names no?

Zia Ahmed: Hi This is Zia Ahmed from Vienna, VA

Getinet Ameha: Getinet from Ethiopia

Bame Segaiso: Happy to be here Zachary Baquet!

Dr. Derian ECHEVERRI-MOLINA (Ph.D.): Dr. Derian ECHEVERRI-MOLINA (Ph.D.) from South Africa.  
Greetings to you all. Regards

Zachary Baquet (USAID/RFS): @Veronique, good to know! That is great to hear!



Regina Eddy: Jennifer and Benoit, great to have you join us!!

Essoh Atchori Marc Alex: Hi, I am ESSOH from Ivory Coast. Happy to be here

Abraham Hillowitz: Les Hillowitz CropLife, great seeing so many familiar names

Sagar Kafle 2: Hi everyone ! Greetings from Nepal. I am working for CIMMYT Nepal in the CSISA project.

Justice Frimpong : Hello everyone again, Justice Frimpong from Ghana . Biotechnology and Nuclear Agriculture Research Institute

Ferlavec Apacionado: Hello , Dr. Caoili

P.H. Zaidi: Hi, Its Zaidi from CIMMYT, India

Wen-Po Chuang: Hi, this is Wen-Po from Taiwan.

Juan Luis Jurat Fuentes: Juan Luis Jurat-Fuentes from the University of Tennessee here. Good morning/afternoon/evening to all

JEBAMONI RABINDRA: Hi Prasanna nice to know you are in this webinar

Benoit Gnonlonfin: Benoit is joining from Nairobi, Kenya

David Hughes: Hello I am Edward Amoah from PlantVillage, Penn State

Mainassara Zaman-Allah : Hello, joining from Zimbabwe

Rita Mumm: Hello to All! Rita Mumm joining from Urbana, Illinois in the USA

Ariel Borerros: hello everyone..

Wu Li-Hsin: Hello, greeting from Taiwan

Zachary Baquet (USAID/RFS): Welcome Zia, Essoh, Abraham, and Sagar! Thanks for joining us today!

Paul Williams: Paul Williams, USDA, Mississippi State

Robin Shuffett: Hello from Oklahoma State University and Field of Hope

Thokozile Ndhlela: Hallo everyone Its Thokozile Ndhlela from CIMMYT Harare Zimbabwe

Stephen Arthur: hi,! i am stephen Arthur from Crops research Institute, Ghana

Heather Pitcher: Heather Pitcher, AA International

Malvika Chaudhary: Hello everyone . Malvika Chaudhary from CABI

Ferlavec Apacionado: hello everybody. I am from the Bureau of Plant Industry Philippines

Vijay Cuddeford: Good morning. This is Vijay Cuddeford from Farm Radio International, in Canada.

Austen Moore: Hello everyone. Austen Moore from CRS in Baltimore.

Ariel Boreros: hello everyone, from philippines

Sabnam Shivakoti: hi this is sabnam from nepal

Jennifer harte: Big smiles to you Regina!!! You know how I run into this issue in the field, best to update!!! Thank you all for this opportunity

Regina Eddy: There are so many technical experts who have joined. We are fortunate. I look forward to an interesting discussion

Dan McGrath: Stephan, what part of ghana?

Dan McGrath: Hey Austen

Heinz Peters: Heinz Peters from WHH

Munyaradzi Jonga: Hello everyone, I am Munya Jonga from AATF in Nairobi

Stephen Arthur: Kumasi @ Dan

Regina Eddy: Malvika, how are you? It's been too long!

Oluwatoyin Joseph: Hello this is Oluwatoyin Joseph from Beau Rae Farm Resources, Nigeria

Dan McGrath: the great market city

Swapn Ghosh: Dr. S.K.Ghosh from Multiplex Biotech , Bangalore . Hi everyone ..a nice platform ..

Malvika Chaudhary: Hi Regina...so good to be in touch wiht you once again

Stephen Arthur: yeah

Meredith Perry: Meredith Perry from USAID's Lab

David Mowbray: David Mowbray, Farm Radio International. Hi everyone

Sabnam Shivakoti: how do iknow if my mike n video is of

Dan McGrath: hey Malvika, good to "be" with you

Rachel Vatelina: Greeting everyone from We-Empower, Boston

Malvika Chaudhary: Hi Dan... same here :)

Ramesh Babu Sakthivel: Hello

Sabnam Shivakoti: off...am using this for the first time

Paul Jepson: Paul Jepson (presenter) - I'm on the Pacific coast in Oregon

Robin Shuffett: Zachary, I can't hear you

Patricia Neenan: hello, this is Patricia Neenan from CABI

Monday Ahonsi: Hi, joining from Indiana, USA

Robin Shuffett: Disregard

LALIT SAH: Hi all, Its mee LALIT from Nepal

Shachi Gurumayum: Greetings all, Shachi Gurumayum from AgBiTech here!

Malvika Chaudhary: Hi Patricia !

Yubak GC: Hi, Sabnam ji, Sagar, Malvika ji

Bill Thomas: Good Morning! Bill Thomas, RFS BEO and Entomologist by Trade.

Malvika Chaudhary: Hello Yubakji

Matt Curtis: Hello from Myanmar!

Alan Isaac: Hello- joining from USA

Malvika Chaudhary: Hey Shachi!! how are you

Dan McGrath: hey alan

Ravindra Joshi: Joining from the Philippines.

James Buchanan: Hello, James Buchanan from FAS in Washington

Monday Ahonsi: Hi Dan

John O'Connell: Hello from Venture37!

Malvika Chaudhary: Hello Matt how are you

Macsamuel Ugbaa: Hi I am Macsamuel from Nigeria. I am glad to be here

Diba Wako: Diba from Kenya working for USAID Somalia

Alan Isaac: Hi Dan... looking forward... DRC team is joining also

Sushant Raj Sharma 2: Hi everyone. Good evening from CIMMYT-Nepal, Dang

Abu Yarmah: Hi. I am Claude Nankam from Food For The Hungry, Washington DC

Romalene Limpiada: Hi everyone. Roma from Philippines

Bill Thomas: Greetings Lalit!!

FRANCIS NANG'AYO: Hi everyone Francis Nang'ayo fromm AATF Nairobi

Dilli Sharma: Hello every one Good evening from Nepal

Kate Longley: Hello everyone - Kate from CRS, based in UK.

JENAUH JOB JAMILI: joining from Philippines for BUREAU OF PLANT INDUSTRY

Marc Gilkey: Marc Gilkey RFS

Peter Setimela: Hello from Harare

Adam Ahmed: Hi Kate!

Malvika Chaudhary: Hi Monday ., Sharmaji

Phaindra Pandey: Hi everyone

Maimom Soniya Devi: hi Soniya from India

Monday Ahonsi: Hi Malvika

Lewis Kamiri: Lewis Kamiri, Jambo

JEBAMONI RABINDRA: Hi Marc

Rangaswamy Muniappan: Muni Muniappan, IPM Innovation Lab

Pesach Lubinsky: Good day, everyone

Regina Eddy: Hi Monday! Hi John! Glad so many have logged in. We still have lots of work to do to manage this pest, in partnership with farmers

Dilli Sharma: Nice to see you very long time Mrs Malvika

Honest Machezano: Hi, everyone. My name Honest Machezano, Botswana International University of Science and Technology, Botswana.



Adelani Idowu : hello, joining from nigeria

Yubak GC: Dilli ji and colleagues, nice to seeing you and participating together

Monday Ahonsi: Hi Regina

Malvika Chaudhary: Greetings Dr. Muniappan

Amini Mataka: Hallo from CIMMYT Zimbabwe

Marc Gilkey: Hello Rabindra!

Lava Thapa: Hi all, I am lava from FTF Nepal seed and fertilizer project Nepal-IP is CIMMYT Nepal

Regina Eddy: Hi Pace! Glad you could join

Israel Ojile: Hi everyone, this is Israel Ojile from Nigeria

Dilli Sharma: Thank you Dr GC

Dan McGrath: hey muni good day

Md. Amirul Islam: Hi everyone. Joining from CIMMYT Bamgladesh

Fidy Randrianasolo: Hi All, Here is Fidy from Madagascar

Zachary Baquet (USAID/RFS): Welcome Lava, Amini! Thank you for joining!

Sushant Raj Sharma 2: Sushant Raj Sharma, CIMMYT-Nepal,

Dilli Sharma: sound is very poor and unclear

Monday Ahonsi: Hello everyone. Wow, glad to see many familiar names here joining the webinar

Peter Setimela: Hello, My name Peter Setimela CIMMYT, Zimbabwe

Boaz Mandula: Hello. Good afternoon from Lilongwe Malawi. My name is Boaz Mandula I work with CRS Malawi

Yeneneh Belayneh: Good to see you all

Archie Jarman: Hello all, Archie Jarman attending from UC Davis

Yubak GC: Hi, Dr. Muni

Komal Pradhan: Hi everyone, this is Komal Pradhan from Nepal..

Dan McGrath: hey monday welcome

Nonofo Gotcha: Hi everyone, Am Nonofo Gotcha, PhD student applied entomology in Botswana

Zachary Baquet (USAID/RFS): Hi Fidy and Archie!

Courtney Dehn-Gurbacki: Hello all-I work with a community Trust in North East Namibia, Agri Connexions Africa.

Regina Eddy: Fidy, great to see you! And, big shout out to CIMMYT Bangladesh who is on the cutting edge in managing this pest!

Subeksha Shrestha: Hello everyone, this is Subeksha Shrestha

Abdul Rehman: Hi All, I am Abdul Rehman from Pakistan working on FAW

Malvika Chaudhary: Hello Abdul

Regina Eddy: Hi Abdul, thanks for joining

Sylvester Oikeh: Hi, glad to see you all

Marjatta Eilitta: Hello, I am Marjatta Eilitta from the Southern Africa Farmer-to-Farmer program and from CNFA!

Patricia Neenan: Hi Malvika and Abdul

Stephen Torkpo: , Research Fellow, University of Ghana, Legon. I'm Stephen Torkpo

Abdoulaye Ndao: Hello everybody, I am Abdoulaye Ndao from Senegal

Abdu Beshir: Hi Regina, thanks for organizing this!

Yubak GC: Susant, Subeksha-glad to seeing you and participation

Abdul Rehman: Hi Malvika, Thank you

Monday Ahonsi: Hello Sylvester

Moffatt Ngugi: USAID/Liberia Ag officer

Eva Christensen: Greetings all! I'm Eva Christensen at USAID BHA

Fidy Randrianasolo: Hi Zachar, and Monday

Abdul Rehman: Dear Patrica, Thank you. Hope you are fine and Safe

Abdu Beshir: Hi to everyone Abdu from CIMMYT Nepal

Zachary Baquet (USAID/RFS): Hi Moffat! How are you?

Yubak GC: audio system is poor

Jyothilakshmi V: Hi Jyothilakshmi from Delhi

George Kegode: We Empower Inc.,

Yubak GC: Hi Abdu, hope all is well

Timothy Ajiboye: Hello Everyone; i am Timothy Oluwafemi Ajiboye from Nigeria

Ryan Roberge: Hello everyone, I am Ryan Roberge from NCBA CLUSA

Emmanuel Basam: Hello everyone. My name is Emmanuel Basam. I work with Heifer Project International in malawi, Zambia and Zimbabwe where our maize and sorghum farmers have suffered huge losses from FAW. Interested in learning what biological and or chemical control measures could be used.

Md. Amirul Islam: Sound is very poor

Moffatt Ngugi: Hi Zachary, doing well... so far :)

Akila Hadji: Hi Abdul

Moffatt Ngugi: Great to see everyone here

miruk aseffa: Hello all, my name is Miruk from Ethiopia. I work for Farm Radio International. We worked on the fall army worm prevention and control. We used radio as extension tool to inform smallholder on the identification and control measures of FAW.

Jennifer harte: Hi Moffatt, Jennifer Harte here. Many smiles

Abdu Beshir: Yes all is well Dr. Yubak GC

Chandra Prabhakar: Hi Everyone, I Am Chandra Prabhakar from Bihar Agricultural University Bihar. India

Frew Beriso: Hello Frew is my name from Canadian Foodgrans Bank.

Augustin Ngeleka: Hi everyone. I am Augustin Ngeleka from USAID DRC

Zachary Baquet (USAID/RFS): @Yubak please private chat Adam Ahmed about your audio issues

Hadjara Gouba: Hello everyone, I am Hadjara with the MOAP programme under GIZ.

Oliver Okumu : Hallo everyone, I am Oliver from Kenya.

Leif Davenport: yes

Dipak Kafle: Hi all, I am lava from FTF Nepal seed and fertilizer project Nepal- CIMMYT Nepal

Godfrey Sseruwu: Hi everyone this is Godfrey sseruwu from Uganda. I work for the National Agricultural research Organization(NARO)

Mary Asante 2: sure were are hearing you

Leif Davenport: Leif Davenport from Burundi- teleworking from US

Patricia Orlowitz: thanks for organizing this.

Jan Hendrik: Hi everyone I am Jan Hendrik Venter South Africa

miruk aseffa: Our radio program was funded by the FEED The FUTURE. It was a 20 weeks long radio series in four languages

Zachary Baquet (USAID/RFS): Thank you Everyone for joining us! We are glad you are here.

Anani Bruce: Hello evryone, Anani Bruce from CIMMYT kenya

Suby SB: Hi, am Suby, ICAR-Indian Institute of Maize Research

Samson Okumu: Hello. This is Samson Okumu, Kenya

Sarah Page: Hi Miruk, where are you working? I missed that

Hadjara Gouba: Joining f

Surya Bahadur Thapa: Surya Bahadur Thapa, CIMMYT-Nepal

Emmanuel Basam: As a kid, I witness FAW on our fields around the '80s

Ramesh Babu Sakthivel: Hi Suby from MPUAT Udaipur India

Comfort Freeman: Hello, I am Comfort Freeman. I am from Ghana and a Lecturer in the Department of Agricultural Extension. University of Ghana.

Samirah Faruk: Samirah Faruk, Kano Nigeria

Suby SB: Hi Dr.Ramesh!

Bosibori Bett 2: Nice to see you here Samson Okumu, and nice to see you Bruce Anani!

Lava Thapa 2: Yubak sir, Namaskar. great to meet you here in this webinar.

Kennedy Onchuru: Hi everyone in attendance. Ken Onchuru, Nairobi

Regina Eddy: Check out our FAW resource library of resources <https://www.agrilinks.org/post/feed-future-tools-combat-fall-armyworm-africa>

Emma Siamena: Emma Siamena USAID, Zimbabwe



Dan Makumbi: Hello Everyone. Dan Makumbi from CIMMYT, Nairobi, Kenya

Yubak GC: Thank you Lava ji, yes it is really exciting to meet here with such a wider audiences and colleagues

Maged Elkahky: Hello everyone, are we going to receive the recordings after the webinar?

Barbara Amoah: Hello everyone, I am Barbara Amoah, North Carolina A&T State University, USA.

Sarah Page: Hi Barbara, welcome

Adam Ahmed: Hi Maged, we will be sharing a recording of this webinar in about a week

Adelani Idowu : hi everyone I am Adelani Idowu from Nigeria a student in the department of crop and environmental protection in Nigeria university

Barbara Amoah: Thanks Sarah!

Dr. Usha: Dr. Usha, Assistant Professor (Entomology), College of Agriculture, Rani Lakshmi Bai Central Agricultural University, Jhansi, U.P., INDIA

Zachary Baquet (USAID/RFS): Great to have over 315 participants from across the globe joining us today! We appreciate having this opportunity to share lessons learned on FAW with you.

Regina Eddy: Welcome, Adelani!

Zachary Baquet (USAID/RFS): If you have questions, please enter them in the chatbox.

Stephen Torkpo: Stephen Torkpo, Research Fellow, University of Ghana, Legon

Dr. Derian ECHEVERRI-MOLINA (Ph.D.): Is there supposed to be a presentation while the speaker is talking?

Dipak Kafle: Dipak Kafle- CIMMYT Nepal

Ishrat Jahan: Hi evryone

Barbara Caoili: Thanks, we have started genetic structure studies in the Philippines

Regina Eddy: Stephen, great to have you. As a country, Ghana was the first to engage in FAW control

Martin Banda 2: Martin Banda, Malawi USAID Mission: Hi everyone

Paola Sotelo Cardona: Paola Sotelo-Cardona, World Vegetable Center, HQ Taiwan

Regina Eddy: Welcome, Martin

Eugene Ofori: hi everyone, i am Eugene Ofori, an agronomist from Ghana

Ulysses Duque: Ulysses Duque, from Department of Agriculture, Bureau of Plant Industry, Philippines

Uttam Bahadur Kunwar: Uttam Bahadur Kunwar-CIMMYT Nepal

Sunil Aryal: Thank you Zachary Bauquet for this wonderful semiinar

Hari Kumar Shrestha: Hi every one!

Lilian Richard: MS Lilian Richard, Agriucture Support .Officer at PCI Tanzania

Abdul Rehman: What about IPM of FAW on the maize grown as fodder crop

Regina Eddy: Hi Hari! Welcome!

Hari Kumar Shrestha: I am Hari Kumar Shrestha from CIMMYT Nepal

Washington Otieno: Are there commercialized biocontrol agents that are in wide use in the Americas?

Adelani Idowu : I am Adelani Idowu, an agronomist in the making

Zachary Baquet (USAID/RFS): @Dr. Derian ECHEVERRI-MOLINA, yes the presentation should appear in window to your left.

Exavery Kigosi: Hi Every One, From Tanzania

Janine Berger: Janine Berger, Environmental Compliance, Chemonics. Thrilled to join this event., thank you for hosting!

Albino Inacio 2: Hi every one

Zachary Baquet (USAID/RFS): Glad to hear it @sunil. Thank you!

Ariel Borerros: hi. ariel borerros from philipines, i hav some questions bother me, is telenumous remus is possible the biological control suppress the population of FAW..? and there is any reading materials available in the web..?

Dr. Derian ECHEVERRI-MOLINA (Ph.D.): @Zachary. I do not see anything

Shaun Ferris: Morning everyone!

Gabriel Eze: Great to be here.Gab

Sarah Page: Good morning, Shaun

Mary Asante 2: well done

Patricia Neenan: Hi Shaun

Margaret Mulaa: Margaret Mulaa: Hi every one

Kalu Arachchi Lakmal: hi

Regina Eddy: Ariel, if we do not have a chance to answer today, I will make sure we discuss further with you via email

Essoh Atchori Marc Alex: Thank you Joe !!!

Ravindra Joshi: what are the risk factors ???

Dr. Md. Salim Ullah Khan Eusufzai: Dr. Md. Salim Ullah Khan Eusufzai, Professor, IUBAT, Bangladesh

Bosibori Bett: Nice to see you here Washington Otieno and Margaret Mulaa!:)

Joyce Malinga: Hi all

Papias Binagwa: Hi everyone, Papias from Tanzania.

Macsamuel Ugbaa: are they any resistant varieties in the Americas

Bosibori Bett: Hi Joyce Malinga..!!

Peter LUNGU: How can we tell the number of FAW generations in a season?

Ram Bhakta Neupane : Hi every one I am Ram Bhakta Neupane From Nepal ,USAID/KISAN II project

George Phiri: Margaret Mulaa! Hello!

Shachi Gurumayum: Cartugen, a baculovirus-based control for FAW, is commercially used in Brazil.

Newton Ochanda: Helloo everyone. Hi Mulaa nict to see you here

Oliver Okumu : What is your take on the use of pheromones to manage Fall armyworm?

Robin Shuffett: Question: Are there any effective alternate host plants that can be planted alongside maize and used as a reservoir for FAW populations?

George Phiri: Hello Yubak!

Regina Eddy: Macsamuel - great question; Prasanna will address this topic shortly and share similar findings for resistant material in Africa

Melvin Ebuenga: other than emamectin benzoate, are there other insecticides effective vs. FAW?

Yubak GC: Hi, George Phiri, nice to seeing you

SREENIVAS ADDONI GINNU: How about use of Metarrhizium anisopliae for fall army worm

Paul Jepson: data from Africa suggest farmers are soending \$10-14 per Ha on inputs

John O'Connell: would be fantastic to get email addresses of all attendees; to support follow up communication and collaboration

Stephen Arthur: with IPM, will monitoring and control of weeds that act as secondary host to FAW be important ?

miruk aseffa: FRI radio program enhanced millions of farmers knowledge and practices on FAW life stage identification, scouting, and recommended control measures. Most farmers practiced hand picking of life stage of FAW

Ravindra Joshi: Do we have information on why FAW outbreaks/what triggers???

George Phiri: Nice to see you too Yubak.

Shachi Gurumayum: <https://agbitech.com.br/cartugen/>

Oluwaseun Omikunle: As far as Africa is concern, what are the best control measuree are you suggesting? is there any varieties that has proved superb in resisting the FAW

Baba Sani Wudil: Hello, B. S. Wudil Bayero University Kano, Nigeria

Eugene Ofori: are there also biopesticides for the control of FAW? cos in my country Ghana FAW has beome endemic and chemical control has not been successful

Zachary Baquet (USAID/RFS): Thank you for your questions! Keep them coming. Let us know if your question is directed to a given speaker.

Sipho Moyo: Hello. I have tried to control this worm but in vain

Oluwatoyin Joseph: How can the Botanical oils in the aspect of IPM be more promoted as it is banned in the UK and Canada because of the expensive nature of registering them as a pesticide?

Yubak GC: Ranges of bioagents are sporadically reported, an univocal and consolidated advice would be important

Shachi Gurumayum: Eugene, we are registering Fawligen in Ghana.

Paul Jepson: Maize is a favored host, and the reproductive rate and dispersal capacity of the insect, with good climate, underlie the capacity for outbreak

Oliver Okumu : When we consider the use of Push Pull technology what would be an alternative to using desmodium between rows

Bosibori Bett: Hi Yubak, good to see you here..!

Vijay Cuddeford: Will the hosts be sharing the chat feed after the event?

Regina Eddy: Ravindra, It is likely FAW traveled from the Americas via commerce. However, once here, it is endemic in large parts of Africa and Asia. Rain and other weather events may impact the prevalence from year to year, but it will persist as a pest

Adam Ahmed: Hi Vijay, we will be sharing it after the webinar



Suby SB: Happy to see Dan...remember your beautiful demo on Scouting at ICRISAT

Paul Jepson: selection of alternatives to Desmodium can be undertaken in experimental trials - so some delay, but it can be done

Yubak GC: Thank you Bosi, glad to seeing you

Eugene Ofori: Is Fawligen a biopesticide?

NOLAND NASOL: Joining from Bureau of Plant Industry, PLANT QUARANTINE SERVICE DAVAO CITY PHILIPPINES

Lori Rowley: Hello everyone. Lori Rowley with The Lugar Center in Washington, DC. We advocate for continued U.S. commitment to ag R&D funding to support U.S. and global agriculture. Here's one of our documents on the continued need for research to address pests and diseases - including Fall Army Worm.

<https://www.thelugarcenter.org/assets/htmldocuments/The%20Lugar%20Center%20Pests%20and%20Diseases%20final%201.24.pdf>

Shachi Gurumayum: @Eugene, <https://www.agbitech.com/us/home/products/fawligen.aspx>

Sushant Raj Sharma 2: Namsakar Dr. Yubak sir.

SREENIVAS ADDONI GINNU: Presently I am working on mating disruption technique with pheromone which worked effectively

OCTAVIO TORRES : Hello. Greetings from Barranquilla, Colombia

Yubak GC: Thank you Susant, Namaskar. Glad of seeing you

Ram Bhakta Neupane : is their any role of rainfall to controll FAW ?

Rob Bertram: Welcome everyone--great to have you all join us today!

Paul Jepson: mating disruption is only effective when unmated females are present - when mated females invade, the pheromone can not limit egg laying

Dennice Dela Cruz: frm the Dept of Agriculture Revional Crop Protection Center, Region 02, Philippines...Minda Flor Aquino

Bosibori Bett: Thanks Rob!

Justice Frimpong : currently looking into nitrogen fertilization on maize growth and development linked to fall army worm damage. Will this help the maize to recover from the attack?

Margaret Mulaa: Thanks George Phiri, Ochanda ba

Ishrat Jahan: IFDC worked on fall army warm under the FSI+ project in Myanmar

Hadjara Gouba: Hello everyone, I am Hadjara and I work with the MOAP under GIZ. Joining from Ghana

Margaret Mulaa: Thanks George Phiri, BosiBori,

George Phiri: Long time no see Margaret...am in Malawi and you?

Newton Ochanda: Thanks Mulaa

Joyce Malinga: Thanks Bosi

Rangaswamy Muniappan: Egg parasitoids *Telenomus remus* and *Trihogamma* species were found naturally occurring in Asia and Africa on fall army worm eggs giving over 70 to 80 % parasitism. There is opportunity to use them in augmentative biological control.

Margaret Mulaa: I am in Kitale Kindly send me your email we need to talk. Thanks

Bill Thomas: Is there an updated list of pesticides for use against the FAW?

Abass Iddrisu: Hello, I am Abass Iddrisu of Serendipalm Company Limited, Ghana. Here to learn and share the knowledge with my small holder farmers.

Newton Ochanda: nochanda@nascents.org

George Phiri: Been in Kitale for ever yeah! georgewaphiri6@gmail.com

MICHAEL OLSEN: Has FAW developed adaptation strategies (other than genetic resistance to BT or pesticides) the way corn root worm has (laying eggs in soybean fields for example)?

Neil Miller: Doesn't scouting at cob development stage contradicts FtF guidelines to not spray after flowering?

Paul Jepson: we have developed a revised list Bill, and hope to get that in the next manual - and we are finding ways to publish this

Suby SB: Pheromone trap monitoring can deceive farmer who plant first in an area, where the moths are expected to fly in

Robin Shuffett: Thank you Dan!

Sunil Aryal: Dan McGrath said the scouting on low and high pressure situation.. How do you be sure is it high or low pressure before survey

Charlotte Day: brilliant, thanks Dan

Yubak GC: Control measures along with assured monitoring system seems very encouraging however, it is always a challenging task to establish in case of small holder situation.

Honest Machekano: How will one access the IPM manual in Africa?

Paul Jepson: late season crop susceptibility is a problem and low risk pesticides may be needed but efficacy is very limited and many products will not be effective

Phil Steffen: Wonderful to see so many familiar names!

Jennifer harte: Hi Phil!!

Newton Ochanda: Hello Sylvester

Eva Christensen: Hi Phil!!

Emmanuel Basam: How can we effectively manage FAW biologically and culturally considering climate change variability?

Phil Steffen: Hi Jennifer, Eva and Moffat!

Paul Jepson: The Open Source article contains a FAW pesticide selection guide: Lancet Planetary Health - Pesticides Minimum List: [https://doi.org/10.1016/S2542-5196\(19\)30266-9](https://doi.org/10.1016/S2542-5196(19)30266-9)

Shachi Gurumayum: Yes, Dan, I remember, it was dramatic indeed!

Moffatt Ngugi: Hi Phil

Sylvester Oikeh: Newton, I am fine. Sylvester AATF Nairobi

Roger Day: FAW manual is here: [https://www.usaid.gov/sites/default/files/documents/1867/Fall-Armyworm-IPM-Guide-for-Africa-Jan\\_30-2018.pdf](https://www.usaid.gov/sites/default/files/documents/1867/Fall-Armyworm-IPM-Guide-for-Africa-Jan_30-2018.pdf)

John O'Connell: thanks for the link, Paul!

Paul Jepson: weather forecasts are very helpful - rain suppresses populations

Bosibori Bett: Hi Roger...! Thanks!

Newton Ochanda: Hello Moffat

Muhammad Amir Maqbool: Muhammad Amir Maqbool from Pakistan

Peter Chinwada 2: In Zambia, we have seen maize being infested by L2-L4 larvae at 1 day after emergence

Veronique Praz: Thank you Dan for this great presentation! When is the updated manual available? I asked our DRCM FAW Team to summarise the Guide (130 pages) and make recommendations/suggestions for the project

SREENIVAS ADDONI GINNU: Paul Jepson: I agree with you. I used wax based pheromone formulation called SPLAT soon after germination of crop followed by 30-35 days after it controlled the pest very effectively.

Paul Jepson: The manual is out of date now, but a new table is imminent to help with selection

Moffatt Ngugi: Good to see you here Newton!

Titus Doffo: Can't hear perfectly!

Monday Ahonsi: Hi Prasanna

Paul Jepson: we do not have a good handle on late season efficacy

Honest Machekano: Are there any forecast early warning systems or predictive models readily available for use by farmers or other agric practitioners?

Margaret Mulaa: Hi Roger Hi Chinwada Hi Jepson

Paul Jepson: Hi Margaret

George Phiri: Can Dan comment on the plant responses to heavy FAW infestation? I have seen lots of multiple and stunted cobbing in some varieties in Malawi.

Peter Chinwada 2: Hi Margaret.

miruk aseffa: FRI radio program on FAW reached 1,630,574 actual listeners

Newton Ochanda: Thanks Moffat

Zachary Baquet (USAID/RFS): Thank you for all of your questions! Thank you also for sharing your knowledge with us.

Dan McGrath: hi margaret, we met in entebe in 2017

yu bing Huang: Nice good on line Seminar

Barbara Caoili: Thanks for the informative presentation Dr. McGrath

Margaret Mulaa: Hi Monday please share your email

Yospeh Beyene: Hi Monday

Phaindra Pandey: Hi Dan Nice to hear your presentation

Monday Ahonsi: Hey Margaret, how are you? My email is moahonsi@gmail.com

Honest Machekano: Hi Dr. Chinwada

miruk aseffa: The FEED The FUTURE funded FRI radio program in Ethiopia helped smallholder farmers to mitigate potential crop loss. The average maize farm size damaged by FAW was 0.19 ha for listeners and 0.28 ha for non-listeners. Based on the results of Propensity Score Matching (PSM), the radioprogram listeners were able to mitigate FAW damage by 31.1%.

Yubak GC: Comprehensive presentation Dan

Monday Ahonsi: Hi Yospeh and Peter

Peter Chinwada 2: Hello Honest. Good to connect

Peter Chinwada 2: Hi Monday.



Paul Jepson: HelloPeter

Macsamuel Ugbaa: Are the CLMs available in Nigeria??

Peter Chinwada 2: Good to have you on this Webinar Paul

Nonofo Gotcha: hi Precious

Obert Maminimini: Dan, has there been any work to establish how maize fertilized with organic fertilizer compares with that fertilized with mineral fertilizer in how they withstand FAW damage?

David Mowbray: Hi Miruk. This is really good information

Benoit Gnonlonfin: Kindly share the slides with me just after the session

Philip Abrahams: To Honest Machekano, CABI runs a programme (PRISE.org) which is testing 7-10day forecasts for 'peak-kill' suggested intervention dates for outbreaks in Kenya, Ghana, Zambia, Malawi. Satelligence is testing another approach in Ghana

Munnesh Kumar 2: Hello sir I am Munnesh Kumar from BHU INDIA

Zachary Baquet (USAID/RFS): @Benoit we will send out slides to everone who registered for the event

Monday Ahonsi: Hi Benoit

Paul Jepson: organic fertilizers have been shown to extend the life cycle of pests, and they are more "available" to natural enemies compared with inorganic fertilizers - work from Imperial College Center for Population Biology, and high integrity

Zachary Baquet (USAID/RFS): We will also have the slides, the recording, and transcripts available on Agrilinks on the event page.

Barbara Caoili: Thanks Dr, Baquet

Sarah Page: Hi Paul, what do you mean by "more available?"

Swapan Ghosh: is there any studies carried out on the impact

Honest Machekano: Thanks @Philip Abrahams, it will be great if these results will be shared.

Ulysses Duque: thanks

Zachary Baquet (USAID/RFS): If you have questions for Dr. Boddupalli please let us know.

Paul Jepson: Longer time in development increases the chance of lethal encounters with parasitoids and predators

Sarah Page: ah got it; thanks

Abu Yarmah: ICIPE is promoting the Push Pull technology to control FAW. How do you compare that approach to GAP?

Ulysses Duque: Are the varieties developed can be deployed to the Philippines through the Department of Agriculture?

Paul Jepson: aphids show the opposite respinse, and tend to reproduce more rapidly under organic fertilization, making predation a greater challenge

Regina Eddy: to access the USAID-CIMMYT FAW IPM goal click here:  
[https://www.usaid.gov/sites/default/files/documents/1867/Fall-Armyworm-IPM-Guide-for-Africa-Jan\\_30-2018.pdf](https://www.usaid.gov/sites/default/files/documents/1867/Fall-Armyworm-IPM-Guide-for-Africa-Jan_30-2018.pdf)

Mark Kamiya: is there any reseach on reducing monocropping in reducing impacts?

Robin Shuffett: Thank you Regina!

Abdul Rehman: Bt maize in Pakistan is not approved for distribution. May be for initial trials

Pierre Silvie: Could we get the different costs of the different technologies linked to HPR ? For smallholders, Thanks

JEBAMONI RABINDRA: possibility of FAW developing resistance to Bt maize/

Ivan Rwomushana: Is CIMMYT planning to integrate MLN resistant traits and FAW resistant traits in the same materials?

Barbara Caoili: Are there available insect resistance management protocol for the use of Bt corn aagainst FAW?

Bosibori Bett: Prasanna: Do you have a publication of this work you could share with us?

Bosibori Bett: Thanks.

Monday Ahonsi: Hi Ivan

Yubak GC: Excellent sharing of the information with th rich experiences of Dr. Prasanna. Promoting Bt maize in smallholders needs much efforts

Sylvester Oikeh: very good conclusion Prasanna

Hari Kumar Shrestha 2: GM is not allowed in Nepal. Therefore, we cannot think of using it in Nepal.

Amini Mataka: Hi Dr. Prasanna, Nice to hear your very insightful presentation

Barbara Caoili: Thanks oor sharing Dr. Prasaana

johannournil: Hello from France

Joe Huesing: For all technology options ask: cost, efficacy, safety, scalability and sustainability. Many approaches may work but could be too expensive or sustainable.

Benoit Gnonlonfin: Question to Prasana- What is the chance of success of the Bt and GM maize given the gap of regulatory environment of many countries in Africa?

Peter Chinwada 2: Thanks Dr Prasanna for the presentation

Prasanna Boddupalli: Our work on native genetic resistance to FAW is not yet published. But the FAW IPM Manual has a comprehensive chapter on host plant resistance.

Yospeh Beyene: Excellent presentation, Prasanna

Dan McGrath: This is Dan, regarding the guidance on FAW action after tassel, it remains as follows:  
Highly toxic insecticide no protective equipment? No spray

Bosibori Bett: Thanks Prasanna.

Mary Asante 2: How do we get BT maize to the research institution (CRI) for further transfer to small holder farmers in Ghana because the aggregation of the fall army worm is huge

Dilli Sharma: Bt should be promoted in Nepal . Tomorrow we have to go Bt maize. It is urget to convince higher level politician about the important of Bt

Justice Frimpong : Wonderful presentation. Thanks

Honest Machekano: Hello Nonfofo, Bame & Precious

RABIU ADAMU: Hi ,M onday Ahonsi

Rita Mumm: Excellent presentation, Prasanna. Important conclusions. Thank you.

Shachi Gurumayum: @Peter Chinwada, we should talk again. ZARI has already completed Fawligen trials over two years and multiple locations, report also submitted to ZEMA.

REddy: Shachi, great to have you join!

Monday Ahonsi: Hi Rabi

Jagdish Jaba: nice presentation Dr Prasanna sir on the update on host plant resistance status

Suby SB: Thank You Dr.Prasanna, following your footsteps in HPR

Swapan Ghosh: a query to Dr. Paul..off late peptide based pesticides are getting popular against lepidopteran pests ...there are some commercial product too ..is there any studies carried out against FAW on the efficacy of these peptide based pesticides ?

miruk aseffa: FRI radio program informed smallholder farmers the value of timely planting and this contributed in FAW control

FRANCIS NANG'AYO: The regulatory terrain for GM crops is getting better with time. We now have Nigeria, Ethiopia, Sudan, Malawi as countries that have allowed environmental release for GM in addition to South Africa. Surely many more will join sooner or later

Dan McGrath: Cob damage does not always occur. If egg laying pressure is high at first tassel, and the weather is dry, risk of cob damage is high

Shachi Gurumayum: Thank you, Regina! Very much enjoying the presentations and discussions, very insightful!

Monday Ahonsi: Hello Jagdish, Suby

Bosibori Bett: I would say that deploying Bt material to African countries depends on the regulatory framework of individual countries, which align with national priorities.

Nonofo Gotcha: Hello @ Honest Machekano for the invite

miruk aseffa: The radio program promoted integrated pest management and farmers used a mix of recommended control measures

johann fournil: IPM flowable solutions do exist. We developed in Africa & Asia , pheromone mating disruption that works well for a competitive price

Suby SB: Big Hi Monday:)

Peter Chinwada 2: Dan, we have also observed high incidence of stem-tunneling by FAW under drought conditions

Sanjeet Kumar: Besides, corn and sorghum, what is the next most preferred crop of this polyphagous insect?

Sylvester Oikeh: Peter, the stem tunneling could be by stem borer and not FAW

Jagdish Jaba: after sorghum next preferred crop sugarcane also it's damaging on zinger

Bosibori Bett: Nice to see you here Francis Nang'ayo!

Dan McGrath: If one has access to Coragen (chlorantraniliprole), or Tracer (Spinosad) and one has personal protective equipment, it makes sense to save a crop based on cob scouting

Zia Ahmed: @Paul Jepson - we can hear youu, though. Thanks

Joe Huesing: Queries on use of Bt ma be maize can be directed to AATF or CIMMYT

Peter Chinwada 2: Stem-tunneling which I am talking about here is by FAW

Albino Inacio 2: in Mozambique some farmer uses Belt 48% SC

Prasanna Boddupalli: @Sanjeet, maize, sorghum and millets are mostly affected..

miruk aseffa: Fertilizer application and regular weeding was well promoted.

Neil Miller: Thanks Dan, very helpful

FRANCIS NANG'AYO: Thanks Bossie. I am an Entomologist you know!

Bosibori Bett: I agree with you Francis Nang'ayo!

Prasanna Boddupalli: Almost 80% damage is on maize crops, and 20% on other crops



Sanjeet Kumar: Thank you Prasanna Sir! Cheers!

Getinet Ameha: Developing countries are resistant to BT maize because they do not have good controlling mechanism if it goes beyond the control of the government. Besides they though they will be dependent on the supplying countries. So what is the mechanism to support them produce their own BT maize?

miruk aseffa: Majority of listeners found the information of the radio program relevant (93.9%), benefited from the experiences of other farmers presented on the program (90.4%), and believed the program had amplified the voices to farmers (92.9%).

Dan McGrath: FAW is highly attracted to Bermuda Grass (*Cynodon* sp)

Monday Ahonsi: New contact: moahonsi@gmail.com, please! Thanks

Rangaswamy Muniappan: USAID has PERSUAP for FAW which lists safe pesticides to be used

Abdu Beshir 2: Can rice be the next host to FAW? A concern for Asian farmers, in case the pest prefer this at any time in the future.

Bosibori Bett: Has anyone here observed heavy FAW infestation on Sugarcane and Wheat?

Margaret Mulaa: Good Presentation Paul. need more observations on impacts of pesticides on natural enemies

Bosibori Bett: @Abdu Beshir - FAW infestation on rice has been observed in Timor Leste

Mary Asante: What are the possible dangers combining pesticides with detergents such as powdered soaps

miruk aseffa: The large majority of both listeners (72.9%) and non-listeners (62.7%) knew that it is not recommended to apply insecticides after maize reaches knee height.

Ramesh Babu Sakthivel: @Bosibori FAW has been reported on sugarcane in India

Jagdish Jaba: bett@ reported on sugarcane in india

Mwewa Katongo: Paul, that was a great presentation thank you. Looking forward to receiving the links to those resources you highlighted.

Bosibori Bett: Great, thanks @Ramesh Babu. Would you have material to share on this?

Regina Eddy: Paul mentioned participatory research re:farmer needs in Malawi. He has produced an excellent report  
[https://www.agrilinks.org/sites/default/files/faw\\_malawi\\_ipm\\_strategy\\_072019\\_snglpg.pdf](https://www.agrilinks.org/sites/default/files/faw_malawi_ipm_strategy_072019_snglpg.pdf)

Marc Gilkey: yes, rice may not be a preferred host, but there are reports on rice.

Ramesh Babu Sakthivel: Dr Bosibori This is not my paper but I will send you through your e. mail. Please give me your mail ID.

Margaret Mulaa: Thanks Regina

Dan McGrath: Ravinda - Are you asking about risk factors, FAW impact on yield? Pest density, larval size, maize growth stage and weather

Mwewa Katongo: Thanks Regina

Sushant Raj Sharma 2: QRamesh babu gpsharma019@gmail.com

Bosibori Bett: @Ramesh Babu my email is: bosiboribett@gmail.com

Ramesh Babu Sakthivel: Thanks @Bosiberi

Bosibori Bett: :)

Paul Jepson: Please cut and paste these links and you can access the pesticide work and needs assessments: Murray, K., Jepson, P.C., Chaola, M. (2019) Fall Armyworm Management by Maize Smallholders in Malawi: An Integrated Pest Management Strategic Plan, CIMMYT:<https://repository.cimmyt.org/bitstream/handle/10883/20170/60695.pdf?sequence=1&isAllowed=y> The background to our work: Phil Trans R Soc - Food and Environmental Security: <http://rstb.royalsocietypublishing.org/content/369/1639.toc> Pesticide selection including a 650 pesticide guideline downloadable from inside the article: Lancet Planetary Health - Pesticides Minimum List: [https://doi.org/10.1016/S2542-5196\(19\)30266-9](https://doi.org/10.1016/S2542-5196(19)30266-9)

Robin Shuffett: Sarah are you able to provide a link to this case study?

Papias Binagwa: Hi, my email is hongera1984@yahoo.com

Rita Mumm: Question for Prasanna: With the release of FAW-tolerant lines later this year, will information on markers that can be used to track endogeneous genes also be given to facilitate tracking when lines are used as parents?

MICHAEL OLSEN: Is there a gender gap in access to cell phones / smart phones among farmers?

miruk aseffa: Radio is accessible in rural ethiopia. FRI FAW radio programing helped millions of smallholder farmers access information on FAW. The information was provided following agronomic calendar

Swapan Ghosh: @ ghoshswapan66@gmail.com

REddy: Michael, yes, there is significant research that confirms a digital divide based on gender

Dan McGrath: Abu - Intercropping and push pull clearly have a place in the suite of FAW management tactics. Push pull is particularly of interest to smallholders who also raise livestock. And, i have not seen evidence that push pull controls cob damage when egg laying pressure is high at first tassel

REddy: We need to work harder to identify dissemination pathways that reach female farmers

Monday Ahonsi: Hi Joe..

Prasanna Boddupalli: @Rita Mumm, we are still in the process of marker discovery. Only after validation, we will be able to share info on genomic regions for FAW resstance. This will take some time.

Ramesh Babu Sakthivel: Hi my e. mail ID babuento2018@gmail.com

Vijay Cuddeford: Hi Michael. In Farm Radio International's work throughout Sub-Saharan Africa, we have found consistently lower access to movile phones and radio sets among women.

MICHAEL OLSEN: Thanks @Reddy.

REddy: Robin, we will post the CRS Study Sarah has outlined on our Agrilinks page and share a link

Bosibori Bett: Were there challenges amongst farmers on access to ICT on their smartphones? In terms of network coverage and access to continuous data bundles on their mobile phones. If so, how did you overcome this?

Robin Shuffett: Thank you Reddy!

LALIT SAH: What will be FAW Maangement decision making tools for farmers in current lockdown situations due to global COVID-19 Pandemic

Robin Shuffett: And Reddy I agree on outreach to female farmers

Albino Inacio 2: Nice to meet you here Dan McGrath

Joe Huesing: Monday welcome

Dennice Dela Cruz: tnx.ms.sarah

MICHAEL OLSEN: Thanks @Vijay very useful to know.

Faith Bartz Tarr: Great presentations and discussion, and graceful handling of techical glitches. Thanks!

Robin Shuffett: Thank you Sarah! Field of Hope is a faith-based organization that works with farmers in Uganda, and we are currently utilizing the WEIA index to assess productivity and gender equality of women farmers

Vincent Ishola Esan: apart from the pesticides is there any other methods of controlling the insect

Wen-Po Chuang: I would like to know why FAW is mainly focusing on maize. Do we have similar tools for other crops?

Fidy Randrianasolo: Hi Joe! thanks for your presentation and good to meet you here

Oluwatoyin Joseph: what methods are being employed to increase the adoption of botanical oils like Neem oils in Africa and Asia?

Vincent Ishola Esan: is there any resistant variety available?

Baba Sani Wudil: Can all these findings be applied to other African Countries

Bosibori Bett: Thank you @Sarah Page.

Venkata Phaneendra Reddy Batchu : Thank you

Oluwatoyin Joseph: Thank you Sarah

Abdu Beshir 2: Should Asian rice farmers need to worry about FAW?

Benoit Gnonlonfin: Good package of tools- Which ones to recommend and have potential to be scaled up in the context of COVID19 pandemic?

Justice Frimpong : Can this research be extended to Ghana to help farmers in the maize production value chain? Sarah?

Barbara Caoili: Thanks Dr. Prasanna

Vijay Cuddeford: FRI's work in SSA has found that between 60-90% of farmers have phones, depending on the country but that relatively few are smartphones.

Jagdish Jaba: through Biocontrol agents especially parasitoids how much percent it is controlling in Africa

Macsamuel Ugbaa: IPM manual for Africa is it available online

Jan Hendrik: Listening to all the presentations, I am really interested in upscaling surveillance and scouting. We started following the FAO train the trainer programs which relies on tedious scouting methods. It would be great if we can roll a better way out. Any contact with FAO regarding this?

Prasanna Boddupalli: @Abdu, although there are some reports of FAW on rice, the damage is not alarming unlike maize.

Eric Rhodes: Eric Rhodes: Absorbing Session.

Obert Maminimini: Sarah, in your work with farmers have you used the farmer field school approach? If so, what have been your experiences?

Prasanna Boddupalli: There is a difference between FAW occasionally feeding on the foliage or laying eggs and causing economic damage.

Juan Luis Jurat Fuentes: Is the same high dose/refuge strategy from the Western hemisphere the focus of Bt corn IRM plans in Africa? Refuge is very challenging for smallholder farmers

Hari Kumar Shrestha: Nepal has 3 special agroecological belt. What FAW surveillance system do you recommend?

Regina Tende: Just joining now. from KALRO-Katamani, Kenya Had issues with connectivity.

Jan Hendrik: A lot of cultural methods has been suggested over the last few years. Including using chillie powder, ash, sand to be placed in leave whorls. Is there anything published on the efficacy of it.

George Phiri: A question to Prasanna: Have the mechanism for HPR in maize been identified? If yes, what are they? And how stable is HPR to FAW across locations?

Adefunke Adewole: In my experience working with smallholder farmers in Northern Nigeria, the recommended scouting process for FAW pose a huge challenge to farmers and field officers likewise. It will be very helpful if we can devise simpler scouting techniques that farmers can easily understand and carry out.

Regina Eddy: Jan, a sustainable approach to surveillance and scouting is critical; we agree. Dan's methodology is new and we will be socializing this to FAO and other partners for adoption. Dan/Joe would be happy to discuss offline

Edward Walters: How is Covid-19 affecting FAW research and control programs?



Prasanna Boddupalli: @George: Work done earlier on CMLs with native genetic resistance to FAW showed both non-preference as well as antibiosis. Note that partial and polygenic resistance is far more stable and durable.

FRANCIS NANG'AYO: Ghana has a very well developed regulatory framework for GM technology, having tested Bt cowpea in the past few years and can not no doubt handle Bt maize to commercialization

Timothy Ajiboye: Hellow Adefunke Where are you in Northern Nigeria

Prasanna Boddupalli: @George: We are presently collaborating with IRD-France in understanding the metabolite differences among FAW-tolerant and susceptible CIMMYT lines.

David Mowbray: Why so much focus on ICTs when interactive radio works so much better?

Justice Frimpong : Hi Dr Prasanna, it will be also interesting to know how FAW impact on photosynthetic process of this susceptible

George Phiri: Graet Prasanna..

Ryan Roberge: Is there any evidence that shows that maize grown according to conservation farming methods - including use of both organic and inorganic fertilizer, low till, and planting with the first useable rains- has demonstrated positive outcomes/performance in the context of FAW attacks?

Jagdish Jaba: Agrilink organizer please share this meeting complied chat box and if possible lots

Sarah Page: @DAvid, I think it's about audience segmentation

Joe Huesing: Jan see: <https://www.cabi.org/news-article/neem-based-biopesticides-as-good-as-insecticides-to-fight-fall-armyworm/>

Adam Ahmed: We will be sharing it Jagdish

Shaun Ferris: David I think we are all keen to see how ICT can help to augment extension agents and scale informaton, but the results from this study showed that very few farmers actually used the ICT advise

Bosibori Bett: Totally agree with you @Francis Nang'ayo!

Shaun Ferris: Linking extension to Radio is also a great approach, well tested and effective

Joe Huesing: Questions on Bt maize can be sent to AATF FRANCIS NANG'AYO

Sarah Page: @David/Shaun, and more needs to be done to create an enabling "infrastructure" to increase reach of ICT-based tools/information

Shaun Ferris: I think the challenge for many smallholders who have now adoped chemical control, is that they need more training and advise in how to use these methods safely and in an economically effective way

Jan Hendrik: Note that in South Africa we mainly plant GMO maize but it is not registered against FAW but against stem borers.

Shaun Ferris: Question: How can we help Governments to provide better advise to smallholders who have adopted chemical control methods

Sarah Page: @Robin Shuffet, the study will be loaded to AGrilinks documents

Sarah Page: what is your e-mail? can send a copy

Ulysses Duque: To Dan, do you also do scouting and monitoring of FAW to Non-corn areas? I am tasked to developed monitoring protocols for non corn crops in the Philippines

Patricia Neenan: @ Jan hendrik - see <https://www.mdpi.com/2075-4450/11/4/240>

Ryan Roberge: Yes, thank you for your response!

Sarah Page: or @Robin, e-mail me at [sarah.page@crs.org](mailto:sarah.page@crs.org)

Jan Hendrik: Thank you Patricia

Barbara Caoili: @ Dr. Nang'ayo, may I have your email address. W would like to connect for insect resistance management for FAW on Bt corn since FAW is considered as secondary target pest of such GM crops.

Austen Moore: @Ed Walters, indeed COVID poses a unique challenge for some of the more effective communication approaches we saw in this study, particularly farmer groups and other face-to-face interactions. While @Sarah Page noted that ICT usage was low, the use of connectors like Lead Farmers who engage a smaller group of farmers and use appropriate social distancing is still effective. As @Shaun Ferris noted, radio and to a degree WhatsApp groups can also provide some level of awareness-building support capacity building through peer-to-peer learning.

Patricia Neenan: @ Jan hendrik The Efficacy of Alternative, Environmentally Friendly Plant Protection Measures for Control of Fall Armyworm, *Spodoptera Frugiperda*, in Maize

David Erickson: Good question, Neil!

Robin Shuffett: Thank you Sarah, my email address is robin.shuffett@okstate.org and I can also email you

Patricia Neenan: Sorry Jan - that was the title of the paper in the link - pressed send too early

Sagar Kafle 2: @Dan: Some experts believe that we should go for spray without considering the action threshold as soon as the larval damage symptoms seen in early seedling stage even in a very few plants. Do you think this is right decision to ignore the action threshold at early stage?

Juan Luis Jurat Fuentes: Question for Prasanna: s the same high dose/refuge strategy from the Western hemisphere the focus of Bt corn IRM plans in Africa? Refuge is very challenging for smallholder farmers

Oluwatoyin Joseph: To Paul, how can botanical oils be promoted and accepted globally as an IPM strategy? I will also love to have his email address

Bosibori Bett: @Juan Luis - I resonate with you.

Jan Hendrik: There are many interceptions in the EU on Capsicum and egg fruit from the americas and west Africa. In South Africa we never see infestation on these crops and cannot even get them to feed on capsicum.

Paul Jepson: Neem seems to be the most effitive botanical product - but a protocol for extraction from leaves and seed is important, and I have been searching for one of those

Abdu Beshir 2: Ok that is a good answer Joe

Marjatta Eilitta: How rapidly are you seeing African countries making changes in their policy/regulatory environment in response to FAW - to allow and regulate use of Bt varieties?

Bosibori Bett: Who can we contact on refuge strategy for smallholder farmers?

Marc Gilkey: we should drop a lens on possible pathways as you say new strains could arrive

David Erickson: Protocols for Neem extraction can be found on ECHOcommunity.org

Oluwatoyin Joseph: @Dr Paul, I am really working on the protocol acceptable on Neem extraction and I think we can both work on this if you don't mind

Timothy Ajiboye: Oluwatoyin Joseph Where are you

Mary Asante 2: Kudos to all the presenters, more room for collaboration

LORENA BELVIS: Thank you speaker's for sharing your expertise.

Oluwatoyin Joseph: @Timothy I am at Ibadan, Oyo State

Joe Huesing: Neem is best purchased. The farmer cannot control the level of the active ingredient in material.

Neil Miller: Paul, we have protocols for neem and other botanicals that we have been using for farmer training in SSA. . Email me if you're interested: Neil.Rowe-Miller@Tearfund.org

Rajendra Upadhyay: Thanks

Timothy Ajiboye: I am also at NACGRAB at Ibadan

Abdul Rehman: Thanks for sharing this updated information.

Paul Jepson: Late season sprays at the cob stage can lack effectiveness - I surveyed US experts and several rated efficacy at the cob stage as zero - so please be cautious and base recommendations on evidence

Margaret Mula: The farming systems in Africa can utilise a community refugia since there are several alternative hosts including wild grasses

Neil Miller: Efficacy for neem?

Shachi Gurumayum: Thank you for organizing this, and kudos to the presenters!

Hari Kumar Shrestha: Good updated information. I enjoyed a lot and grasped good knowledges.

Subeksha Shrestha: Thank you speakers for sharing this information and your experiences.

Jan Hendrik: Chemical control is really only efficient during first two instars

Protensia Hadunka: Am just curious. I have worked on FAW in Zambia for a while now and I havent seen any great IPM used by farmers. Most of the them still use the cultural methods. I wonder if the training has been done about IPMs

Patricia Neenan: <https://onlinelibrary.wiley.com/doi/10.1111/jen.12565>

Barbara Caoili: Thank you very much for this opportunity

SREENIVAS ADDONI GINNU: Thank you all

Luz Guzman: Thank you

Paul Jepson: Thanks for great questions

Shaun Ferris: Thanks to all the Speakers!! nice job

Ulysses Duque: thank you

Dennice Dela Cruz: tnk u

Oluwatoyin Joseph: Rajendra good to see you online

Sarah Page: Thanks all

David Erickson: Thank you all!

Lava Thapa: Bye bye all

Paul Jepson: many friends on line - stay safe and secure

Hadjara Gouba: Thank you for a wonderful presentation

Stephen Arthur: thank you all

Emma Siamena: thank you

yu bing Huang: Thank you all

Josue Lopez: Outstanding webinar with top notch research based info!

Protensia Hadunka: Can the speakers share their emails too?

Aashif Iqbal Khan: Thank you all

Sarah Page: I learned a lot from reading the chat!

Benoit Gnonlonfin: Thank you all

Abdu Beshir 2: Thanks all



Gideon Burgonio: thank you!!Thank you

Ariel Borerros: thank you

Janine Berger: Thank you all.

Lava Thapa: THankyou all

NOLAND NASOL: Thank you all

Moffatt Ngugi: Thanks

Ana Luisa Garcia Oliveira: Thank you

Arsene KASHEMWA: Many thanks for the entire team. Hopefully the presnetation will be shared for all of us

Hari Kumar Shrestha: Thankyou all.

Robin Shuffett: Great discussion! Thank you

Margaret Mulaa: There are commercial formula Neemtio

Honest Machekano: Thanks bye

Luz Guzman: bye

NTIRATA EMMANUEL: thanks for the presentation

Stephen Arthur: have a grate day too

Eric Tegei: Thanks so much for

Sushant Raj Sharma 2: @Neil my i need protocol emai gpsharmil.coml

Sabina Poudel: thank you

Rimnoma Ouedraogo: Thank you

Comfort Freeman: thank you!

Bosibori Bett: Thanks all

Honest Machekano: Thank you

Obert Maminimini: Thank you

Timothy Ajiboye: Oluwatoyin Where are you based at Ibadan

Janak Rawat: Thank you

edward Cope: Awesome session...very informative...GMU Grad Student Food Security

Juma Mwinyimkuu: Thank you

Joel Adorada: Thank you

Phil Steffen: Many thanks!

Zachary Baquet (USAID/RFS): Thank you Everyone!

Zachary Baquet (USAID/RFS): Please take a moment for the polls to your left

JENAUH JOB JAMILI: Thanks to all!!

Zachary Baquet (USAID/RFS): You can download the slides there

Patricia Neenan: Lots of info on the CABI Fall Armyworm portal <https://www.cabi.org/isc/fallarmyworm>

Kalu Arachchi Lakmal 2: thank you

Dr. Usha: thank you

Jean Markendy CHARLES: Thank you!

Munnesh Kumar 2: thanks sir

Dr. Vijay Kumar Mishra: Thank you sir