

Report

Workshop on noxious weeds in production of certified seeds, Coconut Grove Hotel, Accra, Ghana July 11-12, 2011

Context

For easy access to good quality seeds, the Food and Agriculture Organization of the United Nations (FAO) encourages and supports regional harmonization, between several countries, of rules governing quality control, certification and trade of crop seeds. However, a survey conducted by FAO in 2010 in several countries in Africa, Asia and Latin America indicated that contamination of crop seeds by weed propagules is an important issue. Contamination of crop seeds by weed propagules (seeds and vegetative propagation organs) brings weeds at places where they were not encountered before, which increases the weed management cost incurred by the farmer. In this context, guidance is needed and actions must be taken, at national and regional levels, to keep under control contamination of certified seeds by weeds. If this is not done, seed trade may be a pathway for dissemination over entire regions of noxious weeds, which are weeds specified by law as being especially undesirable, troublesome and difficult to control. It is against this background that the workshop on noxious weeds in production of certified seeds has been organized for Sub-Saharan countries where harmonization of certified seed legislations has made progress in recent years.

Objective of workshop

The main objective of the workshop was to come up with a list of weeds which could be considered as noxious weeds in the production of certified seeds in Sub Saharan Africa and decide on follow-up actions.

Opening session and attendance

Ms Hannah Clarendon, Crop protection officer at FAO Regional Office for Africa, facilitator of the workshop welcomed all participants. Her welcome address was followed by the opening address by Mr. Musa Saihou Mbenga, Deputy Director General for RAF on behalf of the ADG-RAF. In his opening address Mr. Mbenga referred to on the direct and indirect damage caused by weeds to crops. He mentioned that, weeds are major growth reducing factors and compel farmers to devote 20-30% of their time to weeding. He stressed that noxious weeds, which

are weeds specified by law as being especially undesirable, troublesome and difficult to control, must be avoided in production of certified.

Invited institutions which did not attend the workshop include the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS) and the South African Development Community and the International Institute of Tropical Africa (IITA). The list of participants with their respective institutions is given in the annex.

Technical presentations

The work of FAO was put introduced and placed into context of the Comprehensive Africa Agriculture Programme (CAADP,) the priorities emanating from the Africa Regional Conference, the priorities as developed by FAO RAF and the feedback and input from key partners such as those invited to the workshop, namely the Universities, Research Institutions and the Regional Economic communities. Technical presentations made by participants, all focused on contamination of crop seeds by weed propagules, yield loss inflicted by weeds to farmers and the restriction on farm size they impose on farmers. The importance of invasive alien weeds of recent infestation like *Parthenium hysterophorus* in Eastern-Africa and *Solanum elaeagnifolium* in Northern and Southern Africa were discussed.

Outputs

- Noxious weeds were defined as weeds specified by law as being especially undesirable, troublesome and difficult to control. Based on that, the following factors were agreed upon for the establishment of the consensus list of noxious weeds by participants: difficulty to control, ease of spread, geographical coverage, climatic tolerance, aggressiveness, seed contamination risk and major crops affected.
- A List of noxious weeds in production of certified seeds has been established.
- The Meeting recognized all noxious weeds as pests in crop production systems.
- The Meeting recommended to share concern with International Plant Protection Convention (IPPC), that noxious weeds in production of certified seeds, should be recognized as pests.

- The Meeting indicated that FAO should liaise with the World Food Program (WFP) on the concerns about the possible contamination of food aid with noxious weeds.
 - The Meeting recommended only extremely low, undetectable level of noxious weeds in certified crop seeds.
 - The Meeting recognized that a high-level workshop needs to be organized to reach consensus at the continental level on the imminent threat of Invasive Plants (IP). In this workshop, a comprehensive strategy for Invasive Alien Plants management in Africa has to be developed. Two stages of preparation may be necessary with the 1st involving technical people for developing papers to be used in the second high level workshop.
 - The meeting created a follow-up committee tasked to initiate the workplan and timeline. The committee is , made up of Dr. Gualbert Gbèhounou FAO Weed Officer, Ms. Hannah Clarendon Crop Protection Officer at FAO-RAF, Dr. Jean-Baptiste Bahama from the Inter-African Phytosanitary Council (IAPSC) of African Union, Dr. Fasil Reda from the Ethiopian Institute of Agricultural Research and Prof. Carl Frederick Reinhardt from the Department of plant production, University of Pretoria, who represented the African Seed Trade Association (AFSTRA) at the workshop.
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- **Recommendations**
 - The meeting recommends that FAO- RAF sends the report of the workshop to all Regional Economic Communities in Sub-Saharan Africa.
 - The meeting recommends that the IAPSC September meeting be used as an opportunity to share the report of the workshop with the countries.

- **Follow-up activities and timeline**

What	Who	When
Country studies Identifying legal instruments and policy institution + Identify specialized institutions	FAO, RO, SROs,	Next biennium (2012-2013)
List on noxious weeds to be updated through FAO officers	FAO, RO, SROs,	Immediately
Cost benefit analysis on impact on crops, pastures, forest (2 species-one invasive and one non-invasive)	Consultants	Next biennium
FAO/WFP to examine risks in food aid	FAO	Immediately
PROJECTS		
Developing identification guides + Filling gaps in biology, ecology and control measures for noxious weeds	FAO (HQs)	Next biennium
Developing of specific tools for identification of Invasive Alien Plants	CABI	Immediately
Training modules to be developed	COPE at KEPHIS /Universities	Next biennium
High-level workshop planned <ul style="list-style-type: none"> • Concept note • Communication strategy (output 	Fasil (Ethiopia)	Next biennium (2013) Immediately

workshop)		
Capacity development in place <ul style="list-style-type: none"> • Pest diagnosis • PRA 	FAO /AU-IAPSC / Cabi/ Universities / Training institutions	
NPPOs to address the following needs		
Herbarium, Identifying key institutions	FAO/IAPSC	immediately
Develop Factsheets		
Initiate Harmonization by AU		

RO: Regional Office (RAF); SRO: Sub Regional Offices of RAF; WFP: World Food Program; NPPO: National Plant Protection Organization

- List of noxious weeds in production of certified seeds

Weed species	Criteria used						
	Difficulty to control	Ease of spread	Geographical coverage	Climatic tolerance	Aggressiveness	Seed contamination risk	Major crops
1. <i>Striga</i> species	X	X	SSA	+++	+++	+++	Cereals, cowpea
2. <i>Orobanche</i> species	X	X	East Africa, Southern Africa	++	+++	+++	Legume crops
3. <i>Alectra</i> species	X	X	SSA	+++	+++	+++	Groundnut, cowpea
4. <i>Parthenium hysterophorus</i>	X	X	Eastern and Southern Africa	++	+++	+++	All crops
5. <i>Ischaemum rugosum</i>	X	X	West Africa	+	+	+++	Rice
6. <i>Solanum elaeagnifolium</i>	X	X	Southern Africa	+	+++	++	Cotton, sunflower, soya, cowpea
7. <i>Cyperus rotundus</i>	X	X	SSA	+++	+++	+	Tuber crops (vegetative propagation material)
8. <i>Cuscuta</i> sp	X	X	SSA	+++	+++	++	Alfalfa, oil seed crops
9. <i>Oryza longistaminata</i>	X	X	SSA	+++	++	+++	Rice
10. <i>Oryza barthii</i>	X	X	SSA	+++	++	+++	Rice
11. <i>Rottboellia cochinchinensis</i>	X	X	SSA	+++	++	+++	Maize, sugar cane, rice
12. <i>Ageratum conyzoides</i>	X	X	SSA	+++	++	+	Cereals, soya
13. <i>Argemone mexicana</i>	X	X	Eastern and Southern Africa	++	++	+	All crops
14. <i>Avena fatua</i>	X	X	Southern and Eastern Africa	++	++	+++	Wheat and small grains
15. <i>Imperata cylindrica</i>	X	X	SSA	+++	+++	+	Tuber crops (vegetative propagation material)

<i>16. Lolium species</i>	X	X	Southern and Eastern Africa	++	++	+++	Wheat and small grains
<i>17. Echinochloa colona</i>	X	X	SSA	+++	+++	+++	Rice

- +++: high; ++: moderate; +: low
- "Agressiveness" encompasses high fecundity, allelopathy, invasiveness, toxicity, ...
- "Contamination risk" takes into account seed size, mimicry, ...

Annex

List of participants

Institution	Name	Designation/Address	E-mail
EIAR, Ethiopia	Dr. Fasil Reda Tena	Coordinator, Pastoral & Agro-Pastoral Regions Research and Capacity Building, Ethiopian Institute of Agricultural Research (EIAR), P.O. Box - 2003, Addis Ababa, Ethiopia, Telephone: +251 116 463467 Fax: +251 116 469412	fasilreda@gmail.com ; fasil_reda@hotmail.com
CABI, Kenya	Arne Witt	Regional Coordinator, Invasive Species, CABI Africa, United Nations Avenue, P.O.Box 633-00621, Nairobi, Kenya	A.Witt@cabi.org ;
IAPSC-AU Cameroon	Jean-Baptiste Bahama	Senior Scientific Officer, African Union Conseil Phytosanitaire Inter-africain, B.P. 4170 Nlongkak, Yaounde, Cameroon Tel : +237 94 192422	jbbaham2002@yahoo.fr
AFSTA, South Africa	Prof. Carl Frederick Reinhardt Department of plant production, University of Pretoria, Pretoria 0002, South Africa	The African Seed Trade Association (AFSTA) Representative, 59 Koestertjie Str Nina Park 0156, South Africa, Tel: +27 83 4423427	dr.charlie.reinhardt@gmail.com
ISRA, Senegal	Wade Moctar	Weed Scientist, ISRA-CNRA, Centre de Bambey, B.P. 53, Dakar, Sénégal, Tel : bureau: +221 339736348 ; +221773844456;Tel:+221764753348 Fax : +221 339736348	wmoctar@hotmail.com
EAC, Uganda	Francis Ssozi Buyondo	Agricultural Inspector Ministry of Agriculture, Animal Industry and Fisheries.	buyondofrancissozi@yahoo.com

EAC, Tanzania		Tel. +256 772-893888 320642	Fax: +256 414	
	Mr. Peter Mjema	Principal Agricultural Officer, Tanzanian and Noxious weeds specialist, Ministry of Agriculture, Food Security and Cooperatives, P.O. Box 9192, Dar-Es-Salaam, Tanzania, Tel: +255 865642, Fax: +255 865642		mjemapetro@yahoo.com
Ghana	Grace Bolfrey-Arku	CSIR - Crop Research Institute, P.O. Box 3785, Kumasi, Ghana, Tel: +233 0322060391; 0277 70 2770		gbarku4@yahoo.co.uk
Ghana	Mr. Jack Vesper Suglo	Director , Plant Protection and Regulatory Services, Ministry of Food and Agriculture , P.O. Box M37, Accra, Ghana Tel: +233 244 388275		jackvesper@yahoo.com
FAO, SFC	Sankung Sagnia	Plant Production and Protection Officer, FAO Sub-Regional Office for Central Africa, Villa 36 Cité de la Démocratie, B.P. 2643, Libreville, Gabon, Telephone : +241 07261525 Fax : +241 740035		sankung.sagnia@fao.org
FAO, SFS	Joyce Mulila Mitti	Plant Production and Protection Officer, FAO Sub-Regional Office for Southern Africa CNR Samora Machel / Renfrew Rd, Block 1 Tendeseka Office Block, P.O. Box 3730, Harare, Zimbabwe, Telephone: +263 - 772273188 / +263-4 253655-8 Fax: +263-4 700724		Joyce.mulilamitti@fao.org
FAO, SFW	Brahim Kebe	Crop Production and Protection Office r, FAO Sub-Regional Office for West Africa, P.O. Box GP 1628, Accra, Ghana Telephone: +233 302 675000 Fax: +233 302 7010943		brahim.kebe@fao.org

FAO Headquarters	Gualbert Gbehounou	Weed Officer, Plant Production and Protection Division, Viale delle Terme di Caracalla , FAO Headquarters, Rome, Italy Tel: +39 340 2289345	gualbert.gbehounou@fao.org
FAO, RAF	Hannah Clarendon	Crop Protection Officer, FAO Regional Office for Africa, P.O. Box GP 1628, Accra, Ghana Telephone: +233 302 675000 Fax: +233 302 7010943	Hannah.clarendon@faor.org