

GUIDE FOR THE DISSEMINATION OF EAC DRY BEANS STANDARD POSTERS AND BROCHURES TO FARMERS AND TRADERS IN UGANDA

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Guide for the Dissemination of EAC Dry Beans Standard Posters and Brochures to Farmers in Uganda

Introduction:

Key standards stakeholders involved with quality standards in the beans value chain developed simple (or popular) posters and brochures for farmers and traders based on the EAC Dry Beans Standard which was gazetted in February 2017.

To improve stakeholder dissemination efforts, the posters and brochures needed a guide that outlines how these materials should be used. The guide is also intended to augment the understanding of trainers, instructors, and others of the information found on the posters and brochures, thus enabling them to pass on the information to farmers and traders.

Through the process of developing the IEC materials, valuable information was gathered which has been summarised in the posters and brochures and is detailed in this guide. The information in this guide is intended for those involved in extension and other actors along the value chain.

Purpose of the posters and brochures:

The purpose of the posters and brochure are:

- To communicate to farmers and traders the requirements of the EAC Dry Beans Standard which they must meet in the market place;
- (ii) To communicate to farmers and traders in an easy to understand form using text augmented by pictures and illustrations;
- (iii) To improve compliance of standards for exports of dry beans that are competitive in price and quality;
- (iv) To facilitate government and private sector extension workers to deliver training to traders and farmers on the standard.

How to use this Guide:

The farmers' materials are divided into three posters and their respective accompanying brochures under the following themes:

Poster 1: Dry Beans - Best Practices for Improved Nutrition and Incomes: Maximize production. The poster focuses on production practices. The poster shows examples of good practices on the left hand side and bad practices on the right hand side, all with arrows depicting the parameters of the standard impacted by both good and bad practices.

Brochure 1: Dry Beans - Best Practices for Improved Nutrition and Incomes: Maximize production. This is a threefold brochure showing, in pictorial form, benefits of good practices and costs of bad practices. It also shows examples of good practices on the left hand side and bad practices on the right, with arrows depicting parameters of the standard impacted by both the good and bad practices.

Poster 2: Dry Beans - Best Practices for Improved Nutrition and Incomes: Dry Beans properly. This poster focuses on the moisture content and drying aspects of beans. It shows examples of good practices on the left hand side and bad practices on the right. Each of them has arrows depicting the parameters of the standards impacted by both the good and bad practices.

Brochure 2: Dry Beans - Best Practices for Improved Nutrition and Incomes: Dry Beans Properly. This is a three-fold brochure showing, in pictorial form, the benefits of good practices, and the costs of bad practices.

It also shows examples of good practices on the left hand side and bad practices on the right hand side with arrows depicting parameters of the standards impacted by good and bad practices.

Poster 3: Dry Beans - Best Practices for Improved Nutrition and Incomes: Handle Beans with Care and Keep them Clean. This poster focuses on examples of good practices, showing how dry beans should be handled to comply with the standard parameters to reduce organic matter, filth, insect or vermin-damaged, broken/chipped/ loose coats and split grains. It also shows examples of bad practices that impact on the parameters of the standard.

Brochure 3: Dry Beans - Best Practices for Improved Nutrition and Incomes: Handle Beans with Care and Keep them Clean. This is a three-fold brochure showing, in pictorial form, benefits of good practices and costs of bad practices. It also shows a cluster of good practices on the left hand side and bad practices on the right, with arrows depicting parameters of the standard impacted by good and bad practices. Details in the posters and brochures are as detailed below:

A		EANS-BEST PRACTICES FOR IMPROVED NCOMES: MAXIMISE PRODUCTION
	GOOD Practices	Notes for the facilitator/trainer/instructor
A1.1	Prepare land well before planting	 Ensure that the farmer knows how land is prepared well to plant beans.
A1.2	Apply recommended fertilizer type before and after planting	 Help farmers know the recommended common fertilizer types and the recommended quantities to be applied. Explain the recommended application methods of fertilizer whether in pellet/crystal form or liquid. Ensure that the farmer understands the steps to be taken in applying fertilizers, depending on the type. Highlight the need for protective gear when applying fertilizers (or using other agro-chemicals). If possible display used tins or papers of samples of fertilisers
A1.3	Plant improved/ certified seed of the same variety with recommended spacing	 ✓ Help farmers to know the improved/certified seeds ✓ High light companies that sell the improved/ certified seeds known to you ✓ Highlight the spacing requirements known to you ✓ Display a sample of a packet of certified seed including dimensions on spacing. ✓ Help the farmers to understand how the right spacing can be achieved by using aids such as using a rope or a hoe handle.
A1.4	Practice Crop Rotation	 ✓ Explain what crop rotation means. ✓ Explain why it is important to the farmer. ✓ Highlight the possible combination of the crops which you can rotate beans with.
A1.5	Weed on time	 ✓ Indicate the proper time for weeding beans while in the field. ✓ Highlight the advantages of proper spacing while weeding such as the ease to move between rows.

A1.6	Control pests using approved pesticides	 Explain to farmers, the common pests and insects that attack beans. Highlight recommended common pesticides used in controlling pests (could go with empty tins or photos, as samples to be shown to the farmers). Share possible sources of pesticides. Point out the risks of buying counterfeits from unscrupulous dealers or stockists. Emphasize the need for protective gear and the angers of not wearing the gear while using chemicals. Emphasize the importance of using recommended agro- chemicals with a view of protecting the environment. Inform farmers the availability of the agricultural extension staff as a source of this information. Have samples of recommended pesticides for demonstration to farmers.
A2	STANDARD	Notes for the facilitator/trainer/instructor
	IMPACIED	
A2.1	Contrasting varieties	 Explain the meaning of contrasting varieties as required by the standard-refer to the information in the poster or brochure for illustration. Emphasise the maximum limits allowed in the standard. This requires you to understand your audience beforehand to be able to determine the level of comprehension of the concept of other contrasting varieties. Show participants examples of contrasting varieties Ask farmers to explain what practices cause this (positively and negatively)

A2.3	Pesticide Residues	 ✓ Explain to farmers what pesticide residues are ✓ Explain the specifications ✓ Highlight the dangers of these residues to people's health ✓ Inquire from farmers how pesticide residues can be avoided
A2.4	Free from toxic weeds seeds	 ✓ Together with farmers, identify the common toxic weed seeds ✓ Refer to the poster for examples. ✓ Highlight the dangers of toxic weed seeds ✓ Display examples of common toxic weed seeds
A 3	BAD PRACTICES	Notes for the facilitator/trainer/instructor
A3.1	Do not plant beans in an improperly prepared garden	 ✓ Share with farmers the problems associated with planting beans in an improperly prepared gardens. ✓ Emphasize that improved seed is recommended for planting.
A3.2	Do not plant beans in a wetland	 ✓ Explain the problems of planting beans in a wet- land such as stunting
A3.3	Do not plant different varieties of beans in the same garden during a season	 ✓ Explain the dangers of planting beans of different varieties and its impact on the standard.
A3.4	Do not plant beans in the same garden every season	 ✓ Indicate the disadvantages of this practice ✓ Indicate that if the farmer has to do this, has to apply fertilisers (inorganic or organic).
A3.5	Do not let weeds grow	✓ Explain the dangers of letting weeds grow in the beans garden
A3.6	Do not let pests and diseases destroy bean crops	 ✓ Explain the dangers of letting pests and diseases to destroy crops
A3.7	Do not use expired or adulterated chemicals/ pesticides	 ✓ Explain the dangers of using expired chemicals/ pesticides

A3.8	Other comments	✓ Indicate that there are other bad practices and that the above are just a few examples. Farmers could belo identify other bad practices.
		could help identify other bad practices.

B	BROCHURE 1: DRY BEANS-BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES: MAXIMISE PRODUCTION	
	Issue	Notes for the facilitator/trainer/instructor
B1.1	Why standards matter	✓ Referring to the brochure, explain why standards matter to farmers, traders, processors, and consumers. The answers are contained in the text in the brochure/poster.
B1.2	Cost of bad practices picture	 ✓ Use the photos to identify the cost of non- compliance to the standard. ✓ Challenge participants to identify other costs of bad practices.
B1.3	Benefit of good practices	 ✓ Use the photo to identify benefits of complying with the standard. ✓ Help farmers to identify benefits of working together with women and youth (planting, weeding, harvesting and selling).
	NB: Note that the 1, above.	inside of the brochure is exactly the same as Poster

С	POSTER 2: DRY BEANS-BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES: DRY THEM PROPERLY	
	GOOD PRACTICES	Notes for the facilitator/trainer/instructor
C1.1	Harvest beans when they are physiologically mature	 ✓ Inquire from farmers whether they know what beans that are ready for harvesting look like. ✓ Help farmers identify good harvesting methods, such as use of tarpaulins.
C1.2	Harvest beans during cool weather to avoid shattering	✓ Explain the advantages of harvesting beans during cool weather.
C1.3	Dry Beans on a raised platform under the sun or using a machine	✓ Explain why drying beans on raised platform is good practice.

C1.4	Dry beans on mats and water proof tarpaulins	 Discuss with farmers whether the beans should be dried on stalks or dried as grains. Assess the benefits of each. Encourage farmers to dry beans well - refer to the poster.
C1.5	Store beans in dry safe places and on pallets	 ✓ Identify a few of the safe dry places for storage such as recommended stores and use of pallets.

C2.	STANDARDS Impacted	Notes for the facilitator/trainer/instructor
C2.1	Moisture con- tent	 Ask farmers if they know what a moisture meter is? Probe if the farmers know the different types of moisture meters used for measuring moisture content. Explain the recommended limit as per the standard. If possible tell participants sources of the moisture meters if known to you. Where possible train using a real moisture meter and demonstrate how it works.
C2.2	Organolep- tic (look and smell)	 ✓ Share with the farmers to identify causes of the smell and how it impacts on quality. ✓ Explain that this can be done using the nose or looking at the beans.
C2.3	Discoloured Beans:	 ✓ Explain the meaning of discoloured beans. ✓ Explain the relationship between discoloured beans and moisture related aspects. ✓ Prepare and show participants a sample of disco- loured beans.
C2.4	Pest-damaged beans	 Explain the attributes of pest-damaged beans such as tunneling, boring etc. Prepare in advance and show participants a sample of physically pest-damaged beans.
C2.5	Heat damaged beans	 ✓ Explain that this is due to exposure to severe heat. ✓ Hint on the percentages according to grades. ✓ Prepare in advance and show participants a sample of physically heat-damaged beans.
C3	BAD PRACTICES	Notes for the facilitator/trainer/instructor

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C3.1	Do not harvest immature beans	 Explain the characteristics of immature beans that should not be harvested, such as when the plant is still having green leaves. Explain the dangers of harvesting beans during very hot weather such as shattering.
C3.2		 ✓ Avoid harvesting beans under rain or when it's extremely hot
C3.3	Do not thresh beans when they are not properly dry	 Explain the dangers of threshing beans when they are not properly dry such as leading to high moisture content which may lead to rotting and moulding and consequences related to these.
C3.4	Do not dry beans on bare ground or rooftops	 Explain the dangers of drying beans on bare ground such as contamination. Ask participants to give examples where they have seen this practice. Show them pictures showing drying on rooftops and/or bare ground.

D	BROCHURE 2: DRY BEANS-BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES: : DRY THEM PROPERLY	
	Issue	Notes for the facilitator/trainer/instructor
D1.1	Why stan- dards matter	✓ By referring to the brochure, stress why standards matter to farmers, traders, processors and consumers. The answers are given/illustrated in the brochure/poster.
D1.2	Cost of bad practices picture	 ✓ Use the photos to identify the cost of non- compliance with the standard. ✓ Challenge participants to identify what they will do after the training.
D1.3	Benefit of good practices	 ✓ Use the photos emphasize the potential benefit of complying with the standard. ✓ Help farmers to appreciate the benefits of working together with women and youth (from planting, weeding, harvesting, storing and selling).
	NB: Note that th 2 above.	ne inside of the brochure is exactly the same as Poster

E	POSTER 3: DRY BEANS - BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES: HANDLE BEANS WITH CARE AND KEEP THEM CLEAN	
	GOOD PRACTICES	Notes for the facilitator/trainer/instructor
E1.1	Winnow, sort and grade beans before storage and selling	 Explain why winnowing, sorting and grading is important before storage and selling such as being an incentive to demand for a better price for quality
E1.2	Keep the storage room clean all the time	 ✓ Emphasize the importance of hygiene in the storage room.
E1.3	Control pests and vermin with recommended methods such as pesticides	 Train farmers on recommended practices to control pests using suitable fumigants depending on the nature of fumigation needed. Explain where fumigators can be found such as at the border or liaising with the District Agricultural Office(r) for guidance on how the certificate can be obtained. Explain that in order to acquire a Phytosanitary Certificate, an exporter is required to present a fumigation certificate. Emphasize that fumigators and applicators are licensed by Ministry of Agriculture, Animal Industry and Fisheries. Probe into common practices being used by farmers to ensure that they are in line with requirements of the standard. Inform farmers of the recommended fumigants (could also use agriculturalists who may be in the room). Show participants samples of recommended fumigants using empty tins
E1.4	Keep animals away from threshing, drying and storage facilities	✓ Explain the dangers of having animals in the threshing area such as contaminating beans with filth.
E 2	STANDARD Impacted	Notes for the facilitator/trainer/instructor
E2.1	Organic Matter	 ✓ Explain the meaning of organic matter-refer to brochure/poster. ✓ Explain sources of organic matter in beans. ✓ Cite examples of organic matter. ✓ Show participants a sample of organic matter.

E2.2	Inorganic Matter	 ✓ Explain meaning of inorganic matter and cite examples. ✓ Highlight sources of inorganic matter. ✓ Show participants samples of inorganic matter.
E2.3	Pest Damaged Grains	 ✓ Explain what pest-damaged gains are. ✓ Highlight that insects or vermin damage impact negatively on the standard and the limits may not be achieved. ✓ Show samples of vermin damaged grain as shown in the poster and brochure.
E2.4	Filth	 ✓ Explain what filth consists of. Refer to the standard impacted section for examples. ✓ Stress that these are impurities of animal origin. ✓ Show participants samples of filth.
E2.5	Broken/Split beans	 ✓ Explain what broken/split beans means ✓ Highlight the causes of this condition. ✓ Show participants examples.
E2.6	Heavy Metals	 ✓ Explain in simple terms what these metals are. ✓ Emphasize that they naturally occur as residues in food because of their presence in the environment. ✓ Highlight the metal's harmful effects over time on the body.

E3	BAD PRACTICES	Notes for the facilitator/trainer/instructor
E3.1	Do not thresh beans from an unclean place, bare ground or tarmac	 ✓ Highlight the dangers of this practice as both organic and inorganic matter can contaminate the beans.
E3.2	Avoid excessive beating/hitting beans when threshing	✓ Explain the dangers of excessive beating and how this compromises the standard.
E3.3	Do not add stones, sand and small metals	 ✓ Highlight the fact that some unscrupulous people add stones to gain more weight thus negatively impacting on the standard. ✓ Advise farmers to stop this practice.

E3.4	Do not let weevils damage the grain	 ✓ Emphasize the parameter of insect damaged grain. ✓ Show examples of weevil bored holed beans as shown in the posters and brochures.
E3.5	Do not store beans on the ground and in the same store with animals	✓ Explain the dangers of doing this as impurities of animal origin are likely to contaminate the beans
E3.6	Do not store beans in the same store with pesticides/ chemicals	 ✓ Explain that spillage of chemicals and herbicides on the dry beans is highly likely. ✓ Point out that this practice may also tamper with smell and appearance of the dry beans.

F	BROCHURE 3: DRY BEANS - BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES: HANDLE BEANS WITH CARE AND KEEP THEM CLEAN	
F1.1	Why standards matter	✓ Refer to the brochure for details as to why standards matter and add more.
F1.2	Cost of bad practices	 ✓ Identify the costs of non-compliance with the standard. ✓ Challenge the participants to identify what they will do after the training.
F1.3	Benefit of good practices	✓ Use the photo to identify the benefits of complying with the standard.

A guide for the Dissemination of the EAC Dry Beans Standard Poster and Booklet for Traders in Uganda

How to use this Guide:

The EAC Dry Beans Standard dissemination materials for traders are the traders' poster and booklet, as explained below:

TRADERS' POSTER: DRY-BEANS BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES

The traders' poster is arranged in three sections with the first section focusing on aspects of moisture content, followed by defective beans and foreign matter and other parameters that impact the standards. The standard's parameters or requirements are accompanied by brief text augmented by pictures and illustrations.

	Parameter	Notes for the facilitator/trainer/instructor
G1.0	Moisture content	 Highlight the instrument used in measuring moisture content (moisture meter) emphasizing there are different types of moisture meters such as sinar. Inquire about which moisture meters are common to participants with a view to understanding whether traders know the moisture meters on the market. If known to you, identify sources of moisture meters.
G1.2	Organoleptic (appearance and smell)	 ✓ Emphasize that beans should look clean, bright and have a natural smell. ✓ Share with them what may cause the bean grains to smell bad.
G1.3	Shrivelled/ Diseased and Discoloured beans	 ✓ Explain the meaning of discoloured bean. Refer to traders booklet. ✓ Highlight that discolouration is limited to 25% change in colour on both sides of the grain ✓ Outline what an immature/shrivelled grain looks like and how the grain is confirmed to be shrivelled. ✓ Show the participants some shrivelled grains.

Below are the details in the Traders' poster:

G1.4	Broken and split beans	✓ Explain what broken and split beans mean.
G1.5	Pest-damaged beans	 ✓ Explain what pest damaged grains means as per the standard. Refer to the posters and brochures for meaning. ✓ Emphasize how these can be avoided.
G1.7	Germinated beans	 ✓ Explain what germinated beans mean. Refer to the traders' booklet. ✓ Indicate that this negatively impacts the standard.
G1.8	Total defectives	 Emphasize that this is the total of broken, pest damaged, shrivelled, immature, rotten, mouldy, diseased, germinated and discoloured. Emphasize that the allowable maximum total defectives is 70% of the sum total of the individual defects.
G1.9	Organic matter	 Explain what comprises organic matter and, together with traders, identify other examples of inorganic matter.
G1.10	Inorganic matter	✓ Together with traders, identify the components of inorganic matter.
G1.11	Foreign matter	✓ Stress that this is organic and inorganic matter in the sample.
G1.12	Filth	 ✓ Explain what constitutes filth. Refer to the parameter impacted for examples. ✓ Stress that these are impurities of animal origin.
G1.13	Contrasting varieties	 ✓ Explain the meaning of contrasting varieties. ✓ Show participants examples of contrasting varieties.
G1.14	Other edible grains	 ✓ Explain meaning of other edible grains plus examples. ✓ Emphasize the stringent requirement.
G1.15	Pesticide residues	 ✓ Explain meaning of pesticide residues. ✓ Explain how these residues get into the final products through application of pesticides.
G1.16	Contaminants	✓ Explain the meaning of contaminants and give an example.

TRADERS' BOOKLET: DRY-BEANS - BEST PRACTICES FOR IMPROVED NUTRITION AND INCOMES

The traders' booklet has a section on why standards matter. Subsequent sections are arranged according to the specification parameters in the EAC Dry Beans Standard 2017. The parameters are explained using text and augmented by simple illustrations and pictures.

The arrangement of sections in the brochure is detailed below:

	Parameter	Notes for the facilitator/trainer/instructor
H1.1	Moisture content	 Highlight the instrument used to measure grain moisture content (moisture meter with a view to understanding whether traders know the moisture meters on the market. Inquire about which are the common moisture meters.
H1.2	Organoleptic (appearance and smell)	 ✓ Emphasize that dry beans should look clean, bright, mature dried seeds, well filled, uniform in size and shape, and have a natural smell. ✓ Share with farmers the factors which may cause a bad smell.
H1.4	Discoloured beans	 ✓ Explain the meaning of discoloured beans. ✓ Show farmers an example of discoloured beans and outline the possible causes of discolouration, such as excessive heat. ✓ Highlight that discoloured beans is limited to 25% change in colour on both sides of the grain.
H1.5	Pest-damaged beans	✓ Explain the meaning of pest-damaged beans. Refer to the booklet.
H1.7	Broken and split beans	✓ Explain what broken and split beans mean.
H1.8	Immature/ shrivelled, Diseased and Discoloured (SDD)	 ✓ This feature is not usually understood by traders. Explain what immature/shrivelled grain looks like. Use a sample to explain this better.
H1.9	Germinated beans	 ✓ Explain what germinated beans mean. Refer to the traders booklet ✓ Indicate that this negatively impacts the standard. ✓ Show the traders a sample of a germinated bean grain.

H1.10	Total defective bean grains	 ✓ Emphasize that this is the total of broken, pest damaged, shrivelled, immature, rotten, mouldy, diseased, germinated and discoloured. ✓ Emphasize that the allowable maximum total defectives is 70% of the sum of the stated maximum limits of the separate categories.
H1.11	Organic matter	✓ Together with traders, identify what the components of organic matter are such as bean stalks, leaves and wood.
H1.12	Inorganic matter	✓ Highlight what inorganic matter comprises and together with traders, identify examples of inorganic matter.
H1.13	Foreign matter	✓ Indicate that foreign matter is the sum of inorganic and organic matter. Highlight the limits specified in the standard.
H1.14	Contrasting varieties	 ✓ Explain the meaning of contrasting varieties. ✓ Show participants examples of contrasting varieties.
H1.15	Filth	✓ Identify what comprises filth and give examples.✓ Stress that these are impurities of animal origin.
H1.16	Other edible grains	✓ Explain meaning of other edible grains plus examples.
H1.17	Pesticide residues	 ✓ Explain meaning of pesticide residues. ✓ Explain how these residues get into the final products through application of pesticides.
H1.18	Other contaminants	✓ Explain with examples other contaminants of dry beans.
H1.19	Hygiene issues	✓ Explain the hygiene requirements for dry beans. Refer to the booklet.
H1.20	Packaging	 Highlight that the standard requires packaging in 50kg bags and in packaging material of food grade.
H1.21	Labelling	✓ Highlight the key labeling requirements from the standard such as; name of manufacture, date of manufacture, expiry date and others. Refer to booklet.

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- National Agricultural Advisory Services
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- Uganda National Chamber of Commerce and Industry
- Uganda National Farmers Federation
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