

VOLUNTEER REPORT FORMAT

To be submitted to CRS at the end of volunteer assignment and shared with the Host

1.1 Assignment information

- a) Volunteer Name: John O. Hardy
- b) State of Origin: Washington, USA
- c) Host Organization: Ardaita Agricultural, Technical and Vocational Education and Training College (ATVET)
- d) Assignment: Grain post-harvest management focusing on wheat. Code: ET-122
- e) Dates/duration: Total: Dec. 1-16, 2017 (including travel) Training site: Ardaita: Dec. 5-13, 2017
- f) Number of days worked 8

1.2.1 Objective 1 in your SOW: Improving harvesting and post-harvest technologies (on harvesting, threshing/shelling, handling, storage, management of wheat and stalks/straws, ect)

Progress with the objective:

Observation: Weed control, your farm crews are doing an excellent job of keeping up with the most advanced chemistry's in your weed control program. If you decide to try minimum-tillage I'd recommend skipping one tillage operation and spraying the weeds with glyphosate. This has been effective to help control those harder to kill perennial weeds. Glyphosate is cheaper than pulling a plow, less diesel and less wear and tear on the tractor.

Observation: Harvesting/Thrashing: I arrived after harvest but the grain samples I looked at had an estimated cracked and broken dockage of about 2-3%. This is actually in the normal range for spring wheat. The harvester machines seem to be doing a good job of cleaning the grain and keeping the small shriveled kernels from being saved as they would only add to the dockage.

Observation: Just walking on the roads I observed some grain spillage/leakage. Checking the trucks and trailers for cracks that may allow grain to leak out in transit may be something you want to look into. Also if you are not covering the loads on the way back to the farm you might consider tarping them if possible.

Observation: Your farm crews are doing a good job of monitoring moisture of the grain and rapeseed as is being harvested.

Expected impacts/results: Less grain loss.

1.2.2 Objective 2 in your SOW: Develop and submit simple guidelines on harvesting and post-harvesting management of grains (wheat)

Progress with the objective:

Observation: Bagging Operations: Your work crews are doing a good job of keeping the grain on the tarps, the only grain on the lot is by the road coming into the bagging lot. There's a few bumps there which must shake the grain off the trucks. Again tarping and sealing the trucks would help.

Recommendation: I would recommend spraying the bagging lot/field with an insecticide right

before harvest. Granary Weevils don't fly in, but they could be remaining in the area and surviving on what little spoiled grain that is left on the field from the year before. Cleaning up and hauling away any spoiled grain helps to reduce infestation potential but an insecticide treatment over the entire bagging lot is inexpensive and will help as well.

Observation/Recommendation: The major problem with treating a warehouse filled with bags is getting the insecticide through the bag so it can be effective on the weevils. You may want to consider storing the grain you plan to keep in storage long term in bulk. Bulk/loose grain is easier to treat both preventatively as well as once an infestation has occurred. Bulk grain is also probable, so it's easier to take/probe samples every 3 weeks of the entire warehouse and find areas in the warehouse that may be getting an infestation and need treating. Once the grain is in the bag you are not going to be able to sample a bag on the bottom of the pile. Only bag what you plan to ship in the next 4 months.

Recommendation: Cool your grain down right after it comes in from the field. Weevils do much better in higher temperatures so cooling the grain down fast will slow them down. My recommendation is perforated aeration tubs hooked up to fans which would be turned on at night to circulate cool air through your grain piles. This would be the most inexpensive way of providing aeration to the grain. You would need to make sure you have sufficient electrical power available in the grain bagging lot.

Observation: When treating a warehouse of bags for weevils the problem is getting the pesticide to the weevils. Grain that is in a bag and cannot be accessed directly. The bag that is in the middle of the warehouse at the bottom of the pile is not going to get the same dose of fumigant as the bags on top.

Recommendation: Treat the grain that isn't going to be sold within the next 30 days as it is going into the bag at harvest time with an insect growth regulator like Diacon-D IGR. A simple treatment of 16 grams per 100 kg bag will protect the grain by stopping the insects live cycle thus preventing it from becoming an adult. Diacon-D is for the protection of stored food, grain, animal feed, seeds used for oil and seed stock. **(This is the #1 thing you can do to protect your grain)** (Easy to apply at harvest, least toxic choice).

Observation: Warehouse: You are currently doing a fantastic job of cleaning and treating the warehouses before harvest. My understanding is you clean them, fumigate them and then spray inside and outside with Malathion.

Recommendation: You could add a dusting of an insect growth regulator like Diacon-D to the warehouse right before you fill it up. This would help control the weevils that are entering the warehouse but not weevils that are already in the bag. Another thing to consider would be to space rows into your storage scheme so when you do have to fumigate the chemical could get to the bottom of the pile. It's impossible to aerate a pile of grain in bags effectively. The bottom bag will not receive the same dose as the top bag.

Recommendation: Try using hermetic storage bagging technology like PICS (Purdue Improved Crop Storage) which is a simple and effective way to reduce grain loss to insects during postharvest storage. They are more expensive than what you are currently using but if taken care of they can be used for multiple seasons. The PICS bag is a composite airtight triple-layer plastic bag consisting of two high density polyethylene (HDPE, 80 microns thick) inner bags and one polypropylene (PP) woven outer bag. Weevils depend on air to get their water so depriving them of air in these hermetic bags is highly effective. Feeding and growing larvae burn up the oxygen in the airtight bag while raising the carbon dioxide level and when the oxygen level in the bag falls low enough, the weevils cease feeding and become inactive.

Expected impacts/results: Less grain loss due to weevil damage.

1.2.3 Objective 3 in your SOW: Not in SOW: Personal Protective Equipment for their spray crews.

Progress with the objective:

It was brought up in our discussion that you have members of your spray crews test positive for pesticides at the end of the year. Personal Protection Equipment must be worn to keep pesticides from applicators.

Expected impacts/results: Zero pesticide detections in the blood of the spray crew.

Recommendations: The farm managers should hold an annual safety training explaining how to use PPE. I'll leave the presentation I gave with the farm managers so they can build off of it.

- **1.3 Recommended future volunteer assignment:** A volunteer with no-till / minimum-till experience in dryland farming to work with both farms. This volunteer could advise on ways to adjust crop rotations and start converting to minimum-till using their current machinery. This could possibly set them up to do a no-till conversion as they update their equipment over the next 10 years.

1.4 Action Plan

| Recommendation | Specific Action | Responsible person | By when |
|--|--|---|--|
| 1. Apply Dicaon-D to the grain as the bag is being filled at harvest time. They need to make sure it is available in Ethiopia and if it is not | Check with the Ethiopian Agriculture Business Corp and Supply Seed Division to get Dicaon-D labeled in Ethiopia. | Yohannes Takele and Mustefa Woticha will contact their current chemical supplier to check on the label status of Dicaon-D. If not, they will contact the Agriculture Business Corp to | Yohannes Takele would like to test it next harvest season. |

| | | | |
|--|--|---|--|
| | | start the labeling process. John Hardy will contact the manufacture in the USA to check on its labeling status in Ethiopia. | |
| 2.Aeration of the grain piles to cool them down before bagging. | Burry aeraton tubes connected to fans in the grain piles and run them at night to cool the grain. | Yohannes Takele will check on the availability of getting power into the bagging yard | Before next years harvest. |
| 3.Spray bagging yard before harvest | Spray the bagging yard with Malthon prior to harvest to kill any weevils in the yard. | Farm managers Kaleb Dechasa and Mustefa Woticha. | Prior to harvest |
| 4. Personal Protective Equipment training for the spray crews. | Hold a safety meeting and give the PPE presentation I left for you to the spray crews | Farm managers Kaleb Dechasa and Mustefa Woticha. | Prior to spray season |
| 5. Look into other cropping options to add to your current rotation like alfalfa, in order to help with erosion control and provide additional forage options for the dairy. | Check with your local forage seed supplier to see if alfalfa would be a feasible option for your area. | Mohammadnur Teshome and Awizer Daniel will check with the farm managers to duscuss this. | Ongoing, as part of the crop rotation process. |
| 6.Use a hermetic storage system such as PICS bags. | Test the fesibility of using PICS bags in a large warehouse operation. | Yohannes Takel and Kalev Dechasa | Monitor the 3 PICS bags that were filled on 12/12/20017 for effectiveness and look into how high they can be stacked. Call the bag supplier Mr. Yared at 0930000563 and discuss this with him. |

1.5 Number of people Assisted

- a) Through formal training (Classroom setup) 6
- b) Through direct hands on practical assistance (Do not double count) 6
- c) Out of these above, number of host staffs 6
- d) Training/assistance by field 6

| Category | Total | Males | Females |
|--------------------|-------|-------|---------|
| Members/ owners | | | |
| Employees | 6 | 5 | 1 |
| Clients/ Suppliers | 3 | 3 | |
| Family Members | | | |
| Total | 9 | 8 | 1 |

1.6 Gender

- a) What gender roles did you recognize in your host community? Didn't really notice any gender roles with the farm crew, they treated each other with respect. Did these roles play a part in your assignment? No How?
- b) How might CRS or the host organization improve opportunities for the women in this host or host community?

1.6 Value of volunteer contribution in \$ 120 for door prizes.

- a. Hours volunteer spent preparing for assignment 85, I came in with over 100 files.
- b. Estimated value of all material contributions volunteer contributed to host during assignment \$120

1.7 Value of hosts' contribution in \$ (Please consult the host as well) This is my best guess.

- a) Meals \$0
- b) Transportation \$0
- c) Lodging \$ 400.00
- d) Translation \$ 0
- e) Other (Specify)

1.8 Host Profile Data:

Did you obtain any data that supplements or corrects the data in the existing host information as detailed in the SOW? Please list it. The need for their spray crews to wear PPE.

1.9 Recommendations for CRS: Give our the contact information of the previous volunteer that was at that location so the new volunteer can consult with them. This would save a lot of time.

1.10 Press Release: See Gayle Hardy's volunteer report.

1.10 Press Release

FOR IMMEDIATE RELEASE

VOLUNTEER CONTACT: [Name]

[Title]

[Phone]

[E-mail]

CRS CONTACT:

Susan G. Walters

Senior Communications Manager

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443-955-7103



[US City] Farmer [Researcher, etc] Works with Counterparts in [Country]

Farmer-to-Farmer program promotes economic growth and agricultural development in East Africa

[DATELINE: City, State, Month, Day, 2016]--- **[Name]**, a **[title]** from **[city, state]** who is a **[add your title, or area of expertise]** travelled to **[country]** for **[x]** weeks to share **his/her** technical skills and expertise with local farmers. **[Name]**'s assignment is part of Catholic Relief Services' Farmer-to-Farmer program that promotes economic growth, enhanced nutrition through access to healthy food, and agricultural development in East Africa.

"[Volunteer quote]," said **[name]**. *[Quote should tell why you were there and how you spent your time, what you were trying to accomplish and how your visit made a difference. Quotes that are short (2 sentences) and paint a picture are strongest.]*

Farmer-to-Farmer matches the technical expertise of U.S. farmers and professionals in agribusinesses, farming cooperatives, and universities with farmers in developing countries to assist them in improving agricultural productivity, accessing new markets, and increasing their incomes. Farmer-to-Farmer is funded by the U.S. Agency for International Development (USAID).

In a world where 80% of food is produced by farmers working on small farms or fisheries, the movement to share proven farming and business skills can improve the quality and quantity of the world's food supply. For communities in the developing world who often struggle to produce enough food, this can improve access to a reliable source of food and better nutrition. For the farmers, it can strengthen their path to prosperity.

The goal of **[name's]** assignment was to **[__describe goal__]**. He/she worked with **[# of and type of beneficiaries]** who **[describe situation/challenge/opportunity]**. Most of **[name's]** time was spent in the **[describe the location/part of the country]** working with **[name the partner]**. **[Optional Statement: What impact do you think your work will have?]**

This is **[name's]** (first, second, third, etc.) volunteer assignment with Farmer-to-Farmer and is one of nearly 500 assignments that focus on improving approaches to local agriculture practices, expanding production of quality food crops and nutrition in Ethiopia, Tanzania, Kenya



and Uganda. The program, funded by the U.S. government has been running for nearly 30 years.

CRS is partnering with five U.S. institutions to tap into the rich diversity of the U.S. agriculture community: the National Catholic Rural Life Conference, Foods Resource Bank, National Association of Agricultural Educators, American Agri-Women, and the University of Illinois' College of Agricultural, Consumer and Environmental Sciences.

The volunteers travel to East Africa for anywhere from one to six weeks.

“We are certain that this program will be beneficial not just to the farmers in East Africa but also to the volunteers from America,” said Bruce White, CRS’ director for the program. “It’s going to make the world a little bit smaller and a whole lot better for everyone involved.”

For more information, visit farmertofarmer.crs.org

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***Catholic Relief Services** is the official international humanitarian agency of the Catholic community in the United States. The agency alleviates suffering and provides assistance to people in need in more than 100 countries, without regard to race, religion or nationality. CRS’ relief and development work is accomplished through programs of emergency response, HIV, health, agriculture, education, microfinance and peacebuilding. For more information, visit www.crs.org or www.crsespanol.org and follow Catholic Relief Services on social media: [Facebook](#), Twitter at [@CatholicRelief](#), [@CRSnews](#) and [@CRSnoticias](#), [Instagram](#), [Pinterest](#) and [YouTube](#).*