

**Farmer to Farmer**

**Volunteer Assignment Scope of Work**

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| **Summary Information** |
| **Assignment Code** | **UG205** |
| Country | Uganda  |
| Country Project | Livestock Country Project  |
| Host Organization | Kyeyo Farm |
| Type of Volunteer Assistance | Technology Transfer (T) |
| Type of Value Chain Activity | Information and Input Support Services (S) |
| Assignment Title | Poultry Feed Formulation  |
| Assignment preferred dates | February – March, 2019 |
| Objectives of the assignment | Review and improve existing poultry feed formulation for improved productivity with reduced cost of production  |
| Desired volunteer skill/expertise | An animal nutrition specialist with hands on knowledge and vast experience with feed formulation particularly for the poultry industry, in developing countries. Practical knowledge of computer-generated models for feed formulation is essential.  |

1. **BACKGROUND**

CRS Farmer -to-Farmer program (F2F) is a USAID funded program that will be implemented for five years (2019- 2023) with a primary goal of reducing hunger, malnutrition, and poverty across six countries: Benin, East Timor, Ethiopia, Nepal, Rwanda and Uganda. The program aims at achieving this goal through advancing inclusive and sustainable agriculture led growth aimed at generating sustainable, broad-based economic growth in the agricultural sector. The program’s secondary goal is to increase US public understanding of international development issues and programs and share the knowledge back in the US. To achieve its goals, F2F program provides volunteer technical assistance to farmers and farmer groups (associations and cooperatives), private agribusinesses, agriculture education institutions in developing countries like Uganda to address host identified technical needs in selected agricultural value chains. F2F volunteers are pooled from abroad range of US agricultural expertise, from private farmers with varied experience, University professors, bankers/certified accountants, animal health and nutrition specialists, soil scientists, agronomists who support local host organisations F2F program introduces innovation and develops local organisations capacity for more productive, profitable, sustainable and equitable agricultural systems while providing an opportunity for people- to-people interactions within the agricultural sector. In Uganda F2F program will focus its technical interventions in the livestock and agribusiness value chains

Kyeyo Farm located 23 miles (37 km) West of Kampala City along Hoima road is a private enterprise owned by Mrs. Lucy Mbonye, a progressing local farmer. The farm sits on a total land area of 280 acres with currently has 227 improved (Friesian breed) dairy cows comprising of 40 milking cows, 30 dry herds and the rest as young stock including calves. The farm also boasts of 54 improved goats, 60 ducks/geese and over 2,000 layer-birds. Milk production currently averages 19-22 liters per cow per day making a daily total milk production range of about 450 to 500 liters per day. Approximately 180 acres of the total farm area are utilized for planting corn (maize) or forage grass for animal feeding; The rest (100 acres) lies fallow with native pasture. In addition, Kyeyo farm has a poultry section (laying birds- for egg production) which has been in existence for two years now and has recently introduced broilers for parent stock production. Kyeyo Farm however has faced challenges of feed formulation (from poor quality feed) resulting into high egg damages/ losses, and below average production of about 54 %.

Due to these challenges, the farm resorted to formulation of its own feed, the farm has a feed mill and mixer used for this process. Although the negative trend in productivity has now been fairly reversed, the resulting change in farm operations brought with it another dimension of challenges. The biggest challenge associated with this practice has been inconsistent feed quality –and an unpredictable feed composition that is daily fed to the birds. As a result, farm productivity is very erratic, and this affects sound decision-making. In respect of the above, Kyeyo farm has requested CRS technical services to help them improve their local on-farm feed formulation techniques to stabilize poultry production.

1. **ISSUE DESCRIPTION**

Government of Uganda (GoU) highlights in the Agriculture Development Strategy and Investment Plan (ADSIP) that livestock plays a key role in raising incomes of households and providing a source of protein and other essential nutrients for many families. The major livestock species in Uganda include cattle (15 million), sheep (4million), goats (12.5million), pigs (3.6 million). The sub-sector contributes about 7.5% to total GDP or 17% to AGDP and poultry (42 million)[[1]](#footnote-1). With increasing demand for milk as new milk plants open, and increased demand for meat in the local market the government is prioritizing the following livestock products over the medium term: Dairy, Beef, Pork, Mutton, Goat, Poultry, Honey, Silk and Hides and Skins. Beef, dairy cattle, and poultry are identified as strategic agricultural commodities for the country that are to receive increased investment for accelerated production.

Despite the desired growth, the agriculture sector is grappling with issues of counterfeit and substandard agriculture inputs, and the livestock sector has not been spared. Poultry feed formulation in the country is highlighted as one major challenge Existing poultry feed rations on the market are heavily adulterated with foreign matter- including sand, made from substandard raw materials which results in poor quality and reduced productivity of the birds. To counter this constraint, the farm management at Kyeyo resorted to local on-farm feed formulation to minimize costs due to inconsistencies associated with using industrially-processed feeds around Kampala. With adoption of on-farm formulations, the negative trend in productivity has been reversed. However, the formulation is inconsistent, and the cost of feed is quite high, and not proportionate to the bird productivity. The chicks are mostly affected by the inconsistent feed formula which affects their weight by the time of egg production. Kyeyo farm has therefore requested for CRS’ F2F technical assistance to help them improve their local on-farm feed formulation techniques to stabilize poultry productivity while minimizing costs and maximize profits. Kyeyo Farm therefore requests for a volunteer consultant with extensive experience in poultry nutrition. The consultant shall be expected to offer advice on best on-farm layer-poultry feed formulation practices and for the broilers for parent stock production.

1. **OBJECTIVES OF THE ASSIGNMENT**

The main objective of this volunteer assignment is to review and empower Kyeyo staff in poultry feed formulation for maximized productivity at reduced costs.

**Specific objectives**:

* Review existing feed formulation, and raw materials and make the necessary adjustments to meet production targets/needs
* Train staff charged with poultry feed formulation in feed formulation and techniques of detecting when the birds are not meeting their desired nutrient needs and appropriate measures to take
* To develop capacity for the farm to effectively utilize available crop residues in both fresh and preserved forms
* To improve the farm’s capacity to calculate and effectively apply recommended daily feeding regimes to their livestock on the farm.
* Introduce a simple excel software that can be used to design and adjust feed rations as appropriate to suit their needs
1. **HOST CONTRIBUTION**

 Kyeyo Farm has committed to avail staff involved in feed formulation to attend the trainings to be conducted by the volunteer. The farm manager will be available to work closely with the volunteer for the entire duration of the assignment.

1. **ANTICIPATED RESULTS FROM THE ASSIGNMENT DELIVERABLES**

The anticipated assignment deliverables will include**:**

* Trainings conducted, and people trained
* Newly formulated feed formula shared with the host and any other tools developed for the assignment
* Feed formulation guidelines developed
* Debriefing with USAID and in country group presentations after assignment
* Field trip report and expense report
1. **SCHEDULE OF VOLUNTEER ACTIVITIES IN COUNTRY (DRAFT)**

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| Day | Activity |
| Day 1 | Travel from home to US international airport |
| Day 2 | Arrival at Uganda Entebbe Airport, the volunteer will be picked by Fairway hotel shuttle to Kampala and check in at Hotel. |
| Day 3 | At 9.00 am, the volunteer is greeted at the hotel by CRS staff and thereafter go to CRS office for introductions and briefings including host brief, logistics and expectations and anticipated outcomes. Any materials for printing will be prepared at CRS offices.  |
| Day 4 | In the morning, travel to host location in wakiso CRS introduces the volunteer to the Kyeyo Farm management team. Together with CRS and the management, the volunteer will review and finalise the work-plan. The action plan should include group presentations to be done after the assignment.Familiarise with Kyeyo Farm operations, and the poultry section – understand current practices and challenges to inform interventions in feed formulation  |
| Day 5-10 | Design feed formulation program and feeding regime. Develop a training program for demonstration in formulation and feeding techniques. |
| Day 10-14 | Undertake a practical training session for farm management staff. Develop a comprehensive code of good practice for feed formulation and feeding regimes.  |
| Day 15 | Wrap up trainings and emphasize key concepts of feed formulation and feeding regime assignment. Participants evaluate the training and together with the volunteer discuss final report recommendations.  |
| Day 16 |  Volunteer travels back to Kampala |
| Day 17 | Debriefing at CRS office with USAID Mission and CRS staff.Volunteer will finalize his/her reporting at CRS office and fill out all necessary M&E forms as well finalize advances and expenditures with finance. |
| Day 18 | Depart for USA |
| TBD | Outreach event in the US |
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| **Note**: ***This is a draft schedule that will be finalized based on volunteer actual dates of availability, Sundays are typical rest days and working on Saturday is, per the host’s request*** |

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1. **ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS**

The volunteer will stay at Fairway hotel, [www.fairwayhotel.co.ug](http://www.fairwayhotel.co.ug). for the entire duration of the assignment. The volunteer will be provided with a modem from the CRS field office for internet access and a mobile phone to facilitate in country communications.

CRS will pay for hotel accommodation and provide volunteer with per diems to cater for meals and other incidentals. The volunteer may get an advance which has to be cleared before departing Uganda. For more information, please refer to country information that will be provided

1. **RECOMMENDED ASSIGNMENT PREPARATIONS**
2. **Before leaving U.S.:**
* Learn about different poultry feeding options in tropical climates
* Review relevant literature on feed formulation techniques for the different laying poultry birds
* Acquire analytical instrumentation for use during feed formulation

**ii) In-country activities/tasks**

* Assess current production levels, management procedures and feeding regimes practiced at the farm and neighboring farms
* Together with management, undertake practical demonstrations and training on feed formulation using different options and computer-generated feed ration programs.
* Train in calculation and feeding regimes of laying poultry birds at different growth stages
* CRS-F2F designs assignments with the assumption of some pre-departure preparation by the volunteer. Actual preparation time will vary based on the experience of the volunteer, as well as informational or training resources the volunteer has readily available. CRS relies on the volunteer to assess the tasks outlined in this SOW and to make his or her own judgment about how much and what kind of preparation is needed prior to arriving in Uganda
* The volunteer should prepare materials for hand out which can be printed at CRS office in Kampala before commencement of the assignment. Flip charts, markers, masking tapes can be obtained at CRS offices.
* CRS strongly recommends that the volunteer become familiar with CRS programs in Uganda, especially the livestock country project description and other information in the briefing pack before arrival to Uganda
1. **KEY CONTACTS**

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| **CRS Baltimore** | **CRS EA Regional Office**  |
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1. Okedi et.al., 2015: Global Livestock production challenges: Current status, future needs, production obstacles in Africa- The Ugandan example [↑](#footnote-ref-1)