Good health and a safe work environment – a requirement for sustainable livelihood and food security among Ugandan farmers

Project leader: Christina Lunner Kolstrup

Summary

A pilot study was conducted among Ugandan farmers in May 2014. Six male and female farmers were interviewed about their experiences and attitudes towards health, safety and risk factors in agriculture, and how these affected their livelihood. In general, the level of knowledge and awareness of agricultural health and safety risks as well as disease and injury prevention was low. The farmers found milking, spraying of animals and plantation work demanding work tasks. The main findings concerned the farmers reporting symptoms of poisoning when they sprayed the animals with insecticide and lack of safety information. The farmers expressed the need for information and practical training in agricultural health and safety, and disease and injury prevention.

Background

'Sustainable agriculture' and food security require 'sustainable health' and safe working conditions for farmers and farm families. Farmers in good health will be able to provide for their families and contribute to the local farm community. The information and research that is available is limited regarding health and safety of farmers in Uganda and data is essential to understand and change patterns of human health and safety aspects. In Uganda, these issues are not considered, discussed or studied from an agricultural aspect although several risk factors regarding human health and safety are related to agriculture. Furthermore, farmers often lack education and information on the health and safety hazards they may face.

Objectives

The objective was to interview Ugandan farmers and family members regarding their attitudes towards health, safety and risk factors in an agricultural context, and how these affected their daily lives and livelihood. The pilot project also aimed to identify existing needs, possibilities and obstacles regarding human agriculture-related health and safety issues in Uganda for future research and collaboration.

Collaborators

This pilot project was developed and carried out in close collaboration with Uganda Martyrs University (UMU) and SLU. Both UMU and SLU are engaged in the Agroecology educational programme (originally financed by SIDA) and this pilot project was a spin off from the Agroecology programme.

SLU
Christina Lunner Kolstrup (project leader, researcher) – Dept. of Work Science, Business Economics & Environmental Psychology (AEM)

Uganda Martyrs University (UMU)
Tonny Kiggundu Ssali (MSc in Agroecology) - Faculty of Agriculture, Nkozi, Kampala, Uganda
Daniel Kizza (MSc in Livestock Production) - Faculty of Agriculture, Nkozi, Kampala, Uganda
Julius Mwine (PhD, Dean) - Faculty of Agriculture, Nkozi, Kampala, Uganda

Uganda Catholic Management and Training Institute, Kampala, Uganda
Meresiane Nnassuna (Principal)

Approach

The pilot study was conducted in Mbarara district in the Western region of Uganda during the period of 19-23 May 2014. The pilot project comprised interviews with three male farmers, a female farmer and a female farm family member, in addition to transect walks on each farm. A female veterinarian was also interviewed. The interviews were performed in English by the project leader from SLU and in the local language by one of the team members from Uganda Martyrs University (UMU).

An interview guide was developed in collaboration with the UMU team and included

Summary in Swedish

En pilotstudie genomfördes bland ugandiska lantbrukare maj 2014. Sex manliga och kvinnliga lantbrukare intervjuades om erfarenheter och attityder till hälsa, säkerhet och riskfaktorer inom jordbruket, och hur det påverkade deras försörjning. Generellt var kunskapsnivån och medvetenheten om hälsa och säkerhet i jordbruket låg. Mjölkning, insektsbehandling av djur och markarbete var fysiskt krävande arbetsuppgifter. De viktigaste resultaten var lantbrukarnas rapporter om förgiftningssymptom när de behandlade djuren med insektsmedel och bristen på information om hälsa och säkerhet. Lantbrukarna uttryckte behov av information och praktisk utbildning i hälsa, säkerhet samt förebyggande av sjukdomar och skador i jordbruket.

Photo: Christina Lunner Kolstrup

Hand-milking involving squatting and kneeling at a large dairy farm.

questions about the demographics of the farms and the participants, the daily work tasks and tools used on the farm, the participants' perceived health and occurrence of injuries. Further, the guide contained questions concerning the participants' experiences, attitude and awareness of the following: hazardous, physical and mentally demanding work tasks and situations, hazardous farm chemicals and drugs, how to avoid getting ill or injured when farming, possible benefits of a healthy and safe farm environment, and questions about availability and demand for information and training in agricultural health and safety.

Results

Demographics. Three of the four farms visited in Mbarara District, Uganda, practiced smallholder agro-pastoral farming. Besides pasture for the animals, the farms grew plantain (cooking banana), sweet potatoes, beans, cassava, yams, millet, sorghum and ground nuts on a few hectares.

The farms also reared livestock and had on average 7-13 dairy cows and heifers of local- or crossbreeds, 10 goats, 10 chickens, 3 pigs and 5 sheep. Hand tools such as machete, shovels and hoes were the only equipment used to cultivate the land. The farms were all owned and managed by male farmers aged 40-70 years of age with help from their wives and children.

The fourth farm was, in an Ugandan perspective, a large farm with the main focus

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on dairy production (125 cattle including 30 dairy cows). The farm was 80 hectares and included pastures, Napier grass for animal feed (silage), plantain, traditional vegetables for human consumption, and timber production. The land was cultivated using the traditional hand tools; however the dairy farm had a milking machine (lacked spare parts, so did not work), a biogas plant and hydropower for for electricity and water supply. This farm was owned and managed by a female widow in her sixties and her 25 employees. All four farms applied Integrated Pest Management (IPM, meaning not using pesticides, insecticides or fungicides on the crops).

Daily work tasks. In the western region, females are usually the ones responsible for the household chores and children, working in the plantation and managing the smaller livestock such as pigs, sheep, goats and poultry. The men are often the ones responsible for the cattle, milking, participating in plantation work if needed and in some cases having off-farm jobs. A usual working day on the visited farms started early in the morning (6 am) with prayers, a bath, the men milking and the women feeding and watering the animals. After breakfast, work was done in the plantation and vegetable garden. After lunch and a few hours' rest, the afternoon was spent in the plantation or the vegetable garden, on tailoring, maintenance, household chores and milking, feeding and watering before dinner (6 pm). The day ended socializing with family and neighbors, praying and sleeping at 9 pm.

Hazardous and demanding work tasks and situation. In general, the level of knowledge and awareness of agricultural health and safety risks, disease and injury prevention was low. When we asked the farmers, they claimed few agricultural related complaints, injuries or diseases. It was obvious from the farmers' responses that health and safety concerns such as diarrhoea, cough, fever, cuts while using the machete in the plantation, bruises when handling the animals and symptoms of poisoning from using insecticides on the animals, were nothing worth talking about and considered to be part of the occupational hazard. The veterinarian explained that Ugandan farmers consider life in itself to be hard (work) and the mental pressure and concerns regarding drought, not getting enough food for the animals and family, having to pay for expensive medication if and when you fall ill and school fees for the children are more significant than a few cuts, bruises and diseases.

During the interviews and transect walks, however, the farmers began to tell their stories and several issues came to light. Hand-milking the dairy cows involving squatting and kneeling, carrying the back sprayer with insecticide and working in the plantations were regarded as physically demanding and sometimes hazardous work tasks. One farmer commented (translated): *"When my wife is taking care of the children at home and I have to work alone, doing hard work like digging in the banana plantation, I feel stressed and anxious that an injury could happen."*

The most important topic mentioned by the farmers and the veterinarian was the use of chemicals and drugs related to livestock. Once a week the farmers sprayed the animals with an insecticide to prevent ticks, lice, tsetse flies and other biting nuisance flies using a back or hand sprayer. The spraying was conducted without personal protection equipment (PPE) such as face masks (except for the large dairy farm), gloves, overalls or gumboots. According to the people interviewed, PPE was considered to be too expensive and difficult to obtain. The farmers explained that they usually felt unwell or dizzy, vomited, had pain and a burning sensation in the face and eyes after spraying. The symptoms of poisoning lasted from a couple of hours to several days. Sometimes the symptoms were so severe that they needed treatment and bought medication without prescription at the local drugstore. The storekeeper often had limited or no knowledge at all about the chemicals or drugs, except for dosage and one of the farmers said: *"They don't give information, they just sell. You go to those (drug) shops, you tell them what's wrong, then they tell you, this one is for spraying, then they give you simple instructions on how to mix and how to apply – but not how to protect yourself."* Furthermore, the label text on the jar was tiny and the farmers did not understand or relate to the warning signs on the labels. Another critical problem was that several farmers in the region were illiterate.

When we asked the farmers what they did in order to stay healthy and avoid getting ill, they stated that it was important to eat well and rely on local real food (indigenous food, meaning without chemicals). They claimed that they seldom fell ill and if they did it was just local diseases and fever. In the literature, fever, coughing and diarrhoea are quite common among Ugandan farmers and are often related to malaria or brucellosis (zoonotic disease, infection by unpasteurised milk). Almost all the people interviewed were unaware that some diseases could be transmitted from animals to the humans and vice versa; they did not know of brucellosis, typhoid or salmonella – it was just a fever or a simple cough.

The farmers explained that they often used indigenous knowledge and local herbs to treat diseases, cuts and wounds and they seldom visited the medical clinic (too expensive, no trust and often too far away). If they had a fever they bought medication at the local drug store. This brought up a sensitive topic, which related to farmers using animal medication for human treatment and the veterinarian explained the reasoning among farmers: "*Here I am (as the farmer), I've been growing up with this animal, it falls sick, it gets a fever (we call it fever), it's given medicine and it heals – so, I have a fever, I can share the drug.*"

Benefits of a healthy and safe farm environment. The female dairy farmer was a progressive farmer. She viewed her farm as a business and believed that a healthy and safe environment for the animals and humans would result in profitable production and healthy and happy workers. She had developed routines for milking hygiene, animal handling, animal book keeping and safety. She had chosen to employ labour instead of investing in technical equipment and she commented: "*I'm not really keen on mechanizing because we have the human resource everywhere and I could just as well employ, so that they can also earn their livelihood from here.*" She took care of her employees; she taught them how to manage dairy cow records, gave them fair wages, housing conditions and access to medical care and believed that managing the human capital at her farm was essential.

Availability of and demand for health and safety education. No agricultural health and safety training was available in the region. Almost all those interviewed were eager to attend training in health and safety prevention. The farmers had confidence in NGOs and veterinarians and preferred them to conduct the training courses in collaboration with agricultural health and safety specialist. The farmers also mentioned the urgent need for simple first aid kits and PPE such as face masks and gloves.

Photo: Christina Lunner Kolstrup

The chute where the animals once a week were sprayed with insecticide to prevent ticks, lice and tsetse flies.

Communication of results

The pilot study was conducted in May 2014 and the results was presented on different occasions such as lectures for SLU and UMU students and faculty members in autumn 2014. In 2015 we plan to present the results at a conference on Rural Health in Italy and at the annual African Livestock Conference and Exhibition. Based on the results from the pilot project, the SLU and UMU team are also planning for a scientific paper and a new research application in 2015.

Gender aspects

The research team consisted of one female member of staff from SLU (project leader), and one woman and two men from UMU. Three of the people interviewed were women.

Greatest value of the project and next steps

The programme has given us the unique opportunity to initiate and develop the conceptual idea and conduct a pilot study with a focus on agricultural human health and safety issues in close collaboration with the team at UMU in Uganda. Further, this possibility has strengthened and opened up further opportunities for collaboration. In general, the project has provided us with a better understanding of how Ugandan farmers and farm families consider and perceive agricultural health and safety issues and has highlighted some of the key issues to be addressed in further research.

A summary of the statistics for this project on p. 183