

UGANDA MARTYRS UNIVERSITY
FACULTY OF AGRICULTURE
Examinations 2013-2014

Bachelor of Science in Agriculture Year 3
Exam: Professional and Applied Ethics
Time: 10:00am – 01:00pm (3 Hrs)
Date: 02nd July 2014

Instructions:

- i. Question One is **COMPULSORY(50 Marks)**
- ii. Attempt any other two (2) questions
- iii. Write clearly, number the questions appropriately on the answer booklet
- iv. Read and understand the instructions on the last page of the answer booklet
- v. Do not write anything on a question paper

Read the article below and answer the questions that follow:

GMO Solutions to Ugandan Banana Wilt (By Gordon Hull, Iowa State University)

Sub-Saharan Africa in general and Uganda in particular, face chronic hunger and food insecurity. Despite steady gains since the end of Idi Amin's dictatorship, and according to data collated by the World Resources Institute, the average Ugandan had about 600 fewer calories available per day to eat than the global average, and the average annual variation in food supply (caused by factors such as drought, displacement of people, etc.) is almost double the global average. Many people thus live at a food-subsistence level, and can easily and precipitously be plunged into extreme hunger. Cereal imports and food aid account for almost 6% of total consumption. At the same time, agriculture is by far the most important part of the Ugandan economy: in 1990, agricultural workers comprised almost 85% of the total workforce, and accounted for almost 43% of the country's total economic activity. Changes in the agricultural sector, then, affect most of the population, and not only in terms of food supply.

The depth of Uganda's poverty is striking. According to Iowa State University's Center for Sustainable Rural Life:

- 82% of the population lives on less than one dollar per day
- 40% lack reliable access to sufficient healthy food
- 39% of children under the age of five are stunted
- The CIA estimates that 35% of the population lived below the poverty line as of 2001 (CIA Fact book).

Although these numbers are bleak, they are significantly better than sub-Saharan African averages, and the Ugandan economy has been growing steadily, achieving a 5% real growth rate in 2006 (CIA Fact book).

The political situation in Uganda is unstable, and the country has been involved in two devastating recent conflicts:

1. The Second Congo War – a conflict in the neighboring Democratic Republic of Congo (formerly Zaire) that, although almost invisible to Westerners, cost the lives of an estimated 3.8 million people from 1998-2003.
2. Uganda also faces an ongoing insurgency in its northern provinces by the “Lord’s Resistance Army,” a group accused of widespread torture, rape, abduction, and use of child soldiers. Fighting between the LRA and the Ugandan government has resulted in somewhere between 1.2 and 1.7 million internally displaced persons (CIA Fact book).

Against this already challenging background, Uganda now faces a new problem: a rapidly spreading bacterial banana wilt (Banana Xanthomonas wilt (BXW)). This banana wilt has devastating effects on affected plants and areas. A study of its effects in one district since 2001 showed that, among other things (this data is verbatim from the executive summary of *Community Coping Mechanisms*):

- 97% of respondents report a reduction in production of between 65% and 80%;
- Labour needs to produce bananas has reduced by 70%;
- Number of Matooke traders in local markets have declined by 50% or more;
- Volumes of banana being marketed have reduced by 75% while the price has increased 50%;
- Changes in uses of banana have been reported in 90% of households, many socio-cultural uses of banana having declined sharply;
- Coping strategies of households include reducing food intake, reducing external expenditures on education, health and clothing, changing crop production (especially to annual crops), switching to banana cultivars that are less susceptible to the disease, switching goods for transportation or marketing, abandoning and selling processing businesses, migration to other areas.

In sum, BXW presents a serious threat to the food security of millions of people. It also presents a policy conundrum: one way to combat the effects of BXW would be to genetically engineer a resistant strain of banana.

Having read the article, answer the following questions:

- a) To what extent do Western countries (like the USA) have a moral responsibility to address food insecurity (or other basic needs) in developing countries? (20 marks)
 - b) Is genetically modified food morally acceptable? Discuss the ethical concerns and controversy surrounding the use of biotechnology in agricultural production. (20 marks)
 - c) The Parliamentary Committee on Agriculture is seeking views from agriculture experts as to what should be included in the GMO bill. As an Agriculture expert, what suggestions would you give? (10 marks)
2. "Morality and ethics are really about religion, so questions about morality only apply for those who have religious beliefs." Discuss. (25 marks)
3. Explain what you understand by 'Ethical Human Conduct'? In what way is it important to be ethical along with being professionally competent? (25 marks)
4. Explain three major aspects of Kant's duty ethics. What are the major shortcomings of his ethical theory? (25 marks)
5. Explain and discuss briefly the following concepts (5 marks each):
- a) Whistle blower
 - b) Code of conduct
 - c) Deontological ethics
 - d) Utilitarianism
 - e) Social responsibility
6. "Virtues are acquired by habituation/training. We are not born virtuous; we acquire virtues from our parents, teachers, friends and interactions with society. Therefore it is not correct to blame a corrupt agriculture extension worker, a rapist or fraud businessman entirely for their lack of virtues." Explain your views. (25 marks)