

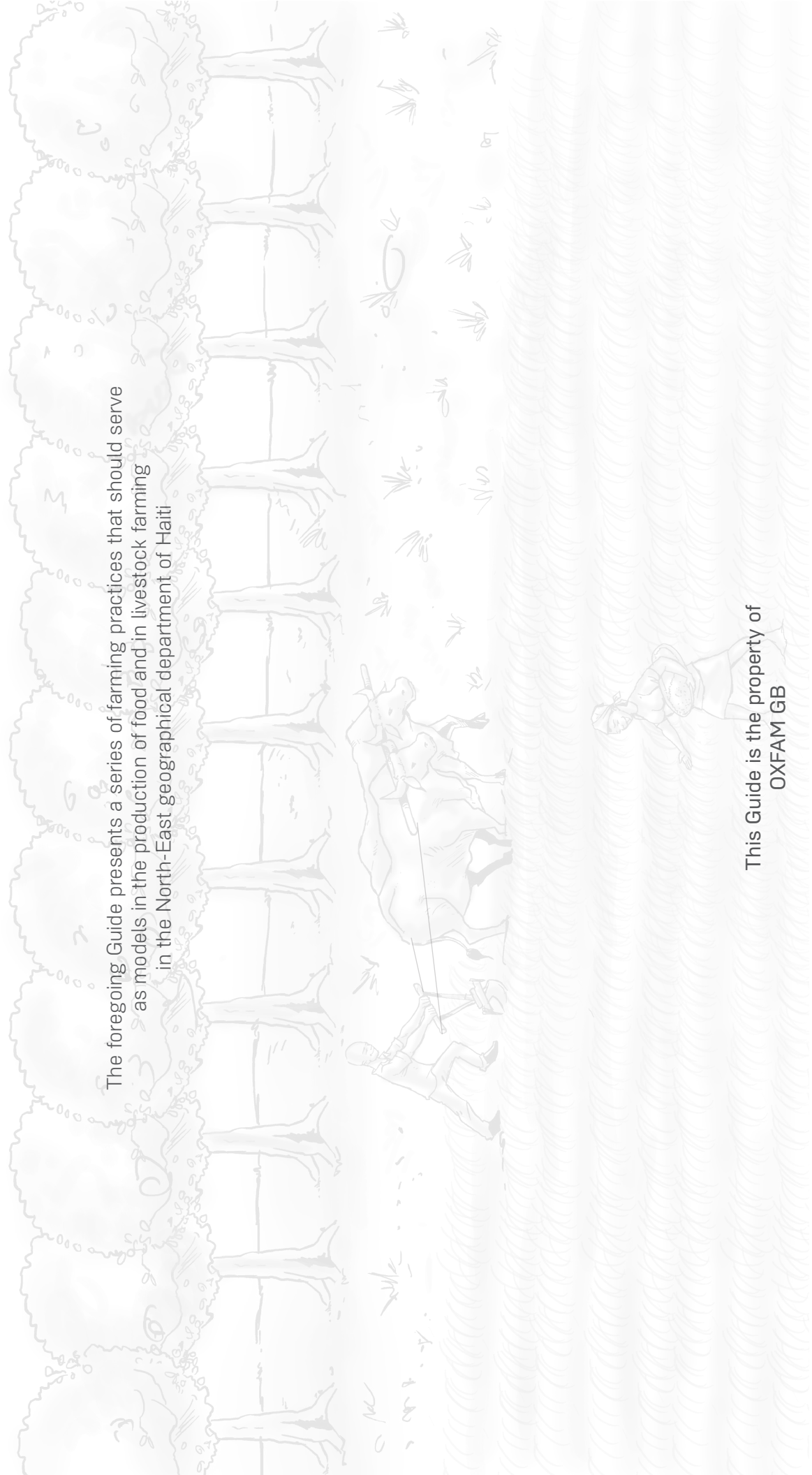
# GUIDE OF BEST FARMING PRACTICES



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# GUIDE OF BEST FARMING PRACTICES

The foregoing Guide presents a series of farming practices that should serve as models in the production of food and in livestock farming in the North-East geographical department of Haiti



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## PRESENTATION

The environmental problems presently observed in the country show that the manner in which farming is done does not take into account our rare but important resources. Our farming methods would be more efficient if we applied established principles that are well adapted to the agricultural production, the conditions and situation of the area producing such food.

In the foregoing guide, we try to share some knowledge regarding best farming practices in order to direct food production in the North East of Haiti towards durable farming, observant of the environment, producing good quality food conducive to good health while protecting labor conditions of small farmers and their families. The main objective of the guide is to bring awareness to the producers about the importance of implementing knowledge and best practices to improve the production system to yield more food so the country could be self sufficient in matters of nourishment.

The ideas set forth in this guide will help the farmer produce better while taking the best action not only to counter climate changes but also to guarantee human health.

This guide of Best Farming Practices (BFP) will help agricultural technicians, producers' organizations, school authorities, NGOs and all other instances concerned with farming.



## INTRODUCTION

Global warming, consequence of “climate change”, seems like an additional danger in the inequality and divergence in many geographical regions of the planet. The populations living in the poorer nations are more vulnerable to consequences of climate changes, while being the least responsible for them. Climate changes increase the difficult situations of the poorer populations (food security, access to health and potable water, energy, housing, etc.). Due to their geographical location, lack of resources, institutional capacity and their dependance upon a sector reliant on the climate such as agriculture, the populations of less advanced countries are the first victims of the current and future climate evolution. Climate change is a concept that is not easy to grasp in Haiti.

The general principles of Best Farming Practices (BFP) were discussed for the first time in 2003, at a session of the Agricultural Committee of the FAO . The realities involved with Best Farming Practices have evolved over the last few years— with the development and rapid advance in the food economic sector, as a result of the concern and commitment of those who have an interest in good quality and environmentally friendly food production, the health of humans as well as that of animals to promote a sustainable agriculture. This relates mainly to government, the transformation industry, farmers and consumers who have a specific objective in the matter of food security and production.

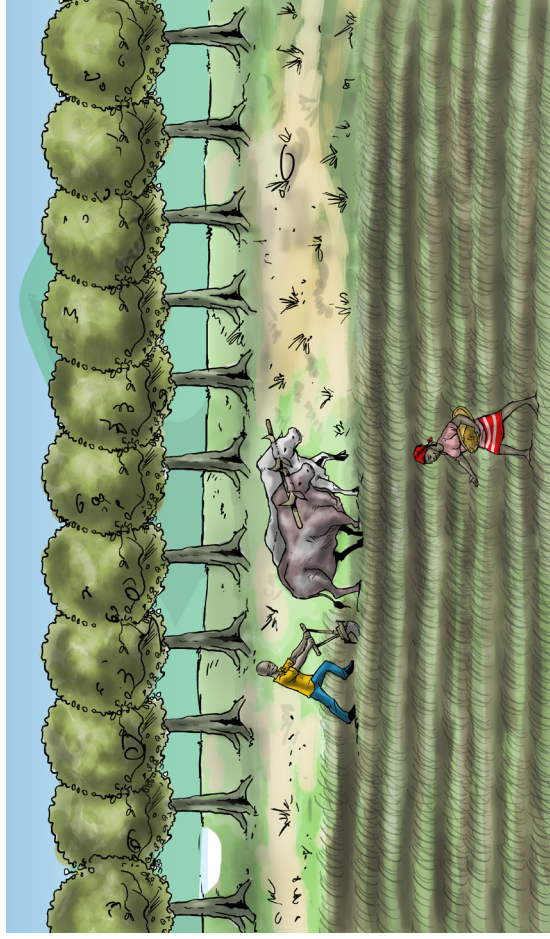
Best Farming Practices brings a response, partially maybe, to a growing demand in a globalized agriculture, but are very valid in local food production systems. Agriculture plays an important part in the economy of Haiti. It is estimated that 25 to 30 per cent (%) of the GDP comes from the agricultural sector and that said sector counts for two thirds (2/3) of the active workforce . To promote food security and decrease poverty in Haiti, for a durable management and preservation of our natural resources, it is essential that we improve the way we produce food in this country. This guide on BFP contributes to the accomplishment of such goals.



1-Agricultural committee of FAO – Drafting of a guideline of best farming practices – Rome, April 2003

2-Ministry of Agriculture, Natural Resources and Rural Development (MAPNDR) – General ..... of Agriculture (RGA), 2008/2009

# 1. WHAT ARE BEST FARMING PRACTICES?



## 1.2. - Who are the beneficiaries?

- The small, middle-size and big farmers who will have an added value to their products and a better access to the markets.
- The consumer who will benefit from better nourishment from food produced with no danger and of better quality.
- Trade and industry which will earn more money for the improved products they offer and
- The general population who will benefit from a better environment.

### 1.1. - The concept

Best Farming Practices are a series of principles, official norms and technical recommendations on the processes of planting, harvesting and transportation of food products, that aim towards human health and protection of the environment to improve the situation of the farmers and their families.

Local Best Farming Practices, based on the BFP approach of FAO were published in 2003 can improve, with the help of existing documentation relating to international principles, such as the International Convention on Plant Protection (CIPF), the FAO/OMS committee on Food Code, the World Organization for Animal Health, and certain BFP principles which promote protection of the environment and social and economic development.



## 2. IMPLEMENTATION OF BEST FARMING PRACTICES

In the context applicable to the counties of Ouanaminthe, Ferrier, Capotille and Mont-Organisé of the geographical department of the North East of Haiti, we will evoke only practices which relate to the planting process, water, crop and fodder production, crop protection, soil conservation techniques, animal husbandry, animal health, harvesting and storing produce and the well-being, health and safety of people.

### 2.1 Cultivating the soil Bad Farming Practices



#### REMEMBER:

Good soil management aims to keep and improve crop yield while increasing the amount of water that penetrates the soil to produce better food. This should boost the biological activity of the soil and renew organic matter and humidity contained there. At the same time, there will be an increase of minerals previously lost through erosion and drainage of water on top of as well as under the ground.

### Best Farming Practices



It is recommended to:

- Rotate the crops.
- Use organic and mineral fertilizers as well as other chemical products in quantity, with dispersion and timing appropriate to type of crop, such as before sowing and during plowing.
- Always give the soil, whenever possible, a resting time without crop. This will not only help control harmful insects and diseases but also provide an opportunity to best benefit from the minerals in the soil.

## 2.2 Water

### Worst Farming Practices



by:

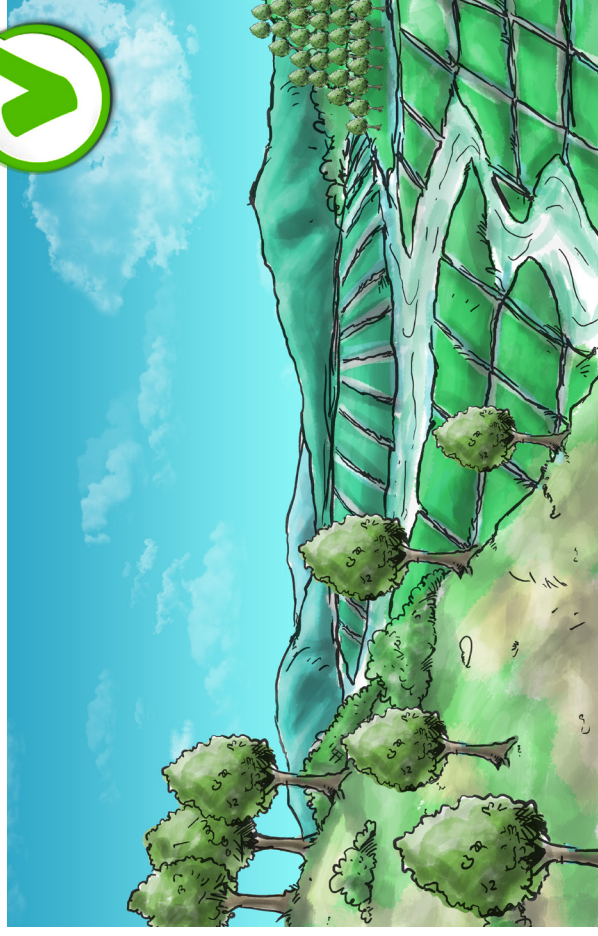
- Mixing chemical products in vessels or in a spot used for household water or animal drinking water.
- Using unclean equipment or vessels for animal drinking water.
- Mixing chemical products or washing equipment used to apply chemical products in water destined to animal drinking or to the household.



#### REMEMBER:

Good management and use of water for irrigation and livestock will result in sustainable agriculture. Equipment used and the manner in which the water is managed for irrigation can reduce crop loss, stop erosion and decrease the amount of toxic minerals in the soil. Good quality water has a positive impact on people's health and on animals.

### Best Farming Practices



Through:

- Increasing the amount of organic matter in the soil and applying fertilizer containing organic waste or processed products such as compost which can avoid water contamination.
- Applying certain techniques to control the amount of water in the soil and programming an appropriate irrigation schedule in order to avoid having a too high count of minerals in the soil or wasting water, as for instance early in the morning and when the sun is not too hot.
- Managing the water and the equipment so the water is clean and safe for the animals.



## 2.3 Growing crops and fodder

### Bad Farming Practices



- Planting at a time which does not correspond to the farming calendar of the area.
- Buying unreliable seed such as uncertified seed.
- Sowing without applying soil conservation techniques.
- Letting fodder grow without care as for any other crop.

### Best Farming Practices



- Selection of seed: When sowing, prepare a hotbed or plant the selected seed and the variety which have labels containing detailed information and characteristics such as yield, quality, resistance to diseases and stress or whether the plant can adapt to the climate of the region; they also indicate the reaction to application of fertilizer and other chemical products.
- Rotating the crops to take better advantage of labor and equipment and increase the biological benefit in the fight against weeds and diseases by either competitive, mechanical, biological means or with weed killers.
- Rotating crops that aim to minimize disease and, at the appropriate time, plant leguminous which are a good source of nitrogen for the soil.
- Using organic and chemical fertilizers in a balanced way, with adequate method and equipment, and also at suitable intervals as to replace elements removed through harvesting or that are lost during plowing.
- Increase mineral stability in the soil by recycling waste from harvest as well as other organic waste such as from household kitchens.
- Letting animals graze during plowing so their organic waste can be transformed into mineral matter in the soil to increase crop yield.
- Rotating grazing spots for animals so the grass can grow better and in improved conditions.
- Observing established principles and safety rules for operation of equipment and farm machinery used in the production of crop and fodder.



### REMEMBER:

The production of crop and fodder must begin with the selection of seed and variety for annual and permanent growing in order to satisfy the needs of consumers and the local markets. The land will be better developed, the soil more productive when the crops are rotated, diseases and pests are treated and fertilizers as well as other chemical substances are applied.

## 2.4 Protection of crops

### Bad Farming Practices



### Best Farming Practices

#### MAKE A TRAP



- Using varieties that can resist diseases and pests, rotating crops and animal grazing spots.
- Storing and using chemical substances according to regulations established for each crop, quantities to be applied and the intervals to observe up to harvest time.
- Ensuring that skilled and properly trained personnel apply the chemical products.
- Ensuring that equipment and chemical substances comply with safety regulations and get the maintenance required.



#### **REMEMBER:**

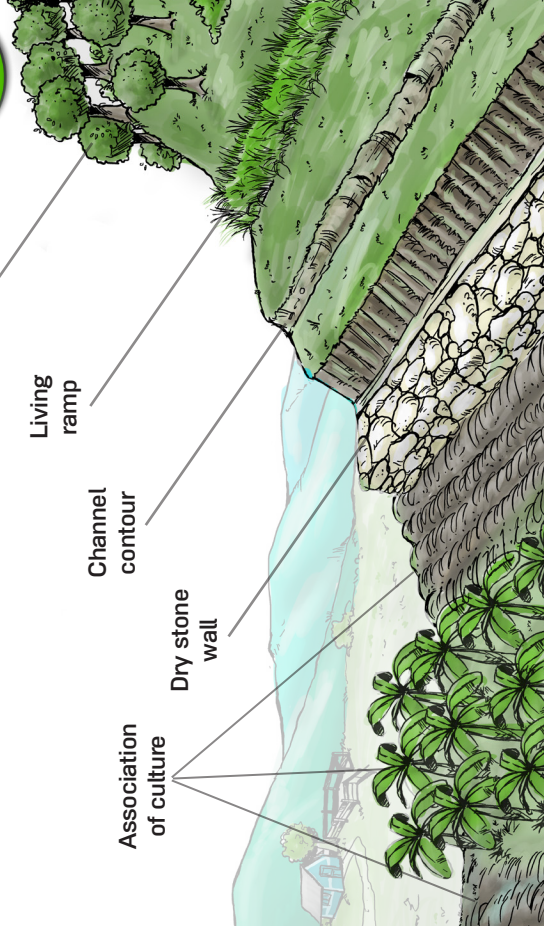
Caring for plants is essential to obtaining results, improving the quality of the crops and protecting human health. Consumption of crops harvested in good conditions and animals raised with the best care yields positive results on our health and on the environment we live in.

## 2.5 Soil conservation techniques

### Bad Farming Practices



### Best Farming Practices



Vegetation cover

Living ramp

Channel contour

Dry stone wall

Association of culture

- Contour line planting: this increases the infiltration capacity of the soil and has positive effects on the amount of carbon and helps decrease erosion from rainwater or plowing.
- Agroforestry: this system integrates, on the same farmland, crops and trees together for farming, producing fruit and raising livestock.



### REMEMBER:

A soil that can no longer produce food is the result of bad farming practices. Do not burn the soil or keep animals in unsuitable areas such as slopes. To have fertile soil and a good crop yield, it is necessary to use adequate soil conservation techniques. Use methods of gully treatment when farming in ravines or next to them and avoid over plowing the earth before planting when growing crops on hillside.

## 2.6 Raising livestock

### Bad Farming Practices



- Having the animal pen on a slope.
- Putting animals in a pen which is not in a condition conducive to their development or hygienically suitable to their health.
- Letting the animals loose to eat in any manner or condition when raising freely.

### Best Farming Practices



- Selecting the best spot to keep livestock in order to reduce any negative impact on the environment or on the animals.
- Always monitoring the animals to administer health care, food and water when necessary.
- Providing the animals with the daily amount of food and water necessary for their development.
- Selecting, building, using and maintaining equipment, structure and facilities devoted to the animals in a way to avoid losses and accidents.
- Integrating the raising of livestock to farming to avoid having too much waste, and using the organic waste from animals to produce more food.
- Always keeping registers to record when the animals are bought and sold, the food they are given and when edible products such as milk and meat are sold.

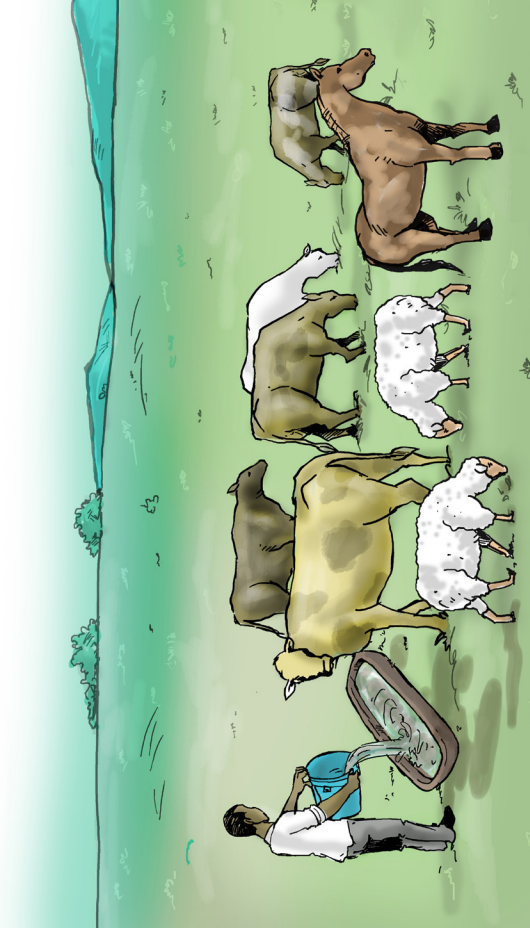


#### REMEMBER:

Raising livestock needs a lot of space, food and water for the well-being and benefit of the animals. It is necessary to adjust the amount of time the animals graze to other food supplied. Avoid putting too many chemicals in their food so the animals can remain healthy and the food such as the milk or meat they provide will not be contaminated. Manage the organic waste from the animals to replace lost minerals in the soil.

## 2.7 Animal Health

### Bad Farming Practices



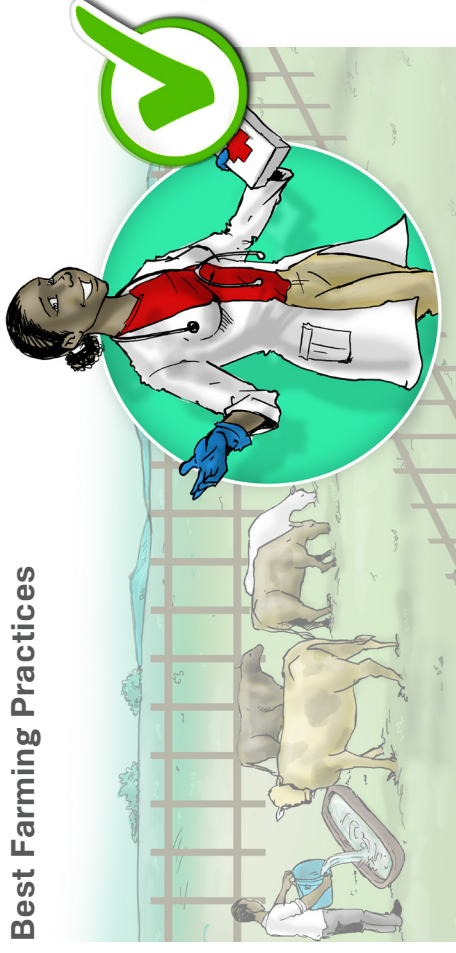
- Giving the animals unbalanced or contaminated food.
- Providing the animals with water that is unclean or that does not meet sanitary conditions.
- Putting different species in the same area of the pen.
- Storing animal feed in the same place as other chemical products used in the fields.



#### REMEMBER:

Successful animal raising must pay careful attention to the health of the animals. Therefore, the pastures must be well kept and preventive measures must be taken such as permanent inspection, vaccination, identification and treatment of illnesses and whenever possible, consult a veterinarian. Only qualified or adequately trained staff should care for the animals.

### Best Farming Practices



- Managing the pastures well; providing the animals with food that is safe and with appropriate lodging to reduce risks of infection and diseases.
- Always keeping the pen and the feed clean and in good sanitary condition.
- Verifying that the staff managing and taking care of the animals is competent for the job.
- Always consulting a veterinarian to avoid disease and health problems to the animals.
- Appropriately cleaning and disinfecting the pen to keep the animals' dwellings in good sanitary condition.
- Providing the animals with adequate space and clean water whenever they need such.
- Grouping the animals every time possible; avoid isolating them except in the case of injury or illness.
- Having a veterinarian promptly care for injured or sick animals.
- Always purchasing, storing or using medication approved by international standards or recommended by a veterinarian.
- When animals get sick, always record illnesses, medication administered and the animal treated in a registration book.

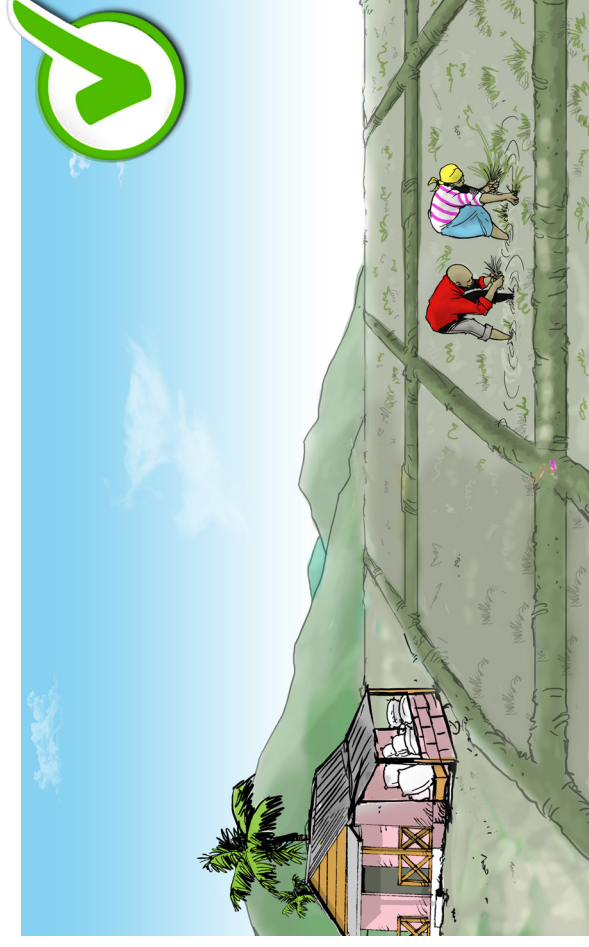
## 2.8 Harvest and Storage

### Bad Farming Practices



- Picking the crop before it is mature.
- Harvesting with inappropriate equipment.
- Storing the crops in an environment that is too humid or does not have adequate sanitary conditions.

### Best Farming Practices



- Observing intervals for application of sanitary products before harvest time.
- Always washing and disinfecting equipment to be used for the harvest.
- Using recommended detergent with clean water to wash the crops.
- Storing crops in good sanitary conditions and in a proper environment.
- Placing products to be sold in boxes, cases or clean specially made packaging.
- Always keeping precise records on the harvest, the storage and transportation of crops.
- Always using the adequate slaughtering method for each type of animal.
- Supervising and ensuring that the staff has the proper training and always keeps the equipment clean.

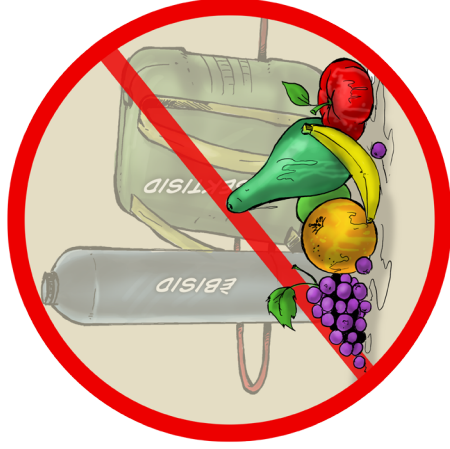


### REMEMBER:

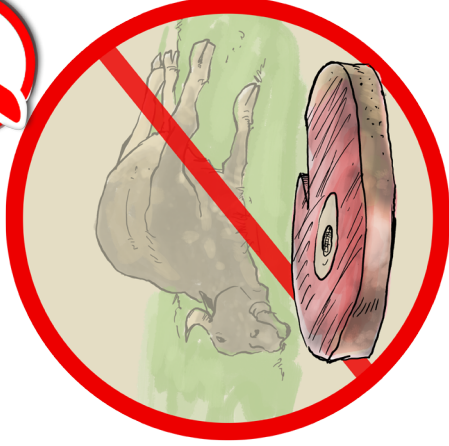
Harvesting must observe intervals for application of sanitary products as well as veterinary medications. Crops must be stored in adequate conditions of temperature, humidity and space. Activities related to animals such as shearing, skinning or slaughtering, must comply with established sanitary and health regulations.

## 2.9. Well-being, Health and Safety

### Bad Farming Practices



- Applying chemical products without personal protective equipment,
- Consuming products immediately after spraying chemical products such as herbicides, insecticides, etc.,
- Eating the meat or drinking milk from animals that are ill.



### Best Farming Practices



- All farming practices must maintain a balance between the economy, the environment and the social life of the farmer.
- Farming must bring the family working on a farm the necessary income and food security.
- Observe work safety procedures as well as an acceptable schedule and allow resting time for the workers.
- Provide the workers with good training for the use of the tools and farm machinery.
- Pay the worker a reasonable salary and avoid abuse, especially to women and children.



### REMEMBER:

There can be no sustainable agriculture without the mention of health and safety for agricultural workers. Farming must bring income to be durable. Economic well-being of the farmer, agricultural worker and the local community depend on such. Health and safety are 2 important factors for people who participate in farming. Thus, vigilance and supervision are essential to the farming process.

# GLOSSARY

**BPA:** Bon Pratik Agrikól (Best Practices in Farming)

**FAO:** Food and Agriculture Organization

**CIPF:** International Plant Protection Convention

**OMS:** WORLD HEALTH ORGANIZATION (WHO)

**OIE:** World Organization for Animal Health

**M.O:** Organic Matter



# BIBLIOGRAPHY

- Comité de l'Agriculture, FAO. - Élaboration d'un cadre de Bonnes Pratiques Agricoles.- Rome, Avril 2003
- Fundacion Hondurena de Investigacions Agricola.- Guia practica de conservacion de suelos, segunda edicion.- Honduras, octubre 2011
- Ministère de l'Agriculture des Ressources Naturelles et du Développement Rural (MARNDR).- Manuel Pratique de Conservation de Sols d'Haiti.- Haiti, 1999
- Ministère de l'Agriculture des Ressources Naturelles et du Développement Rural (MARNDR).- Recensement General de l'Agriculture (RGA), Resultats Provisoires Departement du Nord-Est.- Port-au-Prince, 2008/2009
- SoCo Project Team.- Final report on the project 'Sustainable Agriculture and Soil Conservation (SoCo)', 2009
- <http://www.fao.org/ag/fr/magazine/faogapfr.pdf>
- <http://www.ma.auf.org/erosion/chapitre1/VI.Lutte.html>







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