

**TRAINING PROGRAMME
SUSTAINABLE AGRICULTURE PRODUCTION
UNDP/JCCCP**

“Intensification and Diversification of Vegetable Production – Morne Prosper”

2019

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PRIMARY TOPICS and TOPIC OUTLINE

1. Principles of Organic Agriculture 2 session

This module of the training course will focus on the historical, ethical, social and scientific considerations of organic agriculture. The question of what is organic agriculture, its principles and aims, and the distinction from other farming systems will be covered. This issue of farm inspection, certification requirements, as well as standards, regulations and national policy will be covered. Upon completion of this module participants will be fully aware as to what are the basic requirements for establishing and operating an organic enterprise moreover the requirements for operating a certified organic enterprise.

2. Land Preparation / soil conservation 3 session

This module of the training course will focus on conservation measures which can reduce soil erosion. Soil / land management practices such as tillage and cropping practices, directly affect the overall soil erosion problem and solutions on a farm. Upon completion of this module farmers should have an overall understanding of crop rotations or changing tillage practices in controlling erosion on a field, as well as other control measures such as contour plowing, strip cropping, or terracing.

3. Soil Fertility 3 session

This module of the training course will focus on the soil as a living organism, the composition and structure of soils, the soil microcosm and what makes a soil fertile. Of importance will also be the delivery of topics to include soil cultivation and tillage, soil erosion, water conservation and mulching. Upon completion of this module participants should be fully aware as to how to achieve soil fertility, the importance of soil organic matter, how to approach soil erosion and how to keep water in the soil.

4. Seedling Production 2 session

This module of the training course will focus on information relating to seed and seedling production of the most important groups of vegetables. Of importance will be the principles of seed production to include pollination and germination, use of growth regulators to promote flowering, the seed industry and seedling ecology. Upon completion of this module participants will better understand the role of seed industries in agricultural development, structure, function and variation of seedling parts, vegetative viability and dormancy, germination, establishment and speed of growth as well as good nursery practices for the production and management of healthy seedlings.

5. Plant Nutrition 2 session

This module of the training course will focus on plant nutrition and balance plant health, the main plant nutrients and how to ensure their supply, associating crops and crop rotation,

organic manures and their values, the composting process and green manuring with emphasis on nitrogen fixing plants. Upon completion of this module participants will be fully aware the importance of nutrient supply by managing soil organic matter, appropriate treatment of farmyard manure, the phases of the composting process and how to use green manures: potential use and constraints.

6. Pest/Disease and Weed Control 3 session

This module of the training course will focus on natural pest and disease control, plant health and preventative measures. Participants will also be exposed to the concept of natural enemies and bio-control as well as natural pesticides and the ecology of weed management. Upon completion of this module participants will be fully skilled to develop curative crop protection methods, preparation and use of botanical pesticides, the management of weeds, and ecology of pest and disease.

7. Farm Economy 3 session

This module of the training will focus on the economic performance of farms enterprises, ways of reducing farm expense and ways to increase farm returns. Upon completion of this module participants will have a deeper understanding of the importance of farm record keeping systems, use of financial records in the decision-making process as well as understanding the economic viability of a farming enterprise, farm planning and integrated farm management.

8. Greenhouse Technology 3 session

This module of the training will focus on the agronomic technology associated with agricultural production under controlled conditions. The requirements for greenhouse production with emphasis on organically grown produce will see the integration of all of the above-mentioned concepts as well as the issue of irrigation management, and the understanding and management of biotic factors such as sunlight and humidity and the integration of good cultural and agricultural practices. Upon completion of this module participants will better understand the basic concepts of managing a greenhouse production unit and gain useful practical experience in producing agricultural commodities under controlled conditions.

PRIMARY TOPICS and TOPIC OUTLINE

9. Principles of Organic Agriculture 2 session

This module of the training course will focus on the historical, ethical, social and scientific considerations of organic agriculture. The question of what is organic agriculture, its principles and aims, and the distinction from other farming systems will be covered. This issue of farm inspection, certification requirements, as well as standards, regulations and national policy will be covered. Upon completion of this module participants will be fully aware as to what are the basic requirements for establishing and operating an organic enterprise moreover the requirements for operating a certified organic enterprise.

10. Land Preparation / soil conservation 3 session

This module of the training course will focus on conservation measures which can reduce soil erosion. Soil / land management practices such as tillage and cropping practices, directly affect the overall soil erosion problem and solutions on a farm. Upon completion of this module farmers should have an overall understanding of crop rotations or changing tillage practices in controlling erosion on a field, as well as other control measures such as contour plowing, strip cropping, or terracing.

11. Soil Fertility 3 session

This module of the training course will focus on the soil as a living organism, the composition and structure of soils, the soil microcosm and what makes a soil fertile. Of importance will also be the delivery of topics to include soil cultivation and tillage, soil erosion, water conservation and mulching. Upon completion of this module participants should be fully aware as to how to achieve soil fertility, the importance of soil organic matter, how to approach soil erosion and how to keep water in the soil.

12. Seedling Production 2 session

This module of the training course will focus on information relating to seed and seedling production of the most important groups of vegetables. Of importance will be the principles of seed production to include pollination and germination, use of growth regulators to promote flowering, the seed industry and seedling ecology. Upon completion of this module participants will better understand the role of seed industries in agricultural development, structure, function and variation of seedling parts, vegetative viability and dormancy, germination, establishment and speed of growth as well as good nursery practices for the production and management of healthy seedlings.

13. Plant Nutrition 2 session

This module of the training course will focus on plant nutrition and balance plant health, the main plant nutrients and how to ensure their supply, associating crops and crop rotation, organic manures and their values, the composting process and green manuring with emphasis on nitrogen fixing plants. Upon completion of this module participants will be fully aware the importance of nutrient supply by managing soil organic matter, appropriate treatment of farmyard manure, the phases of the composting process and how to use green manures: potential use and constraints.

14. Pest/Disease and Weed Control 3 session

This module of the training course will focus on natural pest and disease control, plant health and preventative measures. Participants will also be exposed to the concept of natural enemies and bio-control as well as natural pesticides and the ecology of weed management. Upon completion of this module participants will be fully skilled to develop curative crop protection methods, preparation and use of botanical pesticides, the management of weeds, and ecology of pest and disease.

15. Farm Economy 3 session

This module of the training will focus on the economic performance of farms enterprises, ways of reducing farm expense and ways to increase farm returns. Upon completion of this module participants will have a deeper understanding of the importance of farm record keeping systems, use of financial records in the decision-making process as well as understanding the economic viability of a farming enterprise, farm planning and integrated farm management.

16. Greenhouse Technology 3 session

This module of the training will focus on the agronomic technology associated with agricultural production under controlled conditions. The requirements for greenhouse production with emphasis on organically grown produce will see the integration of all of the above-mentioned concepts as well as the issue of irrigation management, and the understanding and management of biotic factors such as sunlight and humidity and the integration of good cultural and agricultural practices. Upon completion of this module participants will better understand the basic concepts of managing a greenhouse production unit and gain useful practical experience in producing agricultural commodities under controlled conditions.