Manual for Training of Extension Workers and Farmers on Alternatives to Methyl Bromide for Soil Fumigation







Cover photo Training of trainers: soil solarization and biofumigation

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CONTENTS

iii	

	Page
Contents	iii
PREFACE	v
List of Acronyms	vii
Chapter I. INTRODUCTION	1
Chapter II. TRAINING OF TRAINERS	3
1. Preparatory workshop	3
2. The Training of Trainers	3
2.1. Basic field experiments	5
2.2. Concept-specific learning activities	5
2.3. Agro-ecosystem analysis	6
3. Team building and group dynamics	6
4. Evaluation	0
Chaper III. FARMERS FIELD SCHOOLS	7
1. Planning	8
2. Implementation	10
3. Evaluation	11
Chapter IV. EXERCISES FOR TOTs and FFSs	13
1. Understanding the soil system	13
2. Assessing soil-borne arthropods (an exercise for FFSs)	15
3. Assessment of weed stand (an exercise for FFSs)	17
Chapter V. PARTICIPATORY CURRICULUM DEVELOPMENT	21
1. General	21
2. Guidelines	21
3. Topics	23
Chaptyer VI. DESCRIPTION OF MAIN ALTERNATIVES	27
1. Non-chemical alternatives	27
1.1. Cultural practices	27
1.2. Physical control	30
2. Chemical alternatives	30

USEFUL BIBLIOGRAPHY	33
USEFUL WEB LINKS	34

PREFACE

Methyl bromide is a broad-spectrum fumigant used worldwide for the control of soilborne pests. When used as a soil fumigant, methyl bromide gas is usually applied to the soil before the crop is planted and the soil is then covered with plastic tarps. The treatment effectively kills various soil organisms, but once the tarps are removed, part of the gas will eventually enter the atmosphere.

The presence of bromine in the atmosphere is fatal due to its strong ozone-depleting action. For this reason methyl bromide use will be reduced and phased out completely by the end of the year 2015. Moreover, there is increasing resistance to acceptance of commodities produced using methyl bromide on the part of consumers. Therefore, it is essential to find appropriate alternatives that can be used effectively for the control of soil-borne pests. This approach should aim to make farmers aware of the need to discontinue the use of methyl bromide and to educate them in the application of newly developed alternatives.

The Integrated Pest Management (IPM) approach is the key to developing a comprehensive training programme for farmers on new alternatives. The basis of this approach is the training of extension workers and other agents who work closely with farmers.

Experience has shown that the majority of farmers are not persuaded to apply new innovative techniques by simple field demonstrations. This approach is a waste of time and money in many areas where it is implemented. Therefore, the second step in the IPM approach should be the training of farmers by building on so-called "Farmer Field Schools" where farmers learn to apply, adapt and improve the new control technologies.

This manual aims to provide guidance to extension workers in matters related to the setting up and conduct of Training of Trainers courses, as well as Farmer Field Schools, on alternative technologies to replace the use of methyl bromide as a soil fumigant. It provides a framework, relevant information and tools to build on these activities according to specific needs.

It is important to point out that, although FAO has vast experience in IPM projects in many developing regions of the world (including the setting-up of Farmer Field Schools), no experience specifically related to methyl bromide yet exists. In time, this manual will doubtless have to be revised and enriched with new elements and experience from countries where Farmer Field Schools have been developed for phasing out methyl bromide soil treatment.

The manual was prepared by a group of specialists familiar with Training of Trainers and Farmer Field Schools. It is aimed at extension officers and development agents who are

responsible for assisting those farmers who at present use methyl bromide as a soil fumigant.

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