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Preservation of fruit and vegetables

Ife Fitz James
Bas Kuipers
KERKINACTIE attaches high priority to rural development in its work, and supports organisations active in this field. Agriculture and food production are activities of vital importance in rural areas. Kerkinactie supports this kind of work directly and also indirectly providing support for the collection, compilation and spread of information and knowledge.
Foreword

This Agrodok is meant to be a practical manual giving a review of the simple techniques used to preserve fruits and vegetables. In addition to information provided in the previous edition of this Agrodok, this fourth edition covers more theoretical information on food decay in general, its causes and dangerous effects, as well as preventive measures that can be taken. In our opinion this knowledge is necessary if you want to start a small-scale preserving business, to which a whole chapter is devoted in this edition.

The general introduction deals with the principles of spoilage prevention. The various methods of preserving are then explained, and the main points of spoilage specific to the method are covered. The next chapters deal with jam and juice making and attention is paid to drying vegetables and fruit, as well as salting of vegetables. Freezing is not discussed, since this technique needs facilities usually not available in many developing countries. We have tried to describe every method as practically as possible, including descriptions of the required materials and techniques.

Finally we would like to thank some people for their contributions to the realization of this Agrodok: Domien Bruinsma for writing chapter 8 and critically reading the different concepts, Jan Schreurs for text editing, Mamadi Jabbi for making some new illustrations and Willem Würdemann for critically reading the content of this Agrodok.

Ife Fitz James
Bas Kuipers
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1 Introduction

All living creatures, including humans, depend on nature for their food. Humans are not only hunters and gatherers, but also farmers. We live from hunting and fishing, agriculture and animal husbandry. Most of our food consists of agricultural products, which are usually seasonal and spoil quickly. To make food available throughout the year, humans have developed methods to prolong the storage life of products: to preserve them. The rotting process can be postponed by adding preservatives, optimizing storage conditions, or applying modern techniques. The last option will not be discussed in this Agrodok. This booklet focuses on the traditional preservation methods still commonly used in developing countries for fruits and vegetables.

Fruits and vegetables provide an abundant and inexpensive source of energy, body-building nutrients, vitamins and minerals. Their nutritional value is highest when they are fresh, but it is not always possible to consume them immediately. During the harvest season, fresh produce is available in abundance, but at other times it is scarce. Moreover, most fruits and vegetables are only edible for a very short time, unless they are promptly and properly preserved.

This Agrodok will focus on a few simple and relatively inexpensive preservation techniques that can be applied on a small scale by an individual or a small group (of families for example). Chapter 2 provides information on food spoilage in general, its causes and dangerous effects, as well as measures that can be taken to prevent it. Specific knowledge is needed to apply the right preservation methods. Fruits and vegetables have to be specially prepared, for example, before they can be preserved. How this is done is explained in Chapter 3. Chapters 4 to 7 describe the various preservation methods: heating, drying, and the use of additives such as salt and sugar. In times of scarcity, preserved food can be sold for a good price. It can even be worthwhile to start a small preserving business. Chapter 8 explains what this would involve. More information can be found through the
addresses and literature listed in Chapter 9 and in the appendixes that follow, which provide specific information on how to prepare and preserve the various types of fruits and vegetables. Various terms that may be new to readers are defined in the glossary at the end of the booklet.

Agromisa welcomes all readers’ comments that could contribute to improving the quality of our publications. A survey form is therefore included in the middle of this booklet, which can be completed and returned to us. Readers seeking more information on food preservation are also encouraged to contact Agromisa’s Question and Answer Service at the address listed in the back of this booklet.