

# CONTENTS

Preface . . . . .	v
List of Tables . . . . .	x
<b>I. INTRODUCTION . . . . .</b>	<b>1</b>
Plants for human consumption . . . . .	1
Botanical classification of plants . . . . .	1
Classification of plants of economic importance . . . . .	3
The categories of plants for human consumption . . . . .	5
Useful structures of plants . . . . .	8
The choice of plants consumed by man . . . . .	10
The future of plants consumed by man . . . . .	11
<b>II. CEREALS AND PSEUDO-CEREALS . . . . .</b>	<b>13</b>
Cereals . . . . .	14
Pseudo-cereals . . . . .	34
Morphological survey of cereals and pseudo-cereals . . . . .	38
<b>III. VEGETABLES . . . . .</b>	<b>40</b>
Cyanophyta . . . . .	46
Algae . . . . .	47
Fungi (macrofructifications) . . . . .	54
Pteridophyta . . . . .	65
Angiospermae . . . . .	67
Morphological survey of vegetables . . . . .	145
<b>IV. FRUIT . . . . .</b>	<b>148</b>
Morphological survey of fruits . . . . .	204
<b>V. NUTS . . . . .</b>	<b>205</b>
Gymnospermae . . . . .	207
Angiospermae . . . . .	208
Morphological survey of nuts . . . . .	225
<b>VI. PLANT EXTRACTS . . . . .</b>	<b>226</b>
Starch plants . . . . .	226

Oil plants . . . . .	230
Protein plants . . . . .	243
Sugar plants . . . . .	244
Gum plants . . . . .	252
Algae . . . . .	252
Gymnospermae . . . . .	258
Angiospermae . . . . .	259
Vegetable food dyes . . . . .	265
Wood smoke . . . . .	267
Morphological survey of plants used for their extracts . . . . .	268
<b>VII. FLAVOURING PLANTS . . . . .</b>	<b>270</b>
Fungi . . . . .	272
Gymnospermae . . . . .	275
Angiospermae . . . . .	275
Morphological survey of flavouring plants . . . . .	334
<b>VIII. BEVERAGE PLANTS . . . . .</b>	<b>337</b>
Beverage plants used for alkaloidal drinks . . . . .	341
Beverage plants used for fermentation . . . . .	356
A. Cereals . . . . .	356
B. Pseudo-cereals . . . . .	359
C. Fruits . . . . .	359
D. Sugar plants . . . . .	364
E. Starch plants . . . . .	365
F. Vegetables . . . . .	366
G. Miscellaneous . . . . .	366
Morphological survey of beverage plants . . . . .	368
<b>IX. FUMITORIES AND MASTICATORIES . . . . .</b>	<b>370</b>
Fungi (macrofructifications) . . . . .	370
Angiospermae . . . . .	373
Morphological survey of fumitories and masticatories . . . . .	385
<b>X. FERMENTATIVE MICRO-ORGANISMS . . . . .</b>	<b>386</b>
Acetic acid fermentation . . . . .	387
Lactic acid fermentation . . . . .	387
Ripening of cheeses . . . . .	388
Saccharifying micro-organisms . . . . .	389
Grey mould . . . . .	389
Alcoholic fermentation . . . . .	390
Fermentative and other micro-organisms used in the processing of vegetable and animal materials consumed by man . . . . .	392

## APPENDICES

<b>MORPHOLOGICAL SURVEY OF THE COMMONEST PLANTS CONSUMED BY MAN</b> . . . . .	397
<b>GLOSSARY</b> . . . . .	431
<b>SELECTED BIBLIOGRAPHY</b> . . . . .	448
<b>LIST OF PLANTS</b> , in order of appearance in the text . . . . .	453
<b>INDEX OF SCIENTIFIC AND COMMON PLANT NAMES</b> . . . . .	459

## BOTANICAL CLASSIFICATION OF PLANTS

The plant kingdom is represented only by the higher plants, i.e. Metaphyta (sometimes called Cormophyta or Embryophyta). The most advanced group are the flowering plants, which produce seeds in a seedbox and are therefore called Angiospermae. The angiosperms, to which the great majority of the plants consumed by man belong, are further subdivided into Eudicotyledonae (plants with two seed-leaves or cotyledons) and Monocotyledonae (plants with a single seed-leaf, e.g. palms and grasses). The less advanced Metaphyta are the Gymnospermae (plants with naked seeds, e.g. pines) followed by Pteridophyta (e.g. club-mosses, horsetails and ferns). The most primitive Metaphyta are the Bryophyta (mosses and liverworts). However, the lower Metaphyta are negligible so far as consumption by man is concerned; none of the Bryophyta is used and only a single case is known of the Pteridophyta - the developing fronds of ferns, so-called fiddleheads. And the gymnosperms contribute no more than about eight different materials used for human consumption: *Zamia floridana*, a cycad, is used for the production of a type of arrowroot from its rhizome, and a