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EDIBLE AND POISONOUS PLANTS

OF THE

CARIBBEAN REGION

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EDIBLE AND POISONOUS PLANTS

OF THE CARIBBEAN REGION

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TABLE OF CONTENTS

	Page
Section I. General instructions.....	1
II. Fruits, wild and cultivated.....	5
III. Cultivated edible roots.....	45
IV. Edible seeds and greens.....	51
V. "Substitute water" plants.....	67
VI. Poisonous plants.....	71
Appendix I. Spanish names of common food plants.....	91
II. Master identification table, edible and poisonous plants.....	92
III. Master location table, edible and poisonous plants.....	96
Index.....	100

ILLUSTRATIONS

Mango (<i>Mangifera indica</i>).....	10
Avocado (<i>Persea americana</i>).....	11
Papaw (<i>Carica papaya</i>).....	12
Surinam cherry (<i>Eugenia uniflora</i>).....	13
Passion vine (<i>Passiflora ligularis</i>).....	14
Mamey (<i>Mammea americana</i>).....	15
Sapote (<i>Calocarpum mammosum</i>).....	16
Sapodilla (<i>Achras Zapota</i>).....	17
Cashew (<i>Anacardium occidentale</i>).....	18
Star-apple (<i>Chrysophyllum Gainito</i>).....	19
Cacao (<i>Theobroma Cacao</i>).....	20
Loquat (<i>Eriobotrya japonica</i>).....	21
Custard apple (<i>Annona reticulata</i>).....	22
Soursop (<i>Annona muricata</i>).....	23
Sweet-sop (<i>Annona squamosa</i>).....	24
White sapote (<i>Casimiroa edulis</i>).....	25
Spanish plum (<i>Spondias purpurea</i>).....	26
Guava (<i>Psidium guajava</i>).....	27
Wild cherry (<i>Prunus capuli</i>).....	28
Thorn apple (<i>Crataegus pubescens</i>).....	29
Piñanona (<i>Monstera deliciosa</i>).....	30
Rose apple (<i>Eugenia jambos</i>).....	31
Tamarind (<i>Tamarindus indica</i>).....	32
Inga (<i>Inga</i>).....	33
Nance (<i>Byrsonima</i>).....	34
Sea grape (<i>Coccoloba uvifera</i>).....	35
Pingwing (<i>Bromelia Pinguin</i>) (A) and Piro (<i>Karatas</i>) (B).....	36

	Page
Coco plum (<i>Chrysobolanus Icaco</i>)	37
Aceituno (<i>Simaruba glauca</i>)	38
Sunzapote (<i>Licania platypus</i>)	39
Wild fig (<i>Ficus</i>)	40
Akee (<i>Blighia sapida</i>)	41
Breadfruit (<i>Artocarpus incisa</i>)	42
Ground cherry (<i>Physalis</i>)	43
Prickly pear (<i>Opuntia</i>) (A) and Organ cactus (<i>Cereus</i>) (B)	44
Otô (<i>Xanthosoma violaceum</i>)	46
Dasheen (<i>Colocasia antiquorum</i>)	47
Yam (<i>Dioscorea</i>)	48
Cassava (<i>Manihot</i>)	49
Yam bean (<i>Pachyrhizus erosus</i>)	50
Palm nuts	51
Pejibaye (<i>Guiliema Gasipaes</i>)	55
Pacaya palm (<i>Chamaedorea</i>)	56
Spanish bayonet (<i>Yucca elephantipes</i>)	57
Breadnut (<i>Brosimum Alicastrum</i>)	58
Panama tree (<i>Sterculia apetala</i>)	59
Provision tree (<i>Pachira</i>)	60
Courbaril (<i>Hymenaea Courbaril</i>)	61
Pursley (<i>Portulaca oleracea</i>)	62
Black nightshade (<i>Solanum nigrum</i>)	63
Coral bean (<i>Erythrina</i>)	64
Okra (<i>Hibiscus esculentus</i>)	65
Chayote (<i>Sechium edule</i>)	66
Wild grape (<i>Vitis tiliifolia</i>)	69
Water vine (<i>Tetracera</i>)	70
Dumb cane (<i>Dieffenbachia</i>)	74
Manchineel (<i>Hippomane Mancinella</i>)	75
Sandbox tree (<i>Hura crepitans</i>)	76
Olivo (<i>Sapium</i>)	77
Poison spurge (<i>Euphorbia cotinifolia</i>)	78
Poison sumac (<i>Rhus striata</i>)	79
Guao (<i>Comocladia</i>)	80
Black poison wood (<i>Metopium toxiferum</i>)	81
White poison wood (<i>Cameraria latifolia</i>)	82
Physic nut (<i>Jatropha Curcas</i>)	83
Huilihuiste (<i>Karwinskia Calderonii</i>)	84
Moco Tinto (<i>Coriaria thymifolia</i>)	85
Ciega-Vista (<i>Croton ciliato-glandulosus</i>)	86
Stinging spurge (<i>Jatropha urens</i>)	87
Nettle tree (<i>Urera baccifera</i>)	88
Cow-itch (<i>Mucuna pruriens</i>)	89
Trumpet tree (<i>Cecropia</i>)	90

Section I

General Instructions

Purpose and scope of the manual.—This manual is designed to aid the serviceman to live off the land if he becomes separated from his unit. It illustrates and describes common edible and poisonous plants of the Caribbean region, chiefly of Central America and the West Indies.

Included in the manual are the more common plants that are found in reasonable abundance and that may be used as food in times of emergency. The following types of plants have been excluded:

1. Rare species.
2. Plants well known to Americans, such as maize or Indian corn, rice, carrots, beets, garden beans, squashes, cucumbers, egg plants, sweet peppers, sugar cane, and other universally cultivated food plants.
3. Familiar fruits such as oranges, bananas, pineapples, and specific types of cocoanuts.

Edible plants of the Caribbean.—In emergency many tropical plants may be eaten if they have no unpleasant taste, but try only a little at a time. Included in the manual are a few of the edible roots usually found in cultivation. However if they are found wild at any time be certain to cook them well before eating. In this region of tropical America there are some plants with very succulent stems that contain sufficient sap to be used as a substitute for water. Avoid any that have milky juice or sap, unless they are described as edible in this manual. *Do not eat any raw fruit found on the ground, because it may carry a disease.*

The list of poisonous or harmful plants discussed is rather formidable, but only a few will be found in any one locality, and often none at all. Poisonous plants are no more common

in the tropics than in the United States. Most of them are found in the mountainous regions and not along the coasts.

Frequently many parts of a plant may be eaten including its fruit, seeds, tender leaves, and roots. The text contains information on the special preparation of unripe fruits, methods of cooking flowers and greens, and other information needed to prevent starvation.

Fruits (mango, breadfruit, papaw, wild cherry, etc.) are important sources of vitamin C. Green and yellow food plants also are sources of vitamin C as well as of carotene, the precursor of vitamin A. Fleshy roots (dasheen, yam, cassava) contain starch and other carbohydrates and are fair sources of energy when eaten in sufficient quantity. Fleshy fruits such as the avocado are frequently rich in fat, while seeds are usually rich in protein and fat.

Advice of natives.—In all parts of this region the natives know both the wild and cultivated plants which may be used as food. Fruits and vegetables found in the village and city markets provide an excellent means of quickly learning which plants may be eaten with complete safety.

In using the identification tables the following steps are to be taken:

1. Determine whether the plant part you wish to identify is a fruit, root, seed, or leaf.
2. Turn to the section of the manual describing this plant part, as fruits (section II), roots (section III), and so on. *CAUTION: Do not fail also to look in the section concerning poisonous plants.*
3. Note the color of the part of the plant you are trying to identify and locate that color in the first column. The second column indicates the part of the plant that is colored. You now have identified the color and the part, as purple flower, red stem, and so on.

4. In the third column is a brief description of the plant part you are identifying, as "resembles small apple" or "has three-celled pod."

5. When you have found the description that you believe best fits the plant you have found, turn to column 6 for the page in the text which illustrates and discusses the plant.

6. Turn to this page and *compare carefully the illustration* with the food plant you wish to identify.

7. If you are satisfied that the two are the same, *read the text carefully before eating the food plant*. The discussion contains information about eating the food, how to prepare the plant part before eating, and a more detailed description.

In using the location tables nearly the same procedure should be followed, except that the plant is identified first by the place that it is found growing. Thus column 1 lists the natural habitat of the plant, and column 2 briefly describes the plant itself. When you are reasonably certain that the description is similar to the growing plant, turn to the page of the manual that illustrates and further describes the plant. *Use the table merely as a reference guide*. The discussion accompanying the illustration includes important supplementary information.

Whenever possible wild plants should be checked with the natives before being eaten. They usually know how emergency plants should be prepared, and those which may be poisonous when eaten raw. They are familiar with the region, and knowing the dangerous plants, they can be most helpful in times when regular rations are not available.

Use of Identification and Location Tables.—Included in each section of this manual are tables that will assist the serviceman in more quickly and easily identifying the food plants that he has located. For example, if he finds a pink fruit growing along the seashore, he may use either or both of the tables in section II on the "Location and Identity of Fruits—Wild and Cultivated." The *identification* table deals with the colored parts

of the plant, a brief description of that part (leaf, fruit, flower, etc.), and the page of the text where that particular plant is illustrated and more fully described. The *location* table will help the serviceman to identify edible or poisonous plants by the places he finds them growing; that is, under cultivation, in thickets, on wet or dry soils, along the coast, and the various topographical locations peculiar to the Caribbean region. *CAUTION: Do not use these tables alone to determine whether or not a food plant can be eaten. Many plants are harmful or poisonous unless properly prepared. Precautionary measures and methods of preparation of edible food plants may be found only by referring to the proper pages of the text as indicated in the tables.*

Appendix II, "Master Identification Table of Edible and Poisonous Plants," and Appendix III, "Master Location Table of Edible and Poisonous Plants," are a compilation of all the tables of the book. The procedure for using these master guides is the same as previously described. Do not rely solely on the information given in the table, but compare the plant and illustration carefully, and read the accompanying text thoroughly.

Section II

Fruits, Wild and Cultivated

Identification table.—The following ready reference table does not include all means of identifying wild and cultivated fruits. It is confined to a description of the color, size, shape, or peculiarities of these fruits. For complete identification turn to the text page indicated in the table.

Identification Table—Fruits

BLACK

Plant part ¹	Description	Illus. No.	Common name	Page No.
F.....	Resembles large plum.....	28	Coco plum.....	37
F.....	Size and shape of olive.....	29	Aceituno.....	38

BROWN

F.....	Firm flesh.....	6	Mamey.....	15
F.....	Rough skin.....	7	Sapote.....	16
F.....	Soft, scaly, or smooth skin.....	8	Sapodilla.....	17
L.....	Brown, silky underside.....	10	Star-apple.....	19
F.....	Pods.....	23	Tamarind.....	32
F.....	Has rough rind.....	30	Sunzapote.....	39
F.....	Large, nearly round.....	33	Breadfruit.....	42

GREEN

F.....	Sweet, juicy flesh.....	1	Mango (<i>Caution</i>).....	10
F.....	Melon-like, green when unripe but edible.....	3	Papaw.....	12
Fl.....	White, green, or reddish purple, large and small.....	5	Passion vine.....	14
F.....	Looks like small apple.....	10	Star-apple.....	19
F.....	Grows on trunk of tree.....	11	Cacao.....	20
F.....	Very large; has soft spines.....	14	Soursop.....	23
Fl.....	Yellow with green tinge.....	15	Sweet-sop.....	24
F.....	Thin membranous skin.....	16	White sapote.....	25
F.....	Soft; strong musky odor.....	18	Guava.....	27
F.....	Resembles an ear of corn.....	21	Piñanona (<i>Caution</i>).....	30
Fl.....	Purple or white tinged with green.....	22	Rose apple.....	31
F.....	Large, nearly round.....	33	Breadfruit.....	42

¹ F=Fruit; Fl=Flower; L=Leaves.

Identification Table—Fruits—Continued

ORANGE

Plant part ¹	Description	Illus. No.	Common name	Page No.
Flesh.....	Resembles muskmelon or cantaloupe.....	3	Papaw.....	12
F.....	Egg-shape; hard shell.....	5	Passion vine.....	14
F.....	Three-celled pod.....	32	Akee (<i>Caution</i>).....	41

PINK

Fl.....	Both fruit and seeds are edible.....	9	Cashew (<i>Caution</i>).....	18
F.....	Oval; covered with leaf scales.....	35	Organ cactus.....	44

PURPLE

F.....	Resembles small apple.....	10	Star-apple.....	19
Fl.....	Fruit resembles plum.....	17	Spanish plum.....	26
F.....	Thin, tender skin.....	19	Wild cherry.....	28
Fl.....	Purple, or may be white tinged with green.....	22	Rose apple.....	31
L.....	Thick, stiff.....	26	Sea grape.....	35
F.....	Resembles large plum.....	28	Coco plum.....	37
L.....	Young leaves are red or purple.....	30	Sunzapote.....	39

RED

F.....	Sweet, juicy flesh.....	1	Mango (<i>Caution</i>).....	10
F.....	Contains single-ridged seed.....	4	Surinam cherry.....	13
Fl.....	Multicolored.....	5	Passion vine.....	14
F.....	Size and shape of pepper.....	9	Cashew (<i>Caution</i>).....	18
F.....	Heart-shaped.....	13	Custard apple.....	22
F.....	Fruit resembles plum.....	17	Spanish plum.....	26
Fl.....	Red or bluish dark red.....	17	Spanish plum.....	26
Fl.....	Small; red and yellow.....	23	Tamarind.....	32
Fl.....	Red when faded; yellow when young.....	25	Nance.....	34
L.....	Thick, stiff.....	26	Sea grape.....	35
F.....	Small.....	26	Sea grape.....	35
F.....	Resembles pineapple.....	27	Pingwing.....	36
F.....	Resembles pineapple.....	27	Piro.....	36
Fl.....	Small.....	29	Aceituno.....	38
L.....	Young red or purple leaves.....	30	Sunzapote.....	39
F.....	Three-celled pod.....	32	Akee (<i>Caution</i>).....	41

¹ F=Fruit; Fl=Flower; L=Leaves.

Identification Table—Fruits—Continued

WHITE

Plant part ¹	Description	Illus. No.	Common name	Page No.
Fl.....	Multicolored.....	5	Passion vine.....	14
F.....	Covered with green and white network.....	11	Cacao.....	20
Fl.....	Fruit is pale yellow.....	12	Loquat.....	21
F.....	White "bloom" on fruit.....	15	Sweet-sop.....	24
Fl.....	Resembles chokecherry of U. S. A.....	19	Wild cherry.....	28
Fl.....	Waxy with green center.....	21	Piñanona (<i>Caution</i>).....	30
F.....	Hard, crisp.....	22	Rose apple.....	31
F.....	Small, juicy, slightly sour.....	26	Sea grape.....	35
Fl.....	Small.....	28	Coco plum.....	37
F.....	Resembles large plum.....	28	Coco plum.....	37

YELLOW

Flesh.....	Like muskmelon or cantaloupe.....	3	Papaw.....	12
F.....	Egg-shape, hard shell.....	5	Passion vine.....	14
F.....	Size and shape of pepper.....	9	Cashew (<i>Caution</i>).....	18
L.....	Leathery, yellow green.....	9	Cashew (<i>Caution</i>).....	18
F.....	Somewhat downy surface.....	12	Loquat.....	21
Fl.....	Greenish yellow.....	15	Sweet-sop.....	24
F.....	Thin, membranous skin.....	16	White sapote.....	25
F.....	Resembles plum.....	17	Spanish plum.....	26
F.....	Soft, has many large seeds.....	18	Guava.....	27
F.....	Resembles small apple.....	20	Thorn apple.....	29
F.....	Hard, crisp.....	22	Rose apple.....	31
Fl.....	Small, yellow and red.....	23	Tamarind.....	32
Fl.....	Turn red as they fade.....	25	Nance.....	34
F.....	Tastes like apple.....	25	Nance.....	34
F.....	Resembles pineapple.....	27	Pingwing.....	36
F.....	Looks like small Chinese lantern.....	34	Ground cherry.....	43

¹F=Fruit; Fl=Flower; L=Leaves.

Location table.—The following reference table does not include all means of identifying a fruit or all fruits discussed in this section. In many instances a plant will be found growing throughout all parts of the Caribbean region. The classified topographical locations are general. *Use this table merely as a guide.* Necessary supplementary information is given on the pages indicated in the location table.

Location Table—Fruits

COASTAL AREA

Description	Illus. No.	Common name	Page No.
Heart-shaped, yellow fruit; tinged with red.....	13	Custard apple.....	22
Small tree or bush; young leaves are red or purple.....	26	Sea grape.....	35
Fruits resemble plum; small white flowers.....	28	Coco plum.....	37

CULTIVATED ONLY

Fruits vary in size, shape, and color.....	2	Avocado.....	11
Bush or small tree; fruit is a tomato-red.....	4	Surinam cherry.....	13
Green or purple apple-like fruit.....	10	Star-apple.....	19
Fruit greenish; grows on tree trunk.....	14	Soursop.....	23
Fruit yellow green with white "bloom".....	15	Sweet-sop.....	24
Fruit almost black; resembles olive.....	29	Aceituno.....	38
Round green or greenish-brown fruit.....	33	Breadfruit.....	42

DRY PLACES

Red or yellow fruit resembling peppers.....	9	Cashew (<i>Caution</i>).....	18
Bright yellow flowers; yellow fruit.....	25	Nance.....	34
Cactus; pear-shaped fruit.....	35	Prickly pear.....	44
Cactus; oval, bright pink fruit.....	35	Organ cactus.....	44

LOWLANDS

Greenish or reddish fruits.....	1	Mango (<i>Caution</i>).....	10
Fruit resembles muskmelon or cantaloupe.....	3	Papaw.....	12
Brown skin of fruit is either scaly or smooth.....	8	Sapodilla.....	17
Green or purple fruit resembles apple.....	10	Star-apple.....	19
Flowers and fruits grow on trunk.....	11	Cacao.....	20
Fruit resembles plum; yellow to deep red.....	17	Spanish plum.....	26
Yellow green fruit with musky odor.....	18	Guava.....	27
White or yellow fruit is hard and crisp.....	22	Rose apple.....	31
Small red and yellow flowers; brown fruit.....	23	Tamarind.....	32
Flowers bright yellow; fruit yellow.....	25	Nance.....	34
Resembles pineapple; ripe fruit is yellow or red.....	27	Pingwing.....	36
Fruit is better than pingwing.....	27	Piro.....	36
Fruit is almost black; resembles olive.....	29	Aceituno.....	38
Large fruit; with brown rough rind; red leaves.....	30	Sunzapote.....	39
Red or orange pod-like fruit.....	32	Akee (<i>Caution</i>).....	41

Location Table—Continued

MIDDLE ALTITUDES

Description	Illus. No.	Common name	Page No.
Fruit resembles muskmelon or cantaloupe.....	3	Papaw.....	12
Fruit resembles plum; yellow to deep red.....	17	Spanish plum.....	26
Long, flat pods; trees shade coffee bushes.....	24	Inga.....	33

MOUNTAINOUS REGIONS

Climbing plant; multicolored flowers; egg-shaped fruit with hard shell.	5	Passion vine.....	14
Yellow green fruit; thin membranous skin.....	16	White sapote.....	25
Yellow green fruit with musky odor.....	18	Guava.....	27
Red purple fruit; size of sour cherry.....	19	Wild cherry.....	28
Tree has thorns; fruit resembles apple.....	20	Thorn apple.....	29
Greenish or reddish fruits.....	1	Mango (<i>Caution</i>).....	10
Green fruit size and shape of corn on cob.....	21	Piñanona (<i>Caution</i>).....	30
Pale yellow fruit with downy surface.....	12	Loquat.....	21

RICH SOILS

Heart-shaped fruit; yellow streaked with red.....	13	Custard apple.....	22
Fruit resembles plum; small white flowers.....	28	Coco plum.....	37

WASTE GROUNDS

Green fruit; looks like small Chinese lantern.....	34	Ground cherry.....	43
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WILD

Fruit has rough brown skin and large seed.....	7	Sapote.....	16
Brown skin of fruit is either scaly or smooth.....	8	Sapodilla.....	17
Fruit yellow green with white "bloom".....	15	Sweet-sop.....	24
Soft, round fruit with tiny hole at top.....	31	Wild fig.....	40

Illustrations of Specific Fruits

1. MANGO

Mangifera indica

Mangos are edible except for their skins which will blister the lips. They may be eaten either raw or cooked. The fruits are in season from February to April. The large mango trees are often cultivated, but they grow wild in the Canal Zone. The mature fruits are either green or red-tinged and have sweet juicy flesh. Although there are many widely different varieties of mangos, most of the cultivated kinds are very good to eat. The wild trees bear fruit of very poor quality; many are very stringy and have a flavor somewhat like turpentine.

2. AVOCADO (alligator pear)

Persea americana

Avocados are eaten raw and are highly nutritious. They are usually prepared as a salad with vinegar, salt, or other flavoring. They are common in most areas of tropical America, chiefly in cultivation. They vary greatly in shape, size, and color. They are undoubtedly one of the best products of tropical America, although northern people often have to acquire a taste for them. Wild avocados are common in some parts of Central America, particularly the *yas* of Costa Rica, and the *chucté*, *shucté*, or *coyó* of Guatemala. Other names for this fruit are *alligator pear* and *aguacate*.

3. PAPAUA

Carica papaya

The green, unripe papaws may be cooked and eaten like squash. The ripe papaws, generally considered one of the best of all tropical fruits, are eaten raw. The juicy sweet flesh of the mature papaw is yellow or light orange and resembles muskmelons and cantaloupes. The trees are grown in abundance at low and middle altitudes in tropical America. Papaws are also often found growing wild, but the fruits of the wild plants are small and of poor quality. The papaw is called *papaya* in most Spanish-speaking countries, but this name should not be used in Cuba where it is an obscene word. The Cuban name is *fruta bomba*.

4. SURINAM CHERRY

Eugenia uniflora

The surinam cherry is eaten raw. It is sweet and spicy and is considered by many to be one of the best of all tropical fruits. The bush or small tree is not common in the Caribbean region, except in cultivation along the Atlantic Coast of Central America and in some islands of the West Indies. The fruit is tomato-red in color and contains a single, ridged seed. It is also called *cereza de cayena* in Cuba and Puerto Rico.

5. PASSION VINE

Passiflora ligularis

The pulp of the fruit of the passion vine is very good to eat, and its seeds may be chewed and swallowed. Many species of this plant are found growing in the mountainous parts of Mexico and Central America. The passion vine is a vigorous climber. It has large and small flowers which are white, green, or purple in color. The egg-shaped fruit has a hard shell, numerous seeds, and a sweet, mashy, white pulp. When fully ripened, the shell is yellow or orange and sometimes purple-tinged. It is also called *passion fruit* and *granadilla*.

6. MAMEY

Mammea americana

The fruit of the mamey tree may be eaten either raw or cooked. Most northern people consider it very good. It is found only in cultivation and is common in some parts of the West Indies but scarce on the mainland. It is a large tree with milky sap. The skin of the fruit is brown and the firm flesh is yellow or light red in color. It is called *mamey de Santo Domingo* in Cuba; *mamey de Cartagena* in Panama; *zapote mamey* in Mexico; and *mammee* in most Spanish-speaking regions.

7. SAPOTE

Calocarpum mammosum

This is one of the favorite fruits of the inhabitants of tropical America and is also well liked by many northern people. It may be eaten raw. The tree is commonly cultivated in the whole Caribbean area, but grows more or less wild in Central America. It is a tall tree with milky sap and large leaves growing in clusters near the ends of the branches. The fruit has a rough brown skin and contains one large, shiny brown seed. Its soft flesh is pink or light red and sweet. It is called *zapote* in most parts of Central America and Mexico; *mamey colorado* in Cuba; *mammee sapote* in Jamaica; *mamey sapote* in Puerto Rico; and *mamey* and *mamey de tierra* in Panama.

8. SAPODILLA

Achras Zapota

The fruit of the sapodilla is always eaten raw. Most northern people consider it one of the best of tropical fruits. The brownish pulp of the ripe fruit is very soft and sweet and rather sticky. Its brownish skin may be smooth or scaly. The large tree has hard, reddish durable wood and handsome evergreen foliage. It is planted commonly, but is, also found growing wild. The milky sap or latex of this tree yields the chicle from which chewing gum is made. In the British West Indies it is called *naseberry*; in Cuba, *zapote*; in most parts of Central America, *níspero*; and in the Philippines and Guatemala, *chico* and *chicozapote*.

9. CASHEW

Anacardium occidentale

The red or yellow fruit of the cashew tree may be eaten raw or cooked. However, the gray, kidney-shaped nut that hangs from the fruit must first be carefully removed. **CAUTION:** Care must be taken not to handle the nut with bare hands because its oil irritates the skin and causes swelling. The caustic oil is expelled from the shell by roasting; therefore in roasting the nuts do not allow the smoke to come in contact with the eyes or skin.

The cashew tree is found growing wild as well as under cultivation in fields and on the sides of dry, bushy hills throughout most of the Caribbean region. It has pink flowers and yellow green leathery leaves. The fruit flesh is white, spongy, very juicy, and has a sweet yet somewhat peppery flavor. It is also called *marañón* and *jocote marañón*.

10. STAR-APPLE

Chrysophyllum Cainito

The star-apple is always eaten raw. It is usually cultivated in the lowlands and only rarely grows wild. This large tree with milky sap is easily recognized by its oblong leaves which are dark green on top and golden brown and silky on the underside. The fruit is shaped like a small apple and when cut through its carpels form a starlike pattern. Its skin is green or purple, and its greenish pulp is soft, sweet, and somewhat milky. Though a popular fruit among residents of the tropics, northerners usually consider it rather flavorless. Wild star-apple trees are found in many regions, but their leaves are usually silvery rather than brown on the underside and their fruits are smaller, but edible. Another name is *caimito*.

11. CACAO (English and Spanish)

Theobroma Cacao

The cacao fruit is a fleshy greenish or yellow pod containing numerous seeds or "beans" from which commercial chocolate, cocoa and cocoa butter are obtained. Both the raw seeds and the pulp are very good to eat. Several varieties of cacao trees grow in Central America, particularly that known as *pataste* or *patashte*. Cacao is cultivated widely in the Caribbean region. It is also often found wild in the forests, especially in Panama. The tree is easy to recognize because its small yellow flowers and podlike fruits grow on the trunk.

12. LOQUAT
Eriobotrya japonica

The plumlike loquat is usually eaten raw, but may be cooked. Before cooking, the seeds should be removed because they impart a bitter taste. This tree grows in mountainous regions. Its elongated leaves are evergreen, its flowers are white and its fruits pale yellow and somewhat downy. The firm mealy flesh of the fruit ranges from white to deep orange and has a flavor that distinctly suggests cherry. The fruits are welcomed by persons who dislike the monotonous sweetness of most tropical fruits. Other names are *níspero japonés* and *níspero*.

13. CUSTARD APPLE

Annona reticulata

The wild or cultivated fruits of the custard apple tree may be eaten raw. Growing on sandy or rich soil the trees sometimes attain the height of 25 feet. The heart-shaped fruits vary in size from a few ounces to 2 pounds. The mature fruit is reddish yellow or brown, and its flesh is milky white in color, granular near the thin skin and sweet to the taste. There are many kinds of custard apples in this region, but all look much alike. In most Spanish-speaking countries the custard apple is called *anona* or *anon*; in Cuba it is known as *mamón*; in Puerto Rico, *corazón*; and in Venezuela, *rinón*. It is also called *bullock's heart*.

14. SOURSOP

Annona muricata

The juicy white pulp of the soursop can be eaten raw, but it is chiefly used for preparing beverages. Simply crush the pulp and add water. The plant is cultivated throughout much of the Caribbean region. The small tree has leaves with a spicy odor; the fruit, which is almost pear-shaped and as large as a child's head, usually grows from the trunk or thicker branches. Its greenish skin is covered with a few soft spines, and the pulp has a slightly sour, excellent flavor. It is also called *guanábana* and *guanaba*.

15. SWEET-SOP

Annona squamosa

This fruit is eaten raw. The small sweet-sop tree is native to the West Indies, and is found chiefly under cultivation in Central America. Its flowers are a greenish yellow. The fruit, varying in shape, has a yellow-green scaly rind covered with a white "bloom" which can easily be removed. It is not necessary, however, that it be removed. The mealy part of the fruit is white, custard-like, and sweet; the seeds are black and shiny. The sweet-sop is also called *sugar-apple*, *anona*, and *añon* and is sometimes erroneously called custard apple.

16. WHITE SAPOTE

Casimiroa edulis

The fruit of the white sapote may be eaten raw. The medium-size tree with pale bark is common, wild and planted, through much of the highlands of Mexico and Central America. It is also cultivated in other tropical regions of the Caribbean. The yellow green fruit, about the size of an orange, has a thin, membranous skin. Its pulp is yellow white, very soft, juicy, and sweet. Many northern people are fond of this fruit. It is also called *matasano*.

17. SPANISH PLUM

Spondias purpurea

The fruits of this small tree may be eaten raw or they may be boiled and dried for storing. The tree is commonly found on a variety of soils at low or middle altitudes in the Caribbean region. The fruits are usually ripe from August to November. The tree or large bush has a thick trunk and stout stiff branches. Its flowers are red or red purple and its fruits range from yellow to dark red in color. The fruits resemble plums and have a spicy flavor somewhat like the cashew. The hog plum, closely related to the Spanish plum, is considered inferior in quality. In Central America, Mexico, and Cuba the Spanish plum is called *red mombin*, *jocote*, and *ciruela*; in Puerto Rico *jobillo* and *jobo francés*.

18. GUAVA

Psidium guajava

Guava may be eaten either raw or cooked. The bush or small tree grows in abundance, in both wild and cultivated state, in the lowlands and lower mountains of the Caribbean region. It has a peculiar, pale brown, smooth bark that scales off in thin sheets. The fruit is soft and yellow green when ripe and has a sweet-tasting pulp and many large seeds. It has a very strong musky odor. Other kinds of guava are found in this region; some grow on low bushes and are rather tart and very good to eat. Guava is also called *guayaba*. It is used in making guava jelly, paste, and preserves.

19. WILD CHERRY

Prunus capuli

This fruit may be eaten raw. It is found in profusion in the cool mountainous regions of Mexico and Guatemala, in both wild and cultivated state, but it is little known farther south except in Ecuador and Peru. The medium-size tree with white flowers is similar to the chokecherry tree of the United States, but the fruits are much larger, being fully the size of ordinary sour cherries. They are red purple, have thin, tender skins, and pale green juicy flesh, and possess an excellent flavor. The wild cherry is also called *capulín* and *cereza*.

20. THORN APPLE

Crataegus pubescens

The thorn apple is a large bush or small tree armed with long thorns, in general appearance much like an apple tree. It grows abundantly in the mountains of Guatemala, wild and planted, and sometimes is cultivated farther south. The fruit is easily recognized since it closely resembles a small yellow apple. Thorn apples may be eaten raw. They are of good flavor, and are used in Central America and Mexico for making desserts, jellies, and preserves. The thorn apple is also known as *hawthorn*, *manzanilla*, and *manzanita*.

21. PIÑANONA

Monstera deliciosa

The fruit of the piñanona vine is good to eat raw *only when fully ripe*. CAUTION: The immature fruit contains needlelike crystals that irritate the mouth. The large green fruit is the size and shape of a corncob. When the small, six-cornered scales begin to drop off the fruit and the deep green color lightens, it is a sure sign of ripeness. The stem of the plant may be placed in water to hasten ripening. This evergreen plant, a native of Mexico, grows in wet forests of many of the regions of tropical America. It is a vigorous climbing vine with large perforated leathery leaves. The flowers are waxy white with a green center. The large fruits are sweet and very juicy.

22. ROSE APPLE

Eugenia jambos

Rose apples are usually eaten raw but may be stewed. Imported long ago from Asia, they are now grown commonly in the lowlands of tropical America and even run wild in many places. The flowers are green-tinged white or purple, and the berries are nearly white or pale yellow, hard and crisp, with a flavor much like rose water. Most people consider it an inferior fruit. It is called *manzana rosa* and *pomarrosa*.

23. TAMARIND

Tamarindus indica

The russet brown pods of the tamarind are filled with a slightly sour pulp of good flavor that may be eaten from the pod. Most often the pulp is used to prepare a cooling drink like lemonade, or for flavoring ice cream and sherbet. This tall handsome tree with small red-veined yellow flowers is commonly planted in the lowlands of the Caribbean area, and also often grows wild. The young leaves and flowers may be cooked and eaten as greens. The pods are produced in great abundance. This tree was brought to America from the East Indies. It is also called *tamarindo*.

24. INGA

Inga spp.

The large bean-like seeds of the inga tree are surrounded by a sweet, white, juicy pulp that may be eaten raw. The fruits, different in the various species, are usually long, flat pods sometimes attaining a length of 3 feet. The pods are called "ice cream beans" in the Canal Zone, and there are numerous Spanish names for the inga, some of them being *guava*, *pepete*, *cujín*, *cuajiniquil*, *guamo*, *paterno*, *paternillo* and *guabá* (Cuba). The plant is called the *monkey tambrin* in the British West Indies.

25. NANCE

Byrsonima spp.

This berry is eaten raw, usually by the children. Occasionally it is on sale in country markets. The bush or small tree is common in dry places and at low altitudes. Its flowers are bright yellow but turn red as they fade. The round yellow berry is half an inch in diameter and has a flavor similar to that of an apple. The flesh is sweet and juicy. In the British West Indies the nance is called *golden spoon*; in Central America *nanche*; in Cuba *peralejo*; in Puerto Rico *maricao*; and in Colombia *yuco* and *chaparro*.

26. SEA GRAPE

Coccoloba uvifera

Sea grapes may be eaten raw. The plant is so named because it grows only along seashores. It is a bush or small tree with very thick, large, circular stiff leaves, and clusters of grapelike fruits. The young leaves are red or purple. The small fruits are juicy, nearly white or reddish, slightly sour,—almost bitter, but fairly good to eat. It is known as *uva de playa* and *papaturro* in Central America and some parts of the West Indies; *uva caleta* in Cuba; and sometimes *gulfweed* in Florida.

27. A—PINGWING
Bromelia Pinguin

B—PIRO
Bromelia Karatas

The sour pingwing may be eaten raw or cooked. It is used to prepare a tart beverage similar to lemonade. The very young, tender leaves or sprouts or the center of the plant may be cooked as greens. Pingwing is a common wild plant of the Caribbean lowlands, growing abundantly in thickets and hedges. This fruit is similar to the cultivated pineapple; its leaves are spiny and the ripe fruits are yellow or red. Other names for it are *piñuela*, *muta*, and *piña de ración*.

The piro of Panama is similar to the pingwing and is used in the same ways. The fruits are larger and of better flavor. Other names for this plant are *piñuela*, *piña de cerco*, and *motate*.

28. COCO PLUM

Chrysobolanus Icaco

The plumlike fruit of this plant is eaten raw, but it is not considered of very good quality. It is used for making preserves. The large shrub or small spreading tree grows wild along the seashore and is cultivated on rich, moist soils in other parts of the Caribbean. The plant has thick, broad, glossy, deep green leaves and very small white flowers. The fruits resemble large plums; they vary in color from white to red purple to almost black; the flesh is white with a rather insipid taste. The coco plum is also called *icaco*.

29. ACEITUNO

Simaruba glauca

This fruit is commonly eaten raw where the trees are plentiful but it is not sold in the markets. The small or medium-size tree grows at low elevations under cultivation from Mexico to northern South America. The firm meat of the fruit is white, juicy, and rather sweet, but flavorless. When in bloom the tree has small red flowers. The ripe fruits are almost black and resemble an olive or small plum in size and shape. They are often called Spanish olive. Other names for the plant are *bitterwood* and *bitter damson* in Jamaica; *olivo*, *jucumico* and *negrito* in Central America; and *gavilan* in Cuba.

30. SUNZAPOTE

Licania platypus

This fruit is poor in flavor and seldom eaten except when no other fruit is available. The tall, handsome tree grows in profusion in the lowlands of Central America. The elongated young leaves are red or purple, the fruit is very large, with a rough, brownish rind, and the stringy flesh is deep yellow, juicy and sweet. Other names for the sunzapote are *sunza*, *sungano*, and *sangre* (Costa Rica).

31. WILD FIG

Ficus

All varieties of these fruits, particularly the largest figs, may be eaten raw. The plants grow wild in almost all parts of the Caribbean region. The leaves are large and long, the fruit closely resembles the cultivated fig. It is rounded and soft with a tiny hole at the top, and is filled with sweet pulp and minute seeds. The stems of wild figs often curl themselves tightly around other trees, strangling and finally killing them. Other names for the wild fig are *higo*, *higuero*, *higuerón*, *amate*, *matapalo* and *jagüey* (Cuba).

32. AKEE

Blighia sapida

The red or orange podlike fruit of the akee has three cells inside each pod and a large, black, shiny seed in each cell. The white fleshy pulp surrounding the seeds may be eaten raw or cooked. This part of the fruit is usually boiled in salt water and fried. **CAUTION:** *The seeds are very poisonous and the fallen fruits, or unripe ones, or those in which the flesh has become discolored must not be eaten because they are a deadly poison.* The fruit is ripe and a safe and good food if the edible portion (white flesh surrounding the seeds) is firm and the orange or red skin is bright in color. In the Caribbean the akee is most commonly cultivated on the moist lowlands. It is also called *huevo vegetal* and *seso vegetal*.

33. BREADFRUIT

Artocarpus incisa

The large, tender, smooth young breadfruits may be sliced and fried, or prepared in many other ways. The seeds may be eaten either raw, boiled, or roasted. The tree has very large leaves and rather large, nearly round, green or brownish-green fruits. Breadfruit is found only under cultivation in the hot tropical lowlands. Other names for the plant are *arbole de pán*, *palo de pán*, and *mazapán*.

34. GROUND CHERRY

Physalis

Ground cherries may be eaten raw but are not very good. Often they are made into preserves. The green fruits, sometimes resembling small tomatoes, are widely used in Central America as a substitute for tomatoes in flavoring foods. They are usually found in waste ground or often as weeds in cultivated soil. The low, soft-stemmed plant bears small greenish-yellow flowers with dark eyes. The fruits or berries look like small Chinese lanterns. The rather sweet berries are yellowish when ripe, and have small seeds like those of the tomato. In Central America the ground cherry is called *miltomate*.

35. A—PRICKLY PEAR

Opuntia

B—ORGAN CACTUS

Cereus

The juicy pear-shaped prickly fruits (A) may be eaten raw or dried. The fine spines or bristles must be removed carefully because they may irritate the mouth. The young joints or pads, sometimes called leaves, are good when cooked. This common cactus is found in dry places in the Caribbean region. The fruit is sometimes called *tuna* or *Indian fig*, the plant, *nopal*.

Like all other juicy fruits of the cactus plants, the ripe fruits of the organ cactus (B) are very good to eat. The tender ends of the branches may be eaten cooked, and the raw fruits eaten or sucked as a substitute for water. The plant, common in some parts of the West Indies and the mainland of Central America, is tall and tree-like with a few thick, ridged branches. The fruits are oval, usually bright pink in color, and covered with large leaf scales. Other names are *órgano*, *cardón* and *pitahaya*.

Section III

Cultivated Edible Roots

Identification table.—This table does not include all means of identifying cultivated edible roots. These tubers will usually be found on sale in village markets or under cultivation in open fields. However, it may not be possible to obtain the advice of natives before preparing the edible portions of the plants. *Many roots contain poisonous crystals, so do not fail to read the text accompanying the illustrations on the pages indicated in this table.*

Identification Table—Cultivated Edible Roots

BLACK

Plant part ¹	Description	Illus. No.	Common name	Page No.
R-----	Covered with many almost black hair-like roots.	38	Yam (<i>Caution</i>)-----	48

BROWN

R-----	Resemble Irish potatoes-----	37	Dasheen (<i>Caution</i>)-----	44
R-----	Resemble sweet potatoes-----	39	Cassava (<i>Caution</i>)-----	49

PURPLE

L-----	Borders the leaves-----	36	Otô (<i>Caution</i>)-----	43
Fl-----	Look like the flowers of beans; sometimes are white.	40	Yam bean-----	50

¹ R=Root; L=Leaves; Fl=Flower.

Specific Cultivated Edible Roots

36. Otó

Xanthosoma violaceum

The large tuberous otó root is good to eat when thoroughly cooked. The leaves may also be cooked and eaten like spinach. **CAUTION:** The raw roots and leaves contain crystals which will irritate the mouth and throat. However, this poison is removed by cooking. The plant is most frequently found in cultivation, but it runs wild in some localities. The green leaves are usually tinged with dark purple. There are several varieties of this plant, all of which look much alike. It is called *vautía* in the West Indies, *quequesque* in Northern Central America, *badú* and *coco* in the British West Indies and *malango* in Cuba.

37. DASHEEN

Colocasia antiquorum

CAUTION: This large underground tuber is poisonous, or at least dangerous, if eaten raw. It causes intense burning and swelling in the mouth and throat. However, when thoroughly baked or boiled, it has a good flavor and is nutritious. When cooked, these roots closely resemble Irish potatoes. The tender leaves also may be cooked and eaten like spinach. The dasheen was brought to America from the Old World and is now planted commonly on the sandy soils of the Caribbean lowlands. It is also called *coco-yam*, *coco* and *eddoes* in Jamaica, *malanga* and *malanga yautía* in Puerto Rico and *papa malanga*.

38. YAM

Dioscorea spp.

These roots may be safely eaten *only when well cooked*. Yams are found mostly in cultivation. Large slender vines grow from these underground tubers which resemble sweet potatoes. They are prepared and used much as potatoes but are coarser. Yams are often huge, nearly black, very hard and covered with many black hair-like offshoots. There are many varieties, which differ in the shape of the leaves and the quality of the tubers. The variety usually considered best is called *yampee*, *yampí* or *ñama yampí*.

39. CASSAVA

Manihot

Several varieties of cassava are found in the Caribbean. **CAUTION:** In some varieties the tubers contain a poisonous substance that is destroyed by heat. In other varieties there is no poisonous principle present. The tubers should always be very thoroughly cooked before they are eaten. The young leaves may be boiled and eaten like spinach. Commonly planted in the Caribbean lowlands the large tuberous roots of this slender tree look much like sweet potatoes. Cassava is one of the important food plants of the earth. In many regions of South America it is the most important starchy food. Throughout the Caribbean this plant is known as *yuca*.

40. YAM BEAN

Pachyrhizus erosus

The roots of this plant are always eaten raw but the young pods may be cooked and eaten like string beans. This vegetable is cultivated commonly in many parts of Central America, especially from Costa Rica to Salvador, and in Mexico and some parts of the West Indies. The soft-stemmed vine has white or purple flowers similar to those of beans. The small or large tuberous roots resemble turnips. They are rather watery, sweet, and refreshing in taste, and are nutritious. The yam bean plant may also be called *jicama*.

Section IV

Edible Seeds and Greens

Identification table.—The following table does not include all edible seeds and greens or all means of identifying these edible plants. For additional descriptions of the plants and methods of cooking the seeds and leaves of these plants consult the text on the page referred to in the identification table.

Identification Table—Seeds and Greens

BLACK

Plant part ¹	Description	Illus. No.	Common name	Page No.
S.....	May be red and black; like beans.....	51	Coral bean (<i>Caution</i>)...	64

BROWN

S.....	Hard outer shell; meat inside.....	41	Palm nuts.....	54
F.....	Five large pods; has large seeds.....	46	Panama tree (<i>Caution</i>)..	59
F.....	Rough; very heavy; many large seeds.....	47	Provision tree.....	60
F.....	Large hard pods.....	48	Courbaril.....	61

GREEN

L.....	Grows like a small cabbage.....	41	Palm nuts.....	54
F.....	Five large pods; greenish brown.....	46	Panama tree (<i>Caution</i>)..	59

PINK

Fl.....	Very large; pink and white.....	47	Provision tree.....	60
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PURPLE

Fl.....	Small; pale purple or white.....	50	Black nightshade.....	63
F.....	Small; purple-black; many seeds.....	50	Black nightshade.....	63

¹F= Fruit; Fl= Flower; L= Leaves; S= Stem.

Identification Table—Seeds and Greens—Continued

RED

Plant part ¹	Description	Illus. No.	Common name	Page No.
F.....	Very fleshy; single large seed.....	42	Pejibaye.....	55
Fl.....	Edible; cooked like string beans.....	51	Coral bean (<i>Caution</i>).....	64
S.....	May be red and black; like beans.....	51	Coral bean (<i>Caution</i>).....	64

WHITE

Fl.....	Bell-shaped; edible.....	44	Spanish bayonet.....	57
Fl.....	Very large; pink and white.....	47	Provision tree.....	60
Fl.....	Small; pale purple or white.....	50	Black nightshade.....	63

YELLOW

F.....	Very fleshy; single large seed.....	42	Pejibaye.....	55
F.....	Small; round.....	45	Breadnut.....	58
Fl.....	Very small; form mats on ground.....	49	Pursley.....	62
Fl.....	Large; soft-stemmed plant.....	52	Okra.....	65

¹ F = Fruit; Fl = Flower; L = Leaves; S = Stem.

Location table.—Remember that the topographic location classifications in the following table are merely general. The plants included in this section are found growing wild and under cultivation. Do not fail to read the text accompanying the illustration of the plants.

Location Table—Seeds and Greens

ALL REGIONS

Description	Illus. No.	Common name	Page No.
Leaves form "cabbage" heads; many varieties; cocoa-nut most important.	41	Palm nuts.....	54
Palm tree; fruit yellow or red.....	42	Pejibaye.....	55
Tall tree; round yellowish fruits.....	45	Breadnut.....	58
Thick, fleshy stems and leaves; yellow flowers.....	49	Pursley.....	62
Weedy plant; purple-black berries.....	50	Black nightshade.....	63
Bush or tree with hard spines; red flowers.....	51	Coral bean (<i>Caution</i>).....	64

Location Table—Seeds and Greens—Continued

COASTAL AREAS

Description	Illus. No.	Common name	Page No.
Pink and white flowers; rough, brown fruit; swamps and marshes along Atlantic.	47	Provision tree.....	60

CULTIVATED ONLY

Palm tree; fruit yellow or red.....	42	Pejibaye.....	55
White bell-shaped flowers.....	44	Spanish bayonet.....	57
Soft-stemmed plant; large yellow flowers.....	52	Okra.....	65
Smooth or spiny fruit; root like sweet potato.....	53	Chayote.....	66

FORESTS

Palm; flowers grow in clusters like ear of corn.....	43	Pacaya palm.....	56
Brownish-green fruit with five pods.....	46	Panama tree (<i>Caution</i>).....	59
Large, hard, dark brown pods.....	48	Courbaril.....	61

LOWLANDS

Large, hard, dark brown pods.....	48	Courbaril.....	61
Soft-stemmed plant; large yellow flowers.....	52	Okra.....	65

WASTE GROUNDS

Thick, fleshy stems and leaves; yellow flowers.....	49	Pursley.....	62
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Specific Edible Seeds and Greens

41. PALM NUTS

In some types of palm nuts the kernels are eaten; in others the flesh surrounding the seeds is edible either raw or cooked. The "cabbage" consisting of the young tender leaves in the center of the leaf cluster at the top of the trunk may be eaten raw or cooked. The most important and abundant of the Caribbean palms is the cocoanut palm. The meat of the cocoanut is good to eat at all stages of growth. Cocoanuts lying on the ground and sprouting fill with a solid white mass of flesh that is good to eat. Of special importance is the "milk" of the cocoanut which is a safe substitute for drinking water. There are many kinds of palm trees commonly grown in all parts of the Carribean region. None is poisonous and almost all provide some kind of food that may be eaten in an emergency. Various types of palm nuts are shown in the above illustration.

42. PEJIBAYE

Guiliema Gasipaes

When boiled the thick mealy flesh of the pejibaye palm is sweet and resembles chestnuts or boiled potatoes. Of all Central American palms the fruit of the pejibaye is by far the best for eating. The tall palm which often attains 26 feet in height, is widely planted in Costa Rica and Panama, while southward it is sometimes found wild. The ripe fruits are yellow or red and have a good deal of flesh about the single large seed. The leaves are dark green on top and light green on the underside. In Panama the pejibaye is called *piva palm*.

43. PACAYA PALM

Chamaedorea spp.

Male and female flowers of the pacaya palm are found on separate trees. The young male flower clusters are edible when they look like ears of corn in a husk (lower center in the illustration). When these "ears" are opened, they are found to be filled with a mass of curved slender flower stems (illustration at right) which are very good to eat raw or cooked. Usually they are fried with eggs, but they also make a good salad. The white pith of the tree stems is also edible. The pacaya palm is commonly found in Central American forests and also is often cultivated. The trees are small, usually not over 10 feet tall. They are also called simply *pacaya*.

44. SPANISH BAYONET

Yucca elephantipes

The white or cream-colored bell-shaped flowers of the Spanish bayonet constitute one of the most popular vegetables of Central America. They are very good when fried with eggs, or they may be eaten raw in salads. The stiff, short-trunked plants with spine-tipped leaves are common throughout most of Central America where they are chiefly planted but sometimes are found growing wild. The Spanish bayonet is called *yucca* or *palmito* in Panama, *itabo* in Costa Rica, and *izote* in northern Central America.

45. BREADNUT

Brosimum Alicastrum

Several varieties of the breadnut, all much alike, grow in the Caribbean region. They are tall trees with milky sap and small, round yellowish fruits which often cover the ground beneath the trees. The fruit is eaten raw, stone and all. The single large seeds or stones are edible raw or boiled; in time of famine in Central America they are eaten in large quantities. The leaves and branches furnish excellent fodder for cattle and horses. The breadnut is known as *ojoche*, *ojushte* and *ojuste* from Costa Rica to Guatemala; *guáimaro* in Cuba, *masica* in Honduras and *ramón* in Guatemala.

46. PANAMA TREE

Sterculia apetala

The fruit of the Panama tree is formed like a large flower consisting of five large pods, each containing several seeds resembling chestnuts. These seeds may be eaten either raw or roasted. **CAUTION:** *The inside of the pods is covered with stiff bristles that penetrate the skin easily and cause intense irritation.* The tree is very large and is common in the lowland forests of the Caribbean region. Its leaves are light green and fuzzy on the underside, its fruits are brownish green. In Panama the tree is known as *panamá*; in Central America *castaño*; in Cuba *anacagüita* and *camaruca*; and in Colombia *camajón*. *and Camajón*

47. PROVISION TREE

Pachira

This tree may be either small or large and is usually found growing in swamps or on the banks of streams. The large flowers are pink and white, the russet brown fruits are rough to the touch, often a foot long and very heavy. Inside the skins is a profusion of edible brown seeds imbedded in a solid white pulp. The seeds, which resemble chestnuts (lower right of illustration), may be eaten raw or cooked. They are called *saba* nuts on the Atlantic coast of Nicaragua, *zapotón*, *pumpunjuche*, *zapote bobo*, *zapote de agua* and *apompo* in Mexico and Central America; and *ceibón de agua*, *ceibón* and *castaño silvestre* in Cuba.

48. COURBARIL

Hymenaea Courbaril

The large, hard, dark brown pods of the courbaril contain a sweet, mealy pulp which is a nutritious food. They are common in lowlands of the Caribbean area, mostly in rather dry forests. A gummy sap that runs from the trunk is used to make varnish and very commonly for incense in churches. In the British West Indies it is called the *locust tree*; in Panama, Puerto Rico, Venezuela the *algarrobo*; and in Central America the *guapinol*, *cuapinol*.

49. PURSLEY

Portulaca oleracea

The thick fleshy stems of the pursley plant and the leaves when young and tender may be cooked as a substitute for spinach, or they may be eaten raw in a salad. This is a common weed of the Caribbean region, where it appears in waste ground and often in gardens and cultivated fields; it is a well known weed also in most parts of the United States. The plants trail along the ground and intertwine to form mats; the flowers are tiny and yellow. Pursley is also called *pusley*, (colloquial) *purslane* and *verdolaga*.

50. BLACK NIGHTSHADE

Solanum nigrum

The tender leaves and young shoots are cooked like spinach. *The berries are not eaten.* In some regions the berries have been found poisonous. This soft-stemmed weedy plant, usually not over 3 feet high, is common to all areas in the Caribbean region. Its small flowers are light purple or white, and its fruit is a small blackish-purple berry with numerous seeds. It is also called the *garden huckleberry*, *yerba mora*, and *pintamora* in Panama; and *mucuy* in Guatemala.

51. CORAL BEAN

Erythrina

CAUTION: The seeds of the coral bean contain a dangerous poison, and neither they nor the pods should ever be eaten. The young flowers are cooked and eaten like string beans. The young leaves may also be cooked and eaten. The bean grows on either a bush or a small tree armed with hard spines and is found in almost all parts of the Caribbean region. The flowers are bright red, and the bean-like seeds bright red or red and black. In Cuba the plant is called *búcare*; in Costa Rica *poró*; in Panama *gallito*; in northern Central America *pito*.

52. OKRA

Hibiscus esculentus

The young tender seed pods of the okra are eaten fried, stewed or prepared in other ways, and are very good in soups. They are seldom cultivated except in the lowlands. Okra is well known in the southern United States, but is uncommon in the North. This soft-stemmed garden plant is usually 3 or 4 feet high and has large yellow flowers. In Mexico and Central America it is called variously *gumbo*, *gombo*, *chimbombo*, *ocra* and *quingombo*; in Cuba *quimbombo*; in Panama *ñajú*.

53. CHAYOTE

Sechium edule

The chayote, as it is called in English and Spanish, is a remarkable plant because all parts of it can be eaten. The flowers and young branches are prepared as greens, like spinach. The smooth or spiny fruits, when young and tender, are cooked in various ways and eaten, together with the single large seed. The tuberous roots, resembling large sweet potatoes, are prepared and eaten like potatoes. Chayote is planted commonly in tropical America and is especially abundant in Central America at low and middle altitudes. It is not found growing wild. It is called *huisquil* or *güisquil* in northern Central America; *chocho* in Jamaica; and the roots are known in Central America as *chinta*, *chintla*, or *ráiz*.

Section V

"Substitute Water" Plants

Thirst is just as much a problem to the lost service man as starvation. Throughout tropical America there are plants that contain enough milky sap to serve as a substitute for water. The organ cactus and cocoanut have been discussed previously in this manual, but are included in the following tables. Read carefully the text under the illustrations of these plants. The descriptions in the identification table are confined to the shape, size, and appearance of the colored part of the plant.

CAUTION.—*Use these tables merely as reference guides.*

Identification Table—"Substitute Water" Plants

BROWN

Plant part ¹	Description	Illus. No.	Common name	Page No.
F.....	Shreddy hard shell.....	41	Cocoanut.....	54

PINK

F.....	Oval; covered with large leaf scales.....	35	Organ cactus.....	44
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PURPLE

F.....	Small; edible but sour.....	54	Wild grape.....	69
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WHITE

Fl.....	Small; leaves thick, stiff, rough.....	55	Water vine.....	70
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¹ F=Fruit; Fl=Flower.

Location Table—"Substitute Water" Plants

ALL REGIONS

Description	Illus. No.	Common name	Page No.
Brown, shreddy surface on fruit; filled with "milk"-----	41	Cocoanut-----	54

BUSHY PLACES

Large stems with sap; small purple fruit.-----	54	Wild grape-----	69
Large woody vine; small white flowers-----	55	Water vine-----	70

DRY PLACES

Cactus; fruits oval, bright pink-----	35	Organ cactus-----	44
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FORESTS

Large stems with sap; small purple fruit.-----	54	Wild grape-----	69
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Specific "Substitute Water" Vines

54. WILD GRAPE

Vitis tiliifolia

The small wild grapes are edible but very sour. Of more importance is the fact that the thick stems may be tapped for their abundant sap which constitutes a rather satisfactory and perfectly safe substitute for water. This vine is common in Central America and the West Indies, particularly in bushy places or forests. The fruit is almost exactly like the wild grape of the United States. Other names for it are: *uva*, *uva de monte*, *parra cimarrona*, *bejuco de agua*.

55. WATER VINE

Tetracera

The water vine is so called because the long sections of the larger stems contain a substantial amount of colorless sap that makes a good substitute for water. The large woody vine is found mostly in dry bushy land where it entwines itself over the tops of trees. The flowers are small and white, and the leaves thick, stiff, the texture of sandpaper. In Costa Rica the water vine is called *bejuco de agua*, *raspa* and *raspa-guacales*; in Panama *chumico*; in Colombia *bejuco chaparro* and in Cuba *bejuco guará*.

Section VI

Poisonous Plants

Identification table.—It is of extreme importance that the service man be able to identify the poisonous plants of tropical America. Although there are many varieties of plants that are poisonous externally and internally, they are not abundant through the area. In many instances some portion of the plant may be eaten after careful preparation and handling. These precautionary measures have been indicated in previous sections of the manual. Section VI treats of the plants which should always be avoided. It is imperative that the service man become familiar with these plants. Do not rely on the information given in the table as an adequate means of identification. *All plants listed are harmful or poisonous.*

Identification Table—Poisonous Plants

BLACK

Plant part ¹	Description	Illus. No.	Common name	Page No.
F.....	Almost black; should never be eaten.....	66	Huilihuiste.....	84

BROWN

Bark.....	Pale brown, smooth; small tree.....	57	Manchineel.....	75
Bark.....	Thin reddish-brown.....	63	Black poison wood.....	81

GREEN

F.....	Resembles small green apple.....	57	Manchineel.....	75
Fl.....	Very small.....	57	Manchineel.....	75
Fl.....	Small, greenish.....	62	Guao.....	80
Fl.....	Small, greenish-yellow.....	65	Physic nut.....	83
Fl.....	Small, greenish; small bush.....	68	Ciega-vista.....	86

¹ F=Fruit; Fl=Flower; L=Leaves; S=Stem

Identification Table—Poisonous Plants—Continued

RED

Plant part ¹	Description	Illus. No.	Common name	Page No.
L.....	Bright red when young.....	61	Poison sumac.....	79
F.....	Small, juicy, purple-red.....	67	<i>Moco tinto</i>	85
Fl.....	Small, very numerous, purple-red.....	67	<i>Moco tinto</i>	85

WHITE

Fl.....	Small; plant grown for fences.....	60	Poison spurge.....	78
Fl.....	Small; resembles sumac of U. S.....	61	Poison sumac.....	79
Fl.....	Small; bush or tree.....	63	Black poison wood.....	81
Fl.....	Ashy gray bark; slender twigs.....	64	White poison wood.....	83
S&L.....	Covered with whitish hairs.....	68	<i>Ciega-vista</i>	86
Fl.....	Many varieties; milky sap.....	69	Stinging spurge.....	87
L.....	White underneath; large, stiff.....	72	Trumpet tree.....	90
Bark.....	Smooth; branches filled with ants.....	72	Trumpet tree.....	90

YELLOW

F.....	Orange-yellow berries; bush or tree.....	63	Black poison wood.....	81
Fl.....	Small, greenish-yellow.....	65	Physic nut.....	83

¹ F=Fruit; Fl=Flower; L=Leaves; S=Stem

Location table.—All these plants are poisonous in some way. Consult references.

Location Table—Poisonous Plants

ALL REGIONS

Description	Illus. No.	Common name	Page No.
Fruit small capsule; two projections at base of leaf.....	59	Olivo.....	77
Leaves very spiny; small greenish fruits.....	62	Guao.....	80
In British Honduras and Yucatan on mainland; reddish-brown bark; orange-yellow fruit.	63	Black poison wood.....	81

COASTAL AREAS

Forms dense thickets; smooth pale brown bark.....	57	Manchineel.....	75
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Location Table—Poisonous Plants—Continued

DRY PLACES

Description	Illus. No.	Common name	Page No.
Bright red leaves; small white flowers.....	61	Poison sumac.....	79
Small or large trees; black berries.....	66	Huilihuiste.....	84
Small bush; leaves covered with white hairs.....	68	Ciega-vista.....	86

HIGH ALTITUDES

Bright red leaves; small white flowers.....	61	Poison sumac.....	79
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LIMITED

Gray bark; white flowers; found only in British Honduras, Cuba, and Haiti.	64	White poison wood.....	82
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LOWLANDS

Large thick stems; root above ground; skunk-like odor...	56	Dumb cane.....	74
Giant tree; trunk covered with spines; fruit explodes...	58	Sandbox tree.....	76
Bush or small tree; greenish yellow flowers.....	65	Physic nut.....	83
Soft-stemmed plant; white flowers.....	69	Stinging spurge.....	87
Several species; soft-stemmed or bushy tree-like kinds...	70	Nettle tree.....	88
Hard pods with stiff hairs or bristles.....	71	Cow-itch.....	89
Whitish trunk; large, stiff leaves; cord-like fruit.....	72	Trumpet tree.....	90

MIDDLE ALTITUDES

Soft-stemmed plant; white flowers.....	69	Stinging spurge.....	87
Several species; soft-stemmed or bushy tree-like kinds...	70	Nettle tree.....	88

MOUNTAINOUS REGIONS

Pale bark; small white flowers.....	60	Poison spurge.....	78
Bush; small leaves; purple-red flowers; purple-red fruit...	76	Moco tinto.....	58

Specific Poisonous Plants

56. DUMB CANE

Dieffenbachia

POISON

When the stems or leaves of the dumb cane are broken, the milky sap that pours out causes severe blistering and inflammation of the skin. The plant is common in the lowlands and wet ground of Central America and southward. When cut, the plant gives off an offensive skunk-like odor. The succulent stems, which are as thick as a man's arm or larger, and a portion of the roots usually grow on a level with the ground. The dumb cane is called *otó de lagarto* in Panama and *rábano* or *cimarrón* in Puerto Rico.

57. MANCHINEEL

Hippomane Mancinella

POISON

The milky sap of the manchineel causes blistering and severe inflammation of the skin in some persons. Smoke from the burning wood may injure the eyes. This plant is found only along the ocean beaches where it often forms dense thickets. The small tree has pale brown, smooth bark and very small green flowers. The fruit resembles a small green apple. It is also called *manzanillo*.

58. SANDBOX TREE

Hura crepitans

POISON

The milky sap of the sandbox tree causes severe irritation to the skin of the person coming in contact with it. Its woody fruits are dangerous to handle because when dry they explode with a loud report, scattering seeds violently in many directions. These seeds are also poisonous. The giant sandbox tree is found growing at low altitudes, its trunk closely covered with short, sharp spines. The fruit is about the shape of a small muskmelon or pumpkin. The milky sap of the tree may be mixed with sand or a similar substance and thrown into quiet pools to stupefy the fish. Other names for the sandbox tree are *jabillo* or *javillo*.

59. OLIVO

Sapium spp.

MAY BE POISONOUS

It seems probable that there are variations in the species of this plant. In Mexico and Salvador the milky sap is considered very poisonous. Records show that the Indians used it to poison arrows. However, in Panama the coagulated sticky sap is chewed by boys who place it on twigs for the purpose of catching small birds. The large or small olivo trees are found from Mexico to South America and in the West Indies. The fruit is a small capsule. This plant may be easily recognized by the two small projections at the base of the leaf (somewhat exaggerated in the illustration shown here). The tree is called *ñipe* in Panama; *yos* in Costa Rica; *chilamate* in northern Central America; *gum tree*, *milk wood* in Jamaica; *lechecillo* and *hinchaneuvos* in Puerto Rico; and *piniche* in Cuba.

60. POISON SPURGE

Euphorbia cotinifolia

POISON

The milky sap of the poison spurge in contact with the skin produces blisters and intense inflammation like that caused by poison ivy. The growth is most common in the lower mountain regions from Mexico to Cuba and northern South America. This bush or small tree with close pale bark is often planted for living fence posts. Its sap is milky, and the flowers small and white. This is called *yerba mala* in Guatemala; *barrabás* in Costa Rica; and *yerba lechera* in Cuba.

61. POISON SUMAC

Rhus striata

POISON

Contact with the leaves or sap of the poison sumac causes blistering and swelling that may persist for weeks. This plant belongs to the same family as the poison oak and poison ivy of the United States, and is closely related to the species of poison sumac found growing in the swamps of the United States. This plant grows on exposed dry hills at rather high altitudes in southern Mexico, Guatemala, Costa Rica, and Colombia. It is a shrub or small tree with bright red young leaves and small white flowers. It is called *amché* and *palo de compadre* in Guatemala and *hinchador* in Costa Rica.

62. GUAO

Comocladia

POISON

The sap of some species of this plant causes blistering and prolonged inflammation of the skin similar to that caused by poison ivy. Numerous varieties grow in Mexico, Guatemala and the West Indies. On the mainland, they are not found below Guatemala. These bushy or small trees have long leaf stems but only a few or no branches. The leaves (which are often very spiny), are clustered at the ends of the branches, and the flowers are small and greenish. Alternate names are *maíz, pelado* (Puerto Rico); *chinil, solimán* (Guatemala); *hincha-huevos* (Mexico).

63. BLACK POISON WOOD

Metopium toxiferum

POISON

The sap of the black poison wood causes blisters and prolonged inflammation similar to that of poison ivy of the United States. The smoke from the burning wood is as dangerous as the sap. The tree is common in many parts of the West Indies, but on the mainland is known only in British Honduras and Yucatan. This bush or small tree has thin russet bark, small white flowers, and yellow-orange berries. In Jamaica it is called *poison wood*, *burn wood*; in British Honduras and Yucatan *chechém*; and in Cuba *guao de costa*.

64. WHITE POISON WOOD

Cameraria latifolia

POISON

The white poison wood tree is said to be one of the most poisonous of tropical American plants, but fortunately its distribution is limited. There are three kinds of these bushes or small trees, but they are found only in British Honduras, Cuba and Haiti. The tree has slender twigs, ashy gray bark and white flowers. Its blistering sap causes severe inflammation. Other names for this tree are *chechém de caballo* in British Honduras; *maboa* in Cuba; and *laitier* in Haiti.

65. PHYSIC NUT

Jatropha Curcas

POISON

The raw seeds or "nuts" of this plant are poisonous, or at least violently purgative. Deaths have occurred from eating them. After being thoroughly roasted, they are sweet and good to eat; however it is best not to eat them under any circumstances. The tree is commonly found in lowlands of the entire Caribbean region where it is often planted for hedges or live fence posts. The bush or small tree has small greenish-yellow flowers. The seed pod contains two or three large oily seeds. Other names for the physic nut are *piñon*, *tempate*, *coquillo* and *coquito* in Central America, and *tártago* in Puerto Rico.

66. HUILIHUISTE

Karwinskia Calderonii

POISON

The seeds of the fruits of the huilihuiste tree are highly poisonous. The small almost black fruits are juicy and attractive in appearance, but the juice and flesh, while harmless, should never be eaten. Several varieties of this tree are found from southwestern Texas through Mexico to western Nicaragua. Some of the trees are small and some are fairly large, but they always grow in dry regions, and are never found close to the Atlantic Coast. In Central America the tree is also called *tuilldora*, and in Mexico *cacachila*.

67. Moco TINTO.

Coriaria thymifolia

POISON

The *moco tinta* bush of Guatemala has small, juicy red-purple berries, rather attractive in appearance so that people are tempted to eat them, but they are dangerously poisonous. They are common in the mountains of Guatemala, where they grow mostly at 7,000 to 8,000 feet, but are rarely found in Costa Rica. The bush is often as tall as 6 feet and has spreading or recurved stems and branches with many small leaves, fern-like in appearance. Its small red-purple flowers are very numerous. Another name for *moco tinta* is *moco de chompipe*.

68. CIEGA-VISTA.

Croton ciliato-glandulosus

POISON

The entire plant of the *ciega-vista* of Guatemala is covered with many sticky hairs that cling to the hand if the plant is handled. If this sticky substance comes in contact with the eyes, it may cause serious inflammation. Common in many parts of Mexico and Central America, it is usually found among the underbush of dry localities. The bush is about three feet high and has small light green flowers, and leaves and stems covered with almost white hairs. Cattle are said to have been blinded as a result of grazing among these bushes.

69. STINGING SPURGE

Jatropha urens

CAUTION: This plant is thickly covered with stiff hairs which sting severely and cause pain and inflammation, often with numbness lasting for a day or more. There is no special treatment for this condition, but it is self-limited. This spurge is commonly found at low or middle altitudes in many parts of the Caribbean area. There are several kinds of this soft-stemmed plant, bush or small tree, but all are much alike in general appearance. It has white flowers and milky sap. Other names for it are *ortiga*, *pringamoza*, *mala mujer* and *chichicaste*.

70. NETTLE TREE

Urera baccifera

There are several varieties of the nettle tree or plant, some stinging more severely than others. **CAUTION:** If the leaves or branches strike the body, intense pain is produced with irritation that may last 24 hours or more. There is no permanent injury nor is there need for treatment. The most dangerous nettles of the region are the bushy tree-like ones, but contact with some of the low, soft-stemmed nettles often causes intense pain for a short time. It is commonly found growing at low and middle altitudes, where it is often planted for hedges. It is called *ortiga* in most Spanish-speaking regions; *jamo* or *chichicate* in Cuba; and in northern Central America it is known as *chichicaste*.

71. Cow-ITCH

Mucuna pruriens

The hard pods of this low bush are covered with stiff hairs or bristles that separate easily and often are carried with the wind. They penetrate the skin and cause intense itching and irritation that may last for some time. **CAUTION:** If the hairs lodge in the eyes, they may cause serious trouble. Thickets where cow-itch is plentiful should be avoided if possible. This plant is common in the lowlands of the Caribbean area. Other names for it are *cowhage*, *velvet bean* and *pica-pica*.

72. TRUMPET TREE

Cecropia spp.

CAUTION: The branches of the trumpet tree are hollow and are inhabited by swarms of small ants that bite painfully as soon as a leaf or branch is touched. The long cord-like spines of the tiny fleshy fruits may be eaten, but they are a poor substitute for food. This medium-size tree grows abundantly in the lowlands of tropical America. It has a smooth trunk nearly white in color, and a few branches near the top with large stiff leaves green on top and white on the underside. The trumpet tree gets its name from the fact that the hollow stems are used for making wood instruments. In Central America it is called *guarumo* and in Cuba and Puerto Rico *yagrumo*.

Appendix I

Spanish Names of Common Food Plants

Almond— <i>almendra</i>	Muskmelon— <i>melon</i>
Apple— <i>manzana</i>	Mustard— <i>mostaza</i>
Apricot— <i>albaricoque</i>	Nutmeg— <i>nuez moscada</i>
Asparagus— <i>espárrago</i>	Oats— <i>avena</i>
Banana— <i>banano</i> ; <i>guineo</i>	Onion— <i>cebolla</i>
Barley— <i>cebada</i>	Orange— <i>naranja</i>
Beans, dry— <i>frijoles</i>	Parsley— <i>perejil</i>
String beans— <i>ejotes</i>	Peas— <i>alberjas</i> ; <i>petipoás</i>
Beet— <i>remolacha</i> ; <i>acelga</i>	Peach— <i>durazno</i>
Blackberry— <i>mora</i> ; <i>zarzamora</i>	Pear— <i>pera</i>
Cabbage— <i>repollo</i> ; <i>col</i>	Pepper, black— <i>pimienta</i>
Caraway— <i>culantro</i>	Pepper, green— <i>chile verde</i> ; <i>chile dulce</i>
Carrot— <i>zanahoria</i>	Pepper, red— <i>chile</i> ; <i>ají</i>
Cauliflower— <i>coliflor</i>	Pepper— <i>tabasco</i> ; <i>chiltepe</i>
Celery— <i>apio</i>	Peppermint— <i>menta</i>
Cherry— <i>guinda</i> ; <i>cereza</i>	Pineapple— <i>piña</i>
Chestnut— <i>castaña</i>	Plantain— <i>plátano</i>
Cloves— <i>clavos</i>	Plum— <i>ciruela</i>
Cocanut— <i>coco</i>	Pomegranate— <i>granada</i>
Chickpea— <i>garbanzo</i>	Potato— <i>papa</i> ; <i>patata</i>
Cinnamon— <i>canela</i>	Prunes— <i>ciruelas pasas</i>
Corn— <i>maíz</i>	Pumpkin— <i>ayote</i> ; <i>sapuyo</i> ; <i>calabazo</i>
Roasting ears— <i>elotes</i>	Radish— <i>rábano</i>
Cucumber— <i>pepino</i>	Raisins— <i>pasas</i> ; <i>uvas pasas</i>
Date— <i>dátil</i>	Rice— <i>arroz</i>
Eggplant— <i>berenjena</i>	Sesame— <i>ajonjolí</i>
Fig— <i>higo</i>	Spinach— <i>espinaca</i>
Garlic— <i>ajo</i>	Squash— <i>ayote</i> ; <i>sapuyo</i> ; <i>calabazo</i>
Ginger— <i>gengibre</i>	Strawberry— <i>fresa</i>
Gourd— <i>calabaza</i>	Sugar cane— <i>caña de azúcar</i>
Grapes— <i>uvas</i>	Sweet potato— <i>camote</i> ; <i>boniato</i> (Cuba)
Horse bean— <i>haba</i>	Tangerine— <i>mandarina</i>
Horse-radish— <i>rábano picante</i>	Tea— <i>té</i>
Leek— <i>puerro</i>	Tomato— <i>tomate</i>
Lemon— <i>limón real</i>	Turnip— <i>nabo</i>
Lentils— <i>lentejas</i>	Vanilla— <i>vainilla</i>
Lettuce— <i>lechuga</i>	Watercress— <i>berro</i>
Lime— <i>limón</i>	Watermelon— <i>sandía</i>
Mulberry— <i>mora</i>	

Appendix II

Master Identification Table—Edible and Poisonous Plants

BLACK

Plant part ¹	Description	Illus. No.	Common name	Page No.
F.....	Size and shape of olive.....	29	Accituno.....	38
F.....	Resembles large plum.....	28	Coco plum.....	37
XS.....	Seeds red and black; like beans.....	51	Coral bean.....	64
XF.....	Almost black; should never be eaten.....	66	Huilihuiste.....	84
XR.....	Covered with many blackish hairlike roots.	38	Yam.....	48

BROWN

XBark.....	Thin reddish-brown.....	63	Black poison wood.....	81
F.....	Large, nearly round.....	33	Breadfruit.....	42
XR.....	Like sweet potatoes.....	39	Cassava.....	49
F.....	Large hard pods.....	48	Courbaril.....	61
XR.....	Resemble Irish potatoes.....	37	Dasheen.....	44
F.....	Firm flesh.....	6	Mamey.....	15
XBark.....	Pale brown, smooth; small tree.....	57	Manchineel.....	75
F.....	Hard outer shell; meat inside.....	41	Palm nuts.....	54
XF.....	Five large pods; has large seeds.....	46	Pañama tree.....	59
F.....	Rough; very heavy; many large seeds.....	47	Provision tree.....	60
F.....	Soft; scaly or smooth skin.....	8	Sapodilla.....	17
F.....	Rough skin.....	7	Sapote.....	16
L.....	Brown and silky underneath.....	10	Star-apple.....	19
F.....	Rough rind.....	30	Sunzapote.....	39
F.....	Pods.....	23	Tamarind.....	32

GREEN

F.....	Large, nearly round.....	33	Breadfruit.....	42
F.....	Grows on trunk of tree.....	11	Cacao.....	20
XF.....	Small, greenish; small bush.....	68	Ciega-vista.....	86
XF.....	Small, greenish.....	62	Guao.....	80
F.....	Soft, strong musky odor.....	18	Guava.....	27
XF.....	Resembles small green apple.....	57	Manchineel.....	75

¹ F=Fruit; Fl=Flower; L=Leaves; S=Stem; R=Root; X=Special precautionary measures.

*Master Identification Table—Edible and Poisonous
Plants—Continued*

GREEN—Continued

Plant part	Description	Illus. No.	Common name	Page No.
XFl.....	Very small.....	57	Manchineel.....	75
XF.....	Sweet, juicy flesh.....	1	Mango.....	10
L.....	Grown like small "cabbage".....	41	Palm nuts.....	51
F.....	Unripe, but edible.....	3	Papaw.....	12
Fl.....	Multicolored.....	5	Passion vine.....	14
XF.....	Like an ear of corn.....	21	Piñanona.....	30
XFl.....	Small; greenish yellow.....	65	Physic nut.....	83
Fl.....	Greenish white or purple.....	22	Rose apple.....	31
F.....	Very large; has soft spines.....	14	Soursop.....	23
F.....	Like small apple.....	10	Star-apple.....	19
Fl.....	Greenish yellow.....	15	Sweet-sop.....	24
F.....	Thin membranous skin.....	16	White sapote.....	25

ORANGE

XF.....	Three-celled pod.....	32	Akee.....	41
Flesh.....	Resembles muskmelon or cantaloupe.....	3	Papaw.....	12
F.....	Egg-shaped; hard shell.....	5	Passion vine.....	14

PINK

XFl.....	Both fruit and seed edible.....	9	Cashew.....	18
F.....	Oval; covered with leaf scales.....	35	Organ cactus.....	44
Fl.....	Vary large; pink and white.....	47	Provision tree.....	60

PURPLE

Fl.....	Small; pale purple or white.....	50	Black nightshade.....	63
F.....	Small; purple-black; many seeds.....	50	Black nightshade.....	63
F.....	Resembles large plum.....	28	Coco plum.....	37
XL.....	Borders the leaves.....	36	Otó.....	46
Fl.....	May be greenish white also.....	22	Rose apple.....	31
L.....	Thick, stiff.....	26	Sea grape.....	35
Fl.....	Fruit resembles plum.....	17	Spanish plum.....	26
F.....	Resembles small apple.....	10	Star-apple.....	19
L.....	Young leaves red or purple.....	30	Sunzapote.....	39
F.....	Thin, tender skin.....	19	Wild cherry.....	28
F.....	Small; edible but sour.....	54	Wild grape.....	69
Fl.....	Like flowers of beans; sometimes white.....	40	Yam bean.....	50

*Master Identification Table—Edible and Poisonous
Plants—Continued*

RED

Plant part	Description	Illus. No.	Common name	Page No.
Fl.....	Small.....	29	Aceituno.....	38
XF.....	Three-celled pod.....	32	Akee.....	41
XF.....	Size and shape of pepper.....	9	Cashew.....	18
XFl.....	Edible; cooked like string beans.....	51	Coral bean.....	64
XS.....	May be red and black; like beans.....	51	Coral bean.....	64
F.....	Heart-shaped.....	13	Custard apple.....	22
XF.....	Sweet, juicy flesh.....	1	Mango.....	10
XF.....	Small, juicy, purple-red.....	67	<i>Moco tinto</i>	85
XFl.....	Small, very numerous, purple-red.....	67	<i>Moco tinto</i>	85
Fl.....	When faded; yellow when young.....	25	Nance.....	34
Fl.....	Multicolored.....	5	Passion vine.....	14
F.....	Very fleshy; single large seed.....	42	Pejibaye.....	55
F.....	Resembles pineapple.....	27	Pingwing.....	36
F.....	Resembles pineapple.....	27	Piro.....	36
XL.....	Bright red when young.....	61	Poison sumac.....	79
F.....	Small.....	26	Sea grape.....	35
L.....	Thick, stiff.....	26	Sea grape.....	35
F.....	Fruit resembles plum.....	17	Spanish plum.....	26
Fl.....	Purplish maroon or red.....	17	Spanish plum.....	26
L.....	Young leaves red or purple.....	30	Sunzapote.....	39
F.....	Contain single ridged seed.....	4	Surinam cherry.....	13

WHITE

Fl.....	Small; pale purple or white.....	50	Black nightshade.....	63
XFl.....	Small; bush or tree.....	63	Black poison wood.....	81
F.....	Covered with green and white network.....	11	Cacao.....	20
XS&L.....	Covered with whitish hairs.....	68	<i>Ciega-vista</i>	86
F.....	Resembles large plum.....	28	Coco plum.....	37
Fl.....	Small.....	28	Coco plum.....	37
Fl.....	Fruit pale yellow.....	12	Loquat.....	21
Fl.....	Multicolored.....	5	Passion vine.....	14
XFl.....	Waxy with green center.....	21	Piñanona.....	30
XFl.....	Small; plant grown for fences.....	60	Poison spurge.....	78
XFl.....	Small; resembles sumac of United States.....	61	Poison sumac.....	79
Fl.....	Very large; pink and white.....	47	Provision tree.....	60
F.....	Hard, crisp.....	22	Rose apple.....	31
F.....	Small, juicy, slightly sour.....	26	Sea grape.....	35
Fl.....	Bell-shaped; edible.....	44	Spanish bayonet.....	57
XFl.....	Many varieties; milky sap.....	69	Stinging spurge.....	87
F.....	Whitish "bloom" on fruit.....	15	Sweet-sop.....	24
XBark.....	Smooth; branches filled with ants.....	72	Trumpet tree.....	90

*Master Identification Table—Edible and Poisonous
Plants—Continued*

WHITE—Continued

Plant part	Description	Illus. No.	Common name	Page No.
XL.....	White underneath; large, stiff.....	72	Trumpet tree.....	90
Fl.....	Small; leaves thick, stiff, rough.....	55	Water vine.....	70
XFl.....	Ashy gray bark; slender twigs.....	64	White poison wood.....	82
Fl.....	Resembles chokecherry of United States..	19	Wild cherry.....	28

YELLOW

XF.....	Orange-yellow berries; bush or tree.....	63	Black poison wood.....	81
F.....	Small; round.....	45	Breadnut.....	58
XF.....	Size and shape of pepper.....	9	Cashew.....	18
XL.....	Leathery, yellowish green.....	9	Cashew.....	18
F.....	Looks like small Chinese lanterns.....	34	Ground cherry.....	43
F.....	Soft; many large seeds.....	18	Guava.....	27
F.....	Somewhat downy surface.....	12	Loquat.....	21
F.....	Tastes like apple.....	25	Nance.....	34
Fl.....	Turn red as they fade.....	25	Nance.....	34
Fl.....	Large; soft-stemmed plant.....	52	Okra.....	65
Flesh.....	Like muskmelon or cantaloupe.....	3	Papaw.....	12
F.....	Egg-shaped; hard shell.....	5	Passion vine.....	14
F.....	Very fleshy; single large seed.....	42	Pejibaye.....	55
XFl.....	Small, greenish yellow.....	65	Physic nut.....	83
F.....	Resembles pineapple.....	27	Pingwing.....	36
Fl.....	Very small; form mats on ground.....	49	Pursley.....	62
F.....	Hard, crisp.....	22	Rose apple.....	31
F.....	Resembles plum.....	17	Spanish plum.....	26
Fl.....	Greenish yellow.....	15	Sweet-sop.....	24
Fl.....	Multicolored yellow and red.....	23	Tamarind.....	32
F.....	Resembles small apple.....	20	Thorn apple.....	29
F.....	Thin, membranous skin.....	16	White sapote.....	25

Appendix III

Master Location Table—Edible and Poisonous Plants

ALL REGIONS

Description	Illus. No.	Common name	Page No.
Weedy plant; purple-black berries.....	50	Black nightshade.....	63
In British Honduras and Yucatan on mainland; red-brown bark; orange-yellow fruit.	63	Black poison wood (POISON)	81
Tall tree; round yellowish fruits.....	45	Breadnut.....	58
Brown, shreddy surface on fruit; filled with "milk".....	41	Cocoanut.....	51
Bush or tree with hard spines; red flowers.....	51	Coral bean (<i>Caution</i>) ..	64
Leaves very spiny; small greenish fruits.....	62	Guao (POISON).....	80
Fruit is small capsule; 2 projections at base of leaf.....	59	Olive (POISON).....	77
Leaves form cabbage heads; many varieties; cocoanut most important.	41	Palm nuts.....	51
Palm tree; fruit yellow or red.....	42	Pejibaye.....	52
Thick, fleshy stems and leaves; yellow flowers.....	49	Pursley.....	62

BUSHY PLACES

Large woody vine; small white flowers.....	55	Water vine.....	70
Large stems with sap; small purple fruit.....	54	Wild grape.....	69

COASTAL AREAS

Fruits resemble plum; small white flowers.....	28	Coco plum.....	37
Heart-shaped fruit; reddish yellow.....	13	Custard apple.....	22
Forms dense thickets; smooth pale brown bark.....	57	Manchineel (POISON).....	75
Pink and white flowers; rough brown fruit; swamps and marshes along Atlantic.	47	Provision tree.....	60
Small tree or bush; young leaves red or purple.....	26	Sea grape.....	35

Master Location Table—Edible and Poisonous Plants—Con.

CULTIVATED ONLY

Description	Illus. No.	Common name	Page No.
Fruit almost black; resembles olive.....	29	Acceituno.....	38
Fruits vary in size, shape, color.....	2	Avocado.....	11
Round, green or greenish brown fruit.....	33	Breadfruit.....	42
Smooth or spiny fruit; root like sweet potato.....	53	Chayote.....	66
Soft-stemmed plant; large yellow flowers.....	52	Okra.....	65
Palm tree; fruit yellow or red.....	42	Pejibaye.....	55
White bell-shaped flowers.....	44	Spanish bayonet.....	57
Fruit greenish; grows on tree trunk.....	14	Soursop.....	23
Green or purple fruit resembles apple.....	10	Star-apple.....	19
Bush or small tree; fruit tomato-red.....	4	Surinam cherry.....	13
Fruit yellowish green with white "bloom".....	15	Sweet-sop.....	24

DRY PLACES

Red or yellow fruit; resembles pepper.....	9	Cashew (<i>Caution</i>).....	18
Small bush; leaves covered with white hairs.....	68	<i>Ciega-vista</i> (POISON).....	86
Small or large trees; black berries.....	66	Huilihuiste (POISON).....	84
Flowers bright yellow; fruit yellow.....	25	Nance.....	34
Cactus; fruits oval, bright pink.....	35	Organ cactus.....	44
Bright red leaves; small white flowers.....	61	Poison sumac (POISON).....	79
Cactus; pear-shaped fruit.....	35	Prickly pear.....	44

FORESTS

Large, hard, dark brown pods.....	48	Courbaril.....	61
Palm; flowers grow in clusters like ear of corn.....	43	Pacaya palm.....	56
Brownish-green fruit with 5 pods.....	46	Panama tree (<i>Caution</i>).....	59
Large stems with sap; small purple fruit.....	54	Wild grape.....	69

LIMITED

Gray bark; white flowers; found only in British Honduras, Cuba, and Haiti.	64	White poison wood (POISON)	82
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Master Location Table of Edible and Poisonous Plants—Con.

LOWLANDS

Description	Illus. No.	Common name	Page No.
Fruit almost black; resembles olive.....	29	Aceituno.....	38
Red or orange podlike fruit.....	32	Akee (<i>Caution</i>).....	41
Flowers and fruits grow on trunk.....	11	Cacao.....	20
Large, hard, dark brown pods.....	48	Courbaril.....	61
Hard pods with stiff hairs or bristles.....	71	Cow-itch (POISON).....	89
Large thick stems; root above ground; skunk-like odor.....	56	Dumb cane (<i>Caution</i>).....	74
Yellowish-green fruit with musky odor.....	18	Guava.....	27
Greenish or reddish fruits.....	1	Mango (<i>Caution</i>).....	10
Flowers; bright yellow; fruit yellow.....	25	Nance.....	34
Several species; soft-stemmed or bushy tree-like kinds.....	70	Nettle tree (POISON).....	88
Soft-stemmed plant; large yellow flowers.....	52	Okra.....	65
Fruit resembles muskmelon or cantaloupe.....	3	Papaw.....	12
Bush or small tree; greenish-yellow flowers.....	65	Physic nut (POISON).....	83
Resembles pineapple; ripe fruit yellow or red.....	27	Pingwing.....	36
Fruit better than pingwing.....	27	Piro.....	36
White or yellow fruit is hard and crisp.....	22	Rose apple.....	31
Giant tree; trunk covered with spines; fruit explodes.....	58	Sandbox tree (POISON).....	76
Brown skin of fruit scaly or smooth.....	8	Sapodilla.....	17
Fruit like plum; yellow to deep red.....	17	Spanish plum.....	26
Green or purple fruit, like apple.....	10	Star-apple.....	19
Soft-stemmed plant; white flowers.....	69	Stinging spurge (POISON).....	87
Brown rough rind; large fruit; red leaves.....	30	Sunzapote.....	39
Small red and yellow flowers; fruit brown.....	23	Tamarind.....	32
Whitish trunk; large, stiff leaves; cord-like fruit.....	72	Trumpet tree (<i>Caution</i>).....	90

MIDDLE ALTITUDES

Long, flat pods; trees shade coffee bushes.....	24	Inga.....	33
Several species; soft-stemmed or bushy tree-like varieties.....	70	Nettle tree (POISON).....	88
Fruit resembles muskmelon or cantaloupe.....	3	Papaw.....	12
Fruit like plum; yellow to deep red.....	17	Spanish plum.....	26
Soft-stemmed plant; white flowers.....	69	Stinging spurge (POISON).....	87

Master Location Table—Edible and Poisonous Plants—Con.

MOUNTAINOUS REGIONS

Description	Illus. No.	Common name	Page No.
Yellowish-green fruit with musky odor.....	18	Guava.....	27
Greenish or reddish fruits.....	1	Mango (<i>Caution</i>).....	10
Bush; small leaves; purple-red flowers; purple-red fruit..	76	<i>Moco tinto</i> (POISON).....	85
Climbing plant; multicolored flowers; egg-shaped fruit with hard shell.	5	Passion vine.....	14
Green fruit size and shape of cob of corn.....	21	Piñanona (<i>Caution</i>).....	30
Pale bark; small white flowers.....	60	P o i s o n s p u r g e (POISON)	
Tree with thorns; fruit resembles apple.....	20	Thorn apple.....	29
Yellowish-green fruit; thin membranous skin.....	16	White sapote.....	25
Maroon-purple fruit, size of sour cherry.....	19	Wild cherry.....	28

RICH SOILS

Heart-shaped fruit; reddish yellow.....	13	Custard apple.....	22
Fruits like plum; small white flowers.....	28	Coco plum.....	37

WASTE GROUNDS

Fruits green; like small Chinese lanterns.....	34	Ground cherry.....	43
Thick, fleshy stems and leaves; yellow flowers.....	49	Pursley.....	62

WILD

Brown skin of fruit scaly or smooth.....	8	Sapodilla.....	17
Fruit has rough brown skin and one large seed.....	7	Sapote.....	16
Fruit yellow green with white "bloom".....	15	Sweet-sop.....	24
Soft, round fruit with tiny hole at top.....	31	Wild fig.....	40

Index

	Page		Page
Aceituno.....	38	Dumb cane.....	74
Akee.....	41	Edible fruits.....	5
Alligator pear.....	11	Edible greens.....	51
Apple, custard.....	22	Edible roots.....	45
Apple, rose.....	31	Edible seeds.....	51
Apple, thorn.....	29	Fig, wild.....	40
Avocado.....	11	Fruits, edible.....	5
Bitterwood.....	38	Aceituno.....	38
Black nightshade.....	63	Akee.....	41
Black poison wood.....	81	Avocado.....	11
Breadfruit.....	42	Breadfruit.....	42
Breadnut.....	58	Breadnut.....	58
Bullock's heart.....	22	Cacao.....	20
Cacao.....	20	Chayote.....	66
Cantaloupe.....	12	Coco plum.....	37
Capulin.....	28	Custard apple.....	22
Cashew.....	18	Ground cherry.....	43
Cassava.....	49	Guava.....	27
Chayote.....	66	Inga.....	33
Cherry, ground.....	43	Loquat.....	21
Cherry, surinam.....	13	Mamey.....	15
Cherry, wild.....	28	Mango.....	10
<i>Ciega-vista</i>	86	Nance.....	34
Cocoa.....	20	Organ cactus.....	44
Cocanut.....	54	Passion vine.....	14
Coco plum.....	37	Piñanona.....	30
Coco-yam.....	47	Pingwing.....	36
Coral bean.....	64	Piro.....	36
Corn.....	30, 56	Prickly pear.....	44
Courbaril.....	61	Sapodilla.....	17
Cowhage.....	89	Sapote.....	16
Cow-itch.....	89	Sea grape.....	35
Custard apple.....	22	Soursop.....	23
Dasheen.....	47	Spanish plum.....	26

Fruits, edible—Continued.	Page		Page
Star-apple.....	19	Inga.....	33
Sunzapote.....	39	Leaves, edible. (<i>See</i> "greens.")	
Surinam cherry.....	13	Location tables.....	8, 52, 68, 72, 96
Sweet-sop.....	24	Loquat.....	21
Tamarind.....	32	Mamey.....	15
Thorn apple.....	29	Manchineel.....	75
Trumpet tree.....	90	Mango.....	10
White sapote.....	25	Manzanilla.....	29
Wild grape.....	69	<i>Moco tinto</i>	85
Golden spoon.....	34	Monkey tambrin.....	33
Granadilla.....	14	Muskmelon.....	12, 76
Grape, sea.....	35	Nance.....	34
Grape, wild.....	69	Natives, advice of.....	2
Greens, edible.....	51	Nettle tree.....	88
Black nightshade.....	63	Nopal.....	44
Cassava.....	49	Okra.....	65
Chayote.....	66	Olive.....	38
Coral bean.....	64	Olivo.....	77
Dasheen.....	47	Organ cactus.....	44
Okra.....	65	Otó.....	46
Otó.....	46	Pacaya palm.....	56
Pacaya palm.....	56	Palm nuts.....	54
Palms.....	54, 55, 56	Palm tree.....	54, 55, 56
Pingwing.....	36	Panama tree.....	59
Piro.....	36	Papaw.....	12
Pursley.....	62	Papaya.....	12
Spanish bayonet.....	57	Pataste.....	20
Tamarind.....	32	Passion vine.....	14
Yam bean.....	50	Pejibaye.....	55
Ground cherry.....	43	Physic nut.....	83
Guao.....	80	Piñanona.....	30
Guava.....	27	Pineapple.....	36
Gum tree.....	77	Pingwing.....	36
Hawthorn.....	29	Piro.....	36
Hog plum.....	26	Plum.....	21, 37, 38
Huilihuiste.....	84	Poison ivy.....	78, 79, 80, 81
Ice cream beans.....	33	Poisonous plants.....	71
Identification tables.....	5, 45, 51, 67, 71, 92	Akee.....	41
Indian-fig.....	44	Black poison wood.....	81
		Cashew.....	18
		Cassava.....	49

Poisonous plants—Continued.	Page		Page
<i>Ciega-vista</i>	86	Seeds, edible.....	51
Coral bean.....	64	Breadfruit.....	42
Cow-itch.....	89	Breadnut.....	58
Dasheen.....	47	Cacao.....	20
Dumb cane.....	74	Cashew.....	18
Guao.....	80	Chayote.....	66
Huilihuiste.....	84	Courbaril.....	61
Manchineel.....	75	Palm nuts.....	54
<i>Moco tinto</i>	85	Panama tree.....	59
Nettle tree.....	88	Passion vine.....	14
Olivo.....	77	Pejibaye.....	55
Otó.....	46	Provision tree.....	60
Panama tree.....	59	Soursop.....	23
Physic nut.....	83	Spanish bayonet.....	57
Poison spurge.....	78	Spanish plum.....	26
Poison sumac.....	79	Star-apple.....	19
Sandbox tree.....	76	Stinging spurge.....	87
Stinging spurge.....	87	String beans.....	64
Trumpet tree.....	90	Sugar-apple.....	24
White poison wood.....	82	Sunzapote.....	39
Poison spurge.....	78	Surinam cherry.....	13
Poison sumac.....	79	Sweet-sop.....	24
Potato..... 47, 48, 49, 55,	66	Tamarind.....	32
Prickly pear.....	44	Thorn apple.....	29
Provision tree.....	60	Trumpet tree.....	90
Purslane.....	62	Vitamins.....	2
Pursley.....	62	Water substitute plants.....	67
Roots, Edible.....	45	Cocoanut palm.....	54
Cassava.....	49	Organ cactus.....	44
Chayote.....	66	Water vine.....	70
Dasheen.....	47	Wild grape.....	69
Otó.....	46	Water vine.....	70
Yam.....	48	Wild cherry.....	28
Yam bean.....	50	Wild fig.....	40
Rose apple.....	31	Wild grape.....	69
Sandbox tree.....	76	White poison wood.....	82
Sapodilla.....	17	White sapote.....	25
Sapote.....	16	Yam.....	48
Sapote, white.....	25	Yam bean.....	50
Sea grape.....	35	<i>Yuca</i>	49
		Zapote.....	16, 17

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