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# From: Dooryard Medicinal Plants of St. Lucia

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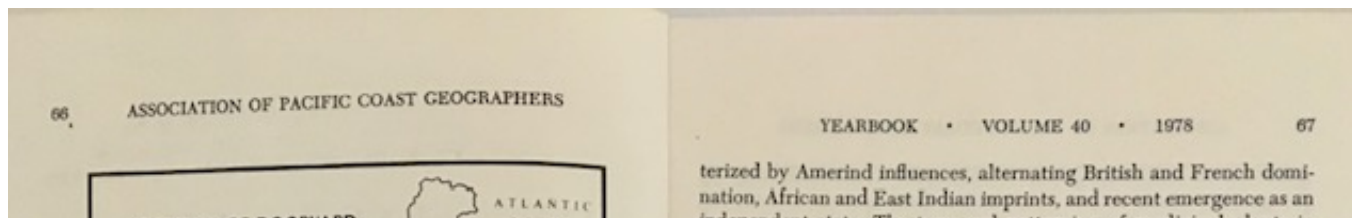
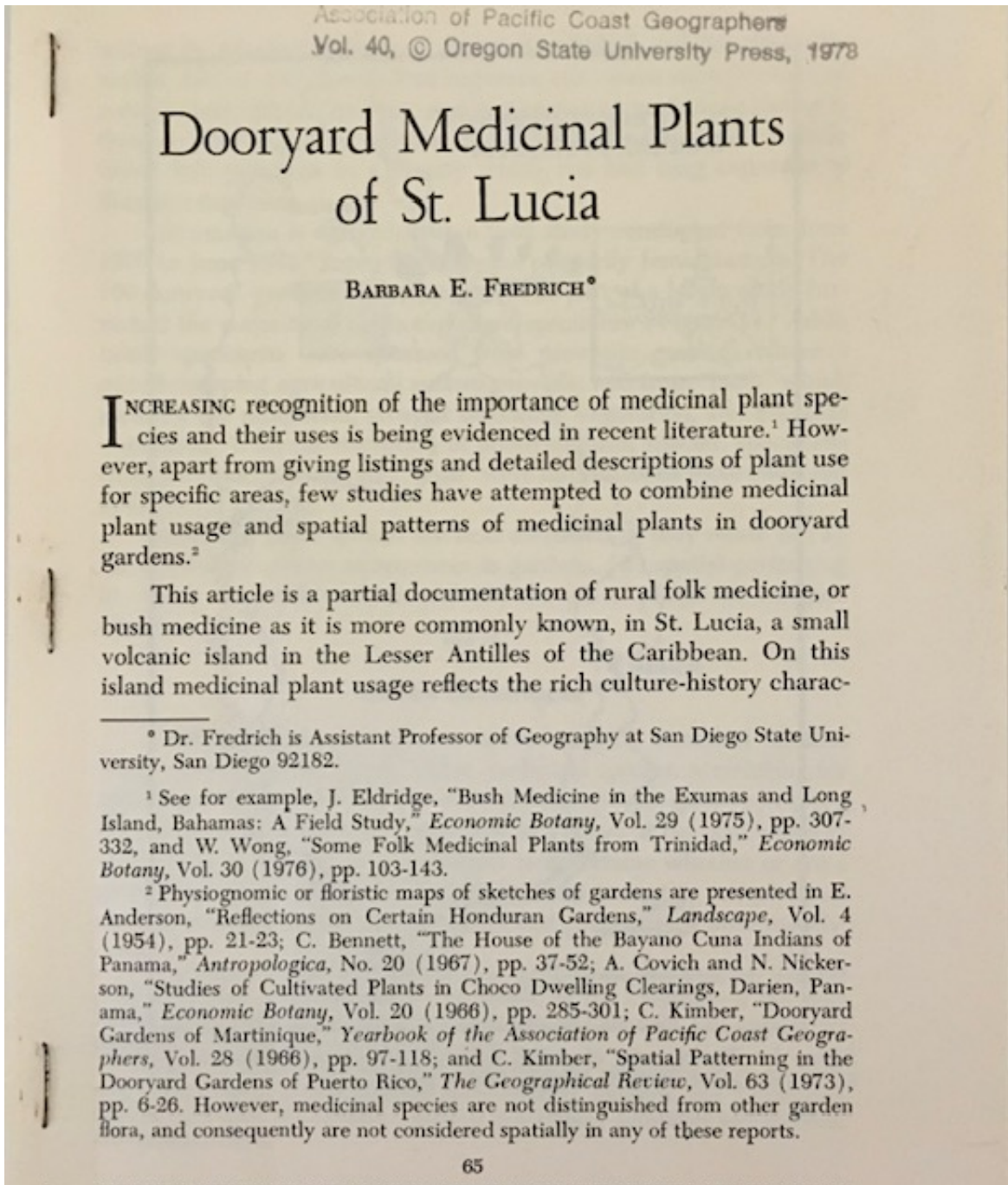
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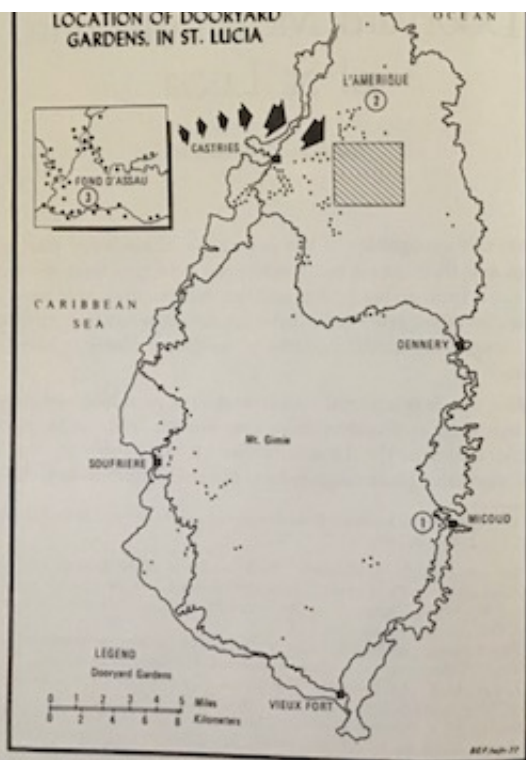


Figure 1. The majority of visited dooryard gardens are located in northern St. Lucia, where most of the population resides.

independent state. The type and patterning of medicinal plants in dooryard gardens may indicate the degree of adherence to traditional folk practices in a society which has had long exposure to Western medicine.

Information is derived from a field study conducted from June 1970 to June 1971.<sup>2</sup> Interviewees were primarily female adults. The 160 dooryard gardens that were visited as part of a larger study furnished the majority of medicinal plant specimens (Figure 1).<sup>4</sup> Additional specimens were obtained from provision grounds where a mixed-cropping agricultural system prevails, and from "bush" which includes the rain-forest, areas of secondary vegetation, and roadside vegetation. With the exception of about a dozen species, specimens from provision grounds and "bush" were duplicates of those collected in dooryard gardens.

Medicinal plant species are next discussed as they relate to (1) the number of species occurrences in gardens, (2) spatial patterning in sample dooryard gardens, and (3) the use of plants for common ailments.

### Species Occurrences

Some 121 medicinal species representing 55 botanical families were collected on St. Lucia. These medicinal species, accounting for approximately one-third of the total garden species gathered during the course of field work, are presented in Table I at the conclusion of this article. It was left to respondents to determine whether or not a given plant was a medicinal, but St. Lucians are not in complete accord as to which plants contain medicinal properties. Consequently,

<sup>2</sup> The author wishes to thank the many St. Lucians who willingly donated plant specimens, and Professors C. D. Adams, of the University of the West Indies, Mona, and J. D. Sauer, of the University of California, Los Angeles, for their kind assistance in species identification.

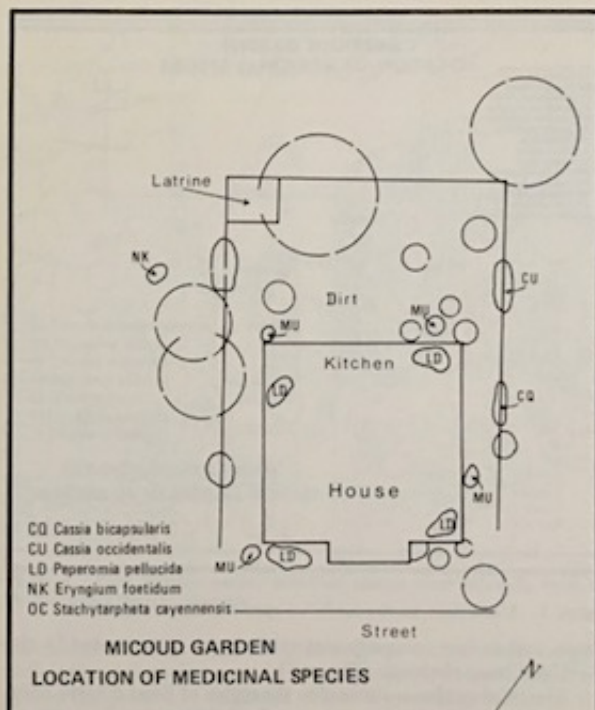
<sup>4</sup> Gardens studied and all species collected are considered in B. E. Friedrich, "Morphology of Dooryard Gardens: Patterns, Imprints, and Transformations in St. Lucia, West Indies," doctoral dissertation, University of California, Los Angeles, 1975.

species in an individual garden were counted as medicinal only for the gardens whose owners so identified those species. At least one avowedly medicinal plant is recorded for 111 of the 160 sampled gardens with an average of more than four medicinal species in each of the 111 gardens.

In addition to having medicinal properties, many given plants may be considered edible, ornamental, or otherwise functional, often to the extent of superseding their medicinal qualities. Consequently, each occurrence of a medicinally identified species in a garden is given as a fraction of the total number of gardens in which that species was present in Table 1. Thus, of 13 species—*Anacardium occidentale*, *Mangifera indica*, *Annona muricata*, *Cassia occidentalis*, *Carica papaya*, *Persea americana*, *Musa sapientum*, *M. paradisiaca*, *Psidium guajava*, *Cocos nucifera*, *Rosa* spp., *Citrus sinensis*, and *Cap-sicum frutescens*—which occur in at least 30, all but one, the *Rosa* spp., are more commonly utilized as edible plants than as medicinal plants, and hence, the low medicinal garden counts in Table 1.

If we arbitrarily exclude species present in fewer than three percent of the gardens, only 28 of 126 species qualify as being considered relatively important medicinally. These are indicated by a superscript "2" adjacent to the total garden occurrences column in Table 1. Moreover, if a 10 percent level is employed, that is, a medicinal species in 16 or more gardens, the list is reduced to five common species: *Bryophyllum pinnatum*, *Peperomia pellucida*, *Plantago major*, *Eryngium foetidum*, and *Stachytarpheta cayennensis*. These are indicated by a superscript "3" in the table.

### Spatial Patterning





Three dooryard gardens are selected at random to illustrate aspects of spatial patterning of medicinal species.

The first garden faces the main road through the town of Micoud (Figure 2). With the exception of *Peperomia pellucida*, which is well-established in the shade under the raised house, the four other medicinal species appear random in pattern. Two of the four, *Cassia occidentalis* and *C. bicapsularis*, are utilized as edible and ornamental plants respectively.

Scale 0 5 ft  
0 1 m

Figure 2. Micoud garden medicinal species appear random in pattern.

The second garden, in the village of L'Amerique, displays clusters of medicinal species near the entrance path northwest of the

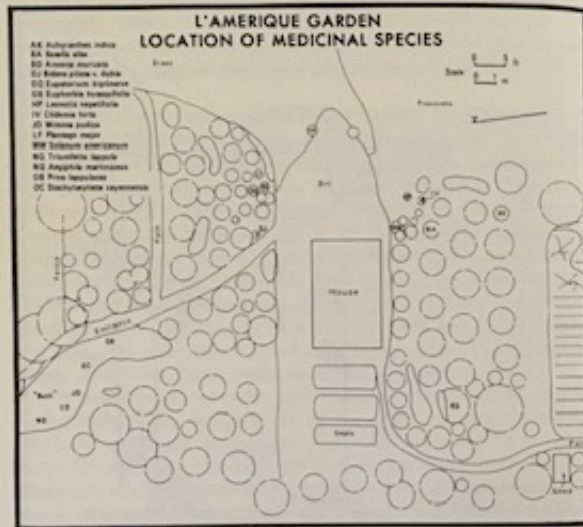


Figure 3. L'Amerique garden medicinal species pattern is clustered.

house, and in two areas adjacent to the open spot denoted by the word "dirt" near the house (Figure 3).

The third garden is situated in the region of Fond d'Assau (Figure 4). Medicinal plants occupy much of the garden, but some of these plants also serve other functions. For example, *Zingiber officinale* is used as a condiment, *Microtea debilis* provides an ornamental hedge adjacent to the stone path entrance, and *Commelina diffusa* serves as pig fodder. However, the plants at the west side of the house are solely medicinal.

Most of the space within these three sample dooryard gardens is favorable for weedy medicinal species in that the habitats are open

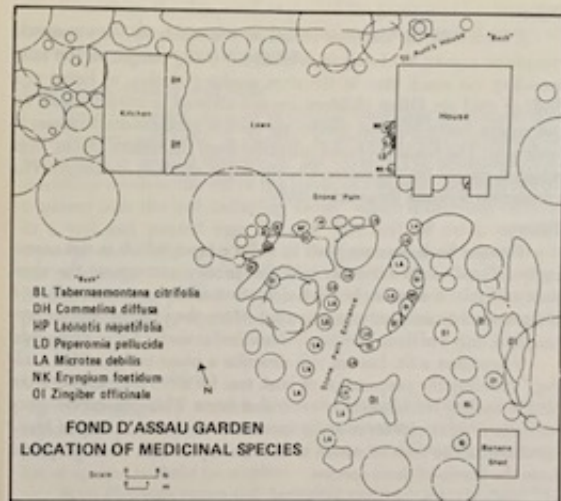


Figure 4. Fond D'Assau garden medicinal species occur primarily south of the house near the entrance path.

and disturbed. Some medicinal plants occupy niches which are partially protected, such as near or beneath a raised house. In other respects, the pattern of medicinal plants is generally random in the sample dooryard gardens.

Plant Usage for Common Ailments

Some of the more common ailments described by St. Lucians include colds, fevers, digestive disorders, sores and related skin afflictions, gynecological problems, and obeah. Each of these is treated by using specific medicinal plants as described in Table 1.

Colds

A fresh cold, or "one that comes on you suddenly," is a common complaint among St. Lucians, who avoid being caught in the rain, spending too much time in the river washing clothes, or being in a draft of cold air. Often children are not allowed to attend school on rainy days. Some 34 plant species are used in various combinations in bush teas. The tea is prepared primarily from the tender leaves, over which is passed boiling water. Usually sugar and rum are added. The concoction is drunk three times daily.

Fevers

Certain bush teas are used to reduce fever which is not necessarily related to the common cold. Fever may accompany the common cold, but it can also be related to other afflictions ranging from a deep wound to an emotional disorder. More than 29 species are represented, only 8 of them previously described as useful for curing colds.

Sometimes the skin, rind, or peel of the plant which is thought to have caused the imprudence is boiled in heavily salted water, and the resultant tea is taken as a purge.

Sores, Cuts, Bruises, and Boils

Some 19 species are used in specific treatment of common sores, cuts, bruises, and boils. A poultice is prepared from pounded plant leaves and is applied directly on the wound. The treatment of eye infections involves the use of the leaves of *Plantago major*. A hot iron is passed over the leaf, inducing "sweat" which is carefully collected in a vial and poured into the eye. The flesh of cacti, especially *Opuntia cochenillifera*, is used in the preparation of a poultice for ear infections. Plant leaves rubbed over the body to "make you fresh," a cooling process employed for dermatitis or for simple refreshment bathing, would include one or a combination of several of 13 species.



Sometimes a St. Lucian will describe a plant as "good for cooling," meaning the preparation of bush teas for anything ranging from simple cooling refreshment to control of fever. This general category includes 17 of the 29 fever-usage species. With the exception of *Musa paradisiaca*, the fruit of which is eaten, a tepid bush tea is prepared from the leaves of these species.

#### Digestive Disorders

Stomach disorders are widespread phenomena in St. Lucia and are generally described as "belly is sick." While 41 species are used for general treatment of stomachaches, only eight are utilized especially for worms or diarrhea. Of interest is the use of *Chenopodium ambrosioides*, the common helminthic medicinal plant.

A common application of bush medicine is to treat illness resulting from "imprudence," such as eating something at the wrong time. Two treatments of imprudence are described as follows:

Eat banana, apricot, pawpaw, pineapple, mango . . . early in morning—not after work cause they make you sick. If by chance one eats some in the evening, you take rind of papaya and put to boil. Add salt in cup and it make you vomit and you don't have more problems.

If hot, don't eat mango, apricot, pineapple, orange, ripe banana, avocado, pawpaw, farina. These are hard to digest. The apricot stays in stomach one month. You must take a purge.

*Ricinus communis*, and *Plantago major* is often combined with *Justicia secunda*. Eating immature *Ananas comosus* is supposedly a sufficient activator in itself.

Three species were reported by several female respondents to have aphrodisiac qualities: *Tamarindus indica*, *Hymenaea courbaril*, and *Peperomia pellucida*. The true number of species so used is undoubtedly far greater.

#### Obeah

The practice of obeah, a form of sorcery and magic, is an illegal activity and hence a difficult interview topic. Urban people tend to deny the existence of such practices. But growing in the dooryard gardens of rural St. Lucians are at least 13 species of plants whose function is to keep evil spirits away. These plants are not consumed; their mere presence in the kitchen garden is considered sufficient.

According to one obeah man, one can bathe utilizing the leaves of *patchuli* (unidentified but probably *Pogostemon heyneanus*), which will bring back one's lover. The insertion of *Bryophyllum pinnatum* into the frame over the doorway of the house is sometimes believed to signify "your boyfriend likes you," assuming the plant continues to spread by means of its adventitious roots. Consumption of copious amounts of *Capsicum frutescens* is believed to be capable of making a woman fight with her husband, the act of which is considered an indication of happy conjugal relations.

Soporific plants include *Myristica fragrans*, *Annona squamosa*, *A. muricata*, and *patchuli* (*Pogostemon heyneanus*?). A bush tea prepared from the leaves of the latter three species is sometimes given to children in the evening. In addition, a bush tea is prepared from the leaves, bark scrapings, and grated nut of *Myristica fragrans* for children, crying babies, and even ill-humored husbands. This same concoction is guaranteed to keep an amorous husband "in a happy sleep for several hours," after which the wife may repeat the preparation, thereby avoiding the headache syndrome which might otherwise ensue.

Some plants are described as "good for everything." This category of panaceas includes some 28 species, most of which already have been identified in relation to particular afflictions.

#### Gynecological Problems

Although many women now seek medical treatment of gynecological problems, some traditional plant remedies are still employed. Most women are hesitant to discuss these conditions, so the present list of species is likely incomplete.

Both *Plantago major* and *Aegiphila martinicensis* are considered good bush teas for drinking during pregnancy. Several other species are utilized near the time of childbirth. For example, leaves from the *Cecropia peltata* are used as an enema before childbirth and are also prepared as a bush tea for forcing afterbirth. After delivery, a bush tea prepared from leaves of *Citrus aurantium* and *Annona muricata* and sometimes from the seeds of *Ricinus communis* is taken as a purge. Both leaves and flowers of *Leonotis nepetifolia* and *Ageratum conyzoides* are considered "good teas after childbirth." Menstrual cramps are alleviated by bush teas prepared from leaves and flowers of an herb; if the menstrual flow is very heavy, leaves from *Solanum americanum* are prepared in a bush tea.

Abortifacient species include *Ricinus communis*, *Justicia secunda*, and *Ananas comosus*. A combination of species may be used to induce abortion. For example *Citrus aurantium* may be added to

#### Conclusion

Medicinal plants are a unique aspect of a dooryard garden. While numerically the medicinal species contribute significantly to St. Lucian dooryard garden flora, their medicinal importance is declining, as demonstrated by their inconsistent usage and distribution and by recognition of so many "panacea" plants, which reflects informants' inability to associate species with remedies. As the younger generation increasingly disregards bush medicine in favor of health centers, the immediate documentation of man-medicinal plant relations will help assure that such knowledge will not be lost altogether. It is likely that with succeeding generations and barring other perceived functions, medicinal plants will eventually be regarded as weeds or weedy intruders into the dooryard garden environment.

Table 1. Alphabetical List of Species, Garden Occurrences, and Usages

Species (Common name)	Garden occurrences		
	Total	Medicinal	Usages <sup>1</sup>
<i>Abrus precatorius</i> (red bead vine)	3	3	C
<i>Acalypha hispida</i>	3	1	C
<i>Achyranthes indica</i> (Devil's horse whip)	5	5	C F G
<i>Aegiphila martinicensis</i> (spirit weed)	6 <sup>2</sup>	6	D G
<i>Ageratum conyzoides</i>	4	4	(S) G
<i>Allium</i> sp. (onion)	3	2	C
<i>Amaranthus dubius</i> (spinach)	10	2	(F)
<i>Amaranthus viridis</i> (spinach)	4	1	
<i>Anacardium occidentale</i> (cashew)	36	2	(F)
<i>Ananas comosus</i> (pineapple)	10	4	C
<i>Annona muricata</i> (sour sop)	39	4	(F) (S) G
<i>Annona squamosa</i> (sweet sop)	14	1	
<i>Arachis hypogaea</i> (peanut)	4	2	
<i>Basella alba</i> (cosmopolitan spinach)	20	1	C
<i>Bidens pilosa</i> v. <i>dubia</i> (Spanish needle)	4	4	S
<i>Blechnum pyramidatum</i>	1	1	P
<i>Borreria verticillata</i> (wild scabious)	2	2	D
<i>Bryophyllum pinnatum</i> (wonder of the world)	18 <sup>3</sup>	18	C O
<i>Bursera simaruba</i> (red birch)	1	1	
<i>Capriaria biflora</i> (goat weed)	6 <sup>2</sup>	6	G D
<i>Capsicum frutescens</i> (pepper)	60	3	O
<i>Cardiospermum microcarpum</i>	4	4	C
<i>Carica papaya</i> (papaya)	60 <sup>2</sup>	6	G

(continued next page)

Table 1. (Continued)

Species (Common name)	Garden occurrences		
	Total	Medic- inal	Usages <sup>1</sup>
<i>Cassia alata</i> (ringworm shrub)	1	1	(S)
<i>Cassia bicapsularis</i>	2	2	D (S)
<i>Cassia fistula</i>	2	2	(D)
<i>Cassia occidentalis</i> (wild coffee)	34	4	C D
<i>Cecropia peltata</i> (trumpet tree)	4	3	D G
<i>Chaptalia nutans</i> (head-and-draw)	4	4	C
<i>Chenopodium ambrosioides</i> (worm-seed)	9 <sup>2</sup>	9	D
<i>Cinnamomum zeylanicum</i> (cinnamon)	13	8	C D G P
<i>Citrus aurantium</i> (sour orange)	25	11	C (F) G P
<i>Citrus sinensis</i> (sweet orange)	39	2	
<i>Cladonia hirta</i> (soap-bush)	9	2	S
<i>Cocos nucifera</i> (coconut)	119	2	D
<i>Gomphelia diffusa</i> (water grass)	35	2	C
<i>Gonyza canadensis</i> (Canada fleabane)	5	5	S
<i>Gomphia pyramidata</i>	2	1	(S)
<i>Crinum zeylanicum</i> (lily)	1	1	P
<i>Cucumis sativus</i> (cucumber)	14	2	
<i>Curcuma domestica</i> (turmeric)	31 <sup>2</sup>	9	D P
<i>Cymbopogon citratus</i> (lemon grass)	5	5	P
<i>Digitaria horizontalis</i>	5	5	O
<i>Discorea rotundata</i> (white yam)	16	1	O
<i>Elephantopus mollis</i> (elephant foot)	5	5	D S
<i>Eryngium foetidum</i> (fit weed)	34 <sup>3</sup>	34	C (F) (D) G
<i>Erythroxylum aquatum</i>	1	1	P
<i>Eugenia aromatica</i> (rodwood)	2	1	
<i>Eupatorium triplinerve</i>	1	1	C F (D)
<i>Euphorbia hirta</i>	3	3	D
<i>Euphorbia hyssopifolia</i>	1	1	P
<i>Foeniculum vulgare</i> (fennel)	5	5	C D P
<i>Gliricidia sepium</i> (grow stick)	12	2	C (S)
<i>Hymenoclea courbaril</i> (West Indian locust)	1	1	
<i>Hymenocallis</i> sp. (lily)	3	1	D
<i>Hyptis atrorubens</i>	7	7	D G
<i>Jatropha curcas</i> (physic nut)	3	3	S P
<i>Justicia pectoralis</i> (fresh cut)	7 <sup>2</sup>	7	P
<i>Justicia secunda</i> (St. John's bush)	9 <sup>2</sup>	9	C (D) S G
<i>Laportea aestuans</i>	2	2	O
<i>Leonotis nepetifolia</i> (lion's tail)	17 <sup>2</sup>	17	C D (S) G
<i>Lippia alba</i> (colic mint)	6	5	C F D
<i>Lippia micromera</i> (thyme)	1	1	P
<i>Lindernia diffusa</i>	1	1	C D P
<i>Mammea americana</i> (mammee)			
<i>Mangifera indica</i> (mango)	116	5	D
<i>Manshot esculenta</i> (manioc)	16	2	
<i>Maranta arundinacea</i> (arrowroot)	9	1	D

Table 1. (Continued)

Species (Common name)	Garden occurrences		
	Total	Medic- inal	Usages <sup>1</sup>
<i>Marsippanthes chamaedrys</i>	1	1	D G
<i>Microtia debilis</i>	4	4	(F) (S)
<i>Mikania micrantha</i> (guaco)	4	3	C F D
<i>Mimosa pudica</i> (sensitive plant)	13 <sup>2</sup>	13	F (D)
<i>Momordica charantia</i> (wild cerasee)	6	3	C D
<i>Musa sapientum</i> (banana)	125 <sup>2</sup>	7	(F)
<i>Musa paradisiaca</i> (plantain)	96	2	F
<i>Mucuna deeringiana</i> (velvet bean)	4	1	
<i>Myristica fragrans</i> (nutmeg)	8 <sup>2</sup>	7	C D G O
<i>Nicotiana tabacum</i> (tobacco)	2	1	
<i>Ocimum basilicum</i> (basil)	4	4	C P
<i>Ocimum micranthum</i> (parsley)	3	3	F D P
<i>Opuntia cochenillifera</i> (cochineal cactus)	10 <sup>2</sup>	8	D (S)
<i>Parthenium hysterophorus</i> (wild wormweed)	4	4	G O
<i>Plantago major</i> (common plantain)	28 <sup>2</sup>	28	C (F) D S G P
<i>Peperomia pellucida</i> (shinning bush)	29 <sup>2</sup>	29	(F) (S)
<i>Persea americana</i> (avocado)	46	3	P
<i>Petiveria alliacea</i> (strong man's weed)	16	11	C (F) D (S) O P
<i>Pilea microphylla</i> (lace plant)	0	0	G
<i>Pimenta racemosa</i> (bay rum tree)	8	6	F (D)
<i>Piper dilatatum</i>	2	2	D (S)
<i>Plectranthus amboinicus</i> (French thyme)	12 <sup>2</sup>	8	P
<i>Pisheca carolinensis</i> (wild tobacco)	10 <sup>2</sup>	8	C D
<i>Polygala paniculata</i>	1	1	
<i>Polyscias guilfoylei</i> (aralia)	8	1	O
<i>Portulaca grandiflora</i>	14	3	(F) D S
<i>Portulaca oleracea</i> (pursley)	15 <sup>2</sup>	11	(F) D
<i>Priva lappulacea</i> (velvet bar)	1	1	P
<i>Psidium guajava</i> (guava)	46	3	P
<i>Punica granatum</i> (pomegranate)	3	3	D P
<i>Ricinus communis</i> (castor oil)	24	4	G P
<i>Rosa</i> sp. (rose)	34	4	C
<i>Ruellia tuberosa</i> (duppy gun)	0	0	(F)
<i>Sambucus simpsonii</i> (elder)	7 <sup>2</sup>	6	C
<i>Sansevieria metallica</i> <sup>2</sup> (bowstring hemp)	4	1	P
<i>Scoparia dulcis</i> (sweet broom)	2	2	C S
<i>Solanum americanum</i> (black nightshade)	15	3	G
<i>Solanum melongena</i> (eggplant)	10	1	(F)
<i>Solanum torquatum</i> (gully bean)	2	1	(F)
<i>Spondias dulcis</i> (golden apple)	35 <sup>2</sup>	7	(F)
<i>Spondias mombin</i> (plum)	32	2	C
<i>Stachytarpheta cayennensis</i> (vervain)	16 <sup>2</sup>	16	F D
<i>Synedrella nodiflora</i> (fatten barrow)	2	2	O

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Table 1. (Continued)

Species (Common name)	Garden occurrences		
	Total	Medic- inal	Usages <sup>1</sup>
<i>Tabernaemontana citrifolia</i>	5	5	S
<i>Tamarindus indica</i> (tamarind)	3	1	F D
<i>Thelypteris dentata</i>	3	1	S
<i>Theobroma cacao</i> (cacao)	41	5	
<i>Thymus vulgaris</i> (thyme)	11	2	C (F) D P
<i>Triumfetta lappula</i>	6 <sup>2</sup>	6	S
<i>Vernonia cinerea</i>	3	1	D G
<i>Vetiveria zizanioides</i> (khus khus)	19	3	P
<i>Wedelia trilobata</i> (creeping ox-eye)	3	3	F S P
<i>Zingiber officinale</i> (ginger)	31	9	D P

<sup>1</sup> Usages are designated as follows: C = colds, F = fevers (in parentheses if also for cooling), D = digestive disorders (in parentheses if also for imprudence), S = sores (in parentheses if also for bathing), G = gynecological problems, O = for obeah or related needs, P = nanaceae.

<sup>2</sup> Identified in 3 percent of gardens as a medicinal plant.  
<sup>3</sup> Identified in 10 percent of gardens as a medicinal plant.

1  
2