

Abstract

This paper focuses on twenty eight medicinally important leafy vegetables documented from the South western part of Nigeria. It also highlights their medicinal importance in the treatment of minor ailments as well as their sources. The family Compositae (Asteraceae) contained the highest number of plants followed by the Cucurbitaceae, Malvaceae and Solanaceae. Sixty eight percent of the documented vegetables are cultivated, eleven percent is usually obtained in the wild while twenty one percent is either cultivated or obtained from the wild. The need for concern on the conservation of genetic resources of these plants (especially those in the wild) is stressed in order to safeguard them for future generations and avoid their genetic erosion. The establishment of a gene/seed bank for vegetables is advocated.

Key Words: Leafy vegetables, Medicine, Conservation, Nigeria

INTRODUCTION

There is currently a global attention on the conservation and sustainability of the rich biodiversity of the tropical rainforest. This is as a result of the vast resources derivable from the forest and the threat to ecosystem due to degradation and consequent unsustainable use of resources. The potential of the Nigerian flora as a veritable source for pharmaceuticals and other therapeutic materials have been emphasized (Gbile and Adesina, 1986). Medicine constitutes one of the many resources of the forest on which the health of the average African population depended since the time of creation. Herbs have usually served as the repository of healing materials and have been acknowledged to be generally safe without or with minimum side effects (Gbile and Adesina, 1986). Many vegetable crops particularly the leafy vegetables are mainly consumed for their nutritional values without much consideration for their medicinal importance. There are several varieties of these leafy vegetables either in the wild or under cultivation in the rural areas. The age of civilization which influenced the drastic migration to urban centres has however had a great influence on the choice of vegetables used as food. This gradual loss of genetic diversity of vegetables deprives man of the opportunity to meet the future and even

present challenges of vegetable production for the enhancement of health of the individual. Herbs have usually constituted the main repository of drugs and many have been known not to pose any threat to human life. They, apart from healing, provide the necessary nutrients for health and development of the human body. In time past, the average African rural dweller depended on subsistence farming in which he cultivated vegetable crops at least for his immediate family consumption.

Man more than ever before needs a re-orientation on the sustainable use of his natural resources particularly in this era of economic recession to source raw materials for medicine and harness the abundant rich flora for an improved Primary Health Care Delivery.

MATERIALS AND METHOD

A market survey was carried out for the available leafy vegetables. Markets in Ibadan, Oyo, Akure, Ago-Iwoye, Ijebu Igbo, Ado-Ekiti, Abeokuta and Ijebu-Ode all in South western part of Nigeria were visited for the purpose of this survey. The types of leafy vegetables on sale were recorded. Informal interview was conducted with some of the market women as to the variety of vegetables and where and how they are obtained for sale in the markets.

Identification of the plant samples was done in the field (markets) while others which could not be readily identified were brought to the herbarium of the Department of Botany & Microbiology, University of Ibadan, Ibadan (UIH). The medicinal values of the identified plants were obtained from relevant literature (Dalziel, 1948, Schippers, 2000).

RESULTS

This paper documents twenty eight (28) medicinally important leafy vegetables and their therapeutic uses. Emphasis has been mainly on the leaves of the plants since these are usually consumed. However, trees whose leaves are used as vegetables as well as medicine are not included e.g *Adansonia digitata*, *Moringa oleiferae* and *Triplochiton scleroxylon*. Other parts of the plants such as stem, seeds, fruits and flowers in some cases are also useful medicinally. The family Compositae/Asteraceae has the highest recorded number of plants (21%) followed by the *Cucurbitaceae* (14%) and *Malvaceae* and *Solanaceae* (11%). Sixty eight (68%) percent of the documented vegetables are cultivated, 11% are usually obtained in the wild while 21% are either cultivated or obtained from the wild. Table 1 shows the diverse medicinal uses of the plants.

TABLE 1: LIST OF SOME LEAFY VEGETABLES WITH THEIR MEDICINAL IMPORTANCE

S/N	Name	Family	Source	Therapeutic uses
1	<i>Amaranthus hybridus</i> L.	Amaranthaceae	C	Tapeworm expellant, relief pulmonary problems
2.	<i>Abelmoschus esculentus</i> (L.) Moench	Malvaceae	C	Improve and increase sperm count
3.	<i>Basella alba</i> L	Basellaceae	C	Laxative
4.	<i>Celosia argentea</i> L.	Amaranthaceae	C	Diuretic, cough
5.	<i>Citrullus lanatus</i> (Thunbery) Matsum. Nakai	Cucurbitaceae	C	Malaria, wound dressing
6.	<i>Corchorus olitorius</i> L.	Tiliaceae	C	Laxative, blood purifier
7.	<i>Crassocephalum crepidioides</i> (Benth.) S.Moore	Compositae	C/W	Indigestion, stomach ache, headache, to stop nose bleeding
8.	<i>Crassocephalum rubens</i> (Juss. Ex. Jacq.) S. Moore	Compositae	C	Laxative, stomach ache, liver problems
9.	<i>Cucurbita maxima</i> Duch.	Cucurbitaceae	C	Fever, stomachic
10.	<i>Gnetum africanum</i> Welw.	Gnetaceae	C	Pile, HBP
11.	<i>Gongronema latifolium</i> Benth.	Asclepiadaceae	C	Stomach ache, rubbed on joints of children to make them walk.
12.	<i>Hibiscus cannabinus</i> L.	Malvaceae	C	Treat Guinea worm sores
13.	<i>Hibiscus sabdariffa</i> L. var. sabdariffa	Malvaceae	C	HBP
14.	<i>Launea taraxacifolia</i> (Willd.) Amin ex C. Jeffrey	Compositae	C	Respiratory problems, chest congestion
15.	<i>Lycopersicon esculentum</i> Mill.	Solanaceae	C	Analgesic, embrocation, antibiotic, gonorrhoea, antifungal
16.	<i>Momordica</i>	Cucurbitaceae	C	Malaria, Fever,

	<i>charantia</i> L.			Laxative, diarrhoea, HBP dysentery, gonorrhoea.
17.	<i>Ocimum</i> <i>Basilicum</i> L.	Labiatae	C/W	Fever, pile, sedative, stomach problems
18.	<i>Ocimum</i> <i>grattissimum</i> L.	Labiatae	C/W	Fever, diarrhoea, dysentery, pile, stomach problems, HBP
19.	<i>Portulaca</i> <i>oleracea</i> L.	Portulacaceae	W	Diuretic, urinary troubles, heart-palpitations, antibacterial, antiviral, antifungal
20.	<i>Senecio biafrae</i> Oliv. & Hiern	Compositae	C	Heart problem, cough, wound dressing, rheumatism, tonic
21.	<i>Sesamum orientale</i> L.	Pedaliaceae	W	Diuretic, stomach problems
22.	<i>Solanum</i> <i>aethiopicum</i> L.	Solanaceae	C	Sedative, vomiting, tetanus after abortion
23.	<i>Solanum</i> <i>macrocarpon</i> L.	Solanaceae	C	Boils, throat problems
24.	<i>Talinum</i> <i>fruticosum</i> (L.) Juss. Syn T. <i>triangulare</i> Willd.	Portulacaceae	C/W	Diuretic, stomach problem.
25.	<i>Telfairea</i> <i>occidentalis</i> Hook	Cucurbitaceae	C	Anaemia
26.	<i>Vernonia</i> <i>amygdalina</i> Del	Compositae	W/C	Stomachic, pile, diarrhoea, HBP, worm expulsion
27.	<i>Vernonia</i> <i>Colorata</i> (Willd.) Drake	Compositae	W	Stomachic, fever, pile, diarrhea
28.	<i>Vigna unguiculata</i> (L.) Walp	Papilionaceae	C	Dermatitis and swellings

C = Cultivated

W = Wild

DISCUSSION

The result of this study shows a great diversity of therapeutically useful leafy vegetables in the Nigerian flora. It also indicates the potentials of these plants in enhancing both the nutrition and health care of average Nigerians in the face of harsh economic crisis. How far these plants can be used to achieve the above objectives will depend largely on the extent to which their gene pool can be assured. The current global attention on the conservation and sustainability of biodiversity (particularly the tropical forests) is a consequence of the threat posed to life. This is as a result of the degradation and unsustainable use of the abundant forest resources.

The degradation of the environment calls to question our knowledge of biodiversity particularly plant diversity which is vital to human survival. Such knowledge is essential in the discovery of new sources of drugs, food, and other useful plant resources. The taxonomist is thus being confronted by urgent questions on the identification, nomenclature, classification and distribution of plants as well as their ecology and use (Kapoor-vijay and Lucas, 1992). According to Hedberg and Hedberg (1992), an indispensable pre-requisite for national conservation is to know which species need protection and where they occur. Conservation biologist in Nigeria must begin to address conservation at the genetic level which is, in the view of Heywood (1992), the most neglected and least understood area of biological diversity. Ayodele (1996) suggested a working co-operation among taxonomists, conservationists and geneticists to obtain maximum results for biodiversity conservation.

About 60% of the documented leafy vegetables are available in the rural areas including the 11% obtained from the wild. Even so, only a fraction of the other 40% is known to the urban population and contributes to its diet.

The 11% obtained in the wild are the most endangered when their habitats are subjected to developmental activities by man. Recent studies have identified the value of Africa's indigenous vegetables for subsistence and income-generating opportunities (Schippers, 2000) and this calls for the flow of information on them for purposes other than nutrition. The establishment of a gene bank for these vegetables will safeguard the future availability of their genetic resources which could be supplied for cultivation in gardens for subsistence and cash generation.

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