



Research on Indigenous Knowledge and its Application: A Case of wild food plants of Zimbabwe

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Abstract

Research on indigenous knowledge should go beyond documenting and interpreting it. Rather, it should stimulate inquiry into its application in present day community development and education settings. This study intends to steer indigenous knowledge research towards practical application initiatives. The study documents wild food plants of Zimbabwe, highlights some popular wild food plants, and cites some commercially marketed wild food plants and makes recommendations on the application of indigenous knowledge of wild food plants in community and educational settings.

Introduction

While documenting edible indigenous/wild food plants in Zimbabwe between 2001 and 2004, I started thinking reflexively (and reflecting) on my practices and that of other indigenous knowledge researchers in southern Africa. What dawned to me was the fact that we are putting so much emphasis on documenting indigenous knowledge because we are concerned that it is getting lost, we are writing about the need to integrate it into mainstream education and how it should benefit indigenous communities. What is strikingly lacking though is an emphasis on its application. The integration of indigenous knowledge into mainstream education is highly limited and extremely handicapped by the fact that attempts at integration to a large extent reinforce/explain the dominant Western scientific knowledge. Within communities indigenous knowledge is hardly applied for community benefit. What we should begin questioning ourselves is for whom are we documenting indigenous knowledge? What is causing the loss of this knowledge and how could this be stemmed? Who is benefiting from this knowledge? Where is it being used? In an attempt to answer the above questions, what I am proposing is to steer indigenous knowledge research more towards an emphasis on its practical application in the contexts from which it is derived. In this paper I will draw on my research on wild food plants of Zimbabwe and attempt to show how it can be applied in education and community settings.

In undertaking this study, I had the following aims:

- to document the diversity of wild food plants in Zimbabwe;
- to highlight current trend/social implications on the use wild food plants;
- to explore/investigate and suggest (current and possible future) educational applications of knowledge on wild food plants; and

- to recommend possible areas for further research on indigenous knowledge on food plants.

Methodology and Methods

The checklist of wild/indigenous food plants of Zimbabwe was compiled from direct observations in the field and enquiries (unstructured interviews), market surveys of wild food plants available in the street markets in main cities, personal knowledge and knowledge/information from colleagues. This information was crosschecked with secondary data sources from a literature survey of documented wild food plants in Zimbabwe and Southern Africa (Wild, 1972; Palgrave, 1977; Fox & Norwood Young, 1982; Tredgold, 1986; Peters *et al.*, 1992; Chigumira Ngwerume & Mvere, 1999; Van Wyk & Gericke, 2000).

The unstructured questions forming the basis of the enquiries in local/rural communities centred around the identification of wild food plants, their distribution, seasonal availability, people's preferences, factors influencing use of wild food plants (social implications of the consumption of wild food plants), and advantages and disadvantages of wild food plants compared to exotic/introduced plants.

Diversity of Wild Food Plants

The term 'wild plants' refers to both indigenous and naturalised exotic plants occurring in the 'natural' environment (that is outside cultivated land). In this study wild food plants that are referred to are indigenous plants of Zimbabwe. I have decided to use the terms 'wild food plants' and 'indigenous food plants' interchangeably because the plants referred to grow in the wild. Included are plants of cosmopolitan distribution, whose origins are still contested. It should also be noted that some plants, while still occurring in the wild, are grown within indigenous communities on a subsistence scale (and can be considered semi-domesticated). Within agricultural land some wild food plants, in particular fruit trees and shrubs, are left standing even when land is prepared for cultivation. This might be a step towards their domestication, though they are usually left to a large extent untended compared to cultivated plants.

A total of 206 wild food plants were documented in this study (see extract from the checklist in Appendix 1, and see Shava, in prep., for the full list). These can be broadly categorised into edible roots (roots, tubers, rhizomes and corms), edible bulbs, edible leaves (leaves, stems, stalks and inflorescences), edible fruits (berries, drupes, aggregates and pods), edible grains (grasses), edible seeds and edible gum.

Analysis of Checklist

Two types of analysis were used on the checklist. The first was a statistical analysis which hierarchically categorised families according to the number of edible wild/indigenous plants that they contained. The grouping into families enables the identification of those species that are genetically related (species belonging to the same genera and/or belonging to closely

related genera). This could prove to be useful if breeding and genetic exchange is to be done in an effort to improve the quality of the edible part. However such aspects as palatability and people's preferences cannot be discerned from this analysis. This analysis has not been used in the discussion in this paper.

The second analysis was more qualitative. It involved the investigation of preferred food plants through observation of wild foods that were available for sale in street markets (market surveys), as well as interviews with local communities on what they considered to be the popular or preferred food plants (see Table 1). Also observed was the seasonal availability of these wild/indigenous food plants. From this analysis the food plants with a commercial potential could be identified. Fourteen (14) popular food plants were identified in this study.

Table 1. List of popular wild food plants of Zimbabwe

Botanical Name	Common Names*	Part Used and Preparation	Period of Availability	Market Localities Where Available
<i>Adansonia digitata</i>	Baobab (Eng); muuyu (Sh); mkhomo (Nd)	Pulp around seed is eaten raw.	April to June	Harare, Bulawayo, Mutare, Masvingo
<i>Amaranthus hybridus</i>	Pigweed (Eng); mowa guru (Sh); imbuya (Nd)	Leaves are cooked as relish with cooking oil or peanut butter. They can be mixed with meat.	November to March	Harare
<i>Azanza garckeana</i>	Snot apple, quarters (Eng); mutohwe (Sh); uxhakuxhaku (Nd)	Whole fruit (minus the seed) is chewed raw. Fruit can be preserved longer by boiling in salty water.	February to September	Bulawayo, Victoria Falls
<i>Berchemia discolor</i>	Bird plum (Eng); munyii (Sh); umnyiyi (Nd)	Fruit pulp eaten raw.	November to April	Harare, Bulawayo, Mt Darwin
<i>Cleome gynandra</i>	Spider flower (Eng); nyevhe, rune, sunha (Sh); ulude (Nd)	Leaves are cooked as relish with cooking oil or peanut butter. They can be mixed with meat.	November to March	Harare, Bulawayo
<i>Coleus esculenta</i>	Scrambled egg (Eng); tsenza, mubvumbe, shezha, tsaya (Sh)	Root eaten raw.	All year round	Mutare, Rusape, Marondera, Masvingo

* Eng = English; Sh = Shona; Nd = Ndebele

Botanical Name	Common Names*	Part Used and Preparation	Period of Availability	Market Localities Where Available
<i>Cucumis anguria</i>	Wild gherkin (Eng); mugaka, mujachacha (Sh); amagaka (Nd)	Fruit eaten raw.	December to April	Harare, Bulawayo, Marondera, Mutare
<i>Cucumis metuliferus</i>	Spiny cucumber (Eng); mugagachira, mugaka, mutete, mushonja (Sh); amagaka (Nd)	Fruit eaten raw.	December to April	Harare, Bulawayo, Marondera, Mutare
<i>Flacourtia indica</i>	Batoka plum (Eng); munhunguru, mutunguru, mutudza mutombototo, (Sh); umqokolo (Nd)	Fruit eaten raw.	February to May	Bulawayo, Harare
<i>Strychnos coculoides</i>	Bitter monkey-orange (Eng); mutamba-muzhinyu, muzhumu (Sh); umkhemeswane (Nd)	Fruit eaten raw.	March to August	Bulawayo, Harare
<i>Strychnos spinosa</i>	Sweet monkey-orange (Eng); mutamba-mun'ono (Sh); umhlali, umtamba (Nd)	Fruit eaten raw.	March to August	Bulawayo, Harare
<i>Uapaca kirkiana</i>	Wild loquat, mahobohobo (Eng); muzhanje, mushuku (Sh); umhobohobo (Nd)	Fruit eaten raw.	October to December	Harare, Bulawayo, Marondera, Mutare, Masvingo
<i>Vitex payos</i>	Chocolate berry (Eng); mutsubvu, mudyagava (Sh); umtshwankela (Nd)	Fruit eaten raw.	April to June	Bulawayo, Harare, Victoria Falls
<i>Ziziphus mauntania</i>	Musawu (Sh); umsawu (Nd)	Fruit eaten raw, made into jam or sweet strips.	November to February	Harare, Mt Darwin, Bindura

* Eng = English; Sh = Shona; Nd = Ndebele

Knowledge and Use of Wild Food Plants

Knowledge of indigenous food plant species, their distribution, seasonal availability, and preparation or use, is widely distributed amongst ordinary people in most rural communities. However, knowledge of wild food plants varies between communities (for example, among tribal groups) and within specific local communities (for example, between men and women, and between different age groups). These differences are an indication of cultural diversity in Zimbabwe. The Ndebele tribe, being mainly cattle people, generally has limited knowledge of wild leafy vegetables compared to more sedentary agrarian tribes like the Shona and Tonga. Similarly women tend to have more knowledge of leafy vegetables compared to men due to division of domestic chores (women being the traditionally the cooks in the home), while men may be more versed with knowledge on indigenous fruits and edible roots. The elderly on the other hand, who are considered repositories of indigenous knowledge (Mtshali, 1994; Ngwane, 1999), are usually knowledgeable on wild food plants compared to the younger age groups. Of note is the discrepancy in knowledge between urban and rural communities. In this study on wild food plants of Zimbabwe, I observed that people in rural communities are generally more knowledgeable about edible wild food plants throughout all age groups. In urban communities, knowledge on indigenous food plants is usually limited, particularly among those people who have been urban dwellers all their lives and have little link with the rural areas, and among youth and younger age groups.

Social Implications of the Consumption of Wild Food Plants

The use of wild food plants is generally on the decline. Several factors are contributing to the decline in the knowledge and use of indigenous food plants. These factors include:

Lack of intergenerational knowledge transfer within communities. Youth possess little knowledge of wild food plants, particularly in urban environments (Mtshali, 1994; Ngwane, 1999). Oral knowledge systems have been replaced by written knowledge without the corresponding conversion of indigenous oral knowledge to written information. This has resulted in the loss of a wealth of valuable indigenous knowledge on food plants.

Impact of Western/formal education systems. The current education system in Zimbabwe hardly incorporates aspects of indigenous knowledge. Very little mention is made of indigenous food plants. Instead emphasis is on commercially cultivated exotic food plants. This contributes to the marginalisation of indigenous knowledge. Related to this is the fact that students, particularly those in the rural areas, are exposed to two world views: that of the formal education system that is detached from their everyday environment and experiences, and that of the real world in which they live in. This implies that the formal education system is not contextually relevant to the learners and does not prepare them to cope with and relate to their immediate environment (Mokuku & Janse van Rensburg, 1997; Shava, 2000; Asafo-Adjei, 2004; Masuku Van Damme & Neluvhalani, 2004).

Stigmatisation of (and negative attitudes towards) wild food plants. The use of wild food plants is considered primitive and backward and associated with low standards of living (Sibanda, 1999;

Shava, 2000; Asafo-Adjei, 2004). In addition the use of wild food plants is negatively associated with the HIV/AIDS scourge (pers. observ.). While researching the use of wild food plants in Zimbabwe I observed that people usually believed that those who frequently use wild food plants (and traditional cereals such as sorghum and millet) are most likely to be infected with HIV/AIDS. This is despite the nutritive advantages that these food plants can add to the diet of any person. This assumption might be a response arising from media messages from HIV/AIDS that advocate for the use of the above foods.

Impact of modern agriculture. Modern agriculture promotes the cultivation and use of popularised commercial food plant varieties at the expense of indigenous food plants. This has led to marginalisation in the growing and improvement of indigenous food crops, making indigenous food plants insignificant components of modern livelihood systems.

Dietary shifts. Traditional diets have been replaced with a modern diet which relies on a few widely cultivated exotic commercial staple foods. This can be aptly described as the global homogenisation of the human diet. This dietary shift has led to subsequent decline in the use of wild/indigenous food plants.

Change in lifestyles. Unlike traditional lifestyles which had a direct and heavy reliance on the local environment, present day lifestyles are characterised by a shift towards urbanisation, with subsequent reliance on easily availability of processed foods. Traditional livelihood systems have been heavily eroded and, subsequently, the use of wild food plants has declined.

Application of Knowledge of Wild Food Plants

Documentation of indigenous knowledge has become a common rhetoric sung by outsiders and unquestioningly implemented by local researchers. This exposes such knowledge, in its semi-processed form, to plunder and abuse by outsiders, making the documentation process a form of legitimising and perpetuation of its appropriation (by making it more accessible to the dominant societies with the requisite technologies to convert such knowledge). In this regard the documentation of indigenous knowledge, without carefully thinking of its implications, might become counterproductive to its well-meant intentions. One reason why indigenous knowledge remains as just documented knowledge or knowledge of general everyday use is that its full potential and possible applications are never fully explored/investigated to the benefit of the local populace. This application is possible in both formal education settings and within community settings. In order for knowledge to be meaningful, it has to be successfully applied and re-appropriated for the benefit of those from whom it was derived. Below I explore some possibilities of indigenous knowledge applications.

Application in formal education systems

Within the formal education system in Zimbabwe, based on available textbooks and the school curricula, integration of indigenous knowledge into formal education seems superficial, with factual aspects of indigenous knowledge mainly supporting/enriching the dominant Western knowledge systems. This implies that, in mainstream education, indigenous knowledge is still marginalised. Knowledge on indigenous food plants opens up several possibilities where

indigenous knowledge can be integrated into various subject areas. However, where integration is made, it should be clearly indicated that this is indigenous knowledge to avoid it being subsumed into mainstream knowledge. The observed availability of wild food plants in the street markets within the towns and cities opens up opportunities for them to be introduced as real materials to the learning environment. This is particularly valuable in these areas, considering there is generally limited exposure of students to the natural vegetation within the built environments that characterise urban areas. In rural communities, working with edible indigenous plants enables the bringing of the learning processes into line with the learners' context (making it contextually relevant) and bridging the gap between the learning and lived world (Shava, 2000). Below, I look into some possibilities for the inclusion of local knowledge on indigenous food plants within subject areas within the Zimbabwean formal school curricula.

Food and nutrition. The traditional diet can be discussed, with reference to indigenous food plants. Traditional dishes can be prepared and methods of preparation studied. The nutritional composition of indigenous food plants can be investigated and can be compared to the modern diet. Traditional preservation processes of indigenous food plants can be investigated and compared with modern food preservation processes.

Agriculture. The propagation and seasonality of indigenous food plants can be investigated. Aspects such as optimum water and nutrient requirements can be studied. Breeding and improvement of indigenous food plants can also be investigated. Seed storage conditions and seed viability can be tested.

Science. The distribution patterns of wild food plants and their adaptations can be studied. A study can be made of the variety of edible wild fruits with these being brought into the classroom for observation by learners.

Curriculum applications of indigenous knowledge have been investigated elsewhere. For example, Asafo-Adjei (2004) explored the application of indigenous agricultural knowledge in the Agricultural Science curriculum in the Eastern Cape of South Africa. His research found that application of indigenous knowledge in traditional subjects should not ignore the rich socio-cultural contexts in which indigenous knowledge is embedded.

Also of importance in the incorporation of indigenous knowledge into formal education is the inclusion of traditional methods of teaching and learning (oral transmission methods) and the use of the local community resources persons (particularly the elders who are considered repositories of indigenous knowledge in communities).

Application indigenous community settings

An avoidable (and positive) aspect of any knowledge is its possibility for commercial application. Commercial interest in indigenous knowledge only becomes problematic to me if the benefits do not go to the originators of that knowledge – that is the innovators of traditional practices from which the commercial applications derive. Local communities are the sources of knowledge on indigenous food plants and they should derive direct benefit from the commercial applications of their knowledge. Commercial application provides an opportunity to harness science to bolster indigenous knowledge initiatives for the benefit of local communities.

I believe the application of knowledge on wild food plants in local rural communities lies in investigating/exploring their potential as commercial crops. Strides have been made towards the commercialisation of some indigenous beverages in the region. These include herbal teas such as Rooibos tea (from *Aspalanthus linearis*) in South Africa, Lippia tea (from *Lippia javanica*) in Botswana, and Makoni tea (from *Fadogia ancylantha*) in Zimbabwe. Another example is an alcoholic beverage made from the marula (*Slerocarya birrea* subsp. *caffra*) fruit. Besides beverages, other commercialised products from wild food plants include sweet strips and a jam made from the fruit of the masawu (*Zizyphus mauritiana*) tree. In Zimbabwe, the civic organisation Southern Alliance for Indigenous Resources (SAFIRE), which focusses on community development using non-timber forest products, works with local community in the processing and harvesting of such products for commercial purposes. It is responsible for the commercialisation of Makoni tea and Masawu jam.

While commercialisation of wild food plants seems to be well underway, the level of community involvement is an aspect that needs to be revisited, such as the level of engagement in the commercial processing and marketing of such food plants. There is also need to raise awareness amongst indigenous communities on intellectual property rights (that is on rights to the access of their own knowledge).

In addition to the commercial applications of local community knowledge on indigenous food plants, such aspects as their nutritional value will also enhance their use and valuing of these plants.

Conclusion and Recommendations

Research on indigenous knowledge should shift its focus more into the consideration of its application for it to have meaningful long-term impact. This calls for investigations into application possibilities in educational as well as community development arenas.

I have the following recommendations with regards to research applications of wild food plants specifically and indigenous knowledge research in general:

- Research on indigenous knowledge should not only focus on its documentation and interpretation. However, it should extend to the application of this knowledge in participatory community development and education settings.
- Formal education usually suffers the setback that it is usually out of context with the learners' 'lived environment'. This set-up and creates two separate worldviews for the learner: the school world and the world in which they live in. Indigenous knowledge should be integrated into mainstream education to enrich the learning environment and put learning processes into context with the learners' living environment.
- Indigenous food plants are usually considered inferior and associated with a low standard of living. In order to remove this low self-esteem with regard to our local food plants, there is need to present them in a state that is acceptable in current food markets. This involves processing them to commercial standards in order for them to be promoted and marketed effectively.

- Popular and widely cultivated commercialised food plants have undergone long periods of selective breeding and improvement to be the products they are today. A similar drive should be made on our indigenous food plants towards developing them into crops of the future. This could be a starting point towards revamping African agriculture after such innovations were thwarted by the advent of modern agriculture.
- Commercialisation of wild food plants should be accompanied by their cultivation to safeguard against their over-exploitation which can result in their extinction in the wild. This can contribute towards ecologically sustainable agriculture.
- In the process of commercialisation of wild food plants, due consideration should be given to local communities from which the knowledge of indigenous food plants is derived. Such communities can derive benefit from the application of their knowledge and be economically empowered if they are involved in the cultivation, harvesting, processing and marketing of wild food plants.
- Indigenous food plants are adapted to withstand adverse local conditions. This is an aspect that should be taken advantage of in their cultivation for commercial purposes. This is also the reason why wild food plants are a major food source during times of famine.
- Studies on the nutritional composition of wild food plants in the southern African region are limited and incomplete. This therefore is an area that demands further research. Such knowledge will enhance the appreciation of wild food plants by local communities and can promote their appreciation as alternative sources of nutrition.
- There is a danger of assuming that wild plants that are consumed by birds and other animals as food are edible to humans. This is not necessarily true as some of these plants could be poisonous to humans (Shava 2004). Such generalisation should be avoided.

Notes on the Contributor

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Appendix 1

A Checklist of Wild Food Plants of Zimbabwe

Note

- This checklist is arranged alphabetically according to botanical (scientific) names.
- For each plant the family name, part used and distribution is given.
- Common English names have the ending (Eng), common Shona names have the ending (Sh), common Ndebele names have the ending (Nd) and common Tonga names have the ending (T).
- While this checklist is intended to be comprehensive, it is however not exhaustive as a some wild food plants may not have been included due to the author's lack of knowledge about them.
- The checklist below includes both indigenous and naturalised wild food plants of Zimbabwe.
- Under the distribution column, the abbreviations NWCES refer to geographical divisions to which Zimbabwe is divided to show plant distribution.

N (Northern) refers to the area including Bindura, Binga (part), Mt Darwin, Gokwe, Kariba, Nemakonde, Mazowe, Murewa, Guruve and Hurungwe;

W (Western) covers Binga (part), Bubi, Bulili-Mangwe, Bulwayo, Iniza, Lupane, Matopo, Nkayi, Nyamandlovu, Umzingwane and Hwange;

C (Central) includes Featherstone, Chirumanzi, Kadoma, Goromonzi, Gweru, Chegutu, Makoni, Marondera, Kwekwe, Harare, Shurugwi and Wedza;

E (Eastern) covers the area around Chipinge, Inyanga, Chimanimani and Mutare;

S (Southern) includes Beitbridge, Mberengwa, Bikita, Buhera, Chivi, Chiredzi, Gutu, Gwanda, Ndanga, Masvingo, Mwenezi and Zvishavane.

No.	Plant Name(s)	Family	Part Used	Distribution
1	<i>Acacia karroo</i> Mimosa thorn, sweet thorn (Eng); mubayamhondoro, muunga (Sh), isinga (Nd)	Leguminosae	Bark, inner (raw, chewed)	NWCES
2	<i>Adansonia digitata</i> Baobab (Eng); muuyu (Sh); umkhomo (Nd); mubuyu (T)	Bombacaceae	Fruit (raw) Seed (oil)	NWCES
3	<i>Adenia gummifera</i> Monkey rope (Eng); muore, muwore, muhore, muboori, deveramvumi (Sh)	Passifloraceae	Leaves (cooked)	NCES

No.	Plant Name(s)	Family	Part Used	Distribution
4	<i>Aerva lecura</i> Aerva (Eng); fototo, furanondo, hoto, nyavotarota (Sh); uzadudlana (Nd)	Amaranthaceae	Leaves (cooked)	NWCES
5	<i>Aframomum angustifolia</i> Aframomum (Eng); matongururu (Sh)	Singiberaceae	Fruit (raw)	E
6	<i>Aloe greathheadii</i> Greathead's aloe (Eng); chikowa, gavakava, godzongo, rumhangamhuno (Sh); icena (Nd); Chinyangami (T)	Aloaceae	Flowers and buds (cooked)	NWCES
7	<i>Amaranthus hybridus</i> Pigweed (Eng); mowa guru (Sh); imbuya (Nd); mowa (T)	Amaranthaceae	Grain (cereal) Leaves (vegetable)	NWCES
8	<i>Amaranthus spinosus</i> Spiny pigweed (Eng); mowa danga (Sh); imbuya (Nd); bonko (T)	Amaranthaceae	Leaves (vegetable)	NWCES
9	<i>Amaranthus thunbergii</i> Poorman's spinach (Eng); bonongwe, mowa (Sh); imbuya (Nd)	Amaranthaceae	Leaves (vegetable)	NWCES
10	<i>Ammocharis tinneana</i> Durura (Sh)	Amaryllidaceae	Flower (vegetable)	NWCES
11	<i>Ampelocissus africana</i> Wild grape (Eng); mudzambiringa, muzambiringa (Sh)	Vitaceae	Fruit (raw)	NWCES
12	<i>Ampelocissus obtusata</i> Wild grape (Eng); mudzambiringa, muzambiringa (Sh)	Vitaceae	Fruit (raw)	NWCES
13	<i>Annona senegalensis</i> Wild custard apple (Eng); muroro (Sh); ububese (Nd)	Annonaceae	Fruit (raw)	NES

No.	Plant Name(s)	Family	Part Used	Distribution
14	<i>Annona stenophylla</i> Dwarf custard apple (Eng); muroro, muroropasi (Sh); ububese (Nd)	Annonaceae	Fruit (raw)	NWCES
15	<i>Antidesma venosum</i> Antidesma (Eng); chisama, murungamunyu (Sh)	Euphorbiaceae	Fruit (raw)	NWCES
16	<i>Artabotrys brachypetalus</i> Mukosvo (Sh); ipamba, umdzidzi (Nd)	Annonaceae	Fruit (raw)	NWCES
17	<i>Asclepias densiflora</i> Munhenzwa (Sh)	Asclepiadaceae	Leaves (vegetable)	WCES
18	<i>Azanza garckeana</i> Snot apple, quarters (Eng); mutohwe (Sh); uxakuxaku (Nd)	Malvaceae	Fruit (raw/boiled)	NWCES
19	<i>Babiana hypogea</i> Babiana (Eng); hwenya (Sh)	Iridaceae	Root	NWCES
20	<i>Balanites aegyptica</i> Nyahoko, muvambangoma (Sh); muongo (T)	Balanitiaceae	Fruit (raw)	NWCES
21	<i>Balanites maughamii</i> Nyahoko, muvambangoma (Sh); muongo (T)	Balanitiaceae	Fruit (raw)	NWCES
22	<i>Bauhinia petersiana</i> White bauhinia (Eng); mun'ando, mupondo (Sh); imondo (Nd); mubwekeke (T)	Leguminosae	Seed (cooked)	NWCE
23	<i>Bauhinia thoninii</i> Monkey bread (Eng); mutukutu, musekesa (Sh); ihabahaba (Nd); musekesa (T)	Leguminosae	Dried fruit pith (raw/ cooked), young leaf (raw)	NWCES

No.	Plant Name(s)	Family	Part Used	Distribution
24	<i>Berchemia discolor</i> Bird plum (Eng); munyii (Sh); umnyiyi (Nd)	Rhamnaceae	Fruit (raw)	NWCES
25	<i>Berchemia zeyheri</i> Pink ivory (Eng); musukachuma, muvhunambezo (Sh); umnyiyi (Nd)	Rhamnaceae	Fruit (raw)	WC
26	<i>Bidens biternata</i> Yellow-flowered black jack (Eng); guza, mhuwu, nhungunira (Sh); ucucuza, umhlabangubo (Nd); nama (T)	Asteraceae	Leaves (vegetable)	NWCES
27	<i>Bidens pilosa</i> Black jack (Eng); guza, mhuwu, nhungunira (Sh); ucucuza, umhlabangubo (Nd); nama (T)	Asteraceae	Leaves (vegetable)	NWCE
28	<i>Borassus aethopicum</i> Borassus palm (Eng); bvumo (Sh)	Arecaceae	Fruit leaf (sap from terminal bud)	NWCE
29	<i>Boscia albitrunca</i> Shepherd's tree (Eng); umtopi (Nd)	Capparaceae	Fruit (raw)	NWES
30	<i>Brachiaria brizanthia</i> Upright brachiaria (Eng); zinyaruzoka (Sh)	Poaceae	Grain (cooked)	NWCES
31	<i>Brachystegia boehmii</i> Mfuti, Prince-of- Wales' feathers (Eng); mupfuti (Sh); itshabela (Nd)	Leguminosae	Bark (inner bark chewed)	NWCES
32	<i>Bridelia cathartica</i> Mutsvitsviroondo, mumbarembare (Sh)	Euphorbiaceae	Fruit (raw)	NWCES