

DOI: 10.18697/ajfand.76.15720**WILD FOOD PLANTS USED BY PEOPLE LIVING WITH HIV/AIDS IN
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ABSTRACT

The human immunodeficiency virus (HIV) has a devastating impact on the victims' health, nutrition and food security. The prevalence of HIV/AIDS and other opportunistic infections calls for research into natural products to find solutions to this pandemic. This involves exploration of the readily available wild food plant species (WIFPs) and promotion of their consumption especially among the vulnerable and marginalised groups of people. In Nakisunga sub-county, WIFPs are consumed by people living with HIV/AIDS (PLWHA) because of their presumed nutrition and health benefits. Despite exploitation of WIFPs by PLWHA, there have been no empirical studies to document the indigenous knowledge on WIFPs' usage in Nakisunga sub-county. This study aimed at providing information regarding the consumption of WIFPs by PLWHA in Nakisunga sub-county because of their presumed nutritional and health benefits. An ethnobotanical survey was conducted in which 60 semi-structured questionnaires were administered. A snowball sampling approach was used to identify other PLWHA in their respective villages since these people always met on clinic days and knew where each of them resided. Individual interviews were supplemented with direct observations and 3 Focus Group Discussions (FGDs) guided by a checklist of questions. Eighty-four WIFPs from 66 genera and 41 families were identified. Priority species were *Abrus precatorius* L., *Amaranthus spinosus* L., *Physalis angulata* L., *Hibiscus sabdariffa* L. and *Solanum nigrum* L. Fifty-six WIFPs were used as food only and 28 species served as food and medicine. The majority (43%) of WIFPs were herbaceous and mainly collected from the wild (75%). The most frequently consumed plant parts were the fruits (34%) and leaves (33%). These were consumed as snacks (23%) and vegetables (24%), respectively. Boiling (37%) was the commonest method of preparation used. Documentation of this indigenous knowledge on WIFPs' consumption by PLWHA will help promote them for wider usage and initiate scientific validation of their nutrient quality. In conclusion, there is a diversity of WIFPs in this area which are being added to the diets of PLWHA because of their presumed nutritional significance. These species need to be taken further for scientific validation of their nutrient quality and conservation measures devised for their sustainable production.

Key words: PLWHA, Wild food plants, Consumption, Documentation, Nutrition, Dietary diversity



INTRODUCTION

The acquired immunodeficiency syndrome (AIDS) is a condition that makes it difficult for the body to fight off infectious diseases [1]. The human immunodeficiency virus (HIV) causes AIDS by damaging specific lymphocytes (T-cells) which fight off invading germs in the body. When the number of T-cells falls to a low level (less than 200 cells per cubic millimeter of blood), people with HIV become more susceptible to other infections and may get certain types of cancer that a healthy body would normally be able to fight off. About 64% of PLWHA in the world are in sub-Saharan Africa [2]. The Global Fund Guidelines for HIV/AIDS indicate that 135,000 people get infected with the virus [2]. The acquired immunodeficiency syndrome and other opportunistic infections exert great limitations for world health by causing serious debility, morbidity and mortality in the affected population.

About one million Ugandans are infected with HIV, a predominantly sexually transmitted virus that targets the immune system [3]. The 2011 Uganda AIDS survey indicator showed an increase in the HIV/AIDS prevalence amongst people aged between 15 to 49 years from 6.4% in 2006 to 7.3% in 2011 [4]. In Uganda, the prevalence of HIV is higher in urban areas than rural areas at 10% and 6%, respectively [5]. Consuming diverse diets offers protection against chronic diseases, and enhances the immune system in people living with HIV to combat AIDS opportunistic diseases [6, 7]. There is a diversity of WIFPs with good nutritive and therapeutic values that PLWHA can potentially add to their diet.

Fortunately, Uganda is endowed with many varieties of such indigenous food plants that have an outstanding potential to alleviate nutritional deficiencies among vulnerable groups [8]. Documentation of the WIFPs is vital because it creates awareness since a large proportion of PLWHA cannot afford to produce or buy exotic foods due to the high input costs and price implications, respectively. This study documented the WIFPs consumed by PLWHA in Kidondo, Luwule and Namayuba villages in Nakisunga sub-county, Mukono district in Uganda. Specific inquiry was made to find out the plant parts consumed, conditions managed, growth habits and habitats, side effects encountered after eating some of the plants, methods of food preparation and frequency of consumption.

METHODS

Study population

Sixty HIV-infected adults receiving services from Mukono Health Centre IV were contacted but of these only 33 responded. At recruitment, another 27 could not respond because they were bed ridden and unable to answer the questionnaire. These were substituted with 27 caregiver interviews. Subjects were eligible for the study if they were HIV-infected adults aged 15 years and above. Before interviewing any respondent, the study team members explained the objectives of the study and verbal consent to conduct the interviews was sought.



Ethnobotanical Survey

Sampling procedure

Field work for this study was carried out between May and August, 2012. A cross-sectional study design was employed and involved use of both qualitative and quantitative research methods. Three villages Kidondo, Luwule and Namayuba were randomly selected from Nakisunga sub-county, Mukono district, Central Uganda. All these villages are predominantly rural. Structured questionnaires were developed and pre-tested in a pilot survey and subsequently refined. The main research questions for the study were: (i) What WIFPs are consumed by PLWHA in Nakisunga sub-county? (ii) Where (collection sites) do the PLWHA get the WIFPs they consume? (iii) Which parts of the WIFPs are consumed and how are they prepared? (iv) How frequently are the WIFPs consumed? (v) What are the most preferred WIFPs? and (vi) How did the PLWHA acquire the knowledge concerning the roles of WIFPs? Purposive sampling was used to identify the first respondent (PLWHA) after which snowball sampling approach (non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances) was used to identify other PLWHA in their respective villages. The snowball sampling approach was appropriate since these people always met at Mukono Health centre IV on clinic days so they knew each other [9].

Twenty individual interviews were conducted in each of the three villages using the local language (Luganda). The individual interviews were supplemented with direct observations and 3 focus group discussions (FGDs). Each FGD contained 10 members and had equal numbers of both sexes to avoid bias. After the discussions, field walks in WIFPs collection areas were made and plant vouchers collected. The vouchers were indexed as N.A. (Nabatanzi Alice) and deposited at the Makerere University Herbarium. They were named with reference to the Flora of Tropical East Africa.

Data analysis

Ethnobotanical data were transferred into Microsoft Excel spreadsheets for cleaning and preliminary analysis. The dataset was then exported to SPSS statistical software Version 16.0 for Windows for statistical analysis. The data were coded and summarized as means and frequencies. Plant prioritization was based on frequency of mention.

RESULTS

Respondents' biographic details

Socio demographic characteristics of the respondents are summarized in Table 1. They show that the respondents were mainly from the Baganda tribe and equally balanced between Christians and Moslems. Most were less than 34 years of age and had low levels of education. Crop farming was the major source of employment.

Wild food plant species consumed by PLWHA

The respondents mentioned 84 WIFPs in this study (Table 2). These species belong to 41 families and 66 genera. Species from families Solanaceae (10%), Dioscoreaceae (8%) and Fabaceae (8%) were the majority. Most were collected from the wild (75%) and growing as herbs (43%) - Figure 1. The parts of the plant most frequently consumed were



the fruits (34%) and leaves (33%) - Figure 2. Some of the respondents reported that consumption of some WIFPs causes digestive disorders comprising of nausea (76.7%), diarrhoea (10%), stomach ulcers (6.7%) and heart burn - 6.7%.



Figure 1: Growth habits of the plants

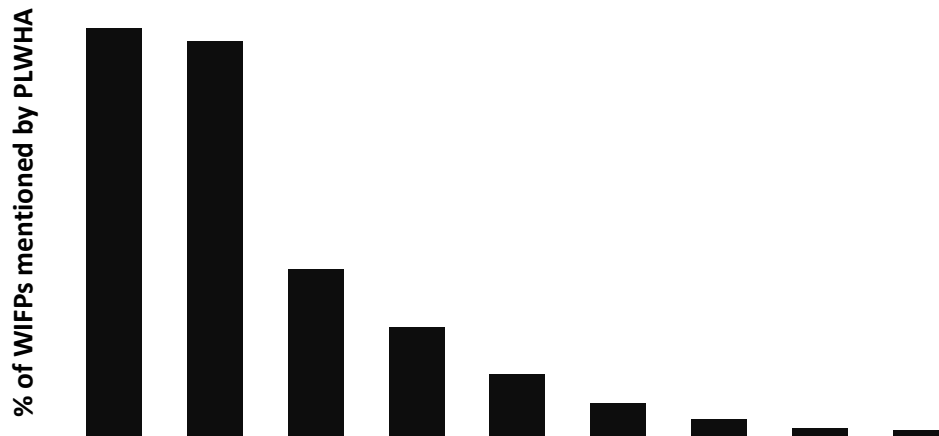


Figure 2: Plant parts used for food

Boiling, raw consumption and steaming were the commonly used methods of preparation (Figure 3). Foods were consumed mainly as pot herbs, snacks, sauce and beverage (Figure 4). Fruits were eaten raw as snacks.

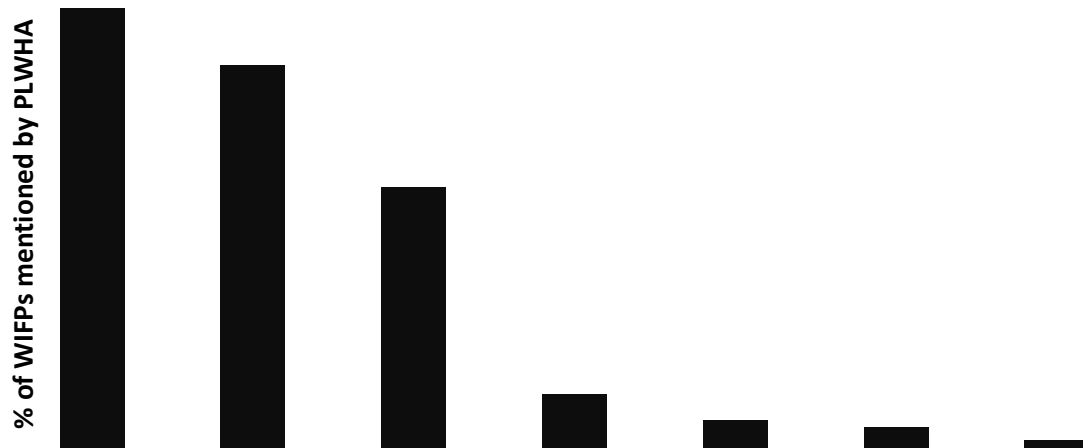


Figure 3: Methods of preparation used

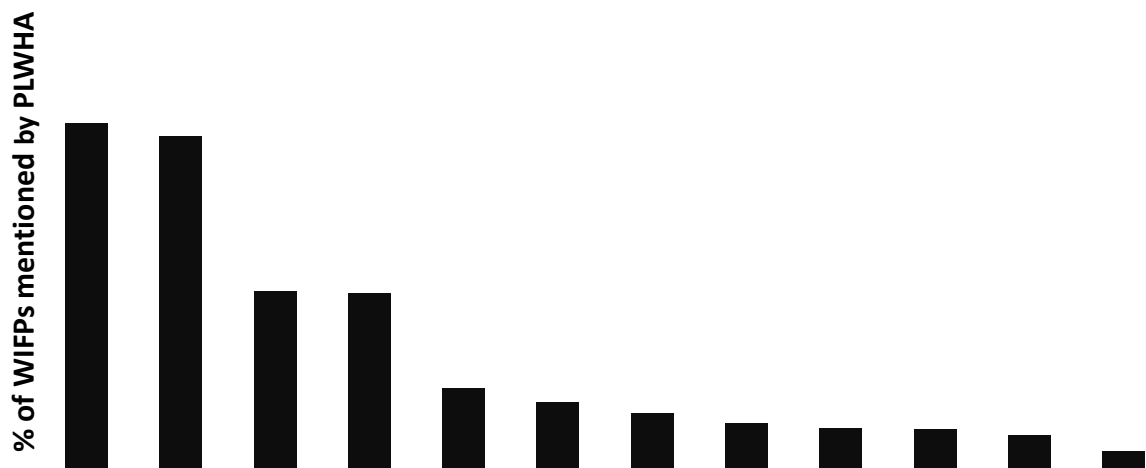


Figure 4: Forms of consumption

DISCUSSION

Results from this study show that there is a diversity of WIFPs in this area, which greatly contributes to the diets of PLWHA. Some of the species consumed were both nutritious and therapeutic as reported by the respondents during the interviews and FGDs (Table 3). Fruits were predominantly consumed as snacks when ripe, and to a limited extent used in making juices. The leafy vegetables were cooked prior to consumption, which would lead to the loss of water soluble vitamins especially vitamin C [10]. It is, therefore, recommended that the vegetables are cooked in small amounts of water for short periods to minimize loss of vitamin C and that the cooking water be consumed if no bitter compounds are present [11]. Most of the consumed WIFPs were collected from the wild.

This meant that they were free and could be accessed by the local communities who are poor and also have little energy to propagate crops [12]. The majority of the WIFPs are herbaceous by growth habit and as such, regenerate quickly and are likely to continue being available [13]. This justifies that WIFPs have the potential to improve dietary quality and quantity thereby increasing food security among people living with HIV/AIDS.

CONCLUSION

From this study, a large number of wild edible plants (84 species) were being consumed by people living with HIV/AIDS in Namayuba, Kidondo and Luwule villages in Nakisunga sub-county, Mukono district (Table 2). This high diversity plays a significant role in the food and nutritional variety of PLWHA since these people are prone to suffer from many nutritional deficiencies as compared to HIV negative individuals. Fortunately, some of these species may serve as nutri-therapeutics, are abundant, accessible and culturally rooted in the area.

RECOMMENDATIONS

The nutritional and therapeutic values of the wild food plants documented in this study need to be scientifically validated. People living with HIV/AIDS elsewhere need to be sensitized about the values of these plants so that they can incorporate them into their diets. These plant species need to be domesticated since wild habitats are continuously being destroyed as a result of urbanization, industrialization and population growth.

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Table 1: Demographic characteristics of the respondents (n = 60)

CHARACTERISTIC				
Ethnicity	Religion	Age	Education	Occupation
Baganda (46)	Christians (35)	15 - 34 (28)	Primary (26)	Farmer (42)
Others (14)	Moslems (25)	35 - 54 (21)	Secondary (22)	No source of income (7)
		55+ (11)	No formal education (8)	Irregular income from petty trade, handicraft, craft work, carpentry (6)
			Tertiary (4)	Unskilled laborer (3)
				Trader (1)
				Teacher (1)

Note: Frequencies are shown in parentheses

Table 2: A list of wild food plants and mushrooms consumed by PLWHA in Namayuba, Luwule and Kidondo villages in Nakisunga sub-county, Mukono district, Central Uganda

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLWHA
Solanaceae, <i>Solanum nigrum</i> L., NA 37	Nsugga enzirugavu	H	Open grassland	Sh/ Lv	Vegetable	52
Malvaceae, <i>Hibiscus sabdariffa</i> L., NA 17	Musaayi	H	Hill slope with well drained soils	Lv/ seeds	Leaves are a vegetable and the seeds are dried and pounded into flour eaten as a staple	50
Amaranthaceae, <i>Amaranthus spinosus</i> L., NA 4	Doodo owa'maggwa	H	Road side	Lv / Sh	Vegetable (bitter and eaten in small quantities)/ tenderiser (shoots and leaves are burnt; the ash is mixed with water and filtered. The resulting liquid is used for cooking tough vegetables such as cowpea leaves and pigeon peas to make them more tender)	48
Solanaceae, <i>Physalis angulata</i> L., NA 2	Ntuntunu	H	Home garden	Fr	Snack	47
Papilionaceae, <i>Abrus precatorius</i> L., NA 13	Lusiiti	Cl	Banana plantation	Lvs	Snack	44
Solanaceae, <i>Solanum</i> <i>lycopersicum</i> L. , NA 1	Obunyaanya	H	Back yard	Fr/ Lvs	Vegetable/ salad	43
Amaranthaceae, <i>Amaranthus dubius</i> Mart. ex Thell., NA 3	Doodo	H	Home garden	Lvs/ Sh	Vegetable/ potash (leaves are dried and burnt to ashes. The ashes are used to make a filtrate which is evaporated and the residue used as a substitute for common salt	40

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
Capparaceae, <i>Cleome gynandra</i> L., NA 40	Jjobyo	H	Back yard	Lvs/ Sh	Vegetable	38
Rubiaceae, <i>Vangueria apiculata</i> Aubrev. & Leandri, NA 26	Mutugunda	T	Home garden	Fr	Snack	38
Solanaceae, <i>Solanum anguivi</i> Desf., NA 11	Katunkuma	H/Sh	Back yard	Fr	Vegetable	36
Papilionaceae, <i>Phaseolus lunatus</i> L., NA 67	Obuyindiyindi	Cl	Home garden	Seeds	Sauce	36
Burseraceae, <i>Canarium schweinfurthii</i> Engl., NA 34	Empafu	Cl	Along a live fence	Lvs	Snack	35
Lamiaceae, <i>Ocimum gratissimum</i> Forssk., NA 33	Omujaaja	H	Home garden	Lvs	Beverage (leaves dried or fresh)	34
Lauraceae, <i>Cinnamomum verum</i> J. Presl., NA 35	Budalasini	T	Homestead compound	Lv	Beverage (leaves dried or fresh)	26
Annonaceae, <i>Annona muricata</i> L., NA 5	Kitafeeri	T	Road side	Fr	Snack	23
Rutaceae, <i>Citrus sinensis</i> Pers., NA 6	Sekyungwa	T	Homestead compound	Fr	Snack	22
Solanaceae, <i>Capsicum frutescens</i> L., NA 8	Kamulari	S	Home garden	Lvs/ Fr	Vegetable (Lvs)/ spice(fruit juice)	20
Dioscoreaceae, <i>Dioscorea bulbifera</i> var. <i>anthropophagrum</i> Miers, NA 61	Makobe	Twin ner	Banana plantation	B	Accompaniment to staples	20
Oxalidaceae, <i>Averrhoa carambola</i> L., NA 79	Mizabibu	T	Homestead compound	Fr	Snack	20
Solanaceae, <i>Cyphomandra betacea</i> Walker, NA 21	Ekinyanya	S	Behind a Kraal	Fr	Snack/ dessert/ beverage fruit juice drunk	19
Dioscoreaceae, Balugu	Balugu	H	Banana plantation	T	Accompaniment to staples	18

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
<i>Dioscorea</i>						
<i>cayenensis</i> Lam., NA 81						
Palmae, <i>Elaeise guineense</i> Pax., NA 15	Ekinazi	T	Homestead compound	Fr	Beverage (fruit juice)/ oil	18
Basellaceae, <i>Basella alba</i> L., NA 38	Nderema	Cl	Live fence	Lvs	Vegetable	18
Fabaceae, <i>Phaseolus spp.</i> , NA 78	Ebigaaga	Cl	Fence near kraal	Seeds	Vegetable	16
Punicaceae, <i>Punica granatum</i> L., NA 5	Nkomamawanga	T	Road side	Fr	Snack	16
Zingiberaceae, <i>Aframomum alboviolaceum</i> K. Schum, NA 43	Ttungulu	H	Wetland	Fr	Snack	16
Caesalpiniaceae, <i>Tamarindus indica</i> L., NA 29	Omukooge	T	Grassland	Fr	Juice	15
Zingiberaceae, <i>Aframomum angustifolium</i> K. Schum, NA 57	Matungulu	H	Wetland	Fr	Snack	13
Melastomataceae, <i>Tristemma mauritianum</i> Decne. Ex Trecul, NA 69	Nantooke	H	Banana plantation	Fr	Snack	13
Myrtaceae, <i>Psidium guajava</i> L., NA 22	Amapeera g'omunsiko	T	Thicket	Fr	Snack	11
Guttiferae, <i>Garcinia buchananii</i> Jacq., NA 48	Musaali	T	Thicket	Fr/ seeds	Snack (fr), beverage (wine is made from the edible fruit)	10
Zingiberaceae, <i>Cucurma longa</i> L., NA 85	Ekinzaali ekiganda	Rh	Home garden	Wh	Food flavor	9
Fabaceae, <i>Vigna unguiculata</i> (L.)Walp., NA 64	Empindi	H	Banana plantation	Seeds	Sauce	9
Dioscoreaceae, <i>Dioscorea spp.</i> , NA 52	Endagu	H	Banana plantation	T	Accompaniment to staples	8
Euphorbiaceae,	Jerengesa	S	Hedge	Lvs/ Sh	Vegetable	8

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
<i>Acalypha bipartita</i> Mull. Arg., NA 41 Verbenaceae, <i>Lantana trifolia</i> L., NA 18	Akayukiyuki kebalya	S	Road side	Fr	Snack	7
Rubiaceae, <i>Coffea canephora</i> Froehner, NA 10	Emwanyi	T	Home garden	Seeds	Snack	7
Amaranthaceae, <i>Amaranthus lividus</i> subsp. <i>Polygonoides</i> Thell. ex Druce, NA NA 58	Mboog' ennene	H	Home garden	Lvs/ Sh	Vegetable	7
Rosaceae, <i>Rubus pinnatus</i> var. <i>afrotropicus</i> (Gaertn.) Hylander, NA 32	Nkenene	S	Near a kraal	Fr	Snack	7
Rutaceae, <i>Zanthoxylum</i> <i>chalybeum</i> L., NA 55	Entale y'eddungu	S	Grassland	Br	Beverage	6
Fabaceae, <i>Voandzeia</i> <i>subterranea</i> (L.) Thouars, NA 51	Mpande	H	Homestead compound	Seeds	Sauce	6
Rubiaceae, <i>Cathium lactescens</i> Hiern., NA 44	Akamwanyim wanyi	T	Thicket	Fr	Snack	5
Dioscoreaceae, <i>Dioscorea</i> <i>minutiflora</i> (L.) W.T. Aiton, NA 72	Kaama	Cl	Banana plantation	T	Accompaniment to staples	5
Polygonaceae, <i>Oxygonum sinuatum</i> Dammer, NA 27	Kafumitabage ngege	H	Road side	Lvs	Vegetable	5
Palmae, <i>Phoenix reclinata</i> Jacq., NA 76	Mukindu; Mpirinvuma	T	Homestead compound	Fr	Snack/ beverage (the growing shoots are tapped to make palm wine)	5
Asclepiadaceae, <i>Mondia whytie</i> Skeels, NA 70	Mulondo	Rh	Home garden	Wh	Snack	5
Commelinaceae, <i>Commelina</i> <i>benghalensis</i> L., NA 19	Nnanda ennene	H	Field	Lvs	Vegetable	5
Commelinaceae, <i>Commelina africana</i> L., NA 20	Nnanda entono	H	Field	Lvs	Vegetable	5

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
Amaranthaceae, <i>Amaranthus graecizans subsp. Sylvestris</i> (Villiers) Brenan, NA 42	Mbooge entono	H	Home garden	Lvs/Sh	Vegetable	4
Apocynaceae, <i>Carissa edulis</i> Vahl, NA 36	Nyonza (Plant),	T	Thicket	Fr/R	Snack (fr), tea spice (root)	4
Solanaceae, <i>Solanum macrocarpon</i> Lam., NA 21	Nume y'ekyalo	H	Grassland	Lvs	Vegetable/ salad	4
Passifloraceae, <i>Passiflora quadrangularis</i> , NA 84	Wuju	Cl	Thicket	Fr	Snack	4
Hyadnaceae, <i>Lentinus prolifer</i> Engl., NA 63	Amaleere	H	Banana plantation	Wh	Sauce	3
Euphorbiaceae, <i>Micrococca mercurialis</i> Benth., NA 60	Kalyabakyala	H	Grassland	Lvs	Vegetable	3
Solanaceae, <i>Physalis minima</i> L., NA 74	Katuntunu	H	Home garden	Fr	Snack	3
Cucurbitaceae, <i>Luffa cylindrica</i> Cogn. M. Roem., NA, 14	Kyangwe	Cl	Climbing on unfinished house	Fr	Vegetable	3
Anacardiaceae, <i>Mangifera indica</i> L., NA 16	Miyembe gy,omunsiko	T	Thicket	Fr	Snack	3
Dioscoreaceae, <i>Dioscorea spp.</i> , NA 52	Mukulujjuni	H	Garden edge	T	Accompaniment to staples	3
Compositae, <i>Vernonia amygdalina</i> K. Schum, NA 12	Mululuza	T	Garden edge	Lvs	Vegetable (Young Lvs)	3
Cucurbitaceae, <i>Sechium edule</i> (Jacq.) Sw., NA 30	Nsusuti	Cl	Climbing on a live fence	Fr	Sauce	3
Dioscoreaceae, <i>Dioscorea odoratissima</i> Engl., NA 47	Amakoloongo	Twin ner	Banana plantation	T	Accompaniment to staples	2

Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
Musaceae, <i>Musa sapientum</i> L., NA 54	Empumumpu	H	Banana plantation	Fr	Sauce	2
Amaranthaceae <i>Achyranthes aspera</i> L., NA 46	Kagiri	H	Kraal	Lvs	Vegetable	2
Sapotaceae, <i>Pachystela brevipes</i> Engl., NA 50	Kawuntuntunu	T	Home garden	Fr	Snack	2
Dioscoreaceae, <i>Dioscorea alata</i> L., NA 9	Kisebe	Cl	Banana plantation	T	Accompaniment to staples	2
Cruciferae, <i>Erucastrum arabicum</i> Fisch. & Mey., NA 25	Mageregankoko	H	Road side	Lv	Vegetable	2
Euphorbiaceae, <i>Uapaca paludosa</i> J. F. Gmel., NA 66	Mukusu, Nkusu, Munnmagulu	T	Bush land	Fr	Snack	2
Moraceae, <i>Treculia africana</i> L., NA 65	Muzinda	T	Road side	Fr	Snack	2
Anacardiaceae, <i>Pseudospondias microcarpa</i> Engl., NA 69	Muziru	T	Grassland	Fr	Snack	2
Cucurbitaceae, <i>Kedrostis foetidissima</i> L., NA 28	Ziizi (Kabaka w'enva)	Cl	Home garden	Lvs	Sauce	2
Anacardiaceae, <i>Rhus vulgaris</i> Meikle, NA 71	Akakwansok wanso	H	Grassland	Fr	Snack	1
Fabaceae, <i>Cajanus cajan</i> (L.) Millsp., NA 83	Empinamuti/ Enkolimbo	H	Homestead compound	Seeds	Sauce	1
Rubiaceae, <i>Mussaenda arcuata</i> Poir., NA 49	Ennimbwelimbwe	S	Slope	Fr	Snack	1
Cyperaceae, <i>Cyperus rotundus</i> L., NA 24	Gugu	Sedge	Swamp	Wh	Potash	1
Asparagaceae, <i>Asparagus flagellaris</i> Baker, NA 45	Kadaali	S	Open grassland	Fr	Snack	1
Compositae, <i>Conyza sumatrensis</i> (Retz.) E., NA 59	Kafumbe	H	Bush	Wh	Potash	1
Palmae,	Kibo	T	Swamp	Fr	Snack	1



Family, species and voucher number	Local name (Luganda)	Habit	Habitat	Part used	Eaten as	No. of PLW HA
<i>Raphia farinifera</i> , NA 62						
Polygonaceae, <i>Rumex abyssinicus</i> Engl., NA 68	Kiwere	H	Thicket	Sh/ Lv	Snack	1
Papilionaceae, <i>Vigna anguiculata</i> Delile, NA 64	Kiyindiru	H	Banana plantation	Lvs/S h	Vegetable	1
Sapotaceae, <i>Manilkara dawei</i> (Stapf) Chiov., NA 73	Nkalati	T	Bush	Fr	Snack	1
Tricholomataceae, <i>Termitomyces</i> <i>eurrhizus</i> (R. Heim), NA 75	Obutundatunda	H	Termite mound	Wh	Sauce	21
Acanthaceae, <i>Asystasia mysorensis</i> (Roth) T. Anderson., NA 70	Temba	H	Homestead compound	Lv	Vegetable	1
Tricholomataceae, <i>Termitomyces</i> <i>microcarpus</i> (Berk.) Heim., NA 82	Obutiko obubaala	H	Termite mound	Wh	Sauce	21

Part Used: L-Leaves, Sh- Shoot, Fr- Fruit, Wh-Whole, Br- Bark, B-Bulbils, R-Roots

Table 3: Wild food plants used as food and medicine by PLWHA in Namayuba, Luwule and Kidondo villages in Nakisunga sub-county, Mukono district, Central Uganda

Family and species	Habit	Part used	Method of preparation	Condition treated	Side effects
Papilionaceae, <i>Abrus precatorius</i> L.	Cl	Lvs	Eaten raw	Skin diseases, acidosis	Nausea/seeds are poisonous
Amaranthaceae, <i>Amaranthus graecizans</i> subsp. <i>Sylvestris</i> (Villiers)Brenan,	H	Young Lvs & Sh	Boiled/ steamed	Sore throat, immune booster, joint pains	Throat irritation
Amaranthaceae, <i>Amaranthus spinosus</i> L.	H	Young Lv & Sh before development of the spines	Boiled/ steamed	Fever, diarrhoea, dysentery, febrifuge, effective diuretic	
Asparagaceae, <i>Asparagus flagellaris</i> Baker	Sh	Fr	Eaten raw	Diarrhoea, sore throat	
Burseraceae, <i>Canarium schweifurthii</i> Engl.	T	Fr/ inner part of seed	Fruit are immersed in hot water to soften the rind and flesh then eaten or fruits are collected, depulped, cracked and the inner part of the seed eaten	Cough	
Rubiaceae, <i>Cathium lactescens</i> Hiern.,	T	Fr	Eaten raw	Sore throat, stomach wounds, anaemia	Slightly acidic
Solanaceae, <i>Capsicum frutescens</i> L.	Sh	Lvs/ Fr	Boiled/raw/powder		Aggravates ulcers
Cruciferae, <i>Erucastrum arabicum</i> Fisch. & Mey.	H	Lv	Boiled	Stomach wounds	
Apocynaceae,	T	Fr/R	Eaten raw (fr), powder (R)	Headache, cough, malaria	



Family and species	Habit	Part used	Method of preparation	Condition treated	Side effects
<i>Carissa edulis</i> Vahl					
Capparaceae, <i>Cleome gynandra</i> L.,	H	Young Lvs/ Sh	Boiled/steamed	Fever, immune booster	
Compositae, <i>Conyza sumatrensis</i> (Retz.) E.	H	Wh	Whole plant is collected, dried and burnt. The ash is mixed with water, filtered and evaporated and the residue collected	Clotting blood on fresh wounds	Throat irritation
Solanaceae, <i>Cyphomandra betacea</i> Walker	Sh	Fr	Raw	Malaria	
Guttiferae, <i>Garcinia buchananii</i> Jacq.	T	Fr/ seeds	Fr(raw)/ seeds (collected wrapped in banana leaves and baked in hot ash and eaten like peanuts)	Flu and cough	Fr is slightly acidic
Malvaceae, <i>Hibiscus sabdariffa</i> L.	H	Lv/seeds	Boiled	Anaemia	
Lamiaceae, <i>Ocimum gratissimum</i> Forssk.	H	Lvs	Beverage	Stomachic	
Polygonaceae, <i>Oxygonum sinuatum</i> Dammer	H	Lvs	Steamed/boiled	Ulcers	
Rosaceae, <i>Rubus pinnatus</i> var. <i>afrotropicus</i> (Gaertn.) Hylander	Sh	Fr	Raw	Immune booster	
Solanaceae, <i>Solanum anguivi</i> Desf.,	H/Sh	Fr	Steamed/boiled	Antipyretic, appetite stimulant	
Solanaceae, <i>Solanum nigrum</i> L.	H	Young sh and Lvs	Steamed	Antipyretic, acidosis	
Melastomataceae,	H	Fr	Raw	Immune booster	Slightly acidic



Family and species	Habit	Part used	Method of preparation	Condition treated	Side effects
<i>Tristemma mauritianum</i> Decne. Ex Trecul Compositae,	T	Young leaves	Boiled	Malaria	
<i>Vernonia amygdalina</i> K. Schum Tricholomataceae,	H	wh	Boiled	Immune booster	
<i>Termitomyces microcarpus</i> (Berk.) Heim. Acanthaceae,	H	Lv	Steamed	Appetite stimulant	
<i>Asystasia mysorensis</i> (Roth) T. Anderson. Caesalpiniaceae,	T	Fr	Raw	Appetite stimulant	
<i>Tamarindus indica</i> L. Oxalidaceaea, <i>Averrhoa</i> <i>carambola</i> L.	T	Fr	Raw	Sore throat, immune booster	Mouth irritation
Zingiberaceae, <i>Cucurma longa</i> L.	Rh	Wh	Collected, dried, ground	Eye problems	
Annonaceae, <i>Annona muricata</i> L.	T	Fr	Raw	Skin diseases, acidosis	

Part Used: L-Leaves, Sh- Shoot, Fr- Fruit, Wh-Whole, Br- Bark, B-Bulbils, R-Roots: **Habit:** H-Herb, T-Tree, S-Shrub, Cl- Climber, Rh- Rhizome



Table 4: HIV/AIDS associated conditions that improved on consuming wild food plants (self-reported)

Conditions	Percentage
Fever	18
Body cleansing	15
Immune boosting	14
Skin diseases	8
Anorexia	6
Diarrhoea	6
Dysentery	6
Cough	6
Internal wounds	5
Abdominal upsets	4
Sore throat	4
Malaria	3
Stomach wounds	1
Influenza	1
Headache	1
Joint pains	1

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