

Additional file 1. Classification of freelisted plant species and the parts used as small ruminant feed

Family	Scientific name	Common name	Local name	Parts used as feed
Acanthaceae	<i>Dyschoriste perrottetii</i> (Nees) Kuntze	-	-	Leaves
	<i>Justicia flava</i> (Forsk.) Vahl.	Yellow justicia	Ntumunum (Twi)	Leaves
Amaranthaceae	<i>Amaranthus hybridus</i> L.	Smooth amaranth	Alayafu (Hausa)	Leaves
	<i>Amaranthus spinosus</i> L.	Prickly amaranth	Srahansoe (Twi)	Leaves
	<i>Cyathula prostrata</i> (L.) Blume	-	Mpupuaa (Twi)	Leaves
Anacardiaceae	<i>Anacardium occidentale</i> L.	Cashew	Atea (Twi)	Leaves
	<i>Mangifera indica</i> L.	Mango	Mango	Leaves, fruits, peels
	<i>Spondias mombin</i> L.	Yellow mombin	Atoa (twi)	Leaves
Annonaceae	<i>Annona senegalensis</i> Pers.	African custard-apple	Aboboma (Twi)	Leaves
	<i>Annona senegalensis</i> Pers. subsp. <i>senegalensis</i> Pers.	African custard-apple	Karga (Moshi)	Leaves
Apiaceae	<i>Daucus carota</i> L.	Carrot	-	Leaves, tubers
Apocynaceae	<i>Holarrhena floribunda</i> (G. Don) Dur. et Schinz	False rubber tree	Sese (Twi)	Leaves
Araceae	<i>Xanthosoma spp</i> (L.) Schott	Cocoyam	Mankani (Twi)	Leaves
Arecaceae	<i>Cocos nucifera</i> L.	Coconut	Kube (Twi)	Leaves
	<i>Elaeis guineensis</i> Jacq.	Oil palm	Abe (Twi)	Leaves
Asteraceae	<i>Acanthospermum hispidum</i> DC.	Bristly starbur	Srahansoe (Twi)	Leaves
	<i>Bidens pilosa</i> L.	Spanish needles	Gyinantwi (Twi)	Leaves
	<i>Chromolaena odorata</i> (L.) King and Robinson	Siam weed	Akyeampong (Twi)	Leaves
	<i>Synedrella nodiflora</i> Gaertn.	Nodeweed	Yaa Asantewa (Twi)	Leaves
	<i>Tridax procumbens</i> L.	Coat buttons	-	Leaves
	<i>Vernonia amygdalina</i> (Schreber)	Bitter leaf	Awonyono (Twi)	Leaves
Bignoniaceae	<i>Crescentia cujete</i> L.	Callabash tree	Koraa (Twi)	Leaves
Brassicaceae or Cruciferae	<i>Brassica oleracea</i> var. <i>capitata</i>	Cabbage	-	Leaves
Caesalpiniaceae	<i>Tamarindus indica</i> L.	Tamarind	Pusiga (Moshi)	Leaves
Caricaceae	<i>Carica papaya</i> L.	Pawpaw	Brofre (Twi)	Leaves, fruits, peels
Combretaceae	<i>Anogeissus leiocarpus</i> (DC.) Guill. & Perr	-	Kane (Twi)	Leaves
	<i>Terminalia catappa</i> L.	Indian almond	Abrofo nkate (Twi)	Leaves

	<i>Terminalia glaucescens</i> (Hochst.)	-	Enwo (Twi)	Leaves
Commelinaceae	<i>Commelina diffusa</i> Burm. F.	Commelina	Onyamebewunamawu (Twi)	Leaves
Convolvulaceae	<i>Ipomoea batatas</i> L.	Sweet potato	-	Leaves, tubers
Cucurbitaceae	<i>Citrullus lanatus</i> L.	-	Wrewre (Twi)	Leaves, seeds, husk
	<i>Citrullus colocynthis</i> (L.) Schrad.	Water melon	-	Leaves, fruits, peels
	<i>Cucumeropsis manii</i> Naud.	-	Akatoa (Twi); agushi	Leaves, seeds, husk
	<i>Cucurbita pepo</i> L.	Pumpkin	Efere (Twi)	Leaves
	<i>Momordica charantia</i> L.	African cucumber	Nyanya (Twi)	Leaves
Cyperaceae	<i>Cyperus rotundus</i> L.	Nut grass	Hyiamenonnum (Twi)	Leaves
Dioscoreaceae	<i>Dioscorea sp</i>	Yam	Bayere (Twi)	Leaves, tubers, peels
Ebenaceae	<i>Diospyros mespiliformis</i> (Hochst)	African ebony	Gaaka (Moshi)	Leaves
Erythroxylaceae	<i>Erythroxylum emarginatum</i> Thonn.	-	Kokoowa (Twi)	Leaves
Euphorbiaceae	<i>Bridelia micrantha</i> (Hochst) Baille.	-	Badie (Twi)	Leaves
	<i>Alchornea cordifolia</i> (Schumm. and Thonn.) Muell. Arg.	-	Gyamma (Twi)	Leaves
	<i>Euphorbia hirta</i> L.	Asthma weed	Kakaweadwe (Twi)	Leaves
	<i>Mallotus oppositifolius</i> (Muel & Arg)	-	Nyanyanforowa; Satadua (Twi)	Leaves
	<i>Manihot esculenta</i> (Crantz.)	Cassava	Bankye (Twi)	Leaves, peels, tubers
	<i>Margaritaria discoidea</i> (Baill.) G.L.Webster	-	Papea	Leaves
	<i>Phyllanthus niruri</i> L.	-	Awommaguwakyi (Twi)	Leaves
Fabaceae	<i>Arachis hypogaea</i> L.	Groundnut	Nkate (Twi)	Leaves, pods, seeds
	<i>Cajanus cajan</i> (L.) Millsp.	Pigeon pea	Akye	Leaves
	<i>Centrosema pubescens</i> Benth	Centro	Ananse ntrum noma	Leaves
	<i>Glycine max</i> (Wild)	Soya bean	-	Leaves, pods, seeds
	<i>Leucaena leucocephala</i> (Lam.) de Wit	Leucena	-	Leaves
	<i>Parkia biglobosa</i> (Jacq.) Willd.	African locust bean	Dawadawa	Leaves, fruits, seeds
	<i>Pterocarpus erinaceus</i> Poir.	-	Krayie (Twi)	Leaves
	<i>Vigna unguiculata</i> (L.) Walp	Cowpea	Waakye (Hausa)	Leaves, pods, seeds

	<i>Voandzeia subterranean</i> (<i>Vigna subterranea</i> (L.) Verdc.)	Bambara bean	-	Leaves, seeds
Lauraceae	<i>Persea americana</i> (Mill.)	Avocado	Paya (Twi)	Leaves, peels
Loranthaceae	<i>Tapinanthus bangwensis</i> (Engl. & Krause) Danser	Mistletoe	Nyankunuru (Twi)	Leaves
Malvaceae	<i>Adansonia digitata</i> (L.) Medic.	Baobab	Kuka (Hausa)	Leaves
	<i>Ceiba pentandra</i> (L.) Gaertn.	Silk cotton tree	Onyina (Twi)	Leaves
	<i>Abelmoschus esculentus</i> (L.) Moench	Okra	Nkuruma (Twi)	Leaves, fruits
	<i>Bombax buonopozense</i> Beauv.	Gold Coast bombax	Akata (Twi)	Leaves
	<i>Cola nitida</i> (Vent.) Schott and Endl.	Cola	Bese (Twi)	Leaves
	<i>Corchorus capsularis</i>	White jute		Leaves
	<i>Hibiscus cannabinus</i> L.	Kenaf		Leaves
	<i>Hibiscus sabdariffa</i> L.	Red sorrel	Suule (Hausa)	Leaves, seeds
	<i>Sida acuta</i> Burm. f.	Common wire weed	Obraneatuata (Twi)	Leaves
Marantaceae	<i>Marantochloa cuspidata</i> (Rosc.) Milne-Redhead	-	Aworomo (Twi)	Leaves
Meliaceae	<i>Azadirachta indica</i> (A. Juss)	Neem		Leaves
	<i>Khaya senegalensis</i> (Desr.) A.Juss.	African mahogany	Koga (Moshi)	Leaves
Mimosaceae	<i>Albizia ferruginea</i> (Guill. and Perr.) Benth.	-	Awimfosemina (Twi)	Leaves
Moraceae	<i>Ficus umbellata</i> Vahl.	-	Mangyedua (Twi)	Leaves
	<i>Ficus exasperata</i> Vahl.	Sandpaper tree	Nyankyeren	Leaves
	<i>Ficus spp</i>	-		Leaves
	<i>Ficus sur</i> Forssk.	-	Odoma	Leaves
	<i>Ficus sycomorus</i> L.	Small leaf Sycamore fig	Kankanga	Leaves
Moringaceae	<i>Moringa oleifera</i> Lam.	Moringa	Arizanteega (Moshi)	Leaves
Musaceae	<i>Musa paradisiaca</i> L.	Plantain	Brode (Twi)	Leaves, fingers, peels, sucker
	<i>Musa sapientum</i> L.	Banana	Kwadu (Twi)	Leaves, fruits, peels
Nyctaginaceae	<i>Boerhavia diffusa</i> L.	Hogweed	Nkwadaa bayere (Twi)	Leaves
Poaceae	<i>Andropogon gayanus</i> Kunth var. <i>Gayanus</i> Hack.	Gamba grass	Foroforo (Twi)	Leaves

	<i>Axonopus compressus</i> (Sw.) Beauv.	Broadleaf carpet grass	-	Leaves
	<i>Chloris pilosa</i> Schum.		-	Leaves
	<i>Cymbopogon citratus</i> Spreng.	Lemongrass	-	Leaves
	<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	-	Leaves
	<i>Dactyloctenium aegyptium</i> (L.) P. Beauv	Crowfoot grass	-	Leaves
	<i>Digitaria insularis</i> (Lock)	Sourgrass	Rawlings	Leaves
	<i>Eleusine indica</i> (L.) Gaertn.		-	Leaves
	<i>Imperata cylindrica</i> (Linn.) P. Beauv. var. <i>thunbergii</i> (Retz.) Dur. and Schinz.	Spear grass	Fan	Leaves
	<i>Oryza glaberrima</i>	Rice	Emo (Twi)	Leaves, paddy, straw
	<i>Panicum maximum</i> Jacq.	Guinea grass	-	Leaves
	<i>Paspalum conjugatum</i> Berg.	Green grass	Nsonwea (Twi)	Leaves
	<i>Pennisetum glaucum</i> (L.) R. Br. 1810	Millet	Ewio (Twi)	Leaves, grains, offal, mash
	<i>Pennisetum pedicellatum</i> Trin.	Kyasuma grass	-	Leaves
	<i>Pennisetum purpureum</i> Schum.	Elephant grass	Hwidie (Twi)	Leaves
	<i>Rottboellia cochinchinensis</i> (Lour.) Clayton	Itch grass	Kyenkyema (Twi)	Leaves
	<i>Saccharum officinarum</i> L.	Sugar cane	Ahwedee (Twi)	Leaves
	<i>Sorghum bicolor</i> (L.) Moench	Guinea corn	Atokoo (Twi)	Leaves, grains, mash
	<i>Sporobolus pyramidalis</i> P. Beauv	Rat's tail grass	Abirekyie abogyese (Twi)	Leaves
	<i>Zea mays</i> L.	Maize	Aburoo (Twi)	Leaves, grains, husk, cobs, straw, offal
Portulacaceae	<i>Portulaca oleracea</i> L.	Purslane	Adwere (Twi)	Leaves
	<i>Portulaca quadrifida</i> L.	Small-leaved purslane	Asaaseneabo (Twi)	Leaves
	<i>Talinum triangulare</i> (Jacq.) Willd.	waterleaf	Bokoboko (Twi)	Leaves
Rubiaceae	<i>Nuclea latifolia</i> Sm.	-	Awodi (Atakwame)	Leaves
Rutaceae	<i>Citrus limon</i> (L.) Burm.f.	Lemon	-	Leaves
	<i>Citrus sinensis</i> (L.) Osbeck	Sweet orange	Ankaa (Twi)	Leaves, peels
	<i>Zanthoxylum zanthoxyloides</i> (Lam.) Zepernick & Timler	-	Yoreyore (Konkomba); Okanto (Twi)	Leaves

Sapindaceae	<i>Blighia sapida</i> Konig	Akee apple	Akye (Twi)	Leaves
	<i>Paullinia pinnata</i> L.	-	Toantin (Twi)	Leaves
Sapotaceae	<i>Vitellaria paradoxa</i> C. F. Gaertn.	Shea butter tree	Krankun (Twi)	Leaves, nuts
Solanaceae	<i>Capsicum frutescens</i> L.	Red pepper	Mako (Twi)	Leaves
	<i>Physalis angulata</i> L.	-	Totototo (Twi)	Leaves
	<i>Solanum aethiopicum</i> L.	Garden eggs	Ntrowa (Twi)	Leaves, fruits
	<i>Lycopersicum esculentum</i> Mill.	Tomato	Ntoos (Twi)	Leaves, fruits
	<i>Solanum torvum</i> (Sw)	Turkey berry	Kwahu Nsusuaa (Twi)	Leaves
Tiliaceae	<i>Corchorus olitorius</i> L.	Tossa jute	Ayoyo	Leaves
	<i>Grewia lasiodiscus</i> (K.Schum)	-	Yologa (Moshi)	Leaves
Verbenaceae	<i>Vitex doniana</i> Sweet	Black plum	Aadaga (Moshi)	Leaves
	<i>Gmelina arborea</i> (Roxb)	-	Galama	Leaves
	<i>Tectona grandis</i> Linn F.	Teak	-	Leaves
Vitaceae (Ampelidaceae)	<i>Cissus populnea</i> Guill and Perr.	-	Asakono (Twi)	Leaves