



Appendix 1

APPENDIX 1: Casual, naturalised and invasive alien flora of Zimbabwe. Families and genera are listed alphabetically, while species are arranged alphabetically within genera.

Family/species name	Likely origin	Earliest herbarium record	Growth form	Mode of introduction	Invasion status	Distribution
Agavaceae						
<i>Agave americana</i> L.	AMC	NA	S	Fi, O	Nt	C
<i>Agave sisalana</i> Perrine	AMC	NA	S	Fi, O	Nt	C
Alismataceae						
<i>Alisma plantago-aquatica</i> L.	AMN	1956	Aq	O	Nt	C
Amaranthaceae						
<i>Achyranthes aspera</i> L. var. <i>pubescens</i> (Moq.) C.C. Towns	AF	1906	P	Ui	In	NWCES
<i>Achyranthes aspera</i> L. var. <i>sicula</i> L.	AF	1941	P	Ui	In	NWCES
<i>Alternanthera caracasana</i> Kunth.	AMN, AMS	1931	P	Ui	Nt	NWC
<i>Alternanthera nodiflora</i> R.Br.	AMS	1921	P	Ui	Nt	NWCS
<i>Alternanthera pungens</i> Kunth	AMN, AMS	1931	P	Ui	Nt	NWCES
<i>Alternanthera sessilis</i> (L.) DC.	AMS	1946	B	Ui	Nt	NWCES
<i>Amaranthus dubius</i> Mart. ex Thell.	AMN	1960	A	Ui	Cs	NCE
<i>Amaranthus hybridus</i> L. ssp. <i>cruentus</i> (L.) Thell.	AMC, AMN, AMS	1952	A	Fd	Nt	NWCES
<i>Amaranthus hybridus</i> L. ssp. <i>hybridus</i>	AMC, AMN, AMS	1918	A	Fd	Nt	WCES
<i>Amaranthus spinosus</i> L.	AMC, AMS	1931	A	Fd	In	NWCES
<i>Amaranthus viridis</i> L.	AS, EU	1942	A	Fd	In	NWCES
<i>Gomphrena celosioides</i> Mart.	AMS	1917	P	Ui	In	NWCES
<i>Gomphrena globosa</i> L.	AMS	1955	A	Ui	Cs	CE
<i>Guilleminia densa</i> (Willd.) Moq.	AMC, AMN, AMS	1959	P	Ui	In	WCES
Amaryllidaceae						
<i>Zephyranthes grandiflora</i> Lindl.	AMS	1933	P	O	Cs	CE
Anacardiaceae						
<i>Mangifera indica</i> L.	AS	1959	T	Fd	Cs	CE
Apiaceae						
<i>Apium leptophyllum</i> (Pers.) Benth.	AMC	1923	A	Ui	Nt	WCE
<i>Conium maculatum</i> L.	EU	1974	B	Fd	Cs	C
<i>Foeniculum vulgare</i> Mill.	EU	1958	P	Fd	Cs	WC
Apocynaceae						
<i>Catharanthus roseus</i> (L.) G. Don.	AF (Madagascar)	1932	Ss	O	Cs	CES
Araceae						
<i>Colocasia esculenta</i> (L.) Schott.	AS	1962	P	Fd	Nt	NE
<i>Pistia stratiotes</i> L.	AMS	1948	Aq	O	In	NWS
Aristolochiaceae						
<i>Aristolochia littoralis</i> Parodi	AMS	1968	C	O	Cs	WC
Asclepiadaceae						
<i>Asclepias curassavica</i> L.	AMS	1965	Ss	O	Cs	NWCE
<i>Calotropis procera</i> (Aiton) W.T. Aiton	AF, AS	1951	S	O	Nt	NES
<i>Gomphocarpus physocarpus</i> E.Mey.	AF	1942	P	O	Nt	CES
Asteraceae						
<i>Acanthospermum australe</i> (Loefl.) Kuntze	AMC, AMS	1931	A	Ui	In	NCE
<i>Acanthospermum glabratum</i> (DC.) Wild	AMS	1951	A	Ui	Nt	NCE
<i>Acanthospermum hispidum</i> DC.	AMS	1917	A	Ui	In	NWCES
<i>Achillea millefolium</i> L.	AMN, AS, EU	1942	P	Md	Cs	CE
<i>Ageratina adenophora</i> (Spreng.) R.M.King & H.Rob.	AMC, AMN	1945	P	O	In	CE
<i>Ageratum conyzoides</i> L.	AMC, AMS	1943	A	O	In	NWCES
<i>Ageratum houstonianum</i> Mill	AMC, AMN	1955	A	O	Nt	CE
<i>Ambrosia maritima</i> L.	EU	1946	A	NA	Nt	WE
<i>Aster squamatus</i> (Spreng.) Hieron.	AMS	1958	A	NA	Cs	WC
<i>Bidens bipinnata</i> L.	AS, EU	1969	A	Ui	In	WCE
<i>Bidens biternata</i> (Lour.) Merr. & Sherff	AMS	1920	A	Ui	Nt	NWCES

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Growth forms: A, Annual herb; Aq, Aquatic; B, Biennial herb; C, Climber; F, Fern; P, Perennial herb; S, Shrub; Ss, Subshrub; T, Tree.

Mode of introduction: Cr, Crop; Fi, Fibre; Fd, Food; Fr, Fodder; Gr, Green manure; Md, Medicinal; O, Ornamental; Ti, Timber; Ui, Unintentional.

Invasion status: Cs, Casual alien; Nt, Naturalised alien; In, Invasive alien.

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<i>Bidens pilosa</i> L.	AMS	1906	A	Ui	In	NWCES
<i>Bidens sulphurea</i> (Cav.) Sch. Bip.	AMN	1932	A	O	Cs	NCE
<i>Centaurea melitensis</i> L.	AS, EU	1953	A	O	Nt	CE
<i>Centratherum punctatum</i> Cass. ssp. <i>punctatum</i>	AMS, AS	1958	A	O	Nt	CE
<i>Chromolaena odorata</i> (L.) R.M. King & H. Rob.	AMC, AMN, AMS	1967	S	O	Cs	NE
<i>Cichorium intybus</i> L.	EU	1944	P	Fd, Md, O	Cs	CE
<i>Conyza bonariensis</i> (L.) Cronquist	AMS	1932	A	Ui	In	NWCES
<i>Conyza canadensis</i> (L.) Cronquist	AMN	1903	B	Ui	In	NWCES
<i>Conyza sumatrensis</i> (Retz.) E. Walker	AMS	1925	A	Ui	In	NWCES
<i>Coreopsis lanceolata</i> L.	AMN, AMS	1975	P	O	In	CS
<i>Cosmos bipinnatus</i> Cav.	AMC	1931	A	O	Nt	WCE
<i>Dahlia pinnata</i> Cav.	AMC, AMN, AMS	1970	P	O	Cs	C
<i>Eclipta prostrata</i> (L.) L.	AS, EU	1954	A	Ui	In	NWCES
<i>Erigeron karvinskianus</i> DC.	AMS	1967	P	O	In	NCE
<i>Euryops chrysanthemoides</i> (DC.) B. Nord.	AF	1942	S	O	Nt	C
<i>Flaveria bidentis</i> (L.) Kuntze	AMS	1949	A	Ui	Nt	S
<i>Flaveria trinervia</i> (Spreng.) C. Mohr	AMS	1931	A	Ui	In	NWCES
<i>Galinsoga parviflora</i> Cav.	AMS	1926	A	Ui	In	NWCES
<i>Galinsoga quadriradiata</i> Ruiz & Pav.	AMS	1934	A	Ui	Nt	CE
<i>Gnaphalium purpureum</i> L.	AMN	1950	B	Ui	In	NCES
<i>Hypochaeris radicata</i> L.	EU	1952	P	Ui	Nt	E
<i>Lactuca serriola</i> L.	EU	1977	B	Ui	Nt	WCS
<i>Leontodon taraxacoides</i> (Vill.) Merat	EU	1951	A	Ui	Cs	E
<i>Montanoa hibiscifolia</i> Benth.	AMC, AMN	1946	S	O	Nt	CE
<i>Parthenium hysterophorus</i> L.	AMC, AMS	1982	A	Ui	In	WCE
<i>Pseudognaphalium luteo-album</i> (L.) Hilliard & B.L. Burt	EU	1928	A	Ui	In	NWCES
<i>Santolina chamaecyparissus</i> L.	EU	1955	S	O	Cs	E
<i>Schkuhria pinnata</i> (Lam.) Thell.	AMS	1918	A	Ui	In	NWCES
<i>Senecio vulgaris</i> L.	EU	1970	A	Ui	Nt	C
<i>Sonchus asper</i> (L.) Hill ssp. <i>asper</i>	EU	1959	A	Ui	Cs	NCES
<i>Sonchus oleraceus</i> L.	EU	1917	A	Ui	In	NWCES
<i>Sphagneticola trilobata</i> (L.) Pruski	AMN, AMS	1961	P	Ui	Nt	CE
<i>Tagetes minuta</i> L.	AMS	1917	A	Ui	In	NWCES
<i>Tagetes patula</i> L.	AMS	1969	A	O	Nt	NE
<i>Taraxacum officinale</i> Weber	EU	1943	P	Ui	Nt	WCE
<i>Tithonia diversifolia</i> (Hemsl.) A. Gray	AMC, AMS	1944	A	O	Nt	CE
<i>Tithonia rotundifolia</i> (Mill.) S.F. Blake	AMC	1944	A	O	In	NWCE
<i>Tridax procumbens</i> L.	AMC, AMN	1948	A	Ui	Nt	NWCE
<i>Verbesina encelioides</i> (Cav.) A. Gray	AF, AMS	1959	A	Ui	Nt	CS
<i>Xanthium spinosum</i> L.	AMS	1906	A	Ui	In	WC
<i>Xanthium strumarium</i> L.	AMC, AMS	1942	A	Ui	In	NWCS
<i>Zinnia peruviana</i> (L.) L.	AMS	1943	A	Ui	Nt	WC
Azollaceae						
<i>Azolla filiculoides</i> Lam	AMS	1983	Aq	O	In	NCE
Bignoniaceae						
<i>Jacaranda mimosifolia</i> D. Don	AMS	1970	T	O	In	CES
<i>Spathodea campanulata</i> P. Beauv.	AF	1977	T	O	Cs	E
<i>Tecoma stans</i> (L.) Humb., Bonpl. & Kunth	AMS	1981	T	O	Cs	C
Boraginaceae						
<i>Amsinckia micrantha</i> Suksd.	AMS	1980	A	NA	Cs	C
<i>Echium plantagineum</i> L.	AS, EU	1918	B	O	Nt	WCE
<i>Heliotropium amplexicaule</i> Vahl.	AMS	1942	A	Ui	Cs	WS
<i>Heliotropium indicum</i> L.	AS	1953	A	Ui	Nt	NCES
Brassicaceae						
<i>Brassica juncea</i> (L.) Czern. & Coss.	AS	1912	A	Fd	Cs	NWCE

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<i>Brassica rapa</i> L.	AS, EU	1906	A	Fd	Cs	NE
<i>Capsella bursa-pastoris</i> (L.) Medik.	EU	1942	B	Fd	Nt	NWCE
<i>Cardamine flexuosa</i> With.	EU	1944	B	Fd	Nt	NCE
<i>Cardamine hirsuta</i> L.	EU	1952	A	Ui	Cs	NC
<i>Coronopus didymus</i> (L.) Sm.	AMS	1953	B	Fd	Nt	WCE
<i>Eruca vesicaria</i> (L.) Cav. ssp. <i>sativa</i> (Mill.) Thell.	EU	1956	A	Fd	Cs	CE
<i>Erucastrum arabicum</i> Fisch. & C.A. Mey. var. <i>arabicum</i>	AF, AS	1965	A	Ui	Cs	W
<i>Lepidium bonariense</i> L.	AMS	1953	A	Fd	Cs	WCES
<i>Raphanus raphanistrum</i> L.	EU	1919	A	Fd	Cs	CE
<i>Raphanus sativus</i> L.	EU	1918	B	Fd	Cs	CE
<i>Rapistrum rugosum</i> (L.) All.	AF, AS, EU	1958	A	Ui	Nt	C
<i>Rorippa nasturtium-aquaticum</i> (L.) Hayek	AS, EU	1934	Aq	Ui	Nt	NWCE
<i>Sinapis arvensis</i> L.	EU	1915	A	Ui	Nt	CE
<i>Sisymbrium orientale</i> L.	AS, EU	1956	A	Ui	Nt	WCE
Cactaceae						
<i>Opuntia ficus-indica</i> (L.) Mill.	AMC	1959	S	Fd, O	In	CS
<i>Opuntia fulgida</i> Engelm.	AMC	1973	S	O	Nt	S
<i>Pereskia aculeata</i> Mill.	AMS	1942	C	O	Cs	CE
Cannabaceae						
<i>Cannabis sativa</i> L.	AS	1912	A	Ui	Cs	WC
Cannaceae						
<i>Canna indica</i> L.	AMC, AMS	1929	P	O	Nt	CES
Caprifoliaceae						
<i>Sambucus canadensis</i> L.	AMN	1965	S	O	Cs	WC
Caryophyllaceae						
<i>Cerastium glomeratum</i> Thuill.	AS, EU	1955	A	Ui	Cs	CE
<i>Polycarpon tetraphyllum</i> (L.) L.	AS, EU	1962	A	Ui	Cs	E
<i>Sagina apetala</i> Ard.	EU	1959	A	Ui	Cs	CE
<i>Silene armeria</i> L.	EU	1957	A	O	Cs	E
<i>Silene gallica</i> L.	EU	1910	A	Ui	Cs	CE
<i>Spergula arvensis</i> L.	EU	1944	A	Ui	Cs	CE
<i>Stellaria media</i> (L.) Vill.	EU	1919	A	Ui	Nt	NWCE
Chenopodiaceae						
<i>Chenopodium album</i> L.	EU	1922	A	Fd	In	WCES
<i>Chenopodium ambrasioides</i> L.	AMS	1934	A	Ui	In	NWCES
<i>Chenopodium carinatum</i> R.Br.	AU	1939	A	Ui	Nt	CS
<i>Chenopodium giganteum</i> D.Don	AS	1936	A	Ui	Cs	CE
<i>Chenopodium hederiforme</i> (Murray) Aellen	EU	1956	A	Ui	Cs	S
<i>Chenopodium murale</i> L.	EU	1931	P	Ui	Nt	WCS
<i>Chenopodium opulifolium</i> Koch & Ziz.	EU	1931	P	Ui	Nt	WE
<i>Dysphania schraderiana</i> (Schult.) Mosyakin & Clemants	EU	1957	A	Ui	Nt	NWCES
Convolvulaceae						
<i>Cuscuta campestris</i> Yunck.	AMN	1948	C	Ui	In	NWCE
<i>Cuscuta suaveolens</i> Ser.	AMS	1936	C	Ui	Nt	CE
<i>Dichondra micrantha</i> Urb.	AU	1945	P	Ui	In	WCES
<i>Ipomoea alba</i> L.	AMS	1947	C	Ui	Nt	E
<i>Ipomoea batatas</i> (L.) Lam.	AMS	1918	P	Fd	Cs	C
<i>Ipomoea carnea</i> Jacq. ssp. <i>fistulosa</i> (Mart. ex Choisy) D.F. Austin	AMS	1947	S	O	Nt	CE
<i>Ipomoea hederifolia</i> L.	AMS	1978	C	O	Cs	NWCES
<i>Ipomoea indica</i> (Burm.) Merr. var. <i>acuminata</i> (Vahl) Fosberg	AMS	1959	C	O	Nt	NE
<i>Ipomoea nil</i> (L.) Roth	AMS	1907	C	Ui	Cs	NCE
<i>Ipomoea purpurea</i> (L.) Roth	AMS	1917	C	O	In	NWC
<i>Ipomoea tricolor</i> Cav.	AMS	1976	C	O	Nt	W
<i>Ipomoea turbinata</i> Lag.	AMS	1952	A	Ui	Cs	NW
<i>Mina lobata</i> Llav. & Lex.	AMS	1919	C	Ui	Cs	E

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Crassulaceae						
<i>Bryophyllum pinnatum</i> (Lam.) Oken	AF (Madagascar)	1938	P	O	Nt	CE
<i>Bryophyllum proliferum</i> Bowie ex Hook.	AF (Madagascar)	1931	P	O	Cs	C
<i>Bryophyllum tubiflorum</i> Harv.	AF (Madagascar)	1947	P	O	Nt	NWC
Cucurbitaceae						
<i>Cucumis anguria</i> L. var. <i>anguria</i>	AF	1932	A	Fd	Nt	NWCES
<i>Cucumis melo</i> L.	AS	1953	A	Fd	Cs	NWCES
Cupressaceae						
<i>Callitris calcarata</i> F.Muell.	AS	1908	T	O, Ti	Nt	E
<i>Cupressus lusitanica</i> Mill.	AS	1900	T	O, Ti	In	E
<i>Cupressus torulosa</i> D.Don	AS	1895	T	O, Ti	Cs	E
Dennstaedtiaceae						
<i>Microlepia strigosa</i> (Thunb.) C.Presl	AMS	1951	F	O	Cs	E
Euphorbiaceae						
<i>Acalypha amentacea</i> Roxb. Ssp. <i>wilkesiana</i> (Müll. Arg.) Fosberg	AS	1974	S	O	Cs	C
<i>Euphorbia cyathophora</i> Murray	AMN	1924	P	O	In	NWCES
<i>Euphorbia heterophylla</i> L.	AMC, AMN	1956	A	Ui	In	NWCES
<i>Euphorbia hirta</i> L.	AMC	1917	A	Ui	In	NWCES
<i>Euphorbia indica</i> Lam.	AS	1948	A	Ui	In	NCE
<i>Euphorbia peplus</i> L.	AS, EU	1953	A	Ui	Nt	WC
<i>Euphorbia prostrata</i> Aiton	AMC, AMS	1931	A	Ui	In	NWCES
<i>Euphorbia serpens</i> Kunth	AMS	1922	A	Ui	In	NWCS
<i>Euphorbia tirucalli</i> L.	AF	1931	S	O	In	NWCES
<i>Homalanthus populifolius</i> Graham	AU	1954	T	O	Nt	CE
<i>Jatropha curcas</i> L.	AMS	1933	S	O	Nt	NCE
<i>Jatropha gossypifolia</i> L. var. <i>elegans</i> (Pohl) Müll.-Arg.	AMN	1955	S	O	Nt	NWE
<i>Phyllanthus fraternus</i> G.L. Webster	AS	1964	A	Ui	Nt	NWCES
<i>Ricinus communis</i> L.	AF	1944	Ss	O	In	NWCES
Fabaceae: Caesalpinioideae						
<i>Bauhinia variegata</i> L. var. <i>candida</i> Voigt	AS, AU	1949	T	O	Nt	WCE
<i>Caesalpinia decapetala</i> (Roth) Alston	AS	1925	C	O	Nt	WCES
<i>Centrosema pubescens</i> Benth.	AMS	1912	C	Ui	Cs	E
<i>Chamaecrista rotundifolia</i> (Pers.) Greene	AMS	1955	P	Ui	Nt	NC
<i>Parkinsonia aculeata</i> L.	AMS	1950	T	O	Nt	W
<i>Schizolobium parahyba</i> (Vell.) Blake	AMS	1965	T	O	Cs	C
<i>Senna bicapsularis</i> (L.) Roxb.	AMS	1959	S	O	Nt	NCES
<i>Senna didymobotrya</i> (Fresen.) Irwin & Barneby	AF	1921	S	O	In	NWCES
<i>Senna hirsuta</i> (L.) Irwin & Barneby	AMS	1962	S	O	Cs	E
<i>Senna obtusifolia</i> (L.) Irwin & Barneby	AMS	1932	S	O	Nt	NWCES
<i>Senna occidentalis</i> (L.) Link	AMS	1912	P	O	In	NWCES
<i>Senna septemtrionalis</i> (Viv.) Irwin & Barneby	AMC	1906	S	O	Nt	WCES
<i>Senna siamea</i> (Lam.) Irwin & Barneby	AS	1971	S	O	Cs	W
Fabaceae: Mimosoideae						
<i>Acacia baileyana</i> F. Muell.	AU	1941	T	O	Cs	E
<i>Acacia dealbata</i> Link	AU	1902	T	O	Nt	E
<i>Acacia elata</i> Benth.	AU	1944	T	O	Nt	E
<i>Acacia decurrens</i> Willd.	AU	1903	T	O	Nt	E
<i>Acacia longifolia</i> (Andr.) Willd.	AU	1932	T	O, Ti	Cs	CE
<i>Acacia mearnsii</i> De Willd.	AU	1931	T	O, Ti	In	CE
<i>Acacia melanoxylon</i> R. Br.	AU	1903	T	O, Ti	In	CE
<i>Acacia podalyriifolia</i> G. Don.	AU	1971	T	O	Nt	E
<i>Albizia procera</i> (Roxb.) Benth.	AS	1929	T	O	Cs	E
<i>Leucaena leucocephala</i> (Lam.) Dewit	AMN	1949	S	Fr	Cs	NWCE
<i>Mimosa pudica</i> L.	AMC, AMS	1963	P	Ui	Nt	C

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Family/species name	Likely origin	Earliest herbarium record	Growth form	Mode of introduction	Invasion status	Distribution
Fabaceae: Papilionoideae						
<i>Arachis hypogaea</i> L.	AMS	1952	A	Fd	Cs	NWCES
<i>Cajanus cajan</i> (L.) Millsp.	AS	1959	C	Fd	Cs	CE
<i>Crotalaria distans</i> Benth. ssp. <i>macrotropis</i> (Baker f.) Polhill	AF	1920	A	Gr	Cs	WC
<i>Crotalaria juncea</i> L.	AS	1945	A	Fi	Nt	NWCE
<i>Crotalaria pallida</i> Aiton var. <i>pallida</i>	AF, AS	1936	A	Gr	Nt	NWCES
<i>Dalbergia sissoo</i> Roxb.	AS	1910	T	O	Nt	NWC
<i>Desmodium tortuosum</i> (Sw.) DC.	AMS	1919	Ss	Gr	Nt	NCE
<i>Desmodium triflorum</i> (L.) DC.	AMS	1935	P	Ui	Nt	C
<i>Desmodium uncinatum</i> (Jacq.) DC.	AMS	1967	A	Ui	Nt	NC
<i>Indigofera microcarpa</i> Desv.	AMS	1930	P	Ui	Nt	NES
<i>Lupinus mexicanus</i> Cerv.	AMC	1963	A	Ui	Nt	C
<i>Macroptilium atropurpureum</i> (Moç. & Sessé ex DC.) Urb.	AMS	1961	P	Fr	Nt	NCE
<i>Medicago orbicularis</i> (L.) Bartal.	AF, EU	1951	A	Fr	Cs	C
<i>Medicago polymorpha</i> L. var. <i>brevispica</i> (Benth.) Heyn	AS, EU	1945	A	Fr	Cs	NC
<i>Medicago polymorpha</i> L. var. <i>polymorpha</i>	AS, EU	1957	A	Fr	Cs	W
<i>Melilotus albus</i> Medik.	AS, EU	1931	B	Fr	Nt	NWCE
<i>Melilotus indicus</i> (L.) All.	AS, EU	1926	A	Fr	Cs	NWCE
<i>Sesbania punicea</i> (Cav.) Benth.	AMS	1978	S	Fr	Nt	NWCES
<i>Tephrosia vogelii</i> Hook. f.	AF	1919	S	Ui	Nt	CE
<i>Tipuana tipu</i> (Benth.) Kuntze	AMS	1967	T	O	Cs	C
<i>Trifolium campestre</i> Schreb.	EU	1959	A	Ui	Cs	NC
<i>Trifolium dubium</i> Sibth	EU	1970	B	Ui	Nt	E
<i>Trifolium repens</i> L.	AF, AS, EU	1968	P	Ui	Nt	WCE
<i>Vicia sativa</i> L. var. <i>angustifolia</i> L.	AF, AS, EU	1926	C	Fr	Nt	NCE
<i>Vicia villosa</i> Roth. ssp. <i>villosa</i>	EU	1976	C	Ui	Cs	CE
Fumariaceae						
<i>Fumaria muralis</i> Sond. ex W.D.J. Koch	EU	1956	A	O	Nt	CS
Haloragaceae						
<i>Myriophyllum aquaticum</i> (Vell.) Verdc.	AMS	1971	Aq	O	In	NWCES
<i>Myriophyllum spicatum</i> L.	AS, EU	1949	Aq	O	Cs	NWCES
Hydrocharitaceae						
<i>Egeria densa</i> Planch.	AMS	1950	Aq	O	Cs	N
Hydrophyllaceae						
<i>Wigandia urens</i> (Ruiz & Pavon) Kunth var. <i>caracasana</i> (Kunth) D.N. Gibson	AMN	1965	S	O	Cs	NC
Liliaceae						
<i>Lilium formosanum</i> (Bak.) Wallace	AS	1948	P	O	Nt	CE
Lamiaceae						
<i>Hyptis pectinata</i> (L.) Poit.	AMC	1963	A	Ui	Nt	NCES
<i>Hyptis spicigera</i> Lam.	AMS	1955	A	Ui	Cs	E
<i>Hyptis suaveolens</i> (L.) Poit.	AMC	1945	A	Ui	Cs	NE
<i>Plectranthus comosus</i> Andrews	AS	1966	S	O	Nt	C
<i>Salvia coccinea</i> Juss. ex Murr.	AMC	1917	Ss	O	Nt	NWCE
<i>Salvia nilotica</i> Juss. ex Jacq.	AF	1917	P	Ui	Cs	CE
<i>Salvia reflexa</i> Hornem.	AMN	1955	A	Ui	Cs	WE
Linaceae						
<i>Linum usitatissimum</i> L.	AF, AS, EU	1949	P	Ui	Cs	N
Loganiaceae						
<i>Buddleja davidii</i> Franch.	AS	1949	S	O	Cs	C
Malvaceae						
<i>Abelmoschus esculentus</i> (L.) Moench	AS	1933	A	Fd, Fi	Cs	NWE
<i>Gossypium hirsutum</i> L.	AMC	1927	A	Fi	Cs	NC
<i>Malva neglecta</i> Wallr.	AF, AS	1959	B	Ui	Cs	E
<i>Malva parviflora</i> L. var. <i>parviflora</i>	AS, EU	1921	P	Ui	Cs	WC
<i>Malva sylvestris</i> L.	EU	1955	P	Ui	Cs	WC
<i>Malva verticillata</i> L.	AS	1940	B	Ui	Cs	CE
<i>Malvastrum coromandelianum</i> (L.) Garcke	AMN	1945	P	Ui	In	WCE
<i>Sida cordifolia</i> L. ssp. <i>maculata</i> (Cav.) Marais	AF	1904	Ss	Fi	In	NWCES

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Meliaceae						
<i>Melia azedarach</i> L.	AS, AU	1903	T	O, Ti	In	NWCES
<i>Toona ciliata</i> M.J. Roem.	AS, AU	1903	T	O, Ti	In	NWCES
Moraceae						
<i>Morus australis</i> Poir	AS	1947	T	Fd, O	Nt	C
Moringaceae						
<i>Moringa oleifera</i> Lam.	AS	1949	T	Fd	Cs	N
Myrtaceae						
<i>Callistemon viminalis</i> (Salisb. ex Gaertn.) Don ex Loudon	AU	1956	S	O	Nt	C
<i>Eucalyptus camaldulensis</i> Dehnh.	AU	1897	T	Ti	Nt	NCE
<i>Eucalyptus citriodora</i> Hook.	AU	1904	T	Ti	Nt	E
<i>Eucalyptus globulus</i> Labill.	AU	1971	T	Ti	In	E
<i>Eucalyptus grandis</i> Maiden	AU	1945	T	Ti	Nt	CE
<i>Eucalyptus robusta</i> Sm.	AU	1969	T	Ti	Nt	E
<i>Eucalyptus tereticornis</i> Sm.	AU	1908	T	Ti	Nt	CE
<i>Psidium cattleianum</i> Sabine	AMS	1961	T	Fd, O	Cs	CE
<i>Psidium guajava</i> L.	AMS	1945	T	Fd, O	In	NWCES
<i>Syzygium cumini</i> (L.) Skeels	AS	1962	T	Fd	Cs	NE
<i>Syzygium jambos</i> (L.) Alston	AS	1962	T	Fd	Nt	CE
Nyctaginaceae						
<i>Boerhavia coccinea</i> Mill.	AMN	1933	P	Ui	Cs	NWES
<i>Boerhavia diffusa</i> L.	AS, AU	1906	P	Ui	Nt	NWCES
<i>Boerhavia erecta</i> L.	AMC, AMN, AMS	1977	P	Ui	Nt	WE
<i>Dolichandra unguis-cati</i> (L.) L.G.Lohmann	AMC, AMS	1958	C	O	Nt	E
<i>Mirabilis jalapa</i> L.	AMS	1933	P	Ui	Nt	WCES
Oleaceae						
<i>Ligustrum lucidum</i> Aiton	AS	1933	T	O	Nt	CE
<i>Ligustrum</i> sp.	AS	1962	T	O	Nt	C
Onagraceae						
<i>Oenothera indecora</i> Cambess.	AMS	1953	B	O	Nt	NCE
<i>Oenothera laciniata</i> Hill	AMN, AMS	1935	A	O	Cs	E
<i>Oenothera rosea</i> L'Hér. ex Aiton	AMC, AMS	1919	P	O	In	NWCE
<i>Oenothera stricta</i> Ledeb. ex Link	AMS	1919	P	O	Nt	NCE
<i>Oenothera tetraptera</i> Cav.	AMN, AMS	1949	P	O	Nt	CE
Oxalidaceae						
<i>Oxalis corniculata</i>	AS, EU	1972	A	Ui	Nt	NWCES
<i>Oxalis latifolia</i> Kunth	AMS	1937	P	Ui	In	NWCES
Papaveraceae						
<i>Argemone mexicana</i> L.	AMC	1914	A	Ui	In	NWCES
Passifloraceae						
<i>Passiflora edulis</i> Sims	AMS	1944	C	Fd	In	CES
<i>Passiflora ligularis</i> Juss.	AMC, AMS	1948	C	Ui	Cs	E
<i>Passiflora mollissima</i> (Kunth) L. H. Bailey	AMS	1920	C	Fd	Nt	CE
<i>Passiflora subpeltata</i> Ortega	AMC, AMS	1971	C	O	Nt	C
Phytolaccaceae						
<i>Phytolacca octandra</i> L.	AMS	1956	S	O	Nt	CE
<i>Rivina humilis</i> L.	AMC, AMS	1962	S	O	Nt	NE
Pinaceae						
<i>Pinus elliottii</i> Englem	AMN	1920	T	O, Ti	Cs	CE
<i>Pinus patula</i> Schltd. & Cham.	AMC	1920	T	O, Ti	In	CE
<i>Pinus roxburghii</i> Sarg.	AMC	1902	T	O, Ti	In	CE
Plantaginaceae						
<i>Plantago lanceolata</i> L.	EU	1921	P	Ui	Nt	CE
<i>Plantago major</i> L.	AS, EU	1942	P	Ui	Nt	WCE
<i>Plantago palmata</i> Hook. F.	EU	1975	P	Ui	Cs	E
Poaceae						
<i>Arundo donax</i> L.	AS, EU	1958	P	O	In	CS
<i>Avena fatua</i> L.	AS, EU	1958	A	Fr	Cs	CES
<i>Avena sativa</i> L.	EU	1941	A	Fd	Cs	C

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<i>Avena sterilis</i> L. ssp. <i>Ludoviciana</i> (Durieu) Gillet & Magne	EU	1959	A	Fr	Cs	CS
<i>Axonopus affinis</i> Chase	AMS	1943	P	O	Nt	E
<i>Axonopus compressus</i> (Sw.) P. Beauv.	AMS	1942	P	O	Nt	S
<i>Bambusa vulgaris</i> J.C. Wendl.	AS	1961	P	O	Cs	C
<i>Brachiaria ramosa</i> (L.) Stapf	EU	1939	A	Fr	Cs	NWCES
<i>Brachiaria umbellata</i> (Trin.) Clayton	EU	1961	P	O	Cs	E
<i>Briza maxima</i> L.	EU	1925	A	Ui	Nt	WE
<i>Briza minor</i> L.	EU	1931	A	Ui	Nt	CE
<i>Bromus catharticus</i> Vahl	AMS	1922	A	Fr	Nt	NWCE
<i>Bromus diandrus</i> Roth	AMS	1977	A	O	Cs	C
<i>Bromus hordeaceus</i> L. ssp. <i>ferronii</i> (Mabille) P.M. Sm.	EU	1961	A	Fr	Cs	C
<i>Bromus leptocladus</i> Nees	AMS	1967	A	Fr	Cs	C
<i>Cynodon aethiopicus</i> Clayton & Harlan	AF	1931	P	Fr	Cs	NCE
<i>Cynodon nlemfuensis</i> Vanderyst var. <i>nlemfuensis</i>	AF	1917	P	Fr	Cs	NWCES
<i>Cynodon nlemfuensis</i> Vanderyst var. <i>robustus</i> Clayton & Harlan	AF	1955	P	Fr	Cs	CE
<i>Dactylis glomerata</i> L.	AS, EU	1965	P	Fr	Cs	CE
<i>Dichanthium aristatum</i> (Poir.) C.E. Hubb.	AS	1920	P	Fr	Cs	C
<i>Echinochloa crus-galli</i> Beauv.	AS	1970	Aq	Ui	Cs	CS
<i>Echinochloa frumentacea</i> Link	AS	1944	A	O	Cs	W
<i>Eragrostis tef</i> (Zuccagni) Trotter	AF	1912	A	Fd	Cs	NWCE
<i>Harpachne schimperii</i> Hochst. ex A. Rich.	AF	1991	P	Ui	Nt	C
<i>Holcus lanatus</i> L.	AS, EU	1950	P	Ui	Cs	E
<i>Lolium multiflorum</i> Lam.	EU	1948	A	Fr	Cs	CE
<i>Lolium multiflorum</i> Lam. X <i>Lolium perenne</i> L.	EU	1967	A	Fr	Cs	C
<i>Lolium perenne</i> L.	AS, EU	1957	P	Fr	Cs	CE
<i>Lolium temulentum</i> L.	EU	1921	A	Fr	Cs	WCE
<i>Oryza sativa</i> L.	AS	1966	A	Fd	Cs	C
<i>Panicum trichoides</i> Sw.	AS	1972	A	Fr	Cs	N
<i>Paspalum dilatatum</i> Poir.	AMS	1919	P	Fr	Cs	CES
<i>Paspalum distichum</i> L.	AMS	1960	P	Fr	Cs	NWC
<i>Paspalum notatum</i> Flügge	AMS	1965	P	Fr	Nt	CES
<i>Paspalum urvillei</i> Steud.	AMS	1919	P	Ui	Nt	NCE
<i>Pennisetum clandestinum</i> Chiov.	AF	1921	P	O	Nt	E
<i>Pennisetum glaucum</i> (L.) R.Br.	AF	1920	P	Fd	Cs	C
<i>Pennisetum setaceum</i> (Forssk.) Chiov.	AF	1960	P	O	Nt	WCE
<i>Phalaris arundinacea</i> L.	AMN, EU	1955	P	Fr	Cs	C
<i>Phalaris minor</i> Retz.	EU	1925	A	Ui	Cs	NWCES
<i>Poa annua</i> L.	EU	1934	A	Ui	Nt	NWCE
<i>Polypogon monspeliensis</i> (L.) Desf.	EU	1968	A	Fr	Cs	S
<i>Polypogon viridis</i> (Gouan) Breistr.	EU	1948	P	Fr	Cs	E
<i>Sacciolepis interrupta</i> (Willd.) Stapf	AS	1969	Aq	Ui	Cs	NWC
<i>Setaria italica</i> (L.) Beauv.	AS	1912	A	Fd	Cs	NWCS
<i>Sorghum bicolor</i> (L.) Moench ssp. <i>drummondii</i> (Steud.) deWet	AF	1920	P	Fd	Cs	NWCS
<i>Sorghum halepense</i> (L.) Pers.	EU	1952	A	Fd	Cs	NWCES
<i>Urochloa mutica</i> (Forssk.) T.Q. Nguyen	AMS	1957	P	Ui	Cs	CS
Polemoniaceae						
<i>Cobaea scandens</i> Cav.	AMN	1957	C	Ui	Nt	CE
Polygonaceae						
<i>Emex australis</i> Steinh.	AF	1922	A	Ui	Cs	CE
<i>Fagopyrum esculentum</i> Moench	AS	1919	A	Ui	Cs	NCES
<i>Persicaria capitata</i> (Buch.-Ham. ex D.Don.) H. Gross	AS	1959	P	O	In	E
<i>Persicaria lappathifolia</i> (L.) Gray	EU	1976	Aq	Ui	In	NWCES
<i>Polygonum aviculare</i> L.	EU	1919	P	Ui	Nt	WCE
<i>Rumex acetosella</i> L. ssp. <i>angiocarpus</i> (Murb.) Murb.	AS, EU	1935	P	Ui	Nt	E
<i>Rumex crispus</i> L.	EU	1931	P	Ui	Nt	WCE
<i>Rumex pulcher</i> L. ssp. <i>pulcher</i>	EU	1973	P	Ui	Nt	C

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Polyodiaceae						
<i>Microsorium scandens</i> (G. Forst.) Tindale	AU	1954	P	O	Cs	E
Pontederiaceae						
<i>Eichhornia crassipes</i> (Mart.) Solms	AMS	1944	Aq	O	In	NWCS
<i>Pontederia cordata</i> L. var. <i>lanceolata</i> (Nutt.) Griseb.	AMC, AMN, AMS	1975	Aq	O	Nt	WCES
Portulacaceae						
<i>Portulaca oleracea</i> L.	EU	1975	A	Fd	Nt	NWCES
Primulaceae						
<i>Anagallis arvensis</i> L. ssp. <i>arvensis</i>	AS, EU	1953	A	Ui	Cs	CE
<i>Primula malacoides</i> Franch.	AS	1972	A	O	Nt	CE
Proteaceae						
<i>Grevillea robusta</i> A.Cunn. ex R.Br.	AU	1976	T	O, Ti	In	E
Pteridaceae						
<i>Adiantum raddianum</i> C. Presl.	AMS	1905	P	O	Nt	E
Punicaceae						
<i>Punica granatum</i> L.	AS	1931	S	O	Cs	WCE
Ranunculaceae						
<i>Ranunculus sceleratus</i> L.	AMN, AS, EU	1965	A	Ui	Cs	WC
Resedaceae						
<i>Reseda odorata</i> L.	AF, EU	1957	A	O	Cs	WS
Rhamnaceae						
<i>Ziziphus mauritiana</i> Lam.	AF, AS	1950	T	Fd	Nt	NC
Rosaceae						
<i>Cotoneaster pannosus</i> Franch.	AS	1965	S	O	Nt	C
<i>Prunus cerasoides</i> D. Don	AS	1950	T	O	In	E
<i>Prunus serotina</i> Ehrh. var. <i>salicifolia</i> (Kunth.) Koene	AMC, AMN, AMS	1944	T	O	Cs	CE
<i>Rubus niveus</i> Thunb.	AS	1961	C	Ui	In	NCE
Rubiaceae						
<i>Coffea arabica</i> L.	AF	1947	S	Fd	Nt	E
<i>Richardia brasiliensis</i> Gomes	AMS	1919	P	Ui	In	CES
<i>Richardia scabra</i> L.	AMS	1944	A	Ui	In	NCE
<i>Sherardia arvensis</i> L.	EU	1964	A	Ui	Cs	N
Rutaceae						
<i>Citrus aurantium</i> L.	AS	1947	S	Fd	Cs	E
<i>Citrus limon</i> (L.) Burm. f.	AS	1916	S	Fd	Cs	NES
Salicaceae						
<i>Populus X canescens</i> (Aiton) Sm.	AS, EU	1874	T	Ui	In	WCE
<i>Salix babylonica</i> L.	AS	1934	T	O	Nt	CE
Salviniaceae						
<i>Salvinia molesta</i> D. S. Mitch.	AMS	1952	Aq	O	In	NWCE
Sapindaceae						
<i>Cardiospermum grandiflorum</i> Sw.	AMS	1947	C	O	Nt	CE
Scrophulariaceae						
<i>Digitalis purpurea</i> L.	EU	1969	B	O	Cs	E
<i>Veronica persica</i> Desf. ex Poir	EU	1959	A	Ui	Cs	C
Solanaceae						
<i>Browallia americana</i> L.	AMS	1961	A	O	In	NCE
<i>Capsicum frutescens</i> L.	AMS	1948	P	Fd	Cs	NE
<i>Cestrum aurantiacum</i> Lindl.	AMC	1959	C	O	Nt	CE
<i>Datura ferox</i> L.	AMS	1941	A	O	In	WCES
<i>Datura innoxia</i> Miller	AMN, AMS	1957	A	O	In	NES
<i>Datura stramonium</i> L.	AMN, AMS	1906	A	O	In	NWCES
<i>Nicandra physalodes</i> (L.) Gaertn.	AMS	1917	A	O	In	NWCES
<i>Nicotiana glauca</i> R.C. Graham	AMS	1944	S	O	Nt	NWCES
<i>Nicotiana rustica</i> L.	AMS	1950	A	O	Nt	N

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Family/species name	Likely origin	Earliest herbarium record	Growth form	Mode of introduction	Invasion status	Distribution
<i>Nicotiana tabacum</i> L.	AMC, AMS, AMN	1870	A	Cr, Md, O	Nt	CS
<i>Nierembergia hippomanica</i> Miers var. <i>violacea</i> Millán	AMS	1973	P	O	Cs	S
<i>Physalis angulata</i> L.	AMS	1947	P	Ui	Nt	NW
<i>Physalis ixocarpa</i> Hornem.	AMC, AMS	1922	A	Ui	Nt	WCES
<i>Physalis lagascae</i> Roem. & Schult.	AMC	1958	A	Ui	Cs	NWE
<i>Physalis peruviana</i> L.	AMS	1906	P	Fd	Nt	NWCES
<i>Physalis philadelphica</i> Lam.	AMN	1942	A	Fd	Cs	WCES
<i>Solanum americanum</i> Mill.	AMN, AMS	1955	P	Ui	Cs	NWE
<i>Solanum betaceum</i> Cav.	AMS	1976	S	O	Nt	CE
<i>Solanum lycopersicum</i> L.	AMS	1958	A	Fd	Cs	NCE
<i>Solanum mauritianum</i> Scop.	AMS	1976	S	Ui	In	CE
<i>Solanum searforthianum</i> Andr.	AMN, AMS	1918	C	O	In	NWCES
Verbenaceae						
<i>Duranta erecta</i> L.	AMC, AMS	1905	S	O	In	NWCES
<i>Lantana camara</i> L.	AMC, AMS	1937	S	O	In	NWCES
<i>Lantana trifolia</i> L.	AF	1905	S	O	Cs	CE
<i>Stachytarpheta cayennensis</i> (Rich.) Vahl	AMS, AS	1977	P	O	Cs	E
<i>Verbena bonariensis</i> L.	AMS	1924	P	O	Nt	NWCES
<i>Verbena brasiliensis</i> Vell.	AMS	1931	P	Ui	Cs	WCES
<i>Verbena litoralis</i> Kunth	AMS	1958	P	Ui	Cs	W
<i>Verbena rigida</i> Spreng.	AMS	1974	P	Ui	Cs	C
Zingiberaceae						
<i>Hedychium gardnerianum</i> Ker Gawl	AS	1968	P	Ui	Nt	E

Source: Information sources are given in the Reference section

Note: This is the Online Appendix of Maroyi, A., 2012, 'The casual, naturalised and invasive alien flora of Zimbabwe based on herbarium and literature records', *Koedoe* 54(1), Art. #1054, 6 pages. <http://dx.doi.org/10.4102/koedoe.v54i1.1054>.

AF, Africa; AMC, Central America; AMN, North America; AMS, South America; AS, Asia; AU, Australasia; EU, Europe.

Growth forms: A, Annual herb; Aq, Aquatic; B, Biennial herb; C, Climber; F, Fern; P, Perennial herb; S, Shrub; Ss, Subshrub; T, Tree.

Mode of introduction: Cr, Crop; Fi, Fibre; Fd, Food; Fr, Fodder; Gr, Green manure; Md, Medicinal; O, Ornamental; Ti, Timber; Ui, Unintentional.

Invasion status: Cs, Casual alien; Nt, Naturalised alien; In, Invasive alien.

Distribution: N, Zimbabwe north; W, Zimbabwe west; C, Zimbabwe central; E, Zimbabwe east; S, Zimbabwe south.

References

- Bailey, L.H. (rev. ed.), 1949, *Manual of cultivated plants*, Macmillan, New York.
- Biegel, H.M., 1977, *Checklist of ornamental plants used in Rhodesian parks and gardens*, Rhodesia Agricultural Journal Research Report No. 3, Department of Research & Specialist Services, Harare.
- Biegel, H.M., 1980, *Common and botanical names of garden plants in Zimbabwe*, Zimbabwe Agricultural Journal Research Report No. 4, Department of Research & Specialist Services, Harare.
- Drummond, R.B., 1975, 'A list of trees, shrubs and woody climbers indigenous or naturalized in Rhodesia', *Kirkia* 10(1), 229–286.
- Drummond, R.B., 1984, *Arable weeds of Zimbabwe: a guide to the recognition of the more important weeds of crops*, Agricultural Research Trust of Zimbabwe, Harare.
- Flora Zambesiaca, 1960–2007, Pope, G., (ed.), *Flora Zambesiaca Management Committee*, Royal Botanic Gardens, Kew, United Kingdom.
- Hyde, M.A. & Wursten, B., 2011, *Flora of Zimbabwe*, viewed 05 January 2012, from <http://www.zimbabweflora.co.zw>
- IPNI, n.d., *The International Plant Names Index*, viewed n.d., from <http://www.ipni.org>
- ISSG, n.d., *Invasive Species Specialist Group*, viewed n.d., from <http://www.issg.org>
- Kirkia, 1961–2006, Volumes 1–18, Timberlake, J. & Kativu, S. (eds.), National Herbarium, Harare.
- Mapaura, A. & Timberlake, J. (eds.), 2004, *A checklist of Zimbabwean vascular plants*, Southern African Botanical Diversity Network Report No. 33, SABONET, Pretoria.
- Maroyi, A., 2006, 'Preliminary checklist of introduced and naturalized plants in Zimbabwe', *Kirkia* 18(2), 177–247.
- Mullin, L.J., 1996, Eucalyptus in Zimbabwe, *Kirkia* 16(2), 95–107.
- Mullin, L.J., 2000, Conifers in Zimbabwe, *Kirkia* 17(2), 199–217.
- Randall, R.P., 2002, *A global compendium of weeds*, R.G. and F.J. Richardson Publishers, Melbourne.
- Timberlake, J.R., Fagg, C. & Barnes, R., 1999, *Field guide to the Acacias of Zimbabwe*, CBC Publishing, Harare.
- Tropicos, n.d., *Tropicos*, viewed n.d., from <http://www.tropicos.org>
- Tutin, T.G., Heywood, V.H., Burges, N.A., Valentine, D.H., Walters, S.M. & Webb, D.A. (eds.), (1964–1980), *Flora Europaea*, volumes 1–5, Cambridge University Press, Cambridge.
- Weber, E., 2003, *Invasive plant species of the world: a reference guide to environmental weeds*, CABI Publishing, Wallingford.
- Wild, H., 1955, *Common Rhodesian weeds*, Salisbury, Government Printer.
- Wild, H., Biegel, H.M. & Mavi, S., 1972, *A Rhodesian Dictionary of African & English Plant Names*, Government Printers, Salisbury.