

POTENTIALLY POISONOUS OR OTHERWISE HARMFUL HIGHER PLANTS OF OKLAHOMA

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This paper lists vascular plants native to or naturalized in Oklahoma that have been cited in the literature as being lethal, causing distress, or potentially dangerous to humans and domesticated herbivorous animals. The term "poisonous" is used in the Websterian sense, meaning any "substance that through its chemical action sometimes kills, injures, or impairs an organism". Those plants which most often cause mechanical injury to livestock are also included. Aeroallergenic plants are not included although they are the cause of much human distress. Common cultivated field plants have been included although often they are not included in published floras. Non-native horticultural plants, with the exception of *Ricinus communis*, have not been included. Information on toxicity is from Kingsbury (1) unless otherwise noted. Waterfall (2) is the nomenclatural source and also the authority on occurrence in Oklahoma except as noted, and common name source is Holstun (3).

Any listing, such as this and that of Kingsbury, which is based primarily on literature sources rather than personal experimentation will, by its very nature, surely be incomplete. Much more work will be required to validate or disprove the toxicity of some species which are included on slender evidence.

A considerable list of Oklahoma and Texas plants known to be toxic or potentially so because they can produce cyanogenic compounds has been compiled by Seigler (4). A smaller list of aquatic plants reported to be poisonous to livestock is given by Taylor (5); his list contains fourteen species not described in this paper, but gives no information on toxins or references to original literature reporting the toxicity.

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PLANT	FAMILY	COMMON NAME	AFFECTED PART	TOXIN	CODE:		
					* known human deaths	d causes dermatitis	
** <i>Acer rubrum</i> L.	Aceraceae	red maple	leaves	unknown	** known livestock deaths	m mechanical injury	
** <i>Achillea millefolium</i> L.	Compositae	common yarrow	whole plant	alkaloids and glycosides	*** known deaths of smaller animals	p photosensitizer	
<i>Actaea</i> spp.	Ranunculaceae	baneberry	roots, berries	protoanemonin (oil)			
<i>Aesculus glabra</i> Willd.	Hippocastanaceae	Ohio buckeye	sprouts, nuts	aesculin (1)			
<i>A. pavia</i> L.	Hippocastanaceae	red buckeye	sprouts, leaves, flowers, seeds	aesculin (1)			
** <i>Agrostemma githago</i> L.	Caryophyllaceae	corn cockle	seeds	narcotic alkaloid (6)			
** <i>Allium canadense</i> L.	Liliaceae	wild onion	bulb	saponin (1)			
<i>Amaranthus hybridus</i> L.	Amaranthaceae	redroot pigweed	whole plant	githagin (6)			
d(7) <i>A. retroflexus</i> L.	Amaranthaceae	common ragweed	pollen, leaves	alkaloid?			
** <i>Amianthium muscaetoxicum</i> (Walt.) Gray	Liliaceae	stagger grass	bulbs, leaves	nitrites			
d(7), ** <i>Anagallis arvensis</i> L.	Primulaceae	scarlet pimpernel	leaves	jervine (8)			
** <i>Apocynum androsaemifolium</i> L.	Compositae	mayweed	leaves, flowers	unknown			
d(7) <i>Anthem. cotula</i> L.	Apocynaceae	spreading dogbane	young shoots	acrid substance			
** <i>Apocynum cannabinum</i> L. var. <i>glaberrimum</i> A.DC.	Apocynaceae	Indian hemp	young shoots	cardiac glycoside			
d(7), *** <i>Aralia spinosa</i> L.	Araliaceae	devils-walkingstick	bark, seeds, raw berries	cardiac glycoside			
<i>Arisaema atrorubens</i> (Ait.) Blume	Araceae	jack-in-the-pulpit	rhizome	unknown			
<i>A. triphyllum</i> (L.) Schott	Araceae	jack-in-the-pulpit	rhizome	oxalates			
<i>Artemisia filifolia</i> Torr.	Compositae	sand sagebrush	whole plant	oxalates an oil			
d(7) <i>Asarum canadense</i> L.	Aristolochiaceae	wild ginger	leaves	galitoxin?			
** <i>Asclepias asperula</i> (Dene.) Wood.	Asclepiadaceae	milkweed	green parts	galitoxin?			
** <i>A. latifolia</i> (Torr.) Raf.	Asclepiadaceae	broadleaf milkweed	green parts	galitoxin?			
** <i>A. pumila</i> (Gray) Vail.	Asclepiadaceae	whorled milkweed	green parts	galitoxin?			
<i>A. speciosa</i> Torr.	Asclepiadaceae	showy milkweed	green parts	galitoxin?			
<i>A. syriaca</i> L.	Asclepiadaceae	common milkweed	green parts	galitoxin?			
** <i>A. verticillata</i> L.	Asclepiadaceae	eastern whorled milkweed	green parts	galitoxin?			
d(7) <i>Asimina triloba</i> (L.) Dunal	Annonaceae	pawpaw, dogapple	green parts	galitoxin?			
<i>Asparagus officinalis</i> L.	Liliaceae	asparagus	fruits				
<i>Aster ericoides</i> L.	Compositae	heath aster	older parts				
** <i>Astragalus mollissimus</i> Torr.	Leguminosae	wooly loco	all parts	selenium			
<i>A. racemosus</i> Pursh	Leguminosae	poison vetch	green parts	locoine (6)			
<i>Atriplex canescens</i> (Pursh) James	Chenopodiaceae	fourwing saltbush	all parts	selenium			
** <i>Avena sativa</i> L.	Gramineae	cultivated oats	fungus on hay	nitrites + fungal toxin			

<i>Baptisia leucantha</i> T. & G.	Leguminosae	false indigo	green parts	quinolizidine alkaloids (1) emetie, cathartic substances (6) mustard oil?
<i>Barbarea vulgaris</i> R. Br.	Cruciferae	yellow rocket	green parts	nitrates
** <i>Berula pusilla</i> (Nutt.) Fern.	Umbelliferae	water parsnip	green parts	mustard oil
<i>Bidens frondosa</i> L.	Compositae	devils beggarticks	all parts	thiooxazolidone, nitrates
<i>Brassica kaber</i> (DC.) Wheeler	Cruciferae	wild mustard	fruit, seeds	mustard oil
** <i>B. napus</i> L.	Cruciferae	rape	fruit, seeds	
<i>B. nigra</i> (L.) K. Koch	Cruciferae	black mustard	seeds	
<i>Bromus inermis</i> Leyss.	Gramineae	smooth brome	ergot-infected leaves	alkaloids
<i>B. unioloides</i> HBK	Gramineae	rescuegrass	all parts	nitrates
d(7) <i>Campsis radicans</i> (L.) Seem.	Bignoniaceae	trumpetreep	leaves, flowers	tetrahydro-
** <i>Cannabis sativa</i> L.	Cannabinaceae	marijuana, hemp	green or dried pistillate flowers	cannabinols
<i>Cardaria draba</i> (L.) Desv.	Cruciferae	hoary cress	green parts	an irritant
<i>Carduus nutans</i> L.	Compositae	musk thistle	all parts	nitrates
<i>Cassia fasciculata</i> Michx.	Leguminosae	partridgepea	green, dried (in hay), seeds	unknown cathartic substance (6)
<i>C. occidentalis</i> L.	Leguminosae	coffee senna	green, dried, seeds	unknown cathartic substance (6)
*** <i>C. tora</i> L.	Leguminosae	sicklepod	seeds	unknown cathartic substance (6)
<i>Castilleja</i> spp.	Scrophulariaceae	paintbrushes	all parts	selenium
d(7) <i>Catalpa bignonioides</i> Walt.	Bignoniaceae	southern catalpa	flowers	
d(7) <i>C. speciosa</i> Warder	Bignoniaceae	northern catalpa	flowers	
<i>Celastrus scandens</i> L.	Celastraceae	bittersweet	berries suspect	
m <i>Cenchrus pauciflorus</i> Benth.	Gramineae	sandbur	fruits	unknown (9)
** <i>Centaurea solstitialis</i> L.	Compositae	yellow starthistle	shoots	unknown
** <i>Centaureum beyrichii</i> (T.&G.) Robins.	Gentianaceae	rock centaury	green parts	unknown
<i>Cercocarpus montanus</i> Raf.	Rosaceae	mountain mahogany	leaves, stems	cyanogenic glycoside
<i>Cephalanthus occidentalis</i> L.	Rubiaceae	common buttonbush	leaves	glycoside
<i>Chenopodium album</i> L.	Chenopodiaceae	common lambsquarters	leaves	oxalates, nitrates
<i>C. ambrosioides</i> L.	Chenopodiaceae	mexican tea	seeds	ascaridole, an antihelminthic
d(7) <i>Chrysanthemum</i> spp.	Compositae	chrysanthemum	leaves	
<i>Chrysanthamnus nauseosus</i> (Pall.) Britt.	Compositae	rubber rabbitbrush	green parts	
* & ** <i>Cicuta maculata</i> L.	Umbelliferae	spotted water hemlock	tuberous roots	cicutoxin
d(7) <i>Clematis virginiana</i> L.	Ranunculaceae	Virginia clematis	leaves	probably similar to protoanemonin
<i>Cleome serrulata</i> Pursh	Capparidaceae	Rocky Mountain beepplant	all parts	nitrates

d(7)	<i>Cnidioscolus texanus</i> (Muell. Arg.) Small	Euphorbiaceae	Texas bullnettle	leaf hairs	
	<i>Cocculus carolinus</i> (L.) DC.	Menispermaceae	redberry moonseed	seeds suspect	
* & **	<i>Comandra pallida</i> A. DC.	Santalaceae	bastard toadflax	all parts	selenium conine and other similar alkaloids
	<i>Conium maculatum</i> L.	Umbelliferae	poison hemlock	all parts	
d(7)	<i>Conyza canadensis</i> (L.) Crang. = <i>Erigeron canadensis</i>	Compositae	horseweed	leaves	
	<i>Corydalis aurea</i> Willd. var. <i>occidentalis</i> Engelm.	Fumariaceae	golden corydalis	all parts	alkaloids
**	<i>C. flavula</i> (Raf.) DC.	Fumariaceae	corydalis	all parts	alkaloids
	<i>Crotalaria sagittalis</i> L.	Leguminosae	rattlebox	hay contaminant	monocrotaline (6)
	<i>Croton capitatus</i> Michx.	Euphorbiaceae	wooly croton	seeds	croton oil (10)
	<i>C. texensis</i> (Kl.) Muell. Arg.	Euphorbiaceae	Texas croton	seeds	croton oil (10)
	<i>Cuscuta</i> spp.	Convolvulaceae	dodder	all parts suspect when on clover	unknown
p **	<i>Cynodon dactylon</i> (L.) Pers.	Gramineae	bermudagrass	leaves (p) ovary (**) leaves	ergot alkaloids produced by fungus
d(7)	<i>Cypripedium</i> spp.	Orchidaceae	lady's slipper	leaves	
* & **	<i>Datura meteloides</i> Dunal	Solanaceae	sacred datura	seeds, leaves	hyoscyamine, atro- pine, scopolamine
* & **	<i>D. stramonium</i> L.	Solanaceae	jimsonweed	all parts	nitrate, atropine, hyoscyamine, sco- polamine nitrate?
d(7)	<i>Daucus carota</i> L.	Umbelliferae	wild carrot	leaves	delcosine (11)
d(7), **	<i>Delphinium ajacis</i> L.	Ranunculaceae	larkspur	(d) leaves, seeds; all parts toxic	delphinine
**	<i>D. tricornue</i> Michx.	Ranunculaceae	dwarf larkspur	all parts	delphinine
**	<i>D. virescens</i> Nutt.	Ranunculaceae	plains larkspur	young growth especially	
**	<i>Descurainia pinnata</i> (Walt.) Britt.	Cruciferae	tansymustard	green parts	unknown
**	<i>Dicentra cucullaria</i> (L.) Bernh.	Fumariaceae	Dutchman's breaches	leaves, early fleshy under- ground growth	cucullarine (6)
d(7)	<i>Dirca palustris</i> L.	Thymelaeaceae	leatherwood	leaves	
	<i>Dryopteris filix-mas</i> (L.) Schott.	Polypodiaceae	male fern	leaves	thiaminase
	<i>Echinochloa crusgalli</i> (L.) Beauv.	Gramineae	barnyardgrass	all parts	nitrate
	<i>Eleusine indica</i> (L.) Gaertn.	Gramineae	goosegrass	all parts	nitrate
	<i>Elymus</i> spp.	Gramineae	wildrye	ergotized plant	alkaloids
	<i>Euonymus atropurpureus</i> Jacq.	Celastraceae	eastern wahoo	leaves, bark, fruit	unidentified purgative
	<i>Eupatorium perfoliatum</i> L.	Compositae	boneset	all parts	nitrate (1) tremetol (6)
	<i>E. purpureum</i> L.	Compositae	thorough wort	all parts	nitrate
*	<i>E. rugosum</i> Houtt.	Compositae	white snakeroot	all parts	tremetol
d(7)	<i>Euphorbia corollata</i> L.	Euphorbiaceae	flowering spurge	sap	acrid substance
*	<i>E. marginata</i> Pursh.	Euphorbiaceae	snow-on-the- mountain	sap	unknown (6)

p. **	<i>E. nutans</i> Lag. = <i>E. maculata</i> L.	Euphorbiaceae	spotted spurge	green parts	nitrates
**	<i>Festuca arundinacea</i> Schreb.	Gramineae	tall fescue	fungus of ovary	some alkaloids similar to ergot
**	<i>Glechoma hederacea</i> L.	Labiatae	ground ivy	all parts	irritant oil
**	<i>Glyceria striata</i> (Lam.) Hitch.	Gramineae	fowl mannagrass	all parts	cyanogenic glycoside
	<i>Gnaphalium purpureum</i> L.	Compositae	purple cudweed	all parts	nitrates
	<i>Grindelia squarrosa</i> (Pursh) Dunal	Compositae	gumweed	all parts	selenium
**	<i>Gutierrezia sarothrae</i> (Pursh) Britt. & Rusby	Compositae	broom snakeweed	all parts	selenium
**	<i>Gymnocladus dioica</i> (L.) K. Koch.	Leguminosae	Kentucky coffee-tree	seeds, fruits, pulp, leaves	cytisine (alkaloid) (6)
**	<i>Helenium autumnale</i> L.	Compositae	common sneezeweed	mature leaves	helenalin (12)
**	<i>H. amarum</i> Raf.	Compositae	fine-leaf sneeze-weed	mature leaves	tenulin (12)
**	<i>H. flexuosum</i> Raf.	Compositae	purplehead sneeze-weed	mature leaves	helenanolides (12)
	<i>H. microcephalum</i> DC.	Compositae	smallhead sneeze-weed	leaves	helenalin (12)
m	<i>Hordeum jubatum</i> L.	Gramineae	foxtail barley	mature flowers and fruits	
m	<i>H. pusillum</i> Nutt.	Gramineae	little barley	mature flowers and fruits	
**	<i>Hydrangea arborescens</i> L.	Saxifragaceae	smooth hydrangea	all parts	cyanogenic glycoside alkaloids?
**	<i>Hydrastis canadensis</i> L.	Ranunculaceae	golden seal	young shoots, seeds	
d(7), p	<i>Hymenoxys odorata</i> DC.	Compositae	bitter rubberweed	whole plant	helenanolides (12)
	<i>Hypericum perforatum</i> L.	Hypericaceae	St. Johnswort	leaves	hypericin (6)
	<i>Ilex vomitoria</i> Ait.	Aquifoliaceae	yaupon	berries	hallucinogenic alkaloids
d(7), **	<i>Ipomoea</i> spp.	Convolvulaceae	morningglory	seeds	irisin?
	<i>Iris</i> spp.	Iridaceae	iris	rhizome	
d	<i>Juniperus virginiana</i> L.	Cupressaceae	eastern redcedar	leaves	
**	<i>Kallstroemia birsutissima</i> Vail	Zygophyllaceae	hairy caltrop	all parts	unknown
p	<i>Kochia scoparia</i> (L.) Schrad.	Chenopodiaceae	kochia	green parts	nitrates
**	<i>Lactuca scariola</i> L.	Compositae	prickly lettuce	young shoots	nitrates and an unknown
	<i>Lamium amplexicaule</i> L.	Labiatae	henbit	all parts suspect	
d(7)	<i>Laportea canadensis</i> L. Wedd.	Urticaceae	wood nettle	stinging hairs	
**	<i>Lathyrus hirsutus</i> L.	Leguminosae	wild winter pea	seeds	1- α , γ -diaminobutyric acid
	<i>L. latifolius</i> L.	Leguminosae	singletary pea	seeds	β -aminopropionitrile derivative
**	<i>L. pusillus</i> L.	Leguminosae		seeds	
d(7)	<i>Leonurus cardiaca</i> L.	Labiatae	motherwort	leaves	

<i>Lespedeza stipulacea</i> Maxim. ** <i>Linum lewisii</i> Pursh * <i>L. rigidum</i> Pursh	Leguminosae Linaceae Linaceae	Korean lespedeza flax flax	moldy hay stem, leaves may be toxic only to sheep	cyanogenic glycoside
* <i>Lobelia cardinalis</i> L. * <i>L. inflata</i> L. * <i>L. siphilitica</i> L. * <i>Lolium perenne</i> L. * <i>L. temulentum</i> L.	Campanulaceae Campanulaceae Campanulaceae Gramineae Gramineae	cardinalflower Indian tobacco blue cardinalflower ryegrass darnel	all parts all parts all parts stems, leaves leaves	pyridine alkaloids pyridine alkaloids pyridine alkaloids
** <i>Lupinus pusillus</i> Pursh	Leguminosae	low lupine	stems, leaves	unidentified fungus suspect lupinine, lupanine, sparteine (6)
** <i>Lycium balamifolium</i> Mill.	Solanaceae	matrimonyvine	stems, leaves	probably solanaceous alkaloids
d(7) <i>Maclura pomifera</i> (Raf.) Schneider p <i>Medicago polymorpha</i> L. p <i>M. sativa</i> L. * & ** <i>Melia azedarach</i> L.	Moraceae Leguminosae Leguminosae Meliaceae	osageorange bur clover alfalfa chinaberry	latex sap all parts all parts fruit, leaves, bark, flowers	nitrate, saponins resinoids
** <i>Melilotus alba</i> Desv.	Leguminosae	white sweetclover	mold on stem & leaves in hay	dicoumarol
** <i>M. officinalis</i> (L.) Lam.	Leguminosae	yellow sweet- clover	mold on stem & leaves in hay	dicoumarol
* <i>Menispermum canadense</i> L.	Menispermaceae	common moonseed	berries	isoquinoline alkaloids (10)
<i>Mirabilis jalapa</i> L. <i>Modiola caroliniana</i> (L.) G. Don	Nyctaginaceae Malvaceae	prairie four-o'clock bristly mallow	roots, seeds stems, leaves	
* & ** <i>Nicotiana trigonophylla</i> Dunal ** <i>Nolina texana</i> Wats. ** <i>Nymphaea tuberosa</i> Paine	Solanaceae Liliaceae Nymphaeaceae	desert tobacco Texas sacahuista white waterlily	leaves flowers leaves	nicotine unknown
** <i>Onoclea sensibilis</i> L. ** <i>Ornithogalum umbellatum</i> L.	Polypodiaceae Liliaceae	sensitive fern star-of-Bethlehem	leaves bulb	unknown probably a colchicine type alkaloid (1), cardiac glycoside (10) oxalates
<i>Oxalis corniculata</i> L.	Oxalidaceae	creeping wood- sorrel	all parts	unknown
** <i>Oxytropis lambertii</i> Pursh ** <i>O. sericea</i> Nutt.	Leguminosae Leguminosae	Lambert crazyweed white loco	all parts all parts	
** <i>Parthenocissus quinquefolia</i> (L.) Planch. ** <i>Paspalum dilatatum</i> Poir.	Vitaceae Gramineae	Virginia creeper dallisgrass	berries suspect ovary parasitized by <i>Claviceps</i> sp.	ergot alkaloid
d(7), p <i>Pastinaca sativa</i> L. * <i>Penstemon</i> spp. * <i>Perilla frutescens</i> (L.) Britt. d(7) <i>Phacelia</i> spp.	Umbelliferae Scrophulariaceae Labatae Hydrophyllaceae	wild parsnip penstemon beefsteak plant phacelia	all parts all parts all parts leaves	selenium furan ketones (13)

<i>Physalis heterophylla</i> Nees	Solanaceae	groundcherry	leaves & unripe fruits	unknown (14)
* & ** <i>Phytolacca americana</i> L.	Phytolaccaceae	common pokeweed	roots most toxic	triterpenes (1), saponins (10) unknown
<i>Pinus ponderosa</i> Dougl., var. <i>Scopulorum</i> Engelm.	Pinaceae	western yellow pine	needles & buds	unknown
** <i>P. taeda</i> L.	Pinaceae	loblolly pine	needles	unknown
<i>Pisum sativum</i> L.	Leguminosae	garden pea	ensilage from pods and vines	
** <i>Podophyllum peltatum</i> L.	Berberidaceae	mayapple	stems, leaves, roots, flowers	podophyllin
d(7) <i>Polygonum pensylvanicum</i> L.	Polygonaceae	Pennsylvania smartweed	sap, leaves	nitrate?
<i>Portulaca oleracea</i> L.	Portulacaceae	common purslane	all parts	oxalates
** <i>Prosopis glandulosa</i> Torr. Cock.	Leguminosae	mesquite	pod and seeds	cause impaction
* & ** <i>Prunus serotina</i> Ehrh.	Rosaceae	black cherry	young fresh leaves	cyanogenic glycoside
* & ** <i>P. virginiana</i> L.	Rosaceae	common choke-cherry	fresh leaves	cyanogenic glycoside
<i>Psoralea argyrophylla</i> Pursh	Leguminosae	scurf pea	seeds	probably coumarins (10)
<i>P. tenuiflora</i> Pursh	Leguminosae	scurfy psoralea	seeds suspect	thiaminase
** <i>Pteridium aquilinum</i> (L.) Kuhn	Polypodiaceae	eastern bracken	mature leaves	
** <i>Quercus gambelii</i> Nutt.	Fagaceae	gambel oak	acorns, young shoots	probably tannins and other toxins (10)
** <i>Q. havardii</i> Rydb.	Fagaceae	sand shinnery oak	acorns, young shoots	probably tannins and other toxins (10)
d(7), ** <i>Ranunculus abortivus</i> L.	Ranunculaceae	smallflower buttercup	leaves	protoanemonin (1, 6)
d(7), ** <i>R. parviflorus</i> L.	Ranunculaceae	buttercup	leaves	protoanemonin (1, 6)
d(7), ** <i>R. sceleratus</i> L.	Ranunculaceae	celeryleaf buttercup	leaves	protoanemonin (1, 6)
<i>Reverchonia arenaria</i> Gray	Euphorbiaceae	spurge	stems, leaves	resinoids
<i>Rhododendron canescens</i> Sweet	Ericaceae	Canadian rhododendron	leaves suspect	
<i>R. oblongifolium</i> (Small) Millais	Ericaceae	rhododendron	leaves suspect	resinoids
d <i>Rhus radicans</i> L.	Anacardiaceae	poison ivy	all parts	catechols
* & ** <i>Ricinus communis</i> L.	Euphorbiaceae	castor bean	seeds	ricin
<i>Robinia pseudoacacia</i> L.	Leguminosae	black locust	inner bark, seeds, young leaves	robin (phytotoxin), robitin (glycoside) (10)
<i>Rudbeckia hirta</i> L.	Compositae	hairy coneflower	stem, leaves	unknown
<i>R. laciniata</i> L.	Compositae	coneflower	stem, leaves	unknown
** <i>Rumex acetosella</i> L.	Polygonaceae	sorrel	all parts	nitrate, oxalates
** <i>R. crispus</i> L.	Polygonaceae	curly dock	all parts	nitrate, oxalates

d(7)	<i>Salsola kali</i> L.	Chenopodiaceae	Russian thistle	all parts	nitrates
	** <i>Salvia reflexa</i> Hornem.	Labiatae	annual sage	all parts	nitrates?
	<i>Sambucus canadensis</i> L.	Caprifoliaceae	American elder	root, stem, leaves	cyanogenic glycoside
	<i>Sanguinaria canadensis</i> L.	Papaveraceae	bloodroot	red sap	sanguinarine (10), berberine & protopine (1)
	<i>Saponaria officinalis</i> L.	Caryophyllaceae	bouncing bet	seeds	saponins (1), githagenin (10) githagenin (10)
	*** <i>S. vaccaria</i> L.	Caryophyllaceae	cow cockle	green parts, seeds	nitrates longilobine (6)
	<i>Scirpus americanus</i> Pers.	Cyperaceae	American bulrush	stems, leaves	
	** <i>Secale cereale</i> L. (15)	Graminae	rye	all parts	
	** <i>Senecio longilobus</i> Benth.	Compositae	threadleaf groundsel	stem, leaves	
	** <i>S. plattensis</i> Nutt.	Compositae	squaw-weed	stem, leaves	
	** <i>S. riddellii</i> T. & G.	Compositae	Riddell groundsel	all parts	longilobine (6) riddelline (6)
	** <i>Sesbania vesicaria</i> (Jacq.) Ell.	Leguminosae	bagpod sesbania	flowers and seeds	saponins
d(16) *	m <i>Setaria lutescens</i> (Wiegel) F. T. Hubb.	Gramineae	yellow foxtail	barbs on fruits	
	** <i>Solanum carolinense</i> L.	Solanaceae	horsenettle	berries	solanine & other alkaloids (6)
	** <i>S. elaeagnifolium</i> Cav.	Solanaceae	silverleaf night- shade	berries	solanine, alkaloids (6)
	<i>S. nigrum</i> L.	Solanaceae	black nightshade	leaves and green berries	solanine, alkaloids (6)
	m <i>S. rostratum</i> Dunal	Solanaceae	buffalobur	fruits	
	<i>S. torreyi</i> Gray	Solanaceae	horse nettle	green fruits	
	** <i>S. triflorum</i> Nutt.	Solanaceae	cutleaf night- shade	berries	solanine & other alkaloids (6)
	** <i>Solidago mollis</i> Bartl.	Compositae	goldenrod	leaves	solanine, alkaloids (6)
	** <i>S. odora</i> Ait.	Compositae	goldenrod	rust infected leaves when rust infected	irritant resin nitrates
	** <i>S. spectiosa</i> Nutt.	Compositae	goldenrod	leaves when rust infected	
	<i>Sonchus</i> spp.	Compositae	sowthistle	all parts	
	** <i>Sorghum halepense</i> (L.) Pers.	Gramineae	johnsongrass	young leaves	nitrates nitrates and cyanogenic glycoside
p,	** <i>S. bicolor</i> (L.) Moench	Gramineae	sudangrass	young leaves	cyanogenic glycoside cyanogenic glycoside anthelmintic overdose (14)
	<i>Spigelia marilandica</i> L.	Loganiaceae	pinkroot	all parts?	nitrates
	<i>Stellaria media</i> (L.) Cyrill	Caryophyllaceae	chickweed	all parts	
	m <i>Stipa</i> spp. (those with persistent awns)	Gramineae	needlegrass	mature fruits	
	** <i>Suckleys suckleyana</i> (Torr.) Rydb.	Chenopodiaceae	poison suckleya	stem, leaves	
	* <i>Tanacetum vulgare</i> L.	Compositae	tansy	leaves, flowers	
	<i>Thlaspi arvense</i> L.	Cruciferae	field pennycress	seeds	
	m, p, ** <i>Tribulus terrestris</i> L.	Zygophyllaceae	puncturevine	leaves, fruits	

p	<i>Trifolium hybridum</i> L.	Leguminosae	alsike clover	stem, leaves	cause impaction
**	<i>T. incarnatum</i> L.	Leguminosae	crimson clover	mature flowers	
p	<i>T. pratense</i> L.	Leguminosae	red clover	stems, leaves	
	<i>T. repens</i> L.	Leguminosae	white clover	all parts	cyanogenic glycoside
**	<i>Triticum aestivum</i> L. (15)	Gramineae	wheat	all parts	nitrates
d(7)	<i>Urtica dioica</i> L.	Urticaceae	stinging nettle	leaf hairs	unknown
	<i>Verbesina encelioides</i> (Cav.) B. & H.	Compositae	crownbeard	all parts	nitrates
**	<i>Vicia angustifolia</i> Reichard	Leguminosae	narrowleaf vetch	seeds	β -cyano-L-alanine
**	<i>V. sativa</i> L.	Leguminosae	common vetch	seeds	β -cyano-L-alanine
**	<i>V. villosa</i> Roth	Leguminosae	hairy vetch	seeds	cyanogenic glycoside
m, **	<i>Xanthium strumarium</i> L.	Compositae	heartleaf cocklebur	seeds, seedlings	hydroquinone
**	<i>Xanthoxylum americanum</i> Mill.	Rutaceae	prickly ash	leaves	
	<i>Zea mays</i> L.	Gramineae	corn, maize	fungus on leaves	nitrates
**	<i>Zigadenus nuttallii</i> Gray	Liliaceae	death camas	bulb, young shoots	veratramine (1) zygadenine (6) zygocine (10)