

**COMMON
WEEDS
OF THE
CANADIAN
PRAIRIES**





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COMMON WEEDS OF THE CANADIAN PRAIRIES

Aids to Identification by Vegetative Characters

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*Experimental Farm
Swift Current, Saskatchewan*

RESEARCH BRANCH
CANADA DEPARTMENT OF
AGRICULTURE
OTTAWA

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P R E F A C E

Successful weed control depends on early treatment. It is, then, important to be able to identify a weed when it is still small or immature. This book was written with such early identification in mind.

The key is composed of a series of opposing statements, much like a true-or-false examination. To identify an unknown plant, turn to the first of the statements and follow the trail of clauses that satisfy the specimen in hand. Go from number to number until the trail ends with the name of the plant. The plant may then be checked with the actual description in the text, pages 21 to 65.

Some 180 species of native and introduced plants are described. The scientific names are based largely on *Gray's Manual of Botany*, 8th edition, and the common names are the same as those in *Wild Plants of the Canadian Prairies*, by Archibald C. Budd and Keith F. Best.

GLOSSARY

- achene:** a one-sided, one-celled, dry, hard fruit.
- acute:** sharp-pointed.
- alternate:** placed singly at different positions on a stem.
- annual:** a plant that matures and ripens seed in one year.
- anther:** the pollen-bearing part of the stamen.
- axil:** the angle formed where a leaf or branch joins a stem.
- beak:** a prolonged tip or point.
- biennial:** a plant that matures and ripens seed in two years.
- bract:** a small leaf or scale borne below a flower or flower cluster.
- calyx:** the sepals or outer floral ring.
- capsule:** a dry fruit composed of more than one chamber.
- clasping:** having bases partly or entirely surrounding the stem.
- compound:** divided into separate leaflets.
- cordate:** heart-shaped, with the point away from the base.
- corolla:** the petals or inner floral ring.
- corymb:** a cluster of flowers in which the outer ones open first.
- cyme:** a cluster of flowers in which the central ones open first.
- dentate:** with outward-pointing teeth.
- discoid:** having only ray florets.
- disk:** the central portion of the head of a composite flower.
- downy:** with fine soft hairs.
- elliptic:** equally rounded at both ends.
- floret:** a small flower, usually present in clusters or heads.
- follicle:** a fruit with only one chamber.
- gland:** a secreting organ or structure.
- globose:** spherical.
- hastate:** arrow-shaped, with basal lobes pointing outward at wide angles.
- head:** a short compact cluster of flowers, each more or less stalkless.
- hip:** the fruit of a rose.
- inflorescence:** flower cluster; mode of flower bearing.
- internode:** portion of a stem between two nodes.
- involucre:** the whorl of bracts below a flower cluster.
- lanceolate:** longer than wide, broadest toward the base.
- leaflet:** a single division of a compound leaf.
- linear:** long and narrow, with parallel margins.
- lyrate:** pinnatifid, but with an enlarged terminal lobe and smaller lateral lobes.
- node:** a joint or place on a stem where leaves are attached.
- nutlet:** a small, dry, one-seeded fruit.

oblanceolate: longer than wide, broadest near the tip.
oblong: longer than broad, with sides parallel for most of the length.
obovate: egg-shaped, broadest near the tip.
obtuse: blunt or rounded at the end.
ocrea: a sheath formed by fused stipules.
opposite: borne two at a node.
oval: broadly elliptical.
ovary: part of the female organ of a flower containing the seeds.
ovate: egg-shaped, broadest at base.

palmate: having leaflets radiating from one point.
panicle: a flower cluster composed of several combined racemes.
perennial: lasting more than two years.
perfoliate: having a base united around a stem.
petal: the separate section or leaf of a corolla or inner floral ring.
pinnate: a compound leaf with leaflets arranged on a common stalk.
pinnatifid: pinnately cleft or parted.
pod: a dry fruit.
pyxis: a capsule with a lid.

raceme: a cluster of flowers with each flower borne on a short stalk from a common stem.
radiate: spreading from or arranged around a common center; bearing ray flowers.
ray: strap-like marginal flower of the composite family.
reflexed: sharply bent or turned downwards.
rosette: a circular cluster of leaves.
rotate: wheel-shaped, flat and circular in outline.

scorpioid: coiled, uncoiling as flowers develop.
sepal: the separate section of a calyx or outer floral ring.
sessile: without a stalk.
spatulate: gradually narrowing downward from a rounded summit.
spike: a flower cluster in which individual flowers are stalkless and borne on a common stem.
spur: a hollow extension of some part of a flower.
stamen: the male organ of a flower.
standard: a large upper petal, as in the legume flower.
stipule: an appendage at the base of a leaf.
style: the central portion of the female organ of a flower, between the ovary and the stigma.

trifoliolate: having three leaflets.
tubercle: a rounded, protruding body.

umbel: a flower cluster in which all flower stalks arise from a common point.

valve: separate parts of a capsule or a pod.

whorl: a group of three or more leaves arising from the same node on a stem.
wing: the smaller lateral petals, as in a legume flower.

Leaf Shapes, Arrangements and Attachments, and Types of Inflorescences



Simple



Pinnate



Double pinnate



Palmate



Trifoliate



Linear



Lanceolate



Oblanceolate



Oblong



Elliptical



Oval



Ovate



Obovate



Spatulate



Alternate



Opposite



Whorled



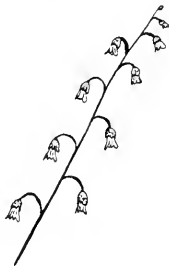
Stalked



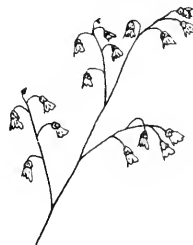
Sessile



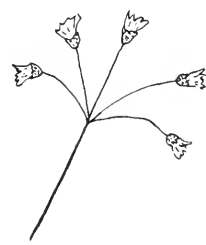
Spike



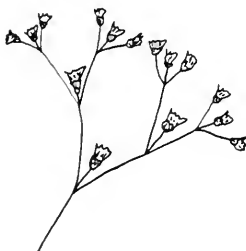
Raceme



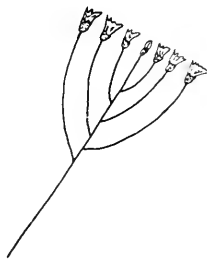
Panicle



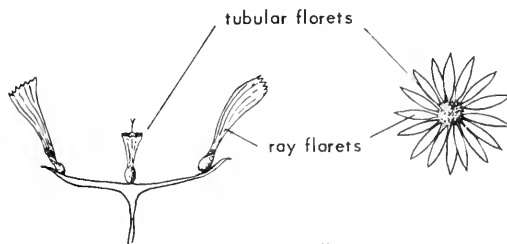
Umbel



Cyme



Corymb



Composite flower

KEY TO SPECIES

1	Leaves compound	2
	Leaves simple	19
2	Leaves pinnate	3
	Leaves not pinnate	12
3	Leaves all basal	4
	Leaves not all basal	5
4	Plants with runners	<i>Potentilla anserina</i>
	Plants without runners	<i>Oxytropis macounii</i>
5	Leaves double-pinnate	<i>Cicuta douglasii</i>
	Leaves single-pinnate	6
6	Plant with thorns	<i>Rosa woodsii</i>
	Plant without thorns	7
7	Plant almost prostrate	<i>Erodium cicutarium</i>
	Plant not prostrate	8
8	Plants with hollow stems	<i>Sium suave</i>
	Plants with solid stems	9
9	Woody-stemmed shrubs	<i>Potentilla fruticosa</i>
	Not woody-stemmed shrubs	10
10	Leaflets long-linear	<i>Astragalus pectinatus</i>
	Leaflets not long-linear	11
11	Leaflets usually 5 to 8 pairs; glandular; not scented	<i>Glycyrrhiza lepidota</i>
	Leaflets usually 9 to 13 pairs; not glandular; unpleasantly scented	<i>Astragalus bisulcatus</i>
12	Leaves palmate	13
	Leaves trifoliolate	14
13	Leaflets toothed, flowers yellow and single	<i>Potentilla recta</i>
	Leaflets not toothed, flowers blue in racemes	<i>Lupinus argenteus</i>
14	Plants hairy	<i>Potentilla norvegica</i>
	Plants not hairy	15
15	Leaflets over 2 inches long	<i>Rhus radicans</i>
	Leaflets less than 2 inches long	var. <i>rydbergii</i>
16	Leaflets not toothed	16
	Leaflets toothed	<i>Cleome serrulata</i>
17	Leaflets toothed almost to base	17
	Leaflets toothed in upper half only	<i>Melilotus alba</i>
18	Plants erect	18
	Plants prostrate	<i>Medicago sativa</i>
19	Leaves nearly all basal	<i>Medicago lupulina</i>
	Leaves not all basal	20
20	Leaves stalked	24
	Leaves sessile	21
		23

21	Leaves not lobed	<i>Plantago major</i>
	Leaves lobed	22
22	Leaves hairy	<i>Hypochaeris radicata</i>
	Leaves not hairy	<i>Taraxacum officinale</i>
23	Plants with milky sap, leaves over 1½ inches long	<i>Hieracium aurantiacum</i>
	Plants without milky sap, leaves less than 1½ inches long	<i>Androsace septentrionalis</i> var. <i>puberulenta</i>
24	Leaves alternate on stem	25
	Leaves opposite on stem	195
25	Leaves stalked	26
	Leaves not stalked	107
26	Most of leaves cleft halfway or more to midrib	27
	Most of leaves not cleft halfway to midrib	53
27	Leaves palmately divided	28
	Leaves not palmately divided	30
28	Leaves grayish, with fine starry hairs	<i>Malvastrum coccineum</i>
	Leaves green, hairs not starry	29
29	Leaves divided almost to base, final segments sharp, flowers yellow	<i>Ranunculus acris</i>
	Leaves divided right to base, final segments blunt, flowers blue	<i>Delphinium bicolor</i>
30	Leaves spiny	31
	Leaves not spiny	33
31	Upper leaves clasping stem	32
	Upper leaves not clasping; stem winged	<i>Carduus nutans</i>
32	Plants with milky sap, leaves with soft prickles ...	<i>Sonchus oleraceus</i>
	Plants without milky sap, leaves with stiff prickles	<i>Cirsium arvense</i>
33	Leaves merely deeply cleft or 1-pinnate	34
	Leaves 2 to 3 times pinnatifid	43
34	Plants hairy	35
	Plants not hairy	39
35	Upper leaves stalked	36
	Upper leaves not stalked	38
36	Plants low, branched from base	<i>Solanum triflorum</i>
	Plants erect, branched above	37
37	Stem hairs spreading	<i>Sisymbrium altissimum</i>
	Stem hairs reflexed	<i>Sisymbrium loeselii</i>
38	Annual with downward pointing hairs, leaf lobes obtuse	<i>Erucastrum gallicum</i>
	Perennial with running rootstocks, leaf lobes acute	<i>Ambrosia psilostachya</i> var. <i>coronopifolia</i>
39	Upper leaves clasping	<i>Senecio vulgaris</i>
	Upper leaves not clasping	40
40	Leaf segments toothed	41
	Leaf segments entire	42
41	Creeping-rooted perennial	<i>Rorippa sylvestris</i>
	Fibrous-rooted annual	<i>Rorippa islandica</i>

42	Plants low, spreading	<i>Solanum triflorum</i>
	Plants erect	<i>Reseda lutea</i>
43	Leaf segments toothed	44
	Leaf segments entire	45
44	Leaf stalks slightly winged, many stemmed	<i>Tanacetum vulgare</i>
	Leaf stalks not winged, single stemmed	<i>Artemisia biennis</i>
45	Plants hairy	46
	Plants not hairy (except <i>Achillea lanulosa</i>)	48
46	Leaf segments narrow linear	47
	Leaf segments not narrow linear	<i>Artemisia absinthium</i>
47	Woody-based perennial, silvery gray	<i>Artemisia frigida</i>
	Annual, plants green	<i>Descurainia sophia</i>
48	Plants branched	49
	Plants not branched	52
49	Leaf segments threadlike or linear	50
	Leaf segments not threadlike or linear	<i>Ambrosia artemisiifolia</i> var. <i>elatior</i>
50	Plants with pineapple odor	51
	Plants without pineapple odor	<i>Matricaria maritima</i> var. <i>agrestis</i>
51	Leaf segments linear	<i>Matricaria matricarioides</i>
	Leaf segments threadlike	<i>Matricaria chamomilla</i>
52	Flowers yellow, plant almost hairless	<i>Senecio jacobaea</i>
	Flowers white, plant hairy	<i>Achillea lanulosa</i>
53	Leaves entire or with basal lobes	54
	Leaves toothed or divided	88
54	Leaves with basal lobes	55
	Leaves without basal lobes	62
55	Plants with ocrea	56
	Plants without ocrea	58
56	Plants with weak twining stems	<i>Polygonum convolvulus</i>
	Plants without weak twining stems	57
57	Perennial with running roots, leaves mostly basal	<i>Rumex acetosella</i>
	Annual, plant leafy throughout	<i>Fagopyrum tataricum</i>
58	Plants creeping or twining	59
	Plants not creeping or twining	61
59	Upper leaves heart-shaped at base	<i>Solanum dulcamara</i>
	Upper leaves not heart-shaped at base	60
60	Calyx enclosed in two large bracts, leaves pointed	<i>Convolvulus sepium</i> var. <i>americanus</i>
	Calyx not enclosed in two large bracts, leaves blunt	<i>Convolvulus arvensis</i>
61	Tall-growing biennial	<i>Arctium minus</i>
	Prostrate annual	<i>Monolepis nuttalliana</i>
62	Plants with ocrea	63
	Plants without ocrea	65
63	Leaves with wavy margins, over 2 inches long ..	<i>Rumex crispus</i>
	Leaves without wavy margins, less than 2 inches long	64

64	Plants prostrate	<i>Polygonum aviculare</i>
	Plants erect	<i>Rumex venosus</i>
65	Upper leaves clasping	66
	Upper leaves not clasping	68
66	Basal leaves divided	<i>Lepidium perfoliatum</i>
	Basal leaves not divided	67
67	Stems hollow, fleshy, hairless when mature, cobwebby when young	<i>Senecio palustris</i>
	Stems not hollow, soft-hairy	<i>Cynoglossum officinale</i>
68	Basal leaves divided	69
	Basal leaves not divided	70
69	Much-branched annual	<i>Centaurea diffusa</i>
	Little-branched biennial	<i>Centaurea maculosa</i>
70	Stem whitish	71
	Stem not whitish	72
71	Leaves spine-tipped	<i>Amaranthus albus</i>
	Leaves not spine-tipped	<i>Oenothera nuttallii</i>
72	Leaves linear to linear-lanceolate	73
	Leaves not linear to linear-lanceolate	81
73	Stems purple	<i>Brachyactis angusta</i>
	Stems not purple	74
74	Plants hairy	76
	Plants not hairy	75
75	Perennials with milky sap	<i>Euphorbia esula</i>
	Annuals without milky sap	<i>Axyris amaranthoides</i>
76	Leaf with vein parallel to margin	<i>Epilobium angustifolium</i>
	Leaf without vein parallel to margin	77
77	Plants rough hairy	78
	Plants not rough hairy	79
78	Hairs stiff and glass-like	<i>Lappula echinata</i>
	Hairs soft, not glass-like	<i>Erigeron canadensis</i>
79	Plants with running roots	<i>Linaria vulgaris</i>
	Plants without running roots	80
80	Annual, leaves green	<i>Erysimum cheiranthoides</i>
	Perennial, leaves grayish	<i>Erysimum inconspicuum</i>
81	Plants prostrate	<i>Amaranthus graecizans</i>
	Plants not prostrate	82
82	Stems reddish at base	<i>Amaranthus retroflexus</i>
	Stems not reddish at base	83
83	Leaves fleshy and spatulate	<i>Heliotropium curassa-</i> <i>vicum</i> var. <i>obovatum</i>
	Leaves not fleshy	84
84	Stems with stiff hairs	85
	Stems without stiff hairs	86
85	Lower leaves spatulate, toothed	<i>Erigeron canadensis</i>
	Lower leaves ovate, entire	<i>Helianthus petiolaris</i>
86	Plants climbing	<i>Solanum dulcamara</i>
	Plants not climbing	87
87	Leaves ovate, fruit a berry	<i>Solanum nigrum</i>
	Leaves cordate, fruit a bur	<i>Arctium minus</i>

88	Plants with milky sap	<i>Euphorbia helioscopia</i>
	Plants without milky sap	89
89	Plants hairy	90
	Plants not hairy	93
90	Basal leaves deeply lobed	91
	Basal leaves not deeply lobed	92
91	Pods jointed, upper leaves lyrate	<i>Raphanus raphanistrum</i>
	Pods not jointed, upper leaves not pinnately lobed	<i>Sinapis arvensis</i>
92	Plants almost prostrate, leaves circular	<i>Malva rotundifolia</i>
	Plants almost erect, leaves lanceolate	<i>Oenothera biennis</i>
93	Plants prostrate	<i>Chenopodium salinum</i>
	Plants erect	94
94	Upper leaves clasping stem	95
	Upper leaves not clasping stem	97
95	Leaves cleft or divided	<i>Rorippa sinuata</i>
	Leaves not cleft or divided	96
96	Flowers white, pods fan-shaped, flattened, winged	<i>Thlaspi arvense</i>
	Flowers yellow, pods globular	<i>Rorippa austriaca</i>
97	Leaves linear to oblanceolate	98
	Leaves not linear to oblanceolate	100
98	Leaves with vein parallel to margin	<i>Epilobium angustifolium</i>
	Leaves without vein parallel to margin	99
99	Plants sticky, flowers pink, stems 4-angled	<i>Epilobium glandulosum</i> var. <i>adenocaulon</i>
	Plants not sticky, flowers yellow	<i>Diplotaxis muralis</i>
100	Plants scurfy or mealy	101
	Plants not scurfy or mealy	103
101	Stems smooth	<i>Atriplex hortensis</i>
	Stems with verticle grooves	102
101	Leaves green above, white below; margins wavy	<i>Chenopodium album</i>
	Leaves green on both surfaces, margins smooth	<i>Atriplex patula</i>
103	Stems swollen at joints	<i>Mirabilis nyctaginea</i>
	Stems not swollen at joints	104
104	Leaves with large terminal lobes	<i>Brassica juncea</i>
	Leaves without large terminal lobes	105
105	Leaves sharply lobed, stem grooved	<i>Chenopodium rubrum</i>
	Leaves with wavy margins	106
106	Flowers yellow, plants with stipules	<i>Viola arvensis</i>
	Flowers white, plants without stipules	<i>Solanum nigrum</i>
107	Some leaves cleft or divided	108
	No leaves cleft or divided	142
108	Leaves clasping	109
	Leaves not clasping	121
109	Leaves prickly-margined	110
	Leaves not prickly-margined	114
110	Row of prickles on underside of midvein	<i>Lactuca scariola</i>
	No row of prickles on underside of midvein	111

111	Flowers purple or white, without milky sap, leaf spines stiff	<i>Cirsium arvense</i>
	Flowers yellow, milky sap, leaf spines soft	112
112	Perennials from creeping rootstocks	<i>Sonchus arvensis</i>
	Annuals with taproots	113
113	Ears at base of clasping leaves rounded	<i>Sonchus asper</i>
	Ears at base of clasping leaves acutely pointed	<i>Sonchus oleraceus</i>
114	Plants with milky sap	115
	Plants without milky sap	116
115	Slender annual, not hairy, flowers yellow	<i>Crepis tectorum</i>
	Branched perennial, hairy, flowers blue	<i>Cichorium intybus</i>
116	Plants hairy	117
	Plants not hairy	118
117	Sticky biennial, evil smelling, flowers greenish-yellow	<i>Hyoscyamus niger</i>
	Annual, flowers small, white	<i>Capsella bursa-pastoris</i>
118	Little-branched perennial	<i>Chrysanthemum leucanthemum</i>
	Much-branched annual	119
119	Stems hollow	<i>Senecio vulgaris</i>
	Stems not hollow	120
120	Seed pods oval, upper leaves perfoliate, lower leaves much divided	<i>Lepidium perfoliatum</i>
	Seed pods linear, upper leaves clasping, all leaves entire	<i>Conringia orientalis</i>
121	Leaves prickly	122
	Leaves not prickly	127
122	Leaves silvery-gray, plant low and much branched, flowers yellow	<i>Haplopappus spinulosus</i>
	Leaves green, plant tall and not much branched, flowers not yellow	123
123	Flowers borne singly on long stem	<i>Carduus nutans</i>
	Flowers not on long stem	124
124	Leaves continuing down stem	125
	Leaves not continuing down stem	126
125	Leaves with triangular lobes	<i>Cirsium undulatum</i>
	Leaves without triangular lobes	<i>Cirsium vulgare</i>
126	Plant hairy with some entire leaves	<i>Cirsium fiodmanii</i>
	Plant almost hairless with no entire leaves	<i>Cirsium arvense</i>
127	Plants hairy	128
	Plants not hairy	135
128	Lower leaves merely lobed	129
	Lower leaves divided	131
129	Stems white-woolly	130
	Stems hairy	<i>Sinapis arvensis</i>
130	Erect perennial, stem grooved and ridged	<i>Centaurea repens</i>
	Branched annual, basal leaves deeply lobed	<i>Centaurea solstitialis</i>
131	Flowers prominent, white	<i>Achillea lanulosa</i>
	Flowers inconspicuous	132
132	Leaf segments thread-like	<i>Artemisia frigida</i>
	Leaf segments not thread-like	133

133	Plants with a distinct odor	<i>Artemisia absinthium</i>
	Plants without odor	134
134	Leaves thin and stalked	<i>Artemisia psilostachya</i>
	Leaves thick and stalkless	<i>Ambrosia artemisiifolia</i> var. <i>elator</i>
135	Leaf segments thread-like	136
	Leaf segments not thread-like	138
136	Flowers discoid, greenish-yellow	<i>Matricaria matricarioides</i>
	Flowers radiate, white	137
137	Plants odorless	<i>Matricaria maritima</i> var. <i>agrestis</i>
	Plants with odor	<i>Matricaria chamomilla</i>
138	Leaves much divided	139
	Leaves merely lobed	140
139	Flowers insignificant, in leafy spike	<i>Artemisia biennis</i>
	Flowers showy, yellow, in terminal clusters	<i>Senecio jacobaea</i>
140	Plants with milky sap	<i>Lactuca pulchella</i>
	Plants without milky sap	141
141	Plants branched from base	<i>Lepidium ramosissimum</i>
	Plants not branched from base	<i>Lepidium densiflorum</i>
142	Leaves toothed	143
	Leaves entire	159
143	Upper leaves clasping	144
	Upper leaves not clasping	148
144	Coarse hollow-stemmed annual	<i>Senecio palustris</i>
	Plant not hollow stemmed	145
145	Plants hairy	146
	Plants not hairy	147
146	Pods inflated	<i>Cardaria pubescens</i> var. <i>elongata</i>
	Pods flattened	<i>Cardaria draba</i>
147	Creeping-rooted perennial with rough leaves	<i>Rorippa austriaca</i>
	Annual with smooth leaves	<i>Thlaspi arvense</i>
148	Plants hairy	149
	Plants not hairy	154
149	Plants prostrate	<i>Veronica persica</i>
	Plants erect	150
150	Plants with pods	151
	Plants with capsules	153
151	Pods short	<i>Camelina microcarpa</i>
	Pods long	152
152	Perennial, leaves grayish	<i>Erysimum asperum</i>
	Annual, leaves green	<i>Erysimum cheiranthoides</i>
153	Annual, upper leaves linear	<i>Erigeron canadensis</i>
	Biennial, leaves lanceolate to ovate-lanceolate	<i>Oenothera biennis</i>
154	Plants with milky sap	<i>Euphorbia heliscopia</i>
	Plants without milky sap	155
155	Plants sticky	156
	Plants not sticky	157
156	Flower heads sticky	<i>Grindellia perennis</i>
	Whole plant sticky	<i>Epilobium glandulosum</i> var. <i>adenocaulon</i>

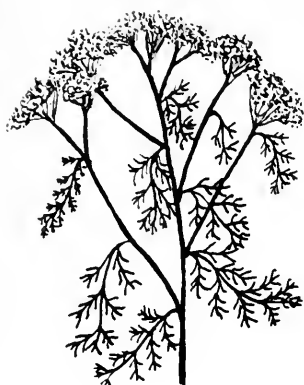
157	Lateral vein on leaf margin	<i>Epilobium angustifolium</i>
	No lateral vein	158
158	Leaves lanceolate and decurrent, plant tall	<i>Helenium autumnale</i>
	Leaves spatulate to linear, not decurrent, plant short	var. <i>montanum</i>
		<i>Veronica peregrina</i>
		var. <i>xalapensis</i>
159	Upper leaves clasping	160
	Upper leaves not clasping	165
160	Leaves grass-like	<i>Tragopogon dubius</i>
	Leaves not grass-like	161
161	Plants hairy	162
	Plants not hairy	164
162	Fruit pods	163
	Fruit not pods	<i>Cynoglossum officinale</i>
163	Pods round	<i>Neslia paniculata</i>
	Pods long ascending	<i>Arabis glabra</i>
164	Flowers spurred	<i>Linaria dalmatica</i>
	Flowers not spurred	<i>Rorippa austriaca</i>
165	Leaves linear to lanceolate	166
	Leaves not linear to lanceolate	189
166	Plants with thick fleshy stems, leaves almost absent	167
	Plants without thick fleshy stems	168
167	Stems globose and on ground	<i>Mamillaria vivipara</i>
	Stems erect and flattened	<i>Opuntia polyacantha</i>
168	Leaves few and scale-like	<i>Lygodesmia juncea</i>
	Leaves not scale-like	169
169	Plants with white shreddy bark	170
	Plants without white shreddy bark	171
170	Low spiny shrub	<i>Sarcobatus vermiculatus</i>
	Shreddy-barked herb	<i>Oenothera nuttallii</i>
171	Plant hairy	172
	Plants not hairy	183
172	Plants bushy, branching from base	173
	Plants erect, not bushy	177
173	Stems purple	<i>Brachyactis angusta</i>
	Stems not purple	174
174	Leaves three-nerved	<i>Kochia scoparia</i>
	Leaves not three-nerved	175
175	Whole plant with long silky hairs	<i>Cryptantha fendleri</i>
	Not long silky haired	176
176	Flowers solitary in leaf axils	<i>Corispermum hyssopifolium</i>
	Flowers in narrow spikes	<i>Bassia hyssopifolia</i>
177	Plants sticky and scented	<i>Madia glomerata</i>
	Plants not sticky and scented	178
178	Fruit in pods	179
	Fruit not in pods	181

179	Flowers yellow, perennial	<i>Erysimum inconspicuum</i>
	Flowers white, annual	180
180	Leaves lanceolate, pods oval	<i>Berteroa incana</i>
	Leaves linear-oblong to spatulate, pods circular	<i>Alyssum alyssoides</i>
181	Hairs stiff and glass-like, flowers blue	<i>Erigeron canadensis</i>
	Hairs not glass-like, flowers white	182
182	Stem hairs appressed	<i>Lappula echinata</i>
	Stem hairs spreading	<i>Lappula redowskii</i> var. <i>occidentalis</i>
183	Plants branching from base	184
	Plants not branching from base	186
184	Leaves with spiny tips	<i>Salsola pestifer</i>
	Leaves without spiny tips	185
185	Running-rooted, leaves obovate to linear- oblong	<i>Iva axillaris</i>
	Taprooted, leaves narrowly linear	<i>Gutierrezia diversifolia</i>
186	Plants with milky sap	<i>Euphorbia esula</i>
	Plants without milky sap	187
187	Leaves rough, mostly opposite	<i>Helianthus subtuberosus</i>
	Leaves not rough	188
188	Flowers spurred, yellow, plant 12 to 24 inches high	<i>Linaria vulgaris</i>
	Flowers not spurred, white, plant 6 to 12 inches high	<i>Veronica peregrina</i> var. <i>xalapensis</i>
189	Plants erect	190
	Plants prostrate	<i>Portulaca oleracea</i>
190	Plants hairy	191
	Plants not hairy	194
191	Leaves mostly basal	192
	Plants leafy throughout	193
192	Fruit pods	<i>Draba nemorosa</i>
	Fruit not pods	<i>Hieracium aurantiacum</i>
193	Plants woolly, leaves broad and flannelly	<i>Verbascum thapsus</i>
	Plants bristly-haired, leaves narrow	<i>Erigeron canadensis</i>
194	Nerves distinct, leaves spatulate to linear, $\frac{1}{2}$ to 1 inch long	<i>Veronica peregrina</i> var. <i>xalapensis</i>
	Nerves not distinct, leaves fleshy, spatulate, $\frac{3}{4}$ to 2 inches long	<i>Heliotropium curassavi-</i> <i>cum</i> var. <i>obovatum</i>
195	Leaves stalked	196
	Leaves sessile	221
196	Leaves cleft or divided	197
	Leaves not cleft or divided	202
197	Plants less than 12 inches high	198
	Plants over 12 inches high	199
198	Leaves grayish	<i>Picradeniopsis oppositi-</i> <i>folia</i>
	Leaves green	<i>Erodium cicutarium</i>

199	Leaf divisions linear	<i>Coreopsis tinctoria</i>
	Leaf divisions not linear	200
200	Some leaves entire, some 3- to 5-lobed	<i>Ambrosia trifida</i>
	No leaves entire	201
201	Running perennial roots	<i>Ambrosia psilostachya</i>
	Annual, taproot	var. <i>coronopifolia</i> <i>Ambrosia artemisiifolia</i> var. <i>elatior</i>
202	Leaves toothed	203
	Leaves not toothed	214
203	Stems square	204
	Stems not square	208
204	Plants prostrate	<i>Glechoma hederacea</i>
	Plants erect	205
205	Upper leaves sessile	<i>Salvia sylvestris</i>
	Upper leaves stalked	206
206	Stems decidedly hairy	207
	Stems only slightly hairy	<i>Moldavica parviflora</i>
207	Perennial with pink roots	<i>Urtica gracilis</i>
	Annual or biennial with taproot	<i>Galeopsis tetrahit</i>
208	Plants erect	209
	Plants prostrate	213
209	Annual	<i>Epilobium glandulosum</i>
	Sticky perennial	var. <i>adenocaulon</i> 210
210	Leaves oblong-linear	<i>Veronica peregrina</i>
	Leaves ovate	var. <i>xalapensis</i> 211
211	Leaves long-stalked, stem downy	<i>Iva xanthifolia</i>
	Leaves short-stalked, stem hairy	212
212	Stems swollen at nodes	<i>Mirabilis hirsutus</i>
	Stems not swollen at nodes	<i>Galinsoga ciliata</i>
213	Leaves with red center line, plants prostrate	<i>Euphorbia serpyllifolia</i>
	Leaves without red center line, plants semi-prostrate, creeping	<i>Veronica persica</i>
214	Shrub	<i>Symphoricarpos occidentalis</i>
	Not a shrub	215
215	Plants prostrate	216
	Plants erect	217
216	Leaves oblong, plants with milky sap	<i>Euphorbia glyptosperma</i>
	Leaves ovate, plants without milky sap, with fine line of hair down stem	<i>Stellaria media</i>
217	Plants with milky sap	218
	Plants without milky sap	220
218	Leaves flannelly	<i>Asclepias speciosa</i>
	Leaves not flannelly	219
219	Stem leaves drooping or spreading	<i>Apocynum androsaemifolium</i>
	Stem leaves ascending	<i>Apocynum sibiricum</i>

220	Plants rough to touch	<i>Helianthus petiolaris</i>
	Plants not rough to touch	<i>Mirabilis nyctaginea</i>
221	Leaves divided	222
	Leaves not divided	223
222	Annual	<i>Ambrosia artemisiifolia</i> var. <i>elatio</i> r
	Perennial with running roots	<i>Ambrosia psilostachya</i> var. <i>coronopifolia</i>
223	Upper leaves clasping	224
	Upper leaves not clasping	226
224	Plants with milky sap	<i>Apocynum sibiricum</i>
	Plants without milky sap	225
225	Leaves ovate-lanceolate, annual	<i>Saponaria vaccaria</i>
	Leaves elliptic-lanceolate, biennial	<i>Silene cserei</i>
226	Leaves linear to lanceolate	227
	Leaves not linear or lanceolate	239
227	Leaves toothed	228
	Leaves entire	229
228	Plants sticky	<i>Epilobium glandulosum</i> var. <i>adenocaulon</i>
	Plants not sticky	<i>Rhinanthus crista-galli</i>
229	Plants hairy	230
	Plants not hairy	233
230	Leaves less than 1 inch long	<i>Veronica peregrina</i> var. <i>xalapensis</i>
	Leaves more than 1 inch long	231
231	Leaves linear	<i>Agrostemma githago</i>
	Leaves oblanceolate	232
232	Flowers in racemes	<i>Silene dichotoma</i>
	Flowers in cymes	<i>Silene noctiflora</i>
233	Stem jointed	234
	Stem not jointed	236
234	Leaves whorled	<i>Spergula arvensis</i>
	Leaves not whorled	235
235	Plants annual	<i>Silene antirrhinum</i>
	Plants perennial	<i>Silene cucubalus</i>
236	Flowers white	237
	Flowers not white	238
237	Plants annual, 12 to 18 inches high	<i>Gypsophila elegans</i>
	Plants perennial, 24 to 36 inches high	<i>Gypsophila paniculata</i>
238	Stems square	<i>Salvia sylvestris</i>
	Stems not square	<i>Veronica peregrina</i> var. <i>xalapensis</i>
239	Plants prostrate	240
	Plants erect	242
240	Leaf margins toothed	<i>Veronica persica</i>
	Leaf margins entire	241
241	Annual with line of white hairs down stem	<i>Stellaria media</i>
	Perennial with reflexed stem hairs	<i>Cerastium arvense</i>
242	Leaves large and cordate	<i>Mirabilis nyctaginea</i>
	Leaves not large and cordate	<i>Lychnis alba</i>

ILLUSTRATIONS AND DESCRIPTIONS OF WEED SPECIES



Achillea lanulosa Nutt.

WOOLLY YARROW

A perennial with shallow rootstocks, 2 feet high, usually covered with silky hairs. Leaves 1 to 6 inches long, finely divided. Flowers in compact, round-tipped clusters, usually white, about $\frac{1}{4}$ inch across. A common plant on prairie and roadsides.



Agrostemma githago L.

PURPLE COCKLE

A hairy, erect annual 1 to 2½ feet high, with a taproot. Leaves linear, hairy, to 4 inches long. Flowers single, purple, at head of stems, with hairy sepals united at base and lobes much longer than petals. Seeds **poisonous** to chickens. Introduced from Europe. Not very common.



Alyssum alyssoides L.

SMALL ALYSSUM

An annual 4 to 12 inches high, with starry hairs. Leaves linear-oblong to spatulate, $\frac{1}{4}$ to $\frac{1}{2}$ inch long. Flowers in narrow racemes, $\frac{3}{16}$ inch across, creamy-white. Pods almost round, yellowish, with a narrow flat margin. Not very common.



Amaranthus albus L.

TUMBLEWEED

A bushy annual with white, much-branched stems, up to 2 feet high. Leaves dull, spatulate, midvein usually extended into a tiny spine. Flowers in small leaf-axil clusters. A common native weed of waste ground and roadsides. When dry, it breaks off and tumbles with the wind.

Amaranthus graecizans L. PROSTRATE AMARANTH



A flat, coarse annual with fleshy, reddish stems forming mats. Leaves shiny-green, $\frac{1}{4}$ to 1 inch long, spatulate. Flowers produced in leaf axils. Although not native, it is a common garden weed.

Amaranthus retroflexus L. RED-ROOT PIGWEED



An erect annual with a reddish root, to $2\frac{1}{2}$ feet high, with angular, rough stems somewhat hairy at the tips. Leaves stalked, ovate, rough, 3 to 4 inches long. Flowers in dense spikes in leaf axils and in large terminal spike. Very common along roadsides, in fields and waste places.

Ambrosia artemisiifolia L. COMMON RAGWEED
var. **elator** (L.) Descourtils



An erect annual to 3 feet high, with stalked leaves, much divided and gray-hairy beneath. Male heads numerous, in long, narrow racemes; female heads in small clusters. A weed of waste places and roadsides, common in the eastern portions but scarcer further west.

Ambrosia psilostachya DC. var. PERENNIAL RAGWEED
coronopifolia (T. & G.) Farwell



A grayish, hairy, erect perennial 12 to 36 inches high, with running rootstocks. Leaves opposite above, alternate below, stalkless and once or twice divided. Male heads numerous, in long narrow racemes; female heads in small clusters. Fruit nut-like. Fairly common in eastern portions along roadsides and waste places, but scarcer to the west.



Ambrosia trifida L.

GREAT RAGWEED

An erect annual 2 to 5 feet high, with a rough, stout, hairy stem. Leaves 2 to 10 inches wide, all opposite, stalked, usually 3- to 5-lobed but upper ones entire and with three main veins. Male flowers in long terminal racemes; female ones in clusters in axils of upper leaves. Common in southeastern prairies along roadsides but scarce elsewhere.



Androsace septentrionalis L.

PYGMYFLOWER

var. *puberulenta* (Rydb.) Knuth

A low-growing annual with leaves less than 1½ inches long, mostly basal. Found on eroded and dry soils and often plentiful on stubble fields and cultivated land in early spring. A common plant but so small that it is not generally noticed.



Apocynum androsaemifolium L.

SPREADING
DOGBANE

A husky perennial from horizontal rootstocks, to 4 feet high, much-branched, with a milky sap. Leaves opposite, oval or ovate, 1 to 3 inches long, lighter and slightly hairy on underside. Flowers pink, in clusters at ends of branches and in leaf axils. Fruits pods, tubular, in pairs about 4 inches long, containing hairy-tipped seeds. Common in woodlands and on light sandy soils.



Apocynum sibiricum Jacq.

CLASPING-LEAVED
DOGBANE

A perennial 1 to 2 feet high, with tough, running rootstocks. Leaves 1 to 3 inches long, oblong to ovate, pale-green, with a blunt or rounded base, either clasping the stem or having very short stalks. Stems with milky sap. Flowers greenish-white, in clusters at ends of stems. Fruits a pair of long pods. Common in moist, sandy soils and creek banks.



Arabis glabra (L.) Bernh.

TOWER MUSTARD

A biennial 1 to 3 feet high, with a smooth upper stem. Basal leaves slightly hairy, 2 to 6 inches long, with short stalks. Stem leaves arrow-shaped at base, stalkless. Flowers greenish-white or yellowish-white. Pods erect, pressed close to stem, about 2 to 4 inches long. Not very common, although plentiful in Cypress Hills.



Arctium minus (Hill) Bernh.

LESSER BURDOCK

A tall, coarse, branching biennial with deep, thick taproots. Leaves large, heart-shaped, pale and downy beneath, to 12 inches long. Flower heads numerous, in one-sided, leafy racemes. An introduced and widely distributed weed. The burs or seed-bearing heads are very prickly and are easily transported on clothes or on the fur of animals.



Artemisia absinthium L.

ABSINTHE

A shrubby perennial to 4 feet high, with much-branched, finely hairy stems. Leaves 2 to 5 inches long, divided into oblong or ovate segments, with fine-grayish hairs. Flower heads stalked, drooping, in spike-like panicles. Sometimes found in waste places as an escape from gardens.



Artemisia biennis Willd.

BIENNIAL WORMWOOD

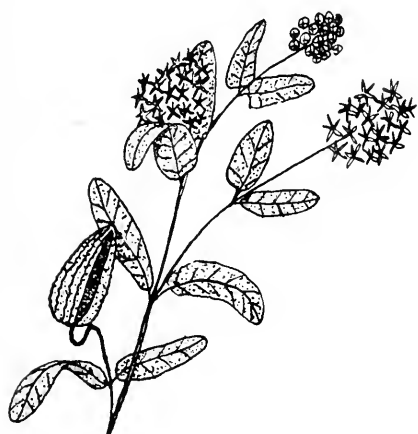
An annual or biennial 1 to 4 feet high, with coarse, somewhat reddish, hairless stems. The early rosette leaves are divided two or three times into toothed segments, stem leaves and upper leaves once or twice divided into narrow segments. Flowers in short, tight spikes in upper leaf axils. Common in moist places over the area.



Artemisia frigidula Willd.

PASTURE SAGE

A perennial from a somewhat woody base, to 20 inches high, silvery-gray, with dense silky hair. Leaves $\frac{1}{2}$ to $1\frac{1}{2}$ inches long, several times divided into linear segments. Flower heads many, yellow, in terminal racemes. Has a distinct odor when handled. Quite common and very conspicuous in overgrazed pastures.



Asclepias speciosa Torr.

SHOWY MILKWEED

An erect, milky-sapped perennial with deep taproots, usually in large colonies, to $2\frac{1}{2}$ feet high. Leaves broad, oval, rounded or somewhat heart-shaped at base, with whitish down, 3 to 6 inches long. Flowers pinkish-purple to flesh-colored, $\frac{1}{3}$ to $\frac{1}{2}$ inch across, in dense, round umbels 2 to 3 inches in diameter. Fruit a follicle or large pod, containing many tufted seeds.



Astragalus bisulcatus (Hook.) A. Gray TWO-GROOVED MILK-VETCH

A stout, many-stemmed perennial, 1 to 3 feet high, with a strong odor. Leaves composed of 17 to 27 elliptic leaflets, each $\frac{3}{8}$ to 1 inch long. Flowers deep purple, $\frac{1}{2}$ inch long, in long dense racemes. Flowers and pods usually drooping. Pods $\frac{1}{2}$ to $\frac{3}{4}$ inch long, with 2 deep grooves. Quite common on prairies and in coulees. May cause selenium **poisoning** in cattle and sheep. Also a host plant for the caragana blister beetle.



Astragalus pectinatus Dougl.

NARROW-LEAVED MILK-VETCH

A usually erect, much-branched perennial, 1 to 2 feet high, with leaves of 11 to 21 narrow leaflets $\frac{1}{2}$ to 3 inches long. Flowers cream-colored, $\frac{3}{4}$ to 1 inch long, in conspicuous loose racemes. Flowers usually in June. Common on lighter soils, across southern area on prairies and roadsides. Deep rooted and very drought-tolerant. A selenium indicator and also a host plant of the caragana blister beetle.



Atriplex hortensis L.

GARDEN ATRIPLEX

A tall annual, often 4 to 5 feet high. Leaves varying from cordate to triangular to ovate. Two types of seed produced: some brown, large, and flat, about $\frac{1}{8}$ inch across and germinating within a few days, others small, black and shiny, and remaining dormant in the soil for several months. A garden escape, has become quite common.



Atriplex patula L.

ORACHE

An annual 1 to 3 feet high, with a grooved, coarse stem. Leaves tapering to their stalks but in the variety *hastata* (L.) Gray having flatter bases and abruptly narrowed to the stalk. Both common in saline meadows and waste places and easily mistaken for lamb's-quarters.



Axyris amaranthoides L.

RUSSIAN PIGWEED

A bushy, erect annual to $2\frac{1}{2}$ feet high. Stem with many ascending branches. Leaves pale green, lanceolate, to 3 inches long. Flowers in dense leafy clusters, with male flowers towards the stem ends. Producing two types of seeds, the long, winged seeds germinating readily but the small wingless seeds having a long period of dormancy. An introduced weed, very common in cultivated fields and abandoned areas.



Bassia hyssopifolia (Pall.) Kuntze FIVE-HOOK BASSIA

A slender-stemmed branching annual to 2 feet high. Leaves grayish-green, usually pressed close to stem, linear, $\frac{1}{2}$ to 1 inch long. Flowers tiny, in narrow interrupted spikes. Fruit about the size of a pinhead, enclosed with five small spine-hooked bracts. Appears to be spreading eastward along railway tracks.



Berteroa incana (L.) DC.

HOARY ALYSSUM

A biennial or perennial, starry-haired, to 2 feet high. Leaves numerous, lanceolate, $\frac{1}{2}$ to 1 inch long. Flowers white, with deeply notched petals. Pods oval, about $\frac{1}{4}$ inch long. An introduced weed, which has been reported from several places.



Brachyactis angusta (Lindl.) Britton

RAYLESS-ASTER

A purple-stemmed, slender, branching annual to 2 feet high. Leaves linear, 1 to 3 inches long, hairless except for some marginal hairs. Flower heads numerous, appearing as tufts of white hair among the leaves. Common in saline soils and moist areas.



Brassica juncea (L.) Cosson

INDIAN MUSTARD

An annual 1 to 4 feet high, with smooth, almost hairless stems and leaves. Lower leaves stalked, 4 to 6 inches long, with large end lobe; upper leaves hardly stalked, much smaller, usually entire. Flowers yellow, Pods 1 to 2 inches long, with a conic beak. A common weed of the fields and waste places.



Camelina microcarpa Andr.

SMALL-SEEDED

FALSE FLAX

An introduced annual or winter annual with an erect hairy stem 1 to $1\frac{1}{2}$ feet high. Leaves stalkless, covered with starry hairs. Flowers small, yellow. Pods stalked and ovoid, about $\frac{3}{16}$ inch long, with numerous seeds that have a very short dormancy period. Common in grain fields and waste places.



Capsella bursa-pastoris (L.) Medic.

SHEPHERD'S-
PURSE

An introduced annual or winter annual with branched stems to 20 inches high. Basal leaves often deeply cut and lobed, forming a rosette; stem leaves clasping, with eared bases. Flowers small, white, in terminal racemes. Pods triangular and notched at blunt end. Introduced weed, common in gardens and waste places.



Cardaria draba (L.) Desv.

HEART-PODDED
HOARY CRESS

A perennial with deep running roots. Stem leaves alternate, clasping; basal leaves short stalked. Flowers white, in a dense raceme. Seed pods smooth, heart-shaped. Introduced from Europe. Occasionally found in gardens and shelterbelts across the prairies.



Cardaria pubescens (Meyer) Rollins
var. **elongata** Rollins

GLOBE-PODDED
HOARY CRESS

A perennial with deep running roots. Basal leaves with short stalks; upper leaves alternate, clasping the stem. Flowers white, in a dense raceme. Seed pods globular, inflated, with fine downy hairs. Introduced, and becoming quite common in gardens and fields.



Carduus nutans L.

NODDING THISTLE

A branching biennial to 3 feet high. Leaves 3 to 6 inches long, deeply divided, very prickly. Flower heads usually purple, nodding, 1½ to 2½ inches across, borne singly on long stems. An introduced weed, rather rare in the prairies.

***Centaurea diffusa* Lam.**

DIFFUSE KNAPWEED



A much-branched annual to 2 feet high, sometimes having a fine spiderweb-like covering on the stems. Leaves once or twice pinnately divided into very narrow segments, some of the uppermost entire. Flowers pale yellowish or cream-colored, numerous, in terminal panicles. Bracts of involucre spiny-margined with a terminal spine. Not yet reported on the prairies but a bad weed in south-central British Columbia.

***Centaurea maculosa* Lam.**

SPOTTED KNAPWEED



An introduced biennial 1 to 3 feet high. Leaves pinnately divided into narrow lobes, excepting those of the inflorescence, which are smaller and entire. Flower heads purplish or occasionally white, on long stems. Bracts of involucre tipped with a short, dark fringe, not stiff and spiny. A common weed of south-central British Columbia, may be expected eastwards.

***Centaurea repens* L.**

RUSSIAN KNAPWEED



An erect perennial with coarse, woody, running roots, to 3 feet high. Stems ridged and grooved, covered with white woolly hairs when young. Foliage extremely unpleasant to the taste. Flowering heads numerous, in terminal panicles, pale yellowish or cream-colored, about $\frac{3}{8}$ inch long. Flower head bracts with spiny margins and a terminal spine. An extremely persistent, introduced weed, found in fields, shelterbelts, and waste places at various locations.



***Centaurea solstitialis* L.**

YELLOW STAR-THISTLE

Annual with branching stem bearing cottony hairs, 1 to 2 feet high. Upper leaves lanceolate to linear, $\frac{1}{2}$ to 1 inch long, entire; basal leaves deeply lobed, to 5 inches long. Bracts often spine-tipped, yellow. Corolla yellow, all florets tubular. An introduced weed, occasionally found in gardens.

Cerastium arvense L.

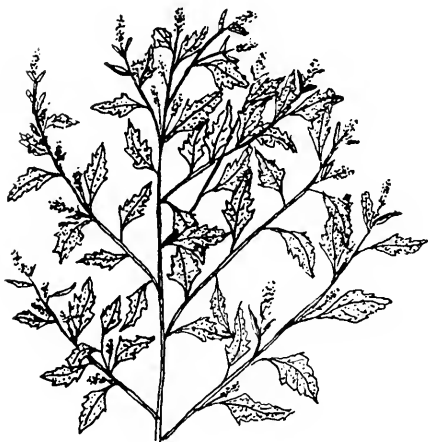
FIELD CHICKWEED



A low-growing perennial with opposite, linear to linear-lanceolate leaves, to 8 inches high but with stems often prostrate at base and often with downward-pointing hairs. Flowers white with cleft petals, about $\frac{3}{8}$ inch across. Fruit a long capsule. A very common spring flower on dry prairie in western portion.

Chenopodium album L.

LAMB'S-QUARTERS



A rank annual 2 to 3 feet high. Leaves alternate, with wavy margins, mealy coated, to 3 inches long. Stems usually grooved, with reddish lines and blotches. Flowers in dense panicles in leaf axils and at summit of stem. One of the commonest weeds in our area. Young plants often eaten as greens.

Chenopodium rubrum L.

RED GOOSEFOOT



A tall annual to $2\frac{1}{2}$ feet high, with ascending branches. Leaves thick, dark-green, not mealy, coarsely toothed, pointed at both ends, to 4 inches long. Flower clusters in leafy spikes in the axils of the leaves, turning dull-red when in fruit. Common on moist saline soils.

Chenopodium salinum Standl.

SALINE GOOSEFOOT



A low prostrate annual with fleshy, reddish stems. Leaves alternate, small, triangular to oval or oblong, lobed, mealy on under surface, $\frac{1}{2}$ to 1 inch long, resembling small oak leaves. Flowers in small spikes in leaf axils. Common in moist saline areas.



Chrysanthemum leucanthemum L. OXEYE DAISY

An erect perennial to 2 feet high. Lower leaves stalked, obovate to spatulate, toothed, 1 to 3 inches long; upper leaves not stalked, clasping, oblong, toothed near base. Flower heads borne singly at end of stem, 1 to 2 inches across, with yellow ray florets and white disk flowers. Introduced, occasionally found as a garden escape in meadows and moist roadsides.

Cichorium intybus L. CHICORY



A perennial with a long, thick, deep root and branching, hairy stems 2 to 3 feet high. Leaves mostly basal, usually spatulate but deeply toothed or pinnatifid, with backward-pointing lobes, to 6 inches long; upper stem leaves small, lanceolate, stalkless, entire or lobed. Flowers bright blue, about 2 inches across, in clusters of 3 or 4 without stalks, at intervals along the upper leafless part of stems. Fairly common introduced weed of southeastern prairies but scarcer in the west.

Cicuta douglasii (DC.) Coult. & Rose WESTERN WATER HEMLOCK



A stout-stemmed, much-branched perennial to 6 feet high, from a swollen, bulbous rootstock, which is divided horizontally into chambers. Leaves double-pinnate, with lanceolate to linear-lanceolate leaflets 2 to 3½ inches long, sharply toothed. Base of leafstalk swollen and sheathing the stem. Flowers small, white, in compound umbels. Common in wet and marshy areas. Very **poisonous** to stock and humans.

Cirsium arvense (L.) Scop. CANADA THISTLE



A persistent perennial with deep running rootstocks, usually growing in large patches. Upper leaves stalkless, clasping the stem, 2 to 5 inches long, deeply cut into prickly, toothed segments; basal leaves sometimes stalked. Flower heads with purple, occasionally white, florets. A common introduced weed across the prairies.

Cirsium flodmanii (Rydb.) Arthur

FLODMAN'S
THISTLE



A perennial 1½ to 3 feet high, from a deep root. Stem slender, usually branched, covered with loose cottony hairs. Leaves 2 to 6 inches long, deeply cleft into lanceolate spiny lobes. Flower heads rose to rose-purple, 1¼ to 1½ inches across. Resembles *C. undulatum* except that its newer basal leaves are often entire-margined and there are numerous new shoots around the base of the older plant. Not common, on moist prairie and valleys of southern and western areas.

Cirsium undulatum (Nutt.) Spreng.

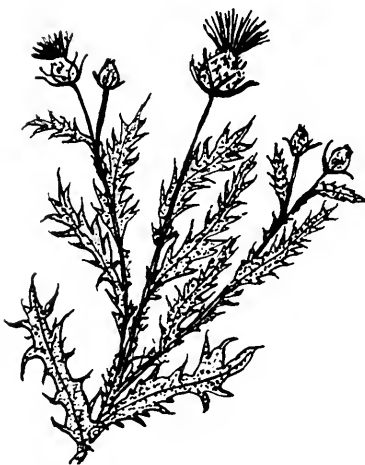
WAVY-LEAVED
THISTLE



A white-woolly biennial 1 to 3 feet tall, with stout, branched, leafy stem. Leaves oblong or lanceolate, with triangular lobes and very prickly; lower leaves stalked, upper ones stalkless, often continuing partway down the stem. Purple or pink flower heads single, at ends of branches, 1½ to 3 inches across. Very common in southern and western portions.

Cirsium vulgare (Savi) Tenore

BULL THISTLE



A stout-stemmed, woolly biennial 3 to 5 feet tall, branched and leafy up to the heads. Leaves dark-green, 3 to 6 inches long, hairy on both sides, deeply cleft, very prickly. Flower heads numerous, purple, at end of branches. Involucral bracts cobwebby, spine-tipped. Introduced, occasionally found on waste land throughout central and southern portions of the area.

Cleome serrulata Pursh

SPIDERFLOWER



An erect, branching annual 1 to 3 feet high, with smooth, hairless stems. Leaves trifoliate, with lanceolate leaflets 1 to 3 inches long. Flowers usually pale-pink, occasionally white. Seed pods 1 to 2 inches long, slightly curved. Strong-smelling plant, very common along roadsides on light soils in southern portions.



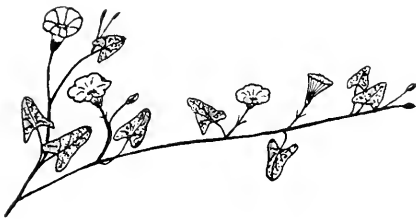
Conringia orientalis (L.) Dum.

HARE'S-EAR
MUSTARD

An introduced annual or winter annual to 2 feet high, with taproot and smooth stems. Leaves elliptical, entire, smooth, clasping stem with eared bases. Plant has a bluish bloom. Flowers creamy-white. Pods narrow, erect, 3 to 4 inches long, square in cross section. A common weed of fields and roadsides.

Convolvulus arvensis L.

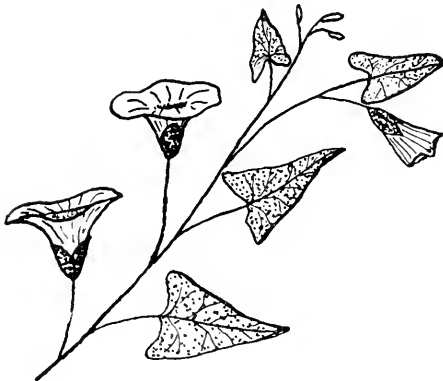
FIELD BINDWEED



A deep-rooted perennial with a very extensive system of white roots and slender, twining stems. Leaves alternate, bluntly triangular, with hastate bases. Flowers pink to white, about 1 inch across, singly or in small bunches of 2 or 4. Fruit a 2-celled capsule containing large, dark-brown, angular seeds. An introduced weed, very difficult to eradicate.

Convolvulus sepium L.
var. **americanus** Sims

WILD MORNING-GLORY



A native twining perennial with broadly hastate leaves, which are alternate, simple, and long stalked. Flowers funnel-shaped, white or pink, large, with two large clasping bracts, borne in axils of leaves. Seeds have a long dormant period and may remain viable in the soil for many years even under favorable germinating conditions. Found along water courses and in moist places throughout area.



Coreopsis tinctoria Nutt.

COMMON TICKSEED

A much-branched annual with a slender hairless stem 1 to 3 feet high. All leaves except the very uppermost divided once or twice into linear segments; lower leaves sometimes stalked. Flower heads numerous, with yellow ray florets and brownish disk florets. Seeds resemble small insects. Common in low moist areas. Often used as a garden flower.

Corispermum hyssopifolium L.

BUGSEED



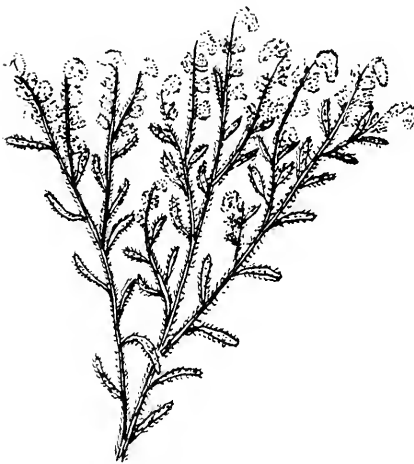
A much-branched annual to 1½ feet high. Leaves narrow, linear, 1½ to 2 inches long, pale-green. Flowers in clusters in axils of leaves. Seeds small, medium brown, flattened, with a decided wing around the edges. Not very common, on sandy soils in southwest and south-central area.

Crepis tectorum L.

NARROW-LEAVED
HAWK'S-BEARD



An introduced annual with slender, branched, leafy stem 6 to 18 inches high, with milky juice. Basal leaves 4 to 6 inches long, usually with backward-pointing teeth; stem leaves stalkless, linear. Flower heads numerous, yellow, on long stems. Rapidly becoming a serious weed on light soils in the northern and eastern parts.



Cryptantha fendleri (A. Gray) Greene

FENDLER'S
CRYPTANTHE

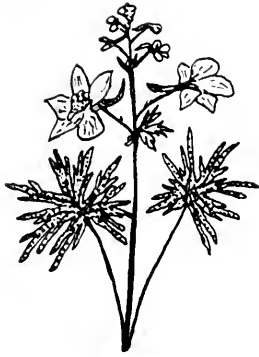
A very hairy, gray or whitish annual in thick groups, short, to 8 inches high. Leaves linear, 1 to 2½ inches long. Flowers small, white, in scorpioid clusters at ends of branches. Fruits 4 smooth, shiny, brown nutlets. Common on sand dunes and light soils of southwest.

Cynoglossum officinale L.

HOUND'S-TONGUE



A soft-hairy biennial to 3 feet high, with erect, leafy stems. Lower leaves oblong-lanceolate, slender-stalked, 6 to 12 inches long; upper leaves without stalks or clasping and lanceolate. Flowers purplish-red, in scorpioid racemes. Fruit a pyramid of 4 nutlets. An introduced weed occasionally found in pastures and waste places in the southeastern areas.



Delphinium bicolor Nutt.

LOW LARKSPUR

A perennial with a thick, fleshy, fibrous root and hairy stems $\frac{1}{2}$ to 2 feet high. Leaves alternate, on long stalks, finely hairy, much cleft and dissected. Flowers spurred, dark-blue, in loose terminal racemes on long stalks. Fruit a dry follicle with many seeds. Not common but abundant locally in the southwest. Very **poisonous** to cattle, but appears harmless to sheep.



Descurainia sophia (L.) Webb

FLIXWEED

Annual or biennial from a taproot, branched, with leaves 2 to 3 times dissected and with some star-like hairs. Flowers yellow. Pods $\frac{3}{8}$ to $1\frac{1}{8}$ -inch long, linear, on short stalks at right angles to the stem. Introduced, and now one of our most common weeds.



Diplotaxis muralis (L.) DC.

SAND-ROCKET

An annual branched from base, 1 to 2 feet high. Stems leafy only near base, with oblanceolate, lobed leaves 2 to 4 inches long, usually with a slender stalk. Flowers yellow. Pods $\frac{3}{4}$ to 1 inch long, stalked, with a short beak. Introduced, occasionally found in waste places.



Draba nemorosa L.

WOOD WHITLOW-GRASS

A low, tufted, winter annual 6 to 12 inches high, from a rosette of basal leaves, with a few stem leaves. Flowers small, pale-yellow, occasionally fading to white, borne in a raceme. Seed pods stalked, oval, $\frac{1}{4}$ to $\frac{1}{2}$ of an inch long. Quite common throughout the area.

Epilobium angustifolium L.

FIREWEED



A stout perennial with alternate, short-stalked, entire, lanceolate leaves 2 to 6 inches long, with lateral veins near margins. Flowers pink to purple, in long terminal racemes, with a small bract beneath each flower stalk. Fruit a 4-angled capsule 2 to 3 inches long, which splits lengthwise to release numerous tufted seeds. Common in woodlands and burnt-over forests, occasionally in moist places on open prairie.

Epilobium glandulosum Lehm.

NORTHERN

var. **adenocaulon** (Hausk.) Fern.

WILLOWHERB



An erect perennial 1 to 3 feet high, sometimes sticky. Leaves mostly opposite, lanceolate or ovate-lanceolate, 1 to 2½ inches long. Flowers pink, usually nodding when young, about ¼ inch long, with a long ovary tube beneath the flower. Fruit a many seeded capsule 1½ to 2 inches long, which splits lengthwise when ripe, releasing many tufted seeds. Common in sloughs and wet places.

Erigeron canadensis L.

CANADA FLEABANE



A slender, bristly, hairy-stemmed annual 4 inches to 5 feet high, usually much branched toward the top. All leaves hairy; upper small, linear, entire, stalkless; lower ones 1 to 4 inches long, spatulate, slightly toothed, short-stalked. Flower heads numerous, in a large, open panicle. A common native weed of fields and dry soils.

Erodium cicutarium (L.) L'Her.

STORK'S-BILL



A low, prostrate annual with pinnately divided leaves and stipules. Flowers pink or purplish, in clusters on long stalks, about ⅜ inch across, the long style splitting from the base upwards into 5 segments, each with a single-seeded capsule bearing a long spiral tail. Occasionally found around towns in south and eastern areas.



Erucastrum gallicum (Willd.) O. E. Schulz DOG
MUSTARD

An erect annual 8 to 18 inches high, with downward-pointing stem hairs. Leaves alternate, varying to 10 inches long, deeply cut, often to midvein, making them appear pinnate. Flowers pale-yellow. Seed pods linear, circular in cross section, 1 to 1½ inches long, with short stalks and a slender style. An introduced weed becoming plentiful.



Erysimum asperum (Nutt.) DC. WESTERN
WALLFLOWER

A rough, usually straggling, biennial 1 to 3 feet high, coarse, much branched, with oppressed small white hairs. Flowers pale-yellow, ½ inch across. Pods 1½ to 4 inches long, spreading in all directions from the stem, narrow, rough, 4-angled, with a thick style at the end and a short, stout stalk. Common in the south on light and sandy soils, rare to the north.



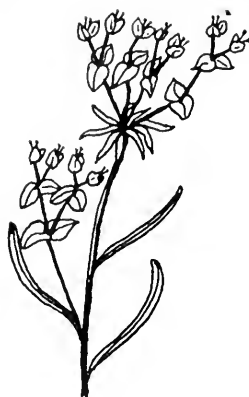
Erysimum cheiranthoides L. WORMSEED MUSTARD

Annual or winter annual to 2 feet high, with lanceolate or oblong-lanceolate, dark-green leaves 1 to 4 inches long. Flowers small and yellow, in dense terminal clusters. Seed pods linear, ½ to 1 inch long on slender stalks. A weed of fields and moist places, not very common.



Erysimum inconspicuum (S. Wats.) MacM. SMALL-
FLOWERED
PRAIRIE-ROCKET

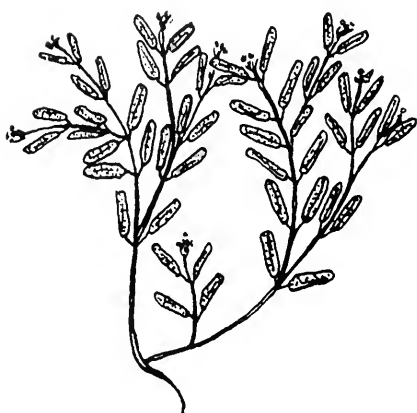
An erect, grayish-green perennial 1 to 2 feet high. Leaves narrow, 1 to 3 inches long, the upper stalkless, the lower ones stalked. Flowers ¼ inch across, yellow, borne on top of stem. Common on dry sandy prairie throughout southern portions.



***Euphorbia esula* L.**

LEAFY SPURGE

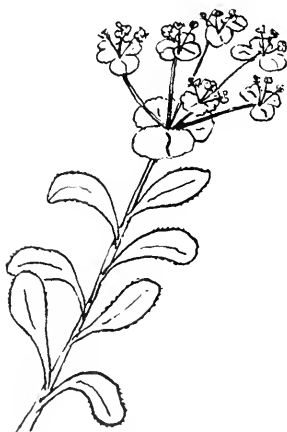
A bluish-green, erect perennial to 2 feet high, from running roots, with a milky sap. Stem leaves scattered, linear or oblong, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers borne on a pair of pale yellowish-green leaf-like bracts. Fruit a 3-seeded capsule, which explodes at maturity. An introduced weed, very plentiful in many localities.



***Euphorbia glytosperma* Engelm.**

RIDGE-SEEDED
SPURGE

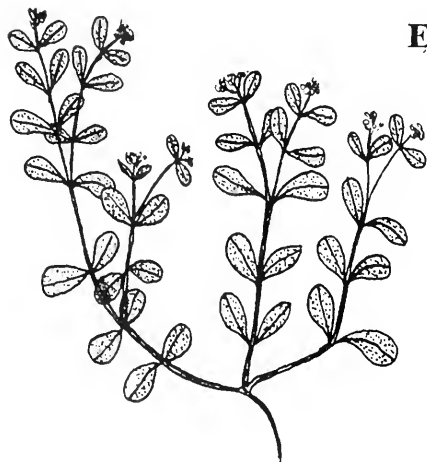
A flat, mat-forming annual 2 to 15 inches across, with a milky sap. Leaves opposite, small, pale-green, oblong, $\frac{1}{8}$ to $\frac{1}{2}$ inch long. Flowers small, in axils of leaves. Seeds ashy-white, strongly wrinkled. A common native plant in waste places and around buildings.



***Euphorbia helioscopia* L.**

SUN SPURGE

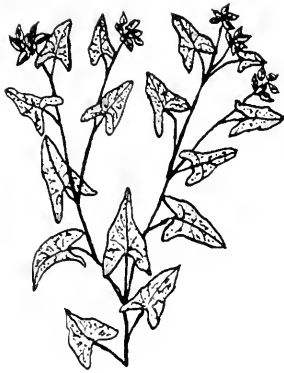
An erect, introduced annual with a milky sap, 6 to 24 inches high, often branching from base. Leaves alternate, obovate or spatulate, bluntly rounded at tip, narrowed to base, $\frac{3}{4}$ to 2 inches long. Flowers in terminal umbel. Fruit a smooth capsule containing dark orange-brown seeds with a ridge down one side. Cultivated fields and gardens, but not common.



***Euphorbia serpyllifolia* Pers.**

THYME-LEAVED
SPURGE

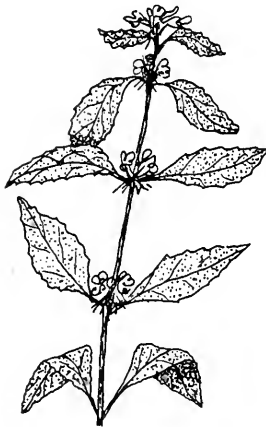
A native annual, usually forming flat mats up to $1\frac{1}{2}$ feet across. Stems usually smooth, somewhat reddish, with a milky sap. Leaves opposite, small, $\frac{1}{8}$ to $\frac{1}{2}$ inch long, dark-green, with a prominent red line down the center. Flowers small, in leaf axils. Common on dry soils and waste places across prairies.



Fagopyrum tataricum (L.) Gaertn.

TARTARY
BUCKWHEAT

Annual with alternate, entire leaves, roughly triangular, 1 to 4 inches long. Flowers small, white, in bunches on flowering stems arising from leaf axils. Seeds about size of wheat kernel. Introduced, a serious pest in northern and central Alberta.



Galeopsis tetrahit L.

HEMP-NETTLE

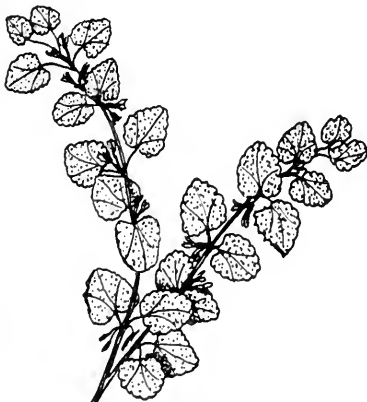
A hairy, rough annual 1 to 3 feet high. Stems usually swollen below nodes. Leaves 2 to 4 inches long, ovate and coarsely toothed. Flowers in both terminal and axillary clusters, with sharp needle-pointed calyx teeth. Petals $\frac{5}{8}$ to 1 inch long, purple or pink variegated with white. Seeds egg-shaped, $\frac{1}{8}$ inch long, grayish-brown. Introduced from Europe, a bad weed in northern and eastern portions where moisture conditions are favorable.



Galinsoga ciliata (Raf.) Blake

GALINSOGA

A much-branched, erect or spreading annual 1 to 2 feet high, stems often rooting at nodes. Leaves opposite, stalked, ovate, with rounded teeth, $\frac{1}{2}$ to 2 inches long. Flower heads many, both terminal and in leaf axils, $\frac{1}{8}$ to $\frac{1}{4}$ inch across, with 4 or 5 small ray florets. Introduced from South America, a garden weed in south-eastern part of prairies.



Glecoma hederacea L.

GROUND-IVY

A creeping perennial with dull greenish-purple stems 1 to $1\frac{1}{2}$ feet long, which root at nodes. Leaves ovate-rounded, cordate based, $\frac{1}{2}$ to $1\frac{1}{2}$ inches across, often with a purplish tinge. Flowers light blue, $\frac{5}{8}$ to $\frac{3}{4}$ inch long, in clusters of 2 or 3 in leaf axils. An introduced plant becoming common in waste areas in eastern parts and as a garden weed elsewhere.



Glycyrrhiza lepidota (Nutt.) Pursh WILD LICORICE

An erect, branching plant 1 to 3 feet high, from a thick, sweet-tasting rootstock that has a slight licorice flavor. Leaves of 11 to 19 lanceolate or oblong, pale-green, glandular-dotted leaflets, $\frac{3}{4}$ to $1\frac{1}{4}$ inches long, pointed at each end. Flowers yellowish-white, $\frac{1}{2}$ inch long, in dense racemes from leaf axils. Fruit an oblong, reddish-brown pod, $\frac{1}{2}$ inch long, with long, hooked prickles. Common in low spots and coulees in southern prairies, rarer to the north.



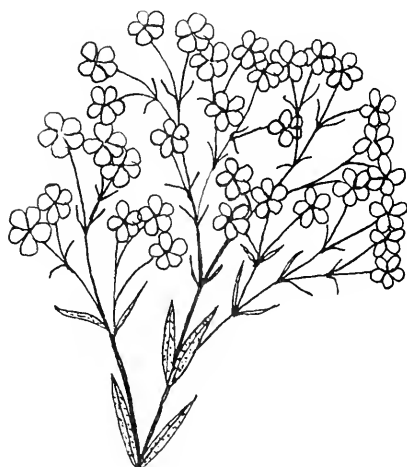
Grindelia perennis A. Nels. GUMWEED

A branched biennial or perennial with smooth stems 8 to 24 inches high. Leaves alternate $\frac{1}{2}$ to $1\frac{1}{2}$ inches long, oblanceolate, hairless, with fine close teeth, stalkless. Flower heads $\frac{3}{4}$ to $1\frac{1}{4}$ inches across, borne in large numbers at ends of stems. Ray florets bright-yellow. Bracts in many series, very sticky and gummy. Achenes or seeds bearing 2 or 3 awns. Common on dry prairies, roadsides, and slough margins.



Gutierrezia diversifolia Greene COMMON BROOMWEED

An erect, deep-rooted, many-stemmed perennial 4 to 8 inches high. Leaves stalkless, numerous, narrowly linear, entire, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers many, small, in close clusters at ends of branches. Not relished by livestock, increasing with overgrazing. Common on dry prairies, extremely drought tolerant.



Gypsophila elegans Bieb. ANNUAL BABY'S-BREATH

A much-branched annual 1 to $1\frac{1}{2}$ feet high, with narrow, lanceolate leaves. Flowers white, numerous, $\frac{1}{2}$ inch across. Petals longer than sepals. A garden escape sometimes found in waste places.



Gypsophila paniculata L.

BABY'S-BREATH

A much-branched perennial 2 to 3 feet high, with linear-lanceolate leaves. Flowers numerous, white, $\frac{1}{4}$ inch across. Petals same length as sepals. A garden escape sometimes found in waste places, gravel pits, and vacant lots.



Haplopappus spinulosus (Pursh) DC.

SPINY
IRONPLANT

A much-branched perennial from a thick, woody root, 6 to 18 inches high. Leaves $\frac{1}{2}$ to $1\frac{1}{2}$ inches long, bluish-green, often finely hairy, deeply dissected into narrow segments, which have bristle-pointed teeth. Heads $\frac{1}{4}$ to $\frac{3}{4}$ inch across, numerous, with narrow ray florets. Common on dry hillsides and prairie in southwest.



Helianthemum autumnale L.
var. **montanum (Nutt.) Fern.**

MOUNTAIN
SNEEZEWEED

A perennial with an erect, stout stem 1 to $2\frac{1}{2}$ feet tall. Leaves $1\frac{1}{2}$ to 4 inches long, lanceolate, sometimes slightly toothed, stalkless, continuing down the sides of the stem. Numerous flower heads $\frac{3}{4}$ to $1\frac{1}{2}$ inches across, with high, rounded, yellow centers and yellow ray florets to $\frac{1}{2}$ inch long. Common in low places throughout western portions, thought to be **poisonous** to livestock and to produce a taint in milk.



Helianthus lenticularis Dougl.

SHOWY SUNFLOWER

A tall, stout-stemmed annual 3 to 6 feet high. Stems rough, often with short, bristly hairs. Leaves coarsely toothed, alternate, ovate, often with cordate bases, 4 to 8 inches long. Heads 3 to 6 inches across, with dark-brown or purple center. Common on clay and heavier soils and along roadsides in southwest.



Helianthus petiolaris Nutt.

PRAIRIE SUNFLOWER

An annual 1 to 3 feet high, with stiff hairy stems. Leaves long-stalked, 1 to 3 inches long, ovate to ovate-lanceolate, with entire margins, rough on both sides. Heads $1\frac{1}{2}$ to 3 inches across with small, brown, raised center. Very similar to *H. lenticularis*. Only found on sandy soils and roadsides in sandy areas.



Helianthus subtuberosus Bourgeau TUBEROUS-ROOTED
SUNFLOWER

A perennial with creeping rootstocks, often with spindle-shaped, fleshy roots, 3 to 10 feet high. Leaves stalkless or very short stalked, lanceolate, 2 to 6 inches long, narrow, very rough on both sides. Heads on long stalks, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches across, with yellowish center. Common in moist saline soils, especially in southern areas.



Heliotropium curassavicum L.
var. **obovatum** DC.

SPATULATE-LEAVED
HELIOTROPE

A perennial from thick, fleshy, white, running roots, 12 inches high. Plants smooth, with a slight bloom giving a waxy appearance. Leaves fleshy, spatulate, with distinct veins, $\frac{3}{4}$ to 2 inches long. Flowers $\frac{1}{4}$ inch across, white or with a bluish tinge, at the end of branches, in several scorpioid spikes $\frac{1}{2}$ to 4 inches long. Found in saline slough margins in southwest but not generally common.



Hieracium aurantiacum L.

ORANGE HAWKWEED

A perennial with slender running roots, 6 to 20 inches high, glandular hairy. Basal leaves hairy, spatulate, 2 to 5 inches long. Stem sometimes bearing several small alternate leaves. Flowers orange-red, in a cluster $\frac{3}{4}$ to 1 inch across. Has been found near Winnipeg but rare elsewhere, although quite common in Eastern Canada.

Hyoscyamus niger L.

BLACK HENBANE



A hairy, evil-smelling, sticky biennial 1 to 3 feet high, from a spindle-shaped root. Leaves alternate, roughly ovate or oblong, irregularly toothed or lobed, 3 to 9 inches long, upper ones clasping the stem. Flowers funnel-shaped, crowded on one side of stem, greenish-yellow with purple veins and anthers, $\frac{3}{4}$ inch long and 1 to 1½ inches across. Fruit a capsule, $\frac{1}{2}$ inch long. An introduced **poisonous** plant occasionally found in gardens and waste places.

Hypochoeris radicata L.

CAT'S-EAR



A perennial with basal rosette of somewhat hairy leaves 2 to 6 inches long, oblanceolate, with backward-pointing lobes. The few stem leaves scale-like. Flower heads 3 to 4, yellow, stalked, about 1 inch across, at the summit of the 8- to 18-inch stems. Introduced and only rarely found.

Iva axillaris Pursh

POVERTYWEED



A herbaceous perennial 2 feet high, with woody, running roots. Leaves stalkless, entire, 3-nerved, obovate to linear-oblong, $\frac{1}{2}$ to 1½ inches long; upper leaves alternate, lower ones opposite. Flowers solitary, small, yellow, borne reflexed in leaf axils. Very plentiful locally in saline soils.

Iva xanthifolia Nutt.

FALSE RAGWEED



An erect, branched annual 2 to 6 feet high, with rough, downy stem. Leaves broadly ovate, rough above and downy below, long-stalked, 2 to 6 inches long. Flowers in terminal and axillary spike-like panicles. Very common in waste places around towns, spreading rapidly.



Kochia scoparia (L.) Schrad.

SUMMER-CYPRESS

An annual to 2 feet high, of ovoid or pyramidal shape. Leaves closely compacted, linear, pale-green when young, turning purplish-red when mature. Seeds many, germinating readily to form a mass of matted seedlings the following year. Because of its fall coloring, it is often used as an ornamental in gardens, but has become a prolific weed.



Lactuca pulchella (Pursh) DC.

BLUE LETTUCE

A pale bluish-green, smooth, hairless perennial 1 to 3 feet high, with white running rootstocks. Leaves usually linear-lanceolate, often with backward-pointing lobes. Heads bright blue, 1 inch across, in panicles. Seed bearing a short, thick beak and a tuft of white hairs. Common on cultivated lands and along roadsides.



Lactuca scariola L.

LOBED PRICKLY LETTUCE

An erect annual, winter annual or biennial 1 to 5 feet high. Leaves 2 to 8 inches long, deeply lobed, the upper ones clasping the stem, underside of midvein bearing a row of short, stiff prickles. Flowers yellow, $\frac{1}{4}$ to $\frac{1}{3}$ inch across, numerous, in large open panicles. Seeds with long beak and a tuft of white hairs. Introduced, a common weed over area.



Lappula echinata Gilib.

BLUEBUR

A hairy annual or biennial, much branched, 6 inches to 2 feet high. Leaves 1 to 3 inches long, the lower ones stalked. Flowers in erect, bracted racemes, pale-blue, $\frac{1}{8}$ inch across. Fruit of 4 nutlets with two rows of hooked prickles around margins. Plant has an odor like a mouse-infested building. Introduced, but now very common and widespread.



Lappula redowiskii (Hornem.) Greene
var. **occidentalis** (Wats.) Rydb.

WESTERN
BLUEBUR

A native hairy annual 4 to 18 inches high. Leaves spatulate to linear-oblong, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long. Flowers pale-blue or white, usually less than $\frac{1}{8}$ inch across and in leafy-bracted racemes. Fruit of 4 nutlets with a single marginal row of hooked prickles. Fairly common on light dry soils throughout the southwest.



Lepidium densiflorum Schrad.

COMMON
PEPPER-GRASS

An annual or winter annual with erect stem branching toward top, 6 to 24 inches high. Stem leaves lanceolate, with a few coarse teeth; basal leaves often deeply cut and divided. Flowers small, usually without petals. Pods numerous, $\frac{1}{10}$ inch wide, with short stalks, heart-shaped, with a notch at top, a single seed in each section. Common in fields, waste places, and roadsides.



Lepidium perfoliatum L.

PERFOLIATE
PEPPER-GRASS

An annual with a much-branched stem 8 to 18 inches high. Lower leaves pale-green, finely dissected and divided; higher leaves becoming more entire, and upper ones entire with a pointed end and a cordate to entirely clasping base. Flowers small, yellow, in terminal racemes. Seed pods $\frac{1}{8}$ inch long, oval, one seed in each compartment. While actively growing, plants have a red tinge to the leaves. Introduced from Western States, as yet quite rare, but has been found near Swift Current.



Lepidium ramosissimum A. Nels.

BRANCHED
PEPPER-GRASS

An annual or biennial $\frac{1}{2}$ to 2 feet high, branched from base. Stem leaves lanceolate with a few coarse teeth; basal leaves often deeply incised and divided. Flowers small with white petals shorter than the sepals. Seed pods somewhat pointed and notched at apex. Probably quite common, often confused with *L. densiflorum*.



***Linaria dalmatica* (L.) Miller**

BROAD-LEAVED
TOAD-FLAX

An introduced perennial, coarsely branched, to 2½ feet high. Leaves many, ½ to 2 inches long, ovate to lanceolate, often clasping stem. Flowers in a spike-like raceme, 1 to 2 inches long, with long spurs, bright-yellow, sometimes with orange-colored throat entrance. Escape from garden.



***Linaria vulgaris* Miller**

YELLOW TOAD-FLAX

A perennial from creeping rootstocks, 8 inches to 2 feet high. Leaves linear, alternate, stalkless, ¾ to 3 inches long. Flowers bright-yellow, with an orange throat and a long spur at the base, in dense terminal racemes, 1 to 1¼ inches long. Introduced as a perennial snapdragon, it is now a persistent weed.



***Lupinus argenteus* Pursh**

SILVERY LUPINE

A shrubby, much-branched plant 1 to 2 feet high, with oppressed, silky-haired stems. Leaves alternate, with 6 to 9 narrowly oblanceolate leaflets ¾ to 2 inches long, sometimes silvery hairy, sometimes smooth above. Flowers light-violet or purplish to almost white, in long terminal racemes. Pods densely silky hairy, ¾ to 1 inch long, with 1 to 5 seeds. Plentiful in Foothills and Cypress Hills.



***Lychnis alba* Miller**

WHITE COCKLE

A biennial or short-lived perennial 1 to 2½ feet high, much-branched with many sticky-haired stems. Leaves opposite, ovate-oblong, 1 to 3 inches long. Flowers white, 1 inch across, with male flowers on one plant and female flowers on another. Fruiting capsule enlarging and swelling at maturity, bearing 10 teeth at top. Becoming quite common in western parts.

Lygodesmia juncea (Pursh) D. Don SKELETONWEED



A much-branched, skeleton-like perennial 6 to 18 inches high, from tough, deep, sticky rootstock. Lower leaves linear-lanceolate, to 1½ inches long; upper leaves smaller or reduced to scales. Flower heads of 3 to 5 florets, borne singly at branch ends, pink, ½ to ¾ inch across. Seeds short, without a beak, bearing a tuft of brownish hair, often with round insect galls easily mistaken for fruit. Common on light sandy soils.

Madia glomerata Hook.

TARWEED



A strong, sticky, scented annual 8 to 20 inches high, with glandular hairy stem and leaves. Leaves alternate, linear, entire, 1 to 3 inches long. Flower heads in terminal and axillary crowded clusters. Heads ¼ inch high and ½ inch wide with 1 to 5 small, yellow ray florets, often none, usually hidden in the glandular-hairy, sticky bracts. Sometimes found in slough margins or in moist open spots in woodlands.

Malva rotundifolia L.

ROUND-LEAVED MALLOW



A branched, prostrate annual or biennial. Leaves ¾ to 2½ inches across, roughly kidney-shaped and wavy-margined. Flowers pale-lilac, ⅜ inch across, sepals as long as petals. Fruit a series of small capsules in a circle. Introduced, becoming very common on roadsides and waste lands.

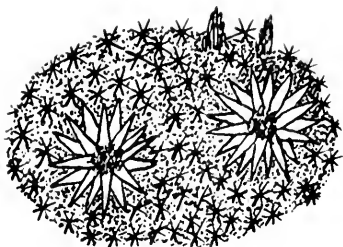
Malvastrum coccineum (Pursh) A. Gray

SCARLET
MALLOW



A native perennial with running rootstocks and woody base, in patches, 4 to 10 inches in height. Leaves usually round in outline but divided to base into wedge-shaped, lobed and cleft leaflets, with fine, white, star-shaped hairs giving a grayish appearance to plant. Flowers brick red, ½ to ⅓ inch across, in dense, short raceme-like clusters. Common on dry prairie in lighter soil zones in southern portions.

Mamillaria vivipara (Nutt.) Haw. PURPLE CACTUS



A pincushion-like cactus 1 to 3 inches high, 1 to 8 inches across, covered with cone-shaped tubercles each bearing a cluster of 3 to 8 reddish-brown spines $\frac{1}{2}$ to $\frac{3}{4}$ inch long. Flowers borne between tubercles, $1\frac{1}{2}$ to 2 inches across, with numerous narrow, purple or dark-red petals, with a yellow center of many stamens. Fruit a pale-green, fleshy berry, $\frac{1}{2}$ inch long, which turns brown with age. Berries sweet and edible when ripe. Very common on open prairie and hillsides throughout southern prairies.



Matricaria chamomilla L. WILD CHAMOMILE

A branching annual $\frac{1}{2}$ to 2 feet high, with finely divided leaves. Flower heads $\frac{3}{4}$ inch across with white ray florets and a conical disk of yellow florets. Plant smells faintly of pineapple. Introduced, reported from several locations.



Matricaria maritima L. SCENTLESS
var. **agrestis** (Knaf) Wilmott CHAMOMILE

A much-branched annual with hairless stem, 8 to 30 inches high. Leaves stalkless, several times divided into narrow, thread-like segments. Flower heads at ends of branches, numerous, $\frac{1}{2}$ to 1 inch across, with yellow centers and white ray florets. Introduced, not common, waste places and roadsides.

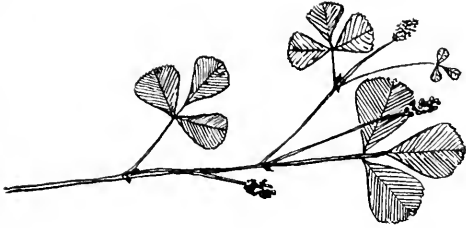


Matricaria matricarioides (Less.) Porter PINEAPPLE-
WEED

A hairless annual 3 to 18 inches high, with leaves several times divided into linear segments. Flower heads conical, $\frac{1}{4}$ inch across, with yellow center florets but no ray florets. Plants have a pineapple odor when squeezed. Introduced, very persistent in waste places, especially around farm driveways and yards.

Medicago lupulina L.

BLACK MEDICK



A prostrate, branched annual, 4 to 24 inches across. Leaves trifoliate, obovate, toothed above the middle, $\frac{1}{8}$ to $\frac{1}{2}$ inch long. Flowers yellow, $\frac{1}{8}$ inch long, in short, head-like racemes less than $\frac{3}{8}$ inch long. Pods curved, small, black, with a single seed. Not common.

Medicago sativa L.

ALFALFA



An erect perennial 1 to 3 feet high, much branched, with trifoliate leaves. Leaflets obovate, sharply toothed toward apex, $\frac{3}{8}$ to $1\frac{1}{4}$ inches long. Flowers purple, blue or mauve, in dense, oblong racemes. Pods hairy and twisted into 2 or 3 spiral turns. Common along roadsides and in waste places.

Melilotus alba Desr.

WHITE SWEET-CLOVER



An annual or biennial 2 to 6 feet high, with palmately or pinnately trifoliate leaves. Leaflets $\frac{1}{2}$ to 1 inch long, toothed almost to base. Flowers white, $\frac{3}{16}$ inch long, in long, narrow, spike-like racemes. Standard slightly longer than wing petals. A yellow-flowered species, *M. officinalis* (L.) Lam., is similar except that the leaflets are somewhat narrower, the flowers yellow, and the standard and wing petals are of about equal length. Common along roadsides and waste places.

Mirabilis hirsuta (Pursh) MacM.HAIRY
UMBRELLAWORT

A slender perennial 1 to 2 feet high, with sticky glandular hairs on the stem. Leaves 1 to 3 inches long, linear-lanceolate to lanceolate, hairy. Flowers without petals but sepals colored, forming a tube or bell, in clusters of 3 to 5 with a saucer-like bract beneath. A form of this species, sometimes classed as a separate species, *Oxybaphus pilosus*, has narrower leaves and the lower portions of the stem and leaves almost hairless except just under the nodes of the stem. Common on sandy soils throughout southern areas.

Mirabilis nyctaginea (Michx.) MacM. HEART-LEAVED
UMBRELLAWORT



An erect perennial to 3 feet high, with an almost hairless stem swollen at the nodes. Leaves opposite, heart-shaped, 2 to 4 inches long, 1 to 3 inches wide. Flowers without petals but sepals deep reddish, united into a bell or funnel, in clusters of 3 to 5 with a saucer-like bract beneath. Quite common on rich soils in southeastern areas and spreading westward.

Moldavica parviflora (Nutt.) Britton AMERICAN
DRAGONHEAD



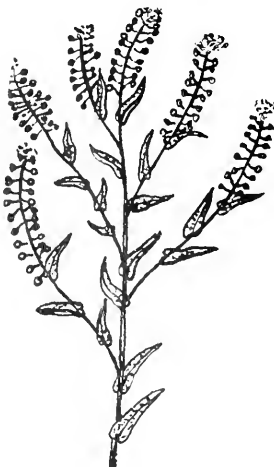
An erect, usually branched annual or biennial with a finely hairy stem, 1 to 2 feet high. Leaves lanceolate to oblong, 1 to 2 inches long, stalked, with large pointed teeth. Flowers in dense cluster 1 to 2 inches long and 1 to 1½ inches wide. Calyx stiff and spiny, giving a prickly stiffness to the clusters. Petals light-blue, only slightly longer than sepals. In woodland openings and old pastures, plentiful locally but not common.

Monolepis nuttalliana (R. & S.) Greene SPEAR-
LEAVED GOOSEFOOT



A prostrate annual with fleshy reddish stems and hastate or spear-shaped leaves, which form a rosette in early stages. Plant spreading out over ground, often measuring 1 foot across. Flowers in small clusters in leaf axils. Germinating in early spring and flowering early. A weedy native, thriving in saline soils but also found on cultivated land.

Neslia paniculata (L.) Desv. BALL MUSTARD



A tall, erect annual or winter annual 1 to 2 feet high, with branched stem. Plant yellowish-green, with starry hairs. Lower leaves somewhat stalked, lanceolate; stem leaves arrow-shaped, clasping stem. Flowers orange-yellow, small, ⅛ inch across, clustered at the stem ends. Pods small, round, in long racemes, ⅛ inch long, with one seed, remaining on plant when ripe. Introduced, widespread.

Oenothera biennis L.YELLOW EVENING-
PRIMROSE

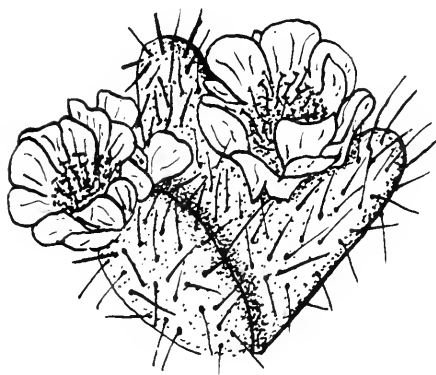
An erect biennial 1 to 6 feet high, from a taproot. Leaves lanceolate to ovate-lanceolate, 1 to 6 inches long, stalkless except for lower ones, which have short stalks. Flowers 1 to 2 inches across, yellow, opening in the evening, borne in a leafy, terminal spike. Capsules $\frac{3}{4}$ to $1\frac{1}{4}$ inches long, finely hairy, opening at the top when ripe. Common in southeast as an introduced weed. Two varieties, *canescens* T. & G. and *hirsutissima* Gray, are the more widespread western forms, on lighter soils.

Oenothera nuttallii SweetWHITE EVENING-
PRIMROSE

An erect, often much-branched perennial 1 to 3 feet high, from a white, fleshy rootstock. Stems shiny, white, with a shreddy bark. Leaves 1 to 4 inches long, pale-green, entire, linear, with wavy margins. Flowers $1\frac{1}{2}$ inches across, in axils of upper leaves, white but fading to pink, opening in the morning, having an objectionable odor. Capsules 4-angled, narrow, curved, about 1 inch long. Common on roadsides in light soils and on sandy land in southern areas.

Opuntia polyacantha Haw.

PRICKLY-PEAR



A prostrate, light-green cactus growing in large clumps. The internodes large and flattened, 2 to 4 inches long, with reddish-brown spines $\frac{1}{2}$ to 2 inches long. Flowers yellow to pinkish-orange, 2 to 3 inches across. Prickly berries 1 to $1\frac{1}{4}$ inches long, with many seeds. The brittle prickly pear *O. fragilis* (Nutt.) Haw., has rounded red or reddish-green internodes. Common on dry prairies and light soils in drier areas of the southwest.

Oxytropis macounii (Greene) Rydb. EARLY YELLOW
LOCOWEED

A low-growing, early-flowering plant with silky or short-haired leaves of 7 to 21 oval leaflets $\frac{1}{2}$ to 1 inch long. Flowers yellow, $\frac{5}{8}$ to $\frac{3}{4}$ inch long, often blooming in May. Pods oblong, $\frac{3}{4}$ inch long, short-haired, often with some black hairs amongst the white ones. Very **dangerous** to livestock. Common on dry hillsides and prairies of southwest.

Picradeniopsis oppositifolia (Nutt.) Rydb.

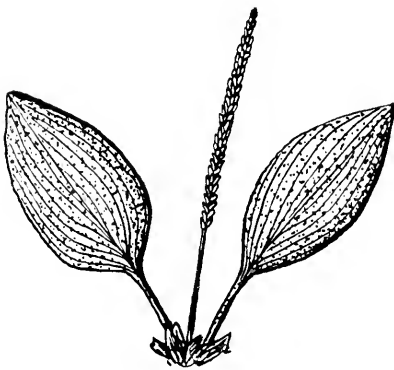
PICRADENIOPSIS



A branched perennial 4 to 8 inches high, from a creeping rootstock. Stem very leafy, with fine hairs. Leaves $\frac{1}{2}$ to $1\frac{1}{2}$ inches long, often divided several times into narrow, linear segments, gray-green, finely hairy. Flower heads yellow, $\frac{1}{2}$ inch across. Quite rare, but found in southern portion as a persistent weed in cultivated land. Usually on saline flats and dry plains much farther south in U.S.A.

Plantago major L.

COMMON PLANTAIN



A perennial from a short, thick rootstock. Leaves numerous, dark-green, oval to ovate, 1 to 10 inches long, with long stalks and pronounced ribs running lengthwise. Flowers in a dense, narrow spike, 3 to 12 inches long, on long stems. Common in lawns, farm yards, and waste places across prairies. A variety, *asiatica* (L.) Decne., with tapering leaf bases and more upright leaves, has been recorded in the extreme northern parts of the area.

Polygonum aviculare L.

DOORWEED



A low annual, sometimes spreading to 2 feet, with alternate, broad, oblong, pale bluish-green leaves, $\frac{3}{4}$ to $2\frac{1}{2}$ inches long. The ocrea or sheathing stipules silvery and translucent. Flowers small, in clusters in leaf axils. Seeds 3-angled achenes. Common in waste places seeming to thrive with trampling.

Polygonum convolvulus L.

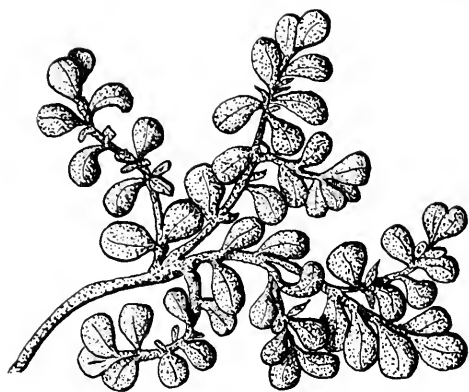
WILD BUCKWHEAT



An annual with a taproot and weak twining stems. Leaves alternate, arrow-shaped, pale-green, $\frac{1}{2}$ to 2 inches long, pointed at the tip, and with sheathing stipules called ocrea. Flowers small, without petals, greenish or pink, in small racemes in leaf axils or at ends of stems. Seed black, 3-angled, about $\frac{1}{8}$ inch long. Introduced from Europe but very common in cultivated land.

Portulaca oleraceae L.

PURSLANE



A succulent, prostrate annual, often forming mats up to 1½ feet across. Stems reddish, thick, fleshy, devoid of hairs. Leaves alternate, shiny dark-green, obovate or spatulate, thick, fleshy, ¼ to 1 inch long. Flowers single, stalkless, in leaf axils, bright yellow, ¼ inch across, with 2 sepals and 5 petals. Seeds numerous, tiny, produced in a pointed capsule or pyxis, the top of which breaks off when mature. Introduced, common in gardens everywhere.

Potentilla anserina L.

SILVERWEED



A low, spreading, tufted perennial with runners flat on the ground. Leaves pinnate, 3 to 18 inches long, with 7 to 25 leaflets, often with smaller leaflets in between, green above, white-woolly beneath, a form of the species, *P. anserina* L. forma *sericea* (Hayne) Hayek, having leaflets that are silvery white on both sides. Flowers bright yellow, ¾ to 1 inch across, single, in long stalks, blooming the entire season. Common in wet places throughout area.

Potentilla fruticosa L.

SHRUBBY CINQUEFOIL



A much-branched perennial shrub 1 to 4 feet high, from branching rootstocks. Leaves leathery, pinnate, with 5 to 7 leaflets ½ to 1 inch long, linear-oblong, pointed at each end. Flowers yellow, ⅝ to 1 inch across. Plentiful on low moist ground, especially on Cypress bench and in Foothills. Often used as a garden ornamental.

Potentilla norvegica L.

ROUGH CINQUEFOIL



A coarse, hairy annual or biennial with erect branches ½ to 2 feet high. Leaves alternate with 3 coarsely toothed leaflets 1 to 4 inches long. Flowers numerous, yellow, sepals longer than the petals, in a dense cyme, ¼ to ½ inch across. Common in moist areas and as a garden weed.



Potentilla recta L. ROUGH-FRUITED CINQUEFOIL

An erect, leafy-stemmed perennial $\frac{1}{2}$ to 2 feet high, with hairy stems and leaf stalks. Leaves deeply toothed into 5 to 7 leaflets, somewhat hairy but paler underneath. Flowers pale-yellow or sulphur, $\frac{5}{8}$ to 1 inch across, on long stalks. Introduced, found throughout the area.



Ranunculus acris L. TALL BUTTERCUP

An erect perennial 1 to 3 feet high, branched above, with hairy stem. Basal leaves stalked, much cleft, divided. Flowers numerous, yellow, $\frac{3}{4}$ to 1 inch across, petals more than twice the length of the sepals. Introduced from Europe, sometimes found in moist areas. Very plentiful in some irrigated areas of southern Alberta.



Raphanus raphanistrum L. WILD RADISH

An erect annual or winter annual 1 to 2 $\frac{1}{2}$ feet high. Lower and basal leaves deeply lobed with large terminal lobe, 4 to 8 inches long; upper leaves smaller. Flowers yellow with purplish veins, $\frac{1}{2}$ to $\frac{3}{4}$ inch across. Pods 1 $\frac{1}{2}$ inches long, constricted between each seed and breaking easily into single-seeded sections. Introduced from Europe, becoming more common in eastern parts as a weed of waste places.



Reseda lutea L. YELLOW CUT-LEAVED MIGNONETTE

A hairless perennial 8 to 20 inches high. Leaves alternate, deeply cut, with spatulate lobes and small glandular stipules. Flowers yellowish-green, in spike-like racemes. Seeds in small globose capsules. Introduced, sometimes found in imported grass seed.

Rhinanthus crista-galli L.

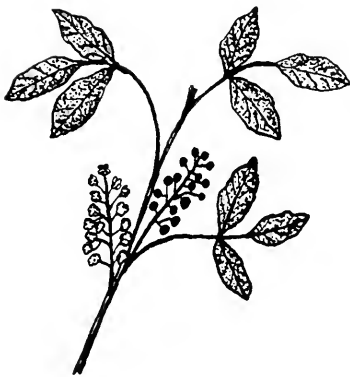
YELLOWRATTLE



A branching annual 1 to 2 feet high. Leaves opposite, linear to lanceolate, 1 to 2 inches long, with finely toothed margins. Flowers $\frac{1}{4}$ to $\frac{1}{2}$ inch long, pale-yellow, with hairy, greenish-yellow calyx, borne in upper leaf axils or in one-sided leafy terminal spike. Calyx compressed, membranous, becoming inflated when ripe, then enclosing capsule. Not common but has been found in southern parts in moist places and open woodlands.

Rhus radicans L.

POISON-IVY

var. **rydbergii** (Small) Rehder

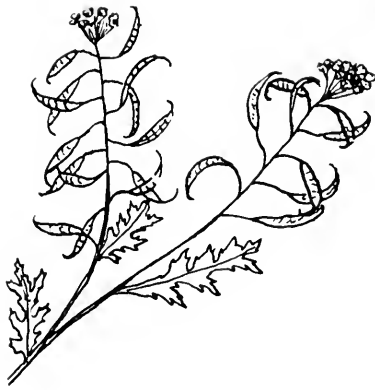
A single stemmed, erect shrub 4 to 12 inches high, with woody stem and creeping rootstock. Leaves of 3 large, strongly veined, bright-green leaflets, $1\frac{1}{4}$ to 4 inches long. Flowers whitish-yellow, in dense panicles in leaf axils. Fruit dull whitish berry, about $\frac{1}{4}$ inch across. May cause severe skin irritation to humans. Found in shady woodlands and ravines.

Rorippa austriaca (Crantz) Besser AUSTRIAN CRESS

A perennial $1\frac{1}{2}$ to 3 feet high, with running roots and smooth stem. Leaves alternate, almost entire or merely toothed but not dissected, the lower stalked, the upper stalkless. Flowers in racemes, small, yellow. Seeds small, almost round, $\frac{1}{8}$ inch long, on stalks $\frac{1}{4}$ to $\frac{1}{2}$ inch long. Introduced, rare, in grain fields.

Rorippa islandica (Oeder) BorbasMARSH
YELLOW CRESS

A native branching annual or biennial 1 to 4 feet high. Leaves deeply dissected, lower ones stalked, 3 to 7 inches long, the upper less dissected or lobed and without stalks. Flowers small, yellow, less than $\frac{1}{4}$ inch across. Pods linear or globose, with two rows of seeds in each compartment. Common in wet places over prairies. There are several varieties of this species.



Rorippa sinuata (Nutt.) Hitchc.

SPREADING
YELLOW CRESS

A native perennial 4 to 18 inches high. Leaves cleft or divided, 2 to 3 inches long, lobes obtuse. Flowers yellow, $\frac{1}{16}$ inch across. Pods linear-oblong, $\frac{1}{3}$ to $\frac{1}{2}$ inch long. Although not common, found in several locations throughout the prairies.



Rorippa sylvestris (L.) Besser

CREeping
YELLOW CRESS

An introduced perennial with creeping roots, smooth stem, and pinnately divided leaves with sharp-toothed divisions. Flowers yellow, $\frac{1}{4}$ to $\frac{3}{8}$ inch across. Seed pods linear, $\frac{1}{3}$ to $\frac{1}{2}$ inch long on slender stalks, with a single row of seeds in each compartment. Found in a few isolated locations.



Rosa woodsii Lindl.

WOOD'S ROSE

A perennial bush 1 to 6 feet high, with stems armed with straight or slightly curved prickles, which are often broad and flattened at the base. Leaves of 5 to 9 oval or obovate leaflets $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers pink, 1 to 2 inches across. Fruit a hip, with a constricted neck, about $\frac{3}{8}$ inch across. Common in bluffs, ravines, and sandhills across southern prairies.



Rumex acetosella L.

SHEEP SORREL

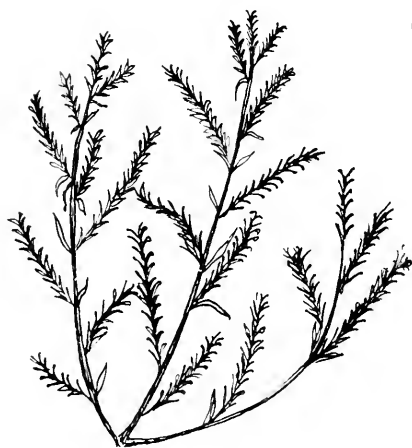
A low-growing perennial usually less than 12 inches high, with leaves 1 to 4 inches long, narrowly hastate or spear-shaped. Sepals not enlarging in fruit. An introduced weed, only rarely found in the area, in dry or sandy places and on acid soils.

Rumex crispus L.**CURLED DOCK**

An introduced perennial over 3 feet high in favorable locations. Leaves alternate, simple, lanceolate, wavy-margined, 6 to 12 inches long, upper ones being smaller. Flowers in several crowded whorls in a raceme. No petals but 6 greenish sepals, the 3 inner being enlarged, heart-shaped, and each bearing a round plump grain or tubercle. Common throughout area in moist locations.

Rumex venosus Pursh**SAND DOCK**

A perennial with running, woody rootstocks and branched stems. Sheathing stipules or ocrea whitish and papery, very noticeable. Leaves pale-green, 2 to 5 inches long and nearly half as wide. Calyx valves in fruit very conspicuous, almost $1\frac{1}{2}$ inches broad, bright red to pink. Found on sandy soils throughout the southwest.

Salsola pestifer A. Nels.**RUSSIAN-THISTLE**

An introduced annual 1 to 2 feet high. Early leaves 1 inch long, dark-green, and thread-like; later leaves shorter and broader, narrowing to a hard, sharp point. Flowers in axils of upper leaves. Seed with membranous wings. Plants usually turning reddish at maturity, breaking off and rolling with the wind. Very common across prairies.

Salvia sylvestris L.**WOOD SAGE**

A coarse, densely downy perennial 1 to $2\frac{1}{2}$ feet high. Leaves $\frac{1}{2}$ to 4 inches long, oblong to ovate-lanceolate; lower leaves stalked, upper ones stalkless. Flowers in long, narrow, terminal spikes 2 to 6 inches long and $\frac{1}{2}$ to $\frac{3}{4}$ inch thick. Flowers deep violet-blue, petals to $\frac{1}{2}$ inch long. Found in scattered locations.

Saponaria vaccaria L.

COW COCKLE



A smooth, hairless annual 1 to 2½ feet high. Leaves grayish-green, smooth, entire, clasping stem, opposite, 1 to 3 inches long, ovate-lanceolate. Flowers in loose corymbose cymes at head of stem. Petals united, ½ inch long with 5 pale-pink petals forming a flat corolla ½ inch across. Fruit an ovoid capsule with round, dull-black seeds, ⅛ inch in diameter. Common in fields and roadsides in southern areas. Often included in wild flower packages sold by seed houses.

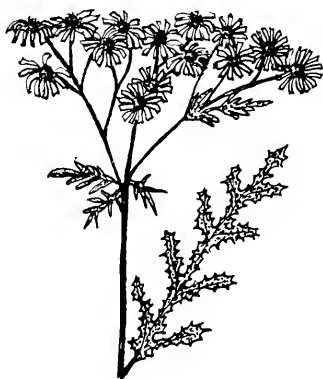
Sarcobatus vermiculatus (Hook.) Torr. GREASEWOOD



A much-branched perennial 5 to 6 feet high, with spiny branches. Stems nearly white, leaves pale yellowish-green, linear, and 1 to 1½ inches long. Male flowers in cylindrical spikes at ends of branches, female flowers singly in leaf axils. Fruit surrounded by a broad membranous wing. Rather **poisonous** to livestock, especially to lambs in spring. Strongly alkali-tolerant, found in saline sloughs and flats in southwestern areas.

Senecio jacobaea L.

TANSY RAGWORT



A perennial 2 to 3 feet high from shallow, short, thick rootstocks. Usually hairless but sometimes with tufts of woolly hairs at leaf axils. Leaves 2 to 3 times divided into broad, overlapping segments, dark green. Lower leaves 6 to 8 inches long, stalked; upper ones stalkless and slightly smaller. Flower heads showy, golden yellow, ¾ inch across, in large, dense, terminal clusters. Common in eastern Canada and at one time thought to have spread to western areas, but as yet, presence here not certain.

Senecio palustris (L.) Hook.

MARSH RAGWORT



A coarse, hollow-stemmed annual 6 to 24 inches high, with fleshy stems which, although slightly cobwebby when young, are quite hairless when mature. Lower leaves lanceolate to spatulate, 2 to 6 inches long, with wavy margins and winged stalks; upper leaves smaller, stalkless, somewhat lobed or dentate, linear-lanceolate, and clasping the stem. Flower heads in crowded, dense, terminal clusters, pale-yellow, ½ to ¾ inch across. Common around sloughs, stream banks, and lake shores.



Senecio vulgaris L.

COMMON GROUNDSEL

A hollow-stemmed, much-branched annual 6 to 15 inches high. Leaves 2 to 6 inches long, lobed, lower ones stalked, upper ones clasping the stem. Flower heads in clusters at ends of branches, without ray florets, each $\frac{1}{4}$ inch across, often with some black-tipped bracts. Not common, found in gardens and fields across prairies.



Silene antirrhina L.

SLEEPY CATCHFLY

An annual 18 to 20 inches high, with erect branches. Stem usually sticky near nodes and sometimes slightly hairy. Leaves 1 to 2 inches long, lanceolate. Flowers very small, $\frac{3}{16}$ inch across, pink. Not common, found in eastern parts of area.



Silene cserei Baumgarten

SMOOTH CATCHFLY

A biennial 4 to 36 inches high, with opposite leaves and resembling bladder campion except for having a taproot. Leaves smooth, thick, elliptic-lanceolate, 2 to 4 inches long. Flowers numerous, pink, with an inflated calyx, white petals cleft at the tip and in whorls around stem. Mature calyx ovoid and $\frac{1}{2}$ inch long. Increasing along railway grades throughout the area.



Silene cucubalus Wibel

BLADDER CAMPION

A tall, erect perennial 6 to 24 inches high, with smooth hairless stems. Leaves opposite, lanceolate and smooth, 1 to 3 inches long. Flowers $\frac{1}{2}$ to $\frac{3}{4}$ inch across, in loose open panicles. Sepals united in a bladder $\frac{3}{8}$ to $\frac{1}{2}$ inch long. Petals 2-cleft, white. Introduced, persistent, not common but generally plentiful where found.

Silene dichotoma Ehrh.

FORKED CATCHFLY



A sticky-haired biennial 1 to 2 feet high. Leaves lanceolate to oblanceolate, 2 to 3 inches long, lower ones stalked and hairy, upper without stalks. Petals deeply cleft, white. Flowers stalkless or with very short stalks, in a spike-like raceme. Introduced, as yet quite rare, but capable of becoming troublesome.

Silene noctiflora L.

NIGHT-FLOWERING CATCHFLY



An erect, hairy, sticky annual 1 to 3 feet high. Leaves hairy, sticky, basal ones oblanceolate, 2 to 5 inches long with short stalks, upper lanceolate, 1 to 3 inches in length and stalkless. Sepals united in a tube $\frac{1}{2}$ inch long with light- and dark-green upright stripes. Petals white, deeply cleft, opening only at night. An introduced weed becoming plentiful throughout southern areas.

Sinapis arvensis L.

WILD MUSTARD



An introduced annual, 1 to 2 feet high, with scattered stiff hairs. Lower leaves 4 to 6 inches long, stalked, deeply lobed; upper stalkless, less divided, often entire. Flowers yellow, $\frac{3}{4}$ inch across. Pods linear, rough, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, with slight constrictions between seeds and with a flattened beak which sometimes contains a seed. Common throughout area in grain fields and waste places, especially moister sites and on heavy clay.

Sisymbrium altissimum L.

TUMBLING MUSTARD



An introduced annual or winter annual 1 to 4 feet high. Basal leaves forming a rosette of pale-green, soft-hairy, divided leaves; stem leaves varying in shape from entire to pinnate or lobed. Flowers pale yellow, $\frac{1}{3}$ inch across. Pods thin, 2 to 4 inches long, each containing over 100 small, light-brown seeds. Plant breaks off at maturity and is carried by the wind. Common on cultivated and range land.



Sisymbrium loeselii L.

TALL HEDGE MUSTARD

An introduced, branched annual 4 to 5 feet high. Upper portion of plant smooth, lower parts with downward-pointing hairs. Leaves deeply lobed, upper ones with lanceolate divisions. Flowers bright yellow. Pods linear, $1\frac{1}{4}$ inches long. Rare, found in southern regions.

Sium suave Walt.

WATER PARSNIP



A tall, marshland perennial 2 to 6 feet high, with smooth hollow stems and stout rootstocks. Early underwater leaves 2 to 3 times pinnately divided into thread-like leaflets; later leaves growing above water, singly pinnate with linear or narrowly lanceolate, sharply toothed leaflets $1\frac{1}{2}$ to 4 inches long. Flowers white, in compound umbels 2 to 3 inches across. Fruit $\frac{1}{8}$ inch long, ovate, flattened with prominent ribs. May have slightly **poisonous** properties, but by no means as dangerous as water hemlock, which it resembles. Common in sloughs and wet places.

Solanum dulcamara L.

BITTERSWEET



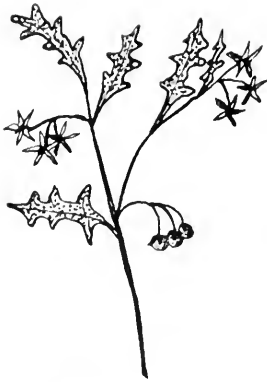
A woody-based perennial climbing or twining vine with branches several feet long. Leaves 2 to 4 inches long, upper ovate, cordate-based, pointed at apex, lower often 3-lobed with one large ovate middle lobe and two small basal lobes. Flowers in panicles or compound cymes, $\frac{1}{2}$ inch across, wheel-shaped, with purple petals and yellow anthers. Fruit round or oval red berry, $\frac{3}{8}$ inch long. A scarce, introduced species, **very poisonous**, found in all prairie provinces.

Solanum nigrum L.

BLACK NIGHTSHADE



An erect annual 4 to 12 inches high, with entire-margined, ovate leaves 1 to 3 inches long. Flowers white, rotate, $\frac{1}{2}$ inch across, in clusters of 3 to 10. Fruit a green berry, turning black when ripe, $\frac{3}{8}$ inch across. There is some variation in hairiness and some authorities call the more hairy-stemmed forms *S. interius* Rydb. An introduced species, quite common in gardens and waste places.



Solanum triflorum Nutt.

WILD TOMATO

A low annual, spreading in a mat 6 to 24 inches across. Leaves deeply lobed, 1 to 3 inches long, covered with scattered hairs. Flowers round, white, $\frac{1}{4}$ to $\frac{3}{8}$ inch across, usually in clusters of three. Fruit a smooth, green berry, $\frac{1}{2}$ inch in diameter. Berries, relished as preserves by some, may cause violent sickness when eaten by others. A native species on disturbed prairie.



Sonchus arvensis L.

PERENNIAL SOW-THISTLE

A perennial 1 to 5 feet high, with strongly creeping rootstocks. Stems usually hollow, not much branched. Lower leaves 4 to 10 inches long, narrowed to a short stalk and having backward-pointing lobes, upper without stalks and less lobed. Leaf teeth spine-tipped. Flowers bright yellow, in a corymbose panicle on bristly stalks. Common in moister areas of prairies.



Sonchus asper (L.) Hill

PRICKLY SOW-THISTLE

An annual 2 to 6 feet high. Leaves slightly lobed, clasping stem at base; lobes spine-tipped, basal lobes rounded. Flowers $\frac{1}{2}$ to 1 inch across, pale-yellow. Common in gardens and roadsides across the prairies.



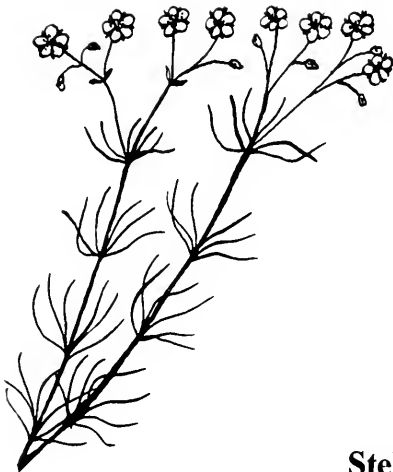
Sonchus oleraceus L.

ANNUAL SOW-THISTLE

An annual 2 to 8 feet high. Leaves deeply lobed, having soft prickles; lower leaves stalked, upper leaves clasping stem. Heads pale-yellow, $\frac{1}{2}$ to 1 inch across. Fairly common in eastern parts as a garden weed or a weed of waste places, scarcer to the west.

***Spergula arvensis* L.**

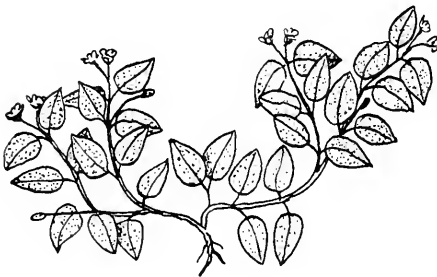
CORN SPURRY



An introduced branching annual 6 to 18 inches high, with very narrow leaves 1 to 1½ inches long, in whorls around the stem. Flowers white, in branching cymes at ends of stems, ¼ inch across. Not common, in fields and roadsides in western portions of area.

***Stellaria media* (L.) Cyrill.**

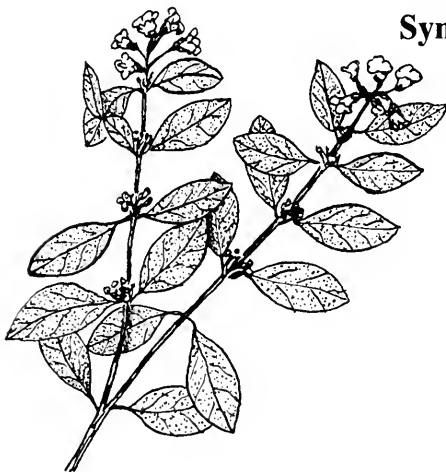
COMMON CHICKWEED



A prostrate annual with a line of fine white hairs on the reclining, trailing stems. Leaves broadly ovate, ¼ to 1 inch long, on short stalks. Flowers white, ¼ inch across, deeply cleft, the 5 petals easily mistaken for 10 separate petals. Introduced from Europe, common in lawns and gardens.

***Symphoricarpos occidentalis* Hook.**

WESTERN
SNOWBERRY



A perennial shrub 1 to 4 feet high, with creeping roots. Leaves almost round to oval or ovate, slightly soft-hairy beneath, 1 to 3 inches long. Flowers in dense spikes at branch ends and in leaf axils, pink and white, with styles and stamens projecting beyond the petals. Fruits waxy, snow-white berries. Common, in dense stands, on open prairie, coulees, and ravines.

***Tanacetum vulgare* L.**

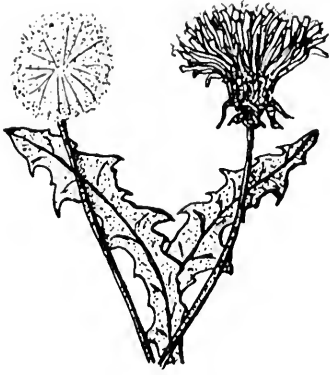
TANSY



A stout, erect-stemmed perennial 1 to 3 feet high. Leaves 2 to 10 inches long, pinnately divided into narrow, toothed segments, aromatic when bruised. Flower heads without ray florets, ¼ to ⅜ inch across, in a flat-topped cluster. Introduced as a garden plant and becoming established in many localities.

Taraxacum officinale Weber

DANDELION



A stemless perennial with deep, fleshy taproot. Leaves stalked, coarsely cut into triangular lobes and a large terminal lobe. Flowering stems arising from the root crown. Flower heads $1\frac{1}{2}$ to 2 inches across, yellow, with many florets. Seeds bright red, with parachute of white hairs on a long beak. Introduced, common throughout area.

Thlaspi arvense L.

STINKWEED



An introduced annual or winter annual 1 to 18 inches high, with smooth leaves and hairless stems. Lower leaves oblanceolate, stalked, soon withering and falling off; stem leaves lanceolate to oblong, eared at base, clasping stem. Flowers small, white, $\frac{1}{8}$ inch across, in clusters at ends of stems. Pods oval, flat, broadly winged, $\frac{1}{2}$ to $\frac{1}{2}$ inch across, deeply notched at top, on stalks $\frac{1}{2}$ to $\frac{3}{4}$ inch long; pod clusters green at first, turning dull-yellow to orange at maturity. Seeds purplish chocolate brown, $\frac{1}{12}$ inch across, with a grooved pattern like a finger print on each side. Very common across prairies.

Tragopogon dubius Scop.

YELLOW GOAT'S-BEARD



A coarse biennial 6 to 24 inches high, from a deep fleshy taproot. Leaves grass-like, erect, narrow, 4 to 12 inches long, stalkless, clasping at base. Flowers sulphur yellow, $1\frac{1}{4}$ to 2 inches across, with 10 to 14 green bracts that are longer than florets. Heads single on long stem, which is swollen just below head. Heads very evident in seed, usually 3 to 4 inches in diameter. Seeds tapered to a long beak, ribbed, bearing a parachute of white hairs. Introduced, plentiful on roadsides and in waste places.

Urtica gracilis Ait.

COMMON NETTLE



A perennial with very coarse rootstocks, which have pink offshoots. Stems erect, usually square in cross section, with ovate to lanceolate, toothed, opposite leaves that bear stinging hairs. Flowers greenish, in clusters in leaf axils. Common around sloughs, bushes, and moist places throughout prairies.



Verbascum thapsus L.

COMMON MULLEIN

A tall, erect, woolly biennial 1 to 6 feet high. Leaves spatulate to elliptic, densely woolly, 4 to 12 inches long. Flowers almost regular, yellow, with 5 lobes, $\frac{3}{4}$ to 1 inch across, in dense woolly spike, 4 to 24 inches high, lower flowers opening first. Rare, reported from scattered points across southern portion of area.



Veronica peregrina L.

HAIRY SPEEDWELL

var. *xalapensis* (HBK.) St. John & Warren

An erect, glandular hairy annual or winter annual 4 to 12 inches high. Leaves opposite, linear to spatulate, $\frac{1}{2}$ to 1 inch long. Flowers white, $\frac{1}{8}$ inch across, single in leaf axils. Not common, on moist, sandy soils and in low spots across area.



Veronica persica Poir.

BIRD'S-EYE

A low-growing, much-branched, spreading annual that is finely hairy. Leaves short stemmed, oval, $\frac{1}{2}$ to 1 inch long, coarsely toothed. Flowers blue, $\frac{1}{4}$ inch across, single on long stalks from leaf axils. Introduced, becoming a common garden weed in some localities.



Viola arvensis Murr.

WILD PANSY

An irregularly branched annual 4 to 12 inches long, with leafy stems. Lower leaves ovate to round, upper leaves oblong to oblanceolate. Stipules large, toothed, leaf-like. Leaves and center sections of stipules round-toothed at tip. Flowers pale-yellow, upper petals sometimes violet-tipped. Introduced, found in several locations.

Editor's Note

The Spelling of Common Names

In this book compound common names are written according to the following rules.

1. Written as one word.

- (a) When the modified word is *plant* or a type of plant, as in *leadplant*, *skunk-bush*, *peatree*, *peavine*, *jewelweed*, *lungwort*; except when the modifier is a hyphenated word, as in *joe-pye weed*, or a proper noun, as in *Virginia creeper*.
- (b) When the modified word is a part of a plant, as in *juneberry*, *twayblade*, *buffalobur*, *coneflower*, *leatherleaf*, *bladderpod*, *balsamroot*, *bugseed*, *twistedstalk*, *bluestem*, *buckthorn*, *wormwood*.
- (c) When the modified word is a part of animal anatomy, as in *arrowhead*, *bluelips*, *cattail*, *beardtongue*; except when the modifier is in the possessive case, as in *bird's-eye*, *crane's-bill*.
- (d) When the words are figurative or suggestive, as in *beggarticks*, *fairybells*, *meadowsweet*, *paintbrush*; except when the modifier is in the possessive case, as in *baby's-breath*, when it is a proper noun or adjectival form of a proper noun, as in *Venus-slipper*, *Indian-pipe*, or when letters demand separation for ease in reading or pronunciation, as in *morning-glory*.

2. Written as separate words.

- (a) When the modified word is taxonomically correct, as in *red clover* (genus *Trifolium*), *alkali grass* (family Gramineae), *fringed milkwort* (genus *Polygala*), *common plantain* (genus *Plantago*).
- (b) When the modifier is the word *common*, *false*, *mock*, *wild*, as in *common camass*, *false flax*, *mock pennyroyal*, *wild chives*.
- (c) When the modifier is a proper noun, as in *Douglas hawthorn*, *Mackenzie's hedysarum*.
- (d) Exceptions in 1(a).

3. Written hyphenated.

- (a) When the modified word is not taxonomically correct, as in *sweet-clover* (genus *Melilotus*, not genus *Trifolium*), *whitlow-grass* (genus *Draba*, not family Gramineae), *sea-milkwort* (genus *Glaux*, not genus *Polygala*), *waterplantain* (genus *Alisma*, not genus *Plantago*); except in a few instances of spelling of long standing, as *burdock*, *buckwheat*.
- (b) A compound modifier, as in *round-leaved hawthorn*, and regardless of whether or not the modified word is taxonomically correct, as in *salt-meadow grass* (family Gramineae), *blue-eyed grass* (genus *Sisyrinchium*, not family Gramineae).
- (c) Certain three- or four-word groups, as *balm-of-Gilead*, *butter-and-eggs*, *grass-of-Parnassus*, *lily-of-the-valley*, *touch-me-not*.
- (d) Exceptions in 1(c), 1(d).

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