TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE
PORTLAND, OREGON

NATURAL RESOURCES CONSERVATION SERVICE
JUNE 1998

PLANT MATERIALS TECHNICAL NOTE NO. 21

SEEDING RATE STATISTICS FOR NATIVE AND INTRODUCED SPECIES

Attached is the publication "Seeding Rate Statistics for Native and Introduced Species," April 1996, a joint publication of the NRCS and National Park Service. The publication contains seed count tables (number of seeds per pound) of often-used native and introduced plants. It also references the sources for the various seed counts.

This information is helpful in determining pounds per acre of Pure Live Seed (PLS) needed to seed a target number of seeds per square foot. Since this publication compiles the results of several other sources it contains a large variety of plants not ordinarily found from agricultural references. Some of these species may be used for wetland, riparian, and other natural plant community restoration or enhancement projects.

Use the following procedure to determine the appropriate pounds PLS (or bulk) per acre needed to attain a desired seeding density of a particular species using this reference:

$$\frac{[\text{Target number of seeds / ft}^2] \times [43{,}560\ \text{ft}^2\ /\ \text{Acre}]}{[\text{Number of seeds / Lb.}]} = \text{Lbs. PLS per Acre Needed}$$

For example: if the desired seeding density of Small Burnett (*Sanguisorba minor* – see page 22) is 6 seeds per square foot:

$$\frac{[6\ \text{seeds / ft}^2] \times [43{,}560\ \text{ft}^2\ /\ \text{Acre}]}{[55{,}000\ \text{seeds / Lb.}]} = 4.75\ \text{Lbs. PLS per Acre Needed}$$

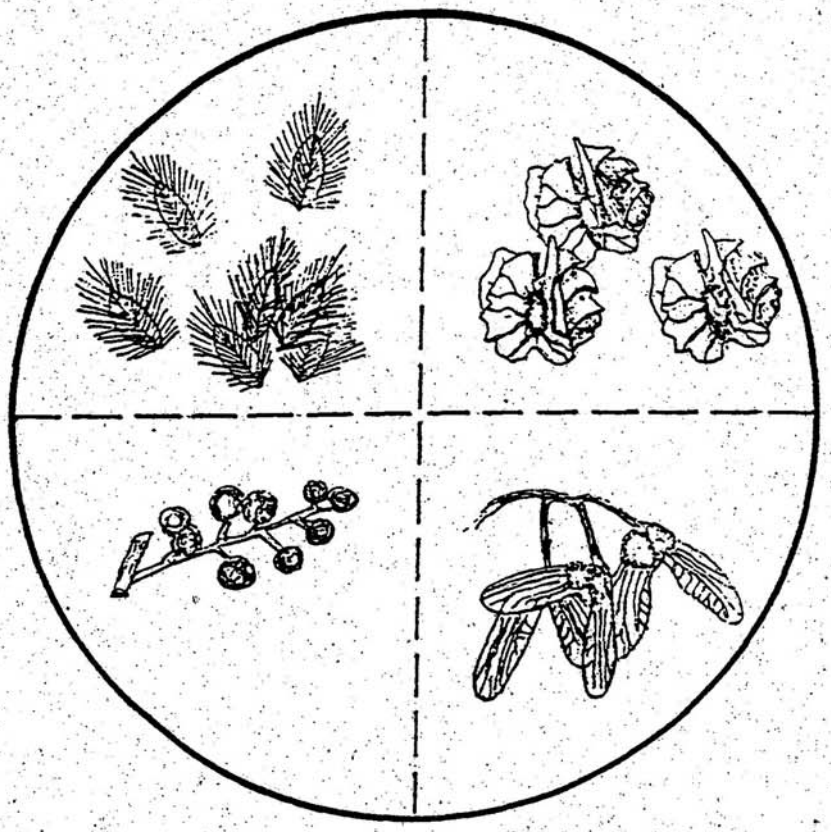
To determine bulk pounds per acre of seed needed divide the result by the percent PLS (as a decimal) found on the seed tag. For example: if the percent PLS was 80%:

$$\frac{[4.75\ \text{Lbs./ Acre}]}{[0.80\ \text{PLS}]} = 5.94\ \text{Lbs. BULK per Acre Needed}$$

Remember that the density of established, mature plants depends on several site-specific environmental and management factors and to adjust the desired *seeding density* accordingly.

SEEDING RATE STATISTICS FOR NATIVE AND INTRODUCED SPECIES

April 1996



United States Department of the Interior
National Park Service
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SEEDING RATE STATISTICS
FOR NATIVE AND INTRODUCED SPECIES

The following table is a reference showing the estimated seeds per pound (seeds/lb.) for 399 native and 91 introduced plant species. The data have been compiled to provide a quick reference comparing, sometimes differing, numbers shown for seed counts (seeds /lb.).

Some references may originate from the same source reference. No attempt has been made to trace the tabulated information to the original source. However, reference dates may be helpful. Seed count differences may also point out the variation within different seed lots, ecotypes, cleaning methods, or techniques used to make seed counts.

This information can be used to determine seeding rates and seed mixtures for the species included. The seed table information is also useful in estimating seed yields from field observations and sampling before seed is harvested from cultivated or native stands.

The "National List of Scientific Plant Names" was used as a compliance reference for names and symbols. Generally, scientific names were used that correlated with the listed source references.

This information is also on a computer disk compatible with WordPerfect 5.1. Copies on disk can be requested through Wendell Hassell, National Park Service DSC-PT, P.O. Box 25287 Denver, Colorado 80225.

SOURCE REFERENCES OF SEED STATISTICS

1. *Ecology and Culture of Selected Species Useful in Revegetating Disturbed lands in the West.* U.S. Fish and Wildlife Service, U.S. Department of the Interior, August 1982.

2. *Grasses and Legumes for Soil Conservation in the Pacific Northwest and Great Basin States*, Agriculture Handbook 339. Soil Conservation Service, U.S. Department of Agriculture, April 1968.

3. *Growing Colorado Plants from Seed: A State of the Art.* Vol. 1: *Shrubs.* Forest Service, U.S. Department of Agriculture. General Technical Report INT-103, Intermountain Forest and Range Experiment Station, January 1981.

4. *Growing Colorado Plants from Seed: A State of the Art.* Vol. 2: *Grasses and Grasslike Plants.* U.S. Fish and Wildlife Service, U.S. Department of the Interior, August 1992.

5. *Growing Colorado Plants from Seed: A State of the Art.* Vol. 3: *Forbs.* U.S. Fish and Wildlife Service, U.S. Department of the Interior, August 1992.

6. *Semi Annual Report: Coffeeville Plant.* National Park Service, U.S. Department of the Interior, Tupelo, MS: Natchez Trace Parkway Materials Center. January–June 1994.

7. *Native Plant Propagation Techniques for National Parks Interim Guide.* Soil Conservation Service, U.S. Department of Agriculture; National Park Service, U.S. Department of the Interior, 1993.

8. *Seed Catalogue.* NPI Native Plants Inc., 1986

9. *Plant Materials for Use on Surface-Mined Lands in Arid and Semiarid Regions*, SCS-TP-157. Soil Conservation Service, U.S. Department of Agriculture, January 1982.

10. *Restoring Big Game Range in Utah.* Forest Service, U.S. Department of Agriculture, 1968.

11. *Seeds of Woody Plants in the United States.* Agriculture Handbook 450. Forest Service, U.S. Department of Agriculture, 1974.

12. *Seed Statistics for Grasses, Legumes, Forbs, and Woody Plants.* Soil Conservation Service, U.S. Department of Agriculture, Seed Laboratory, San Antonio: December 1948.

13. "1992 Soil Conservation Service Plant Materials Report on National Park Service Projects." Soil Conservation Service, U.S. Department of Agriculture; National Park Service, U.S. Department of the Interior, March 1993.

14. *Colorado Agronomy.* Technical Note 61. U.S. Department of Agriculture, March 16, 1981.

15. "Lab Records." Utah Seed Laboratory, Logan: April 1994.

16. *Wildflower Seeds Wholesale Catalog.* Applewood Seed Company, Arvada, CO: 1993.

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Acer glabrum Torr.	ACGL	N	Rocky mountain maple	13,000 13,430 13,000-14,000 7,820-20,300	1 3 7 11
Acer spicatum	ACSP	N	mountain maple	15,300-27,800 11,000	9 13
Achillea lanulosa	ACLA	N	Western yarrow	4,125,000 4,123,635 2,700,000	11 10 13
Achillea millefolium	ACMI	N	yarrow	4,124,000 2,277,000 2,955,800 2,790,000	1 8 13 15
Agropyron caninum	AGCA	I	cutting wheatgrass	141,233	13
Agropyron cristatum	AGCR	I	crested wheatgrass	200,000 200,000 200,000 300,000 201,000	2 4 8 9 11
Agropyron cristatum	AGCR	I	fairway crested wheatgrass	300,000 302,000 302,000	4 11 14
Agropyron dasystachyum	AGDA	N	thickspike wheatgrass	150,000-156,000 156,000 154,000 154,000 150,000 154,000 160,700	1 2 4 8 9 14 15
Agropyron desertorum	AGDE	I	(standard) crested wheatgrass	155,000-175,000 175,000 175,000 195,000	1 4 8 9
Agropyron desertorum	AGDE	I	desert wheatgrass	190,000 175,000	14 4
Agropyron elongatum	AGEL	I	tall wheatgrass	75,000-80,000 79,000 79,000 75,000 79,000 79,000	1 2 8 9 11 14
Agropyron inerme	AGIN	N	beardless wheatgrass	135,000 150,000 117,000 125,000 150,000	2 4 8 9 14

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Agropyron intermedium	AGIN	I	intermediate wheatgrass	80,000-100,000	1
				100,000	2
				88,000	4
				88,000	8
				80,000	9
				88,000	14
Agropyron riparium	AGRI	N	streambank wheatgrass	170,000	1
				170,000	2
				156,000	4
				160,000	8
				156,000	9
Agropyron sibericum	AGSI	I	Siberian wheatgrass	250,000	2
				170,000	8
				160,000	9
				152,000	14
Agropyron smithii	AGSM	N	Western wheatgrass	110,000-126,000	1
				110,000	2
				110,000	8
				115,000	9
				110,000	11
				156,000	14
Agropyron spicatum	AGSP	N	bluebunch wheatgrass	95,000	1
				140,000	2
				95,000	4
				140,000	8
				140,000	9
				140,000-150,000	14
Agropyron trachycaulum	AGTR	N	slender wheatgrass	160,000	2
				160,000	4
				159,000	8
				135,000	9
				160,000	14
Agropyron trichophorum	AGTR	I	pubescent wheatgrass	91,000	2
				90,000	4
				100,000	8
				80,000	9
				100,000	14
Agrostis alba	AGAL	I	redtop	4,990,000	1
				4,900,000	4
				4,900,000	8
				4,900,000	14
Agrostis exarata	AGEX	N	spike bentgrass	5,600,000	4
				5,600,000	13
Agrostis hyemalis	AGHY	N	winter bent	8,500,000	6
Agrostis scabra	AGSC	N	winter redtop	5,000,000	13
				5,000,000	4
Agrostis stolonifera	AGST	N	carpet bentgrass	4,540,000	13
Alnus incana	ALIN	I	European speckled alder	437,000-900,000	11
				1,500,000	13

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Alopecurus pratensis	ALPR	I	meadow foxtail	900,000 580,000 580,000	2 4 8
Amelanchier alnifolia	AMAL	N	Saskatoon serviceberry	avg. 82,000 36,300-113,800 45,395	3 11 10
Amelanchier utahensis	AMUT	N	Utah serviceberry	25,800 25,800	3 10
Amorpha canescens	AMCA	N	leadplant amorpha	165,000 125,000 296,000	1 9 11
Amorpha fruiticosa	AMFR	N	indigobush amorpha	avg. 77,000 72,000-82,000	3 11
Amorpha nana	AMNA	N	dwarfindigo amorpha	59,682	3
Anaphalis margaritacea	ANMA	N	Western pearleverlasting	8,200,000	13
Andropogon gerardii	ANGE	N	big bluestem	130,000 130,000 160,000	1 9 14
Andropogon hallii	ANHA	N	sand bluestem	113,000 100,000 110,000	8 9 14
Andropogon ischaemum (Bothriochloa)	ANIS	I	yellow bluestem	830,000 1,400,000	9 14
Andropogon virginicus	ANVI	N	broomsedge bluestem	800,000	6
Anemone multifida	ANMU	N	cutleaf anemone	363,000	13
Anethum graveolens	ANGR2	I	common dill	363,520	5
Antennaria microphylla	ANMI	N	littleleaf pussytoes	8,000,000	13
Antennaria neglecta	ANNE	N	pussytoes	6,600,000	13
Aquilegia caerulea	AQCE	N	Colorado columbine	368,000 431,000	8 15
Arctostaphylos patula	ARPA	N	greenleaf manzanita	18,000 18,000	3 11
Arctostaphylos uva-ursi	ARUV	N	bearberry manzanita	26,800-58,000	3
Arenaria congesta	ARCO	N	baldhead sandwart	1,083,000	13
Arnica latifolia	ARLA	N	broadleaf arnica	450,000	13
Arnica mollis	ARMO	N	hairy arnica	475,000	13
Arrhenatherum elatius	AREL	I	tall oatgrass	150,000 150,000	2 14
Artemisia arbotanum	ARAR	I	oldman wormwood	891,000-1,055,000	11
Artemisia arbuscula	ARAR	N	low sagebrush	avg. 972,000 891,000-1,500,000	3 7
Artemisia cana	ARCA	N	silver sagebrush	846,000 822,000-870,000 1,704,545	1 3 15

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Artemisia filifolia	ARFI	N	sand sagebrush	4,500,000	15
Artemisia frigida	ARFR	N	fringed sagebrush	4,136,000 4,536,000 4,500,000	1 3 15
Artemisia nova	ARNO	N	black sagebrush	avg.907,000 907,000	1 14
Artemisia spinescens	ARSP	N	bud sagebrush	unknown	3
Artemisia tridentata tridentata	ARTR	N	big sagebrush	avg. 2,466,000 2,576,000	3 14
Artemisia tridentata vaseyana	ARTR	N	mountain big sagebrush	unknown	3
Aster chilensis	ASCH	N	pacific aster	2,668,235	5
Aster cordifolius	ASCO	N	heartleaf aster	2,000,000	6
Aster engelmannii	ASEN	N	Engelmann aster	200,000 141,000	8 13
Aster integrifolius	ASIN	N	thicksteam aster	510,000 408,333	7 13
Aster laevis	ASLA	N	smooth aster	1,300,000 540,000 1,740,250 1,014,000	7 10 13 15
Aster species	ASSP	N	aster	748,000	13
Astragalus bisulcatus	ASBI2	N	two-grooved milkvetch	119,000	5
Astragalus cicer	ASCI	I	cicer milkvetch	130,000 145,000 122,000 145,000 135,000 135,000	1 2 5 8 9 14
Astragalus crassicarpus	ASCR2	N	groundplum milkvetch	72,600-71,300	5
Astragalus drummondii	ASDR3	N	Drummond milkvetch	139,255	5
Astragalus miser	ASMI	N	weedy milkvetch	122,750	13
Atriplex canescens	ATCA	N	four-wing saltbush	10,500-25,000 50,000 13,000-50,000 55,400 55,365	3 9 11 14 10
Atriplex confertifolia	ATCO	N	shadscale saltbush	65,000 64,920 56,250	3 10 15
Atriplex corrugata	ATCO	N	mat saltbush	100,900	3
Atriplex gardneri	ATGA	N	Gardner saltbush	111,450	10
Atriplex nuttallii	ATNU	N	Nuttall saltbush	114,000 111,500 110,000 100,000-119,000	1 3 9 11

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Atriplex nuttallii cuneata	ATNU	N	Castlevalley clover saltbush	81,660	3
Atriplex nuttallii gardneri	ATNU	N	Gardner saltbush	111,450	3
Atriplex obovata	ATOB	N	broadscale saltbush	207,630	3
Atriplex patula hastata	ATPAH2	N	spearleaf fathen saltbush	908,000	5
Atriplex rosea	ATRO	I	tumbling saltweed	151,333	5
Axyris amaranthoides	AXAM	I	Russian pigweed	412,727	5
Baccharis emoryi	BAEM	N	Emory baccharis	unknown	3
Baccharis glutinosa	BAGL	N	seep-willow	unknown	3
Balsamhoriza sagittata	BASA	N	arrowleaf balsamroot	55,000 55,245	8 10
Barbarea verna	BAVE	I	early yellowrocket	526,160	5
Berberis repens (Mahonia)	BERE	N	Oregon grape	62,000 54,000-71,000 58,000	1 11 14
Berberis vulgaris	BEVU	I	barberry	41,215 34,000-41,000	3 11
Berteroa incana	BEIN2	I	hoary false madwort	1,008,888	5
Betula occidentalis	BEOC	N	water birch	402,000	13
Betula papyrifera	BEPA	N	paper birch	610,000-4,120,000 1,100,000	11 13
Bidens frondosa	BIFR	N	devil's beggartick	129,714	5
Bidens vulgata	BIVU	N	big devils beggartick	89,019	5
Bouteloua curtipendula	BOCU	N	sidesoats grama	191,000 191,000 250,000 200,000	1 8 9 14
Bouteloua eriopoda	BOER	N	black grama	1,300,000 1,335,000	9 14
Bouteloua gracilis	BOGR	N	blue grama	711,000 825,000 725,000 850,000	1 8 9 14
Brassica campestris	BRCA2	I	wild rutabaga	192,800	5
Brassica hirta	BRHI2	I	white mustard	73,520	5
Brassica nigra	BRNI	I	black mustard	569,268	5
Brickellia californica	BRCA	N	California brickellia	599,000	3
Bromus anomalus	BRAN	N	nodding bromegrass	40,000-150,000 168,000	7 13
Bromus biebersteinii	BRBI	I	meadow brome	80,000 40,000 80,000 93,750	2 8 9 15

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Bromus carinatus	BRCA	N	California brome	145,000 68,360	9 13
Bromus inermis	BRIN	I	smooth brome	140,000-145,000 125,000 125,000 140,000 152,000 135,000	1 2 8 9 11 14
Bromus marginatus (see carinatus)	BRMA	N	mountain brome	70,000-90,000 90,000 90,000 90,000 71,000 60,475 67,000	1 2 8 9 14 10 13
Bromus vulgaris	BRVU	N	Columbia brome	79,600-119,500 167,158	7 13
Buchloe dactyloides	BUDA	N	buffalograss	40,000 (burs) 275,000 289,000 56,000 (burs)	9 9 11 14
Calamagrostis canadensis	CACA	N	bluejoint reedgrass	3,500,000- 4,000,000 4,729,167	7 13
Calamagrostis inexpansa	CAIN	N	Northern reedgrass	5,300,000	13
Calamagrostis neglecta	CANE	N	slimstem reedgrass	1,400,000	13
Calamagrostis purpurascens	CAPU	N	purple reedgrass	810,714	13
Calamagrostis rubescens	CARU	N	pine reedgrass	2,646,000	13
Calamovilfa longifolia	CALO	N	prairie sandreed	275,000 273,000	9 14
Calochortus nuttallii	CANU3	N	sego lily	190,000	5
Camelina microcarpa	CAMI2	I	littlepod falseflax	1,650,909	5
Campanula rotundifolia	CARO	N	bluebell bellflower	11,200,000 8,000,000	8 13
Cannabis sativa	CASA2	I	common hemp	27,454	5
Carex A species	CASP	N	sedge	371,000	13
Carex B species	CASP	N	sedge	1,300,000	13
Carex geyeri	CAGE	N	elk sedge	91,400	13
Carex haydeniana	CAHA	N	cloud sedge	1,220,430	13
Carex phaeocephala	CAPH	N	dunhead sedge	518,800	13
Carex spectabilis	CASP	N	showy sedge	926,531	13
Castilleja sessiliflora	CASE5	N	downy paintedcup	1,540,000	5
Castilleja species	CASP	N	paintbrush	504,000	13
Ceanothus fendleri	CEFE	N	Fendler ceanothus	unknown	3

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Ceanothus martinii	CEMA	N	Martin ceanothus	83,000 82,895	1 10
Ceanothus sanguineus	CESA	N	redstem ceanothus	128,000-132,000 192,000	11 13
Ceanothus velutinus	CEVE	N	snowbrush ceanothus	avg. 94,000 61,400-152,000 124,275	3 11 10
Ceratoides lanata	CELA	N	winterfat	111,000-210,000 123,000 111,000 112,275	3 1 14 10
Cercocarpus intricatus	CEIN	N	littleleaf mountain mahogany	unknown 50,910	3 10
Cercocarpus ledifolius	CELE	N	curlleaf mountain mahogany	51,900 48,200-50,600 51,865 53,000	3 7 10 14
Cercocarpus montanus	CEMO	N	true mountain mahogany	45,000 28,000-65,000 59,030 59,000	1 3 10 14
Chaenactis douglasii	CHDO	N	Douglas dustymaiden	375,000 310,000	7 13
Chenopodium album	CHAL7	I	lambsquarters	648,571	5
Chenopodium ambrosioides	CHAM	I	Mexican tea	4,380,000	5
Chenopodium berlandieri	CHBE	I	pitseed goosefoot	744,262	5
Chenopodium hybridum	CHHY	N	mapleleaf goosefoot	454,000	5
Chenopodium leptophyllum	CHLE4	N	narrowleaf goosefoot	1,194,736	5
Chenopodium rubrum	CHRU	N	red goosefoot	7,566,666	5
Chrysopsis villosa	CHVI	N	hairy goldenaster	270,000	13
Chrysopsis villosa	CHVI10	N	hairy goldenaster	403,000	5
Chrysothamnus nauseosus	CHNA	N	rubber rabbitbrush	avg. 693,000 445,000-483,000 20,625 unclean 649,000-745,000 693,220	3 6 7 11 10
Chrysothamnus viscidiflorus lanceolatus	CHVI	N	lanceleaf rabbitbrush	782,070, unknown	1 3
Chrysothamnus viscidiflorus	CHVI	N	Douglas rabbitbrush	584,500-782,000 782,000 674,000-890,000 782,070	1 3 11 10
Cichorium intybus	CIIN	I	common chicory	426,384	5
Cinna latifolia	CILA	N	drooping woodreedgrass	2,100,000	13
Cirsium arvense	CIAR4	I	Canadian thistle	288,253	5

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Clematis ligusticifolia	CLLI	N	Western virginbower	315,000 avg. 315,000 300,000-328,000 315,000	14 3 11 10
Cleome serrulata	CLSE	N	Rocky Mountain beeplant	61,000-67,000	5
Coleogyne ramosissima	CORA	N	blackbrush	unknown	3
Collomia linearis	COLI2	N	narrowleaf mountaintrumpet	605,333	5
Colutea arborescens	COAR	I	bladder senna	21,100	10
Colutea arborescens	COAR6	I	bladder senna	25,000-55,280	5
Conringia orientalis	COOR	I	hare's ear mustard	211,162	5
Coreopsis tinctoria	COTI3	N	golden tickseed	5,044,444	5
Coreopsis tinctoria	COTI	N	plains tickseed	1,400,000	6
Corispermum nitidum	CONI3	I	oriental bugseed	349,230	5
Cornus canadensis	COCA	N	bunchberry	67,000 Avg. 67,000 59,000-77,000 74,720	8 7 11 13
Cornus stolonifera	COST	N	red-osier dogwood	avg. 18,500 13,800-26,700 17,260	3 11 10
Coronilla varia	COVA	I	crownvetch	110,000 110,000 120,000 120,000	1 8 9 14
Cowania mexicana	COME	N	cliffrose	65,000 64,000 64,615	1 14 10
Cowania mexicana stansburiana	COME	N	Mexican cliffrose	65,000 60,800-67,000	1 3
Crataegus chrysocarpa	CRCH	N	fireberry hawthorn	10,750 10,750	3 11
Crataegus douglasii	CRDO	N	black hawthorn	21,500-23,700 14,900	11 13
Crataegus succulenta	CRSU	N	fleshy hawthorn	20,600 20,600	3 11
Cucurbita foetidissima	CUFO	N	Missouri gourd	23,000	5
Dactylis glomerata	DAGL	I	orchardgrass	540,000 654,000 540,000 650,000	2 8 9 14
Dalea purpurea	DAPU	N	purple prairieclover	300,000	14
Danthonia intermedia	DAIN	N	timber oatgrass	532,000 214,000	7 13

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Danthonia spicata	DASP	N	poverty danthonia	362,250	13
Daucus carota	DACA6	I	Queen Anne's lace	385,560	5
Deschampsia atropurpurea	DEAT	N	mountain hairgrass	1,656,934	13
Deschampsia caespitosa	DECA	N	tufted hairgrass	1,500,000 1,300,000 1,125,000	8 13 15
Deschampsia elongata	DEEL	N	slender hairgrass	1,860,000	13
Distichlis spicata stricta	DIST	N	inland saltgrass	518,000 520,000 520,000 518,000	4 8 9 11
Dracopsis amplexicaulis	DRAM	N	clasping coneflower	1,600,000	6
Dryas drummondii	DRDR	N	yellow dryad	908,000 908,000	7 13
Echinacea angustifolia	ECAN2	N	blacksamson echinacea	197,000	5
Elaeagnus commutata	ELCO	N	silverberry	avg. 3,800	3
Elaeagnus angustifolia	ELAN	I	Russian olive	2,900-5,160 3,470-6,990 2,870	3 11 10
Elymus canadensis	ELCA	N	Canada wildrye	115,000 121,000 106,000	8 11 14
Elymus cinereus	ELCI	N	Basin wildrye	95,000-166,000 165,000 95,000 150,000 130,760 166,000	1 2 4 8 10 14
Elymus giganteus	ELGI	I	mammoth wildrye	55,000 100,000 55,000 55,000	2 8 9 14
Elymus glaucus	ELGL	N	blue wildrye	131,000 124,000-155,000 128,000	2 7 13
Elymus junceus	ELJU	I	Russian wildrye	170,000 175,000 170,000 187,000 175,000	2 8 9 11 14
Elymus salina	ELSA	N	Salina wildrye	379,000 130,000 379,000	8 7 14
Elymus triticoides	ELTR	N	beardless wildrye	150,000	9
Ephedra Nevadensis	EPNE	N	Nevada ephedra	19,000	10

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Ephedra viridis	EPVI	N	green ephedra	25,000 25,200 24,955	1 3 10
Epilobium angustifolium	EPAN	N	fireweed	8,500,000 6,000,000	8 13
Eragrostis trichodes	ERTR	N	sand lovegrass	1,500,000 1,500,000 1,779,000 1,300,000	8 9 11 14
Erigeron peregrinus	ERPE	N	peregrine fleabane	899,000	13
Erigeron philadelphicus	ERPH	N	Philadelphia fleabane	3,000,000	6
Erigeron speciosus	ERSP	N	fleabane daisy	1,600,000 1,000,000 1,892,000	8 13 15
Erigeron subtrinervis	ERSU	N	threeveined fleabane	1,000,000	13
Eriogonum flavum	ERFL	N	yellow eriogonum	220,175	13
Eriogonum umbellatum	ERUM	N	sulfur flower	209,000 210,000	8 13
Eriophyllum lanatum	ERLA	N	wooly eriophyllum	818,000	13
Erodium cicutarium	ERCI6	I	redstem stork's bill	199,745	5
Erysimum asperum	ERAS2	N	plains wallflower	373,000	5
Erysimum cheiranthoides	ERCH9	N	wormseed wallflower	3,632,000	5
Erythromium grandiflorum	ERGA	N	lambstongue troutlily	86,083	13
Euphorbia esula	EUES	I	wolf's milk	129,714	5
Euphorbia marginata	EUMA8	N	snow on the mountain	29,800-32,600	5
Euphorbia serpyllifolia	EUSE5	N	thymeleaf spurge	1,513,333	5
Fagopyrum esculentum	FAES2	I	buckwheat	20,412	5
Fallugia paradoxa	FAPA	N	apacheplume	540,000 420,000-54,000 420,000	1 3 7
Festuca arizonica	FEAR	N	Arizona fescue	550,000 410,000 411,000	8 9 14
Festuca arundinacea	FEAR	I	tall fescue	181,000-230,000 181,000-230,000 227,000 210,000 230,000	1 2 8 9 14
Festuca idahoensis	FEIA	N	Idaho Fescue	450,000 450,000 450,000 450,000 520,000	1 2 8 9 13
Festuca occidentalis	FEOC	N	Western fescue	348,000	13

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Festuca ovina	FEOV	I	sheep fescue	680,000 680,000 680,000 596,000	2 8 9 11
Festuca ovina var.duriuscula	FEOV	I	hard fescue	565,000 560,000 605,000	2 9 14
Festuca rubra	FERU	N	red fescue	615,000 615,000 511,000 615,000	2 8 11 14
Festuca scabrella	FESC	N	rough fescue	200,000 210,776	8 13
Festuca thurberi	FETH	N	Thurber fescue	995,000 500,000 995,000	8 9 14
Forestiera neomexicana	FONE	N	desert olive	unknown	3
Fraxinus anomala	FRAN	N	singleleaf ash	20,050 20,350	3 10
Gaillardia aristata	GAAR	N	common gaillardia	199,000	5
Galium boreale	GABO2	N	northern bedstraw	756,666	5
Geranium viscosissimum	GEVI	N	geranium	52,000 45,000 70,000	8 7 13
Geum macrophyllum	GEMA	N	largeleaf avens	793,706	13
Geum triflorum	GETR	N	prairiesmoke	696,000 696,319	7 13
Glycyrrhiza lepidota	GLLE3	N	American licorice	52,668	5
Grayia brandegei	GRBR	N	spineless hopsage	190,000 189,950	3 10
Grayia spinosa	GRSP	N	spiny hopsage	402,000 395,200-424,000 166,765	1 3 10
Grinderia squarrosa	GRSQ	N	curlycup gumweed	756,666	5
Gutierrizia sarothrae	GUSA	N	broom snakeweed	unknown	3
Hedeoma drummondii	HEDR	N	Drummond's falsepennyroyal	2,774,000	5
Hedeoma hispida	HEHI	N	rough falsepennyroyal	1,681,481	5
Hedysarum boreale	HEBO	N	Northern sweetvetch	81,000 86,000-96,700 33,600 125,000 34,000	1 5 8 7 14
Hedysarum boreale	HEBO	N	northern sweetvetch	86,000-96,700	5
Hedysarum sulphurescens	HESU	N	yellow sweetvetch	72,000 72,570	7 13

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Hedysarum utahensis	HEUT	N	Utah sweetvetch	33,585	10
Helenium montanum	HEMO9	N	mountain sneezeweed	1,464,516	5
Helianthella uniflora	HEUN	N	oneflower helianthella	52,560	5
Helianthella uniflora	HEUN	N	oneflower helainthella	52,560 54,000 72,300	5 7 13
Helianthus annuus	HEAN	N	sunflower	32,000 58,500 66,176 59,800	5 8 15 16
Helianthus petiolaris	HEPE	N	prairie sunflower	216,190	5
Helianthus rigidus	HERI2	N	stiff sunflower	98,500-102,000	5
Helianthus tuberosus	HETU	N	Jerusalem artichoke	75,666	5
Heliopsis helianthoides scabra	HEHES	N	smooth oxeye	116,410	5
Heracleum lanatum	HELA	N	cowparsnip	76,000 44,850 54,700	5 10 13
Heracleum lanatum	HELA4	N	cowparsnip	76,000	5
Heuchera cylindrica	HECY	N	roundleaf alumroot	7,673,875	13
Hilaria jamesii	HLJA	N	galleta	170,000 170,000 160,000	1 7 9
Hilaria jamesii	HLJA	N	galleta (caryopsis)	470,000 470,000	8 14
Hilaria jamesii	HLJA	N	galleta (floret)	159,000 159,000	8 14
Holodiscus dumosus	HODU	N	rock spiraea	unknown	3
Hypericum formosum	HYFO	N	southwestern St.Johnswort	1,916,000	5
Iva xanthifolia	IVXA	N	marshelder sumpweed	378,333	5
Juncus mertensianus	JUME	N	Mertens rush	45,400,000	13
Juniperus communis	JUCO	N	common juniper	avg. 36,500 25,450-54,500 45,000	3 11 15
Juniperus monosperma	JUMO	N	one seed juniper	15,260-20,000	11
Juniperus osteosperma	JUOS	N	Utah juniper	4,950 3,600-7,100 51,130	7 11 15
Juniperus scopulorum	JUSC	N	Rocky mtn. juniper	17,850-42,100 31,250	11 15
Kochia americana	KIAM	N	desert molly	unknown	3
Kochia scoparia	KOSC	I	fireweed summercypress	534,117	5
Koeleria cristata	KOCR	N	Junegrass	2,315,000	8
Lactuca serriola	LASE	I	prickly lettuce	1,008,888	5

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Lappula echinata	LAEC	I	European stickweed	336,296	5
Larix occidentalis	LAOC	N	Western larch	221,500	13
Leonurus cardiaca	LECA2	I	motherwort	585,806	5
Lepidium densiflorum	LEDE	N	pepperweed	1,816,000	5
Lepidium ramosissimum	LERA2	N	manybranched pepperweed	2,063,636	5
Leptodactylon pungens	LEPU	N	prickly phlox	unknown	3
Ligusticum porteri	LIPO	N	Porter's licoriceroot	69,275	5
Linaria vulgaris	LIVU2	I	butterandeggs toadflax	3,242,857	5
Linum lewisii	LILE	N	Lewis flax	285,000 422,325 293,000 278,280 285,000	1 5 8 10 14
Linum lewisii	LILE3	N	Lewis flax	422,325	5
Linum rigidum	LIRI	N	stiffstem flax	480,000-583,000	5
Linum usitatissimum	LIUS	I	flax	81,648	5
Lolium perenne	LOPE	I	perennial ryegrass	247,000 227,000 227,000 230,000	2 8 11 14
Lomatium nuttallii	LONU3	N	Nuttall's biscuitroot	42,225	5
Lonicera involucrata	LOIN	N	black twinberry	avg. 326,500 327,000 227,000-477,000	3 7 11
Lotus corniculatus	LOCO	I	birdsfoot trefoil	470,000 369,840 418,000 400,000 475,000	2 5 8 9 14
Lotus tenuis	LOTE	I	narrowleaf trefoil	485,000	14
Lupinus alpestris	LUAL	N	mountain lupine	12,500 12,530 16,070	8 10 15
Lupinus argenteus	LUAR	N	argenta lupine	1,275-3,439 29,000	7 13
Lupinus sericeus	LUSE	N	silky lupine	12,900 19,700-42,000 12,915 32,067 16,070	8 7 10 13 15
Lupinus species	LUSP	N	lupine	29,000	13
Lupinus texensis	LUTE	N	lupine (bluebonnet)	16,000	8
Luzula hitchcockii	LUHI	N	Hitchcock woodrush	886,719	13
Lycium halimifolium	LYHA	N	matrimony vine	266,100 252,000-266,000	3 11

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Lycopus americanus	LYAM	N	American bugleweed	3,026,666	5
Lycopus lucidus	LYLU2	N	bugleweed	908,000	5
Mahonia fremontii	MAFR	N	Fremont barberry	42,000 41,770	3 10
Mahonia repens (see Berberis)	MARE	N	creeping barberry	avg. 62,000 71,120	3 10
Marrubium vulgare	MAVU	I	horehound	462,000	5
Medicago sativa	MESA	I	alfalfa	220,000 225,000 227,000 210,000 230,000 227,000	1 2 5 8 9 11
Melica subulata	MESU	N	Alaska oniongrass	197,000	13
Melilotus alba	MEAL	I	white sweetclover	262,000 258,560 260,000 260,000 307,000 260,000	2 5 8 9 11 14
Melilotus officinalis	MEOF	I	yellow sweetclover	262,000 258,560 260,000 260,000 258,000 260,000	1 5 8 9 11 14
Menodora scabra	MESC	N	rough menodora	102,000-112,000	3
Mentzelia decapetala	MEDE2	N	tenpetal blazingstar	322,000-335,000	5
Mimulus ringens	MIRI	N	Allegheny monkeyflower	45,400,000	5
Monarda fistulosa	MOFI	N	wildbergamot beebalm	1,166,000- 1,379,000	5
Monardella odoratissima	MOOD	N	Pacific monardella	600,000	5
Muhlenbergia montana	MUMO	N	mountain muhly	1,500,000	9
Muhlenbergia wrightii	MUWR	N	spike muhly	1,600,000 1,635,000	8 14
Oenothera hookeri ssp. angustifolia	OEHOA3	N	evening primrose	1,400,000	5
Onobrychis viciaefolia	ONVI	I	sainfoin (pod)	18,000 18,000 18,000	1 5 14
Onobrychis viclaefolia	ONVI	I	sainfoin	22,720 30,000 20,000 44,000	5 8 9 11
Opuntia fragillis	OPFR	N	brittle pricklypear cactus	unknown	3
Orthocarpus luteus	ORLU2	N	yellow owlclover	3,492,307	5

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Oryzopsis hymenoides	ORHY	N	Indian ricegrass	235,000 235,000 141,000 160,000 188,295 140,000	1 2 8 9 10 14
Osmorhiza depauperata	OSDE	N	bluntseed sweetroot	132,000	13
Osmorhiza occidentalis	OSOC	N	western sweetroot	29,845	5
Oxalis stricta	OXST	N	yellow oxalis	3,026,666	5
Oxyria digyna	OXDI	N	alpine mountainsorrel	1,343,195	13
Oxytropis lambertii	OXLA3	N	Lambert's crazyweed	209,000	5
Oxytropis sericea	OXSE	N	silvery oxytrope	228,000	5
Oxytropis species	OXSP	N	loco crazyweed	270,000	13
Panicum obtusum	PAOB	N	vine-mesquitegrass	145,000 145,000	11 14
Panicum virgatum	PAVI	N	switchgrass	389,000 389,000 275,00 390,000	1 8 9 14
Parthenocissus inserta	PAIN	N	thicket creeper	avg. 18,800 14,100-23,300	3 11
Parthenocissus vitacea	PAVI	N	Virginia creeper	12,000-19,900	3
Pastinaca sativa	PASA2	I	wild parsnip	195,048	5
Penstemon albertinus	PEAL	N	Albert penstemon	2,300,000 2,364,583	7 13
Penstemon confertus	PECO	N	yellow penstemon	2,700,000 1,868,526	7 13
Penstemon cyaneus	PECY	N	darkblue penstemon	180,000	13
Penstemon fruticosus	PEFR	N	bush penstemon	356,000	13
Penstemon glaber	PEGL3	N	sawsepal penstemon	322,000-393,000	5
Penstemon lyallii	PELY	N	Lyall penstemon	1,900,000 1,923,729	7 13
Penstemon palmeri	PEPA	N	Palmer penstemon	610,000 600,000 609,675 562,500	8 9 10 15
Penstemon species #1	PESP	N	penstemon	1,150,000	13
Penstemon species #2	PESP	N	penstemon	3,000,000	13
Penstemon strictus	PEST	N	Rocky Mountain penstemon	592,000 286,000 280,000 478,000	8 9 14 16
Peraphyllum ramosissimum	PERA	N	squawapple	25,900-44,600 23,750 25,900-44,600	3 10 11

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Petalostemon candidum var. oligophyllus	PECAO	N	white prairieclover	441,000	5
Petalostemon purpureum	PEPU15	N	purple prairieclover	349,230	5
Petalostemum purpureum	PEPU	N	purple prairie clover	394,230 300,000 315,000 160,700 293,000	5 9 11 15 16
Phacelia campanularia	PHCA	N	harebell phacelia	856,000 832,000	8 16
Phacelia cylindrica	PHCY	N		450,000	13
Phalaris arundinaces	PHAR	N	reed canarygrass	506,000	2
Philadelphus microphyllus	PHMI	N	littleleaf mockorange	unknown	3
Phleum alpinum	PHAL	N	alpine timothy	1,100,000 989,378	7 13
Phleum pratense	PHPR	I	timothy	1,230,000 1,300,000 1,300,000 1,230,000	1 2 8 14
Physalis pubescens	PHPU7	N	husk tomato	562,464	5
Physocarpus alternans	PHAL	N	dwarf ninebark	unknown	3
Physocarpus malvaceus	PHMA	N	mallow ninebark	756,000 750,000 756,000	3 7 11
Physocarpus opulifolius	PHOP	N	ninebark	avg. 1,045,000 1,045,000	3 11
Picea pungens	PIPU	N	blue spruce	80,000-163,000 106,000	11 14
Pinus edulis	PIED	N	pinyon	1,500-2,500 1,500-2,500 3,000	7 11 14
Plantago major	PLMA2	I	plantain	2,270,000	5
Poa alpina	POAL	N	alpine bluegrass	1,000,000 1,139,842	8 13
Poa ampla	POAM	N	big bluegrass	917,000 917,000 882,000 885,000 882,000 880,000 865,364	1 2 8 9 11 14 15
Poa canbyi	POCA	N	Canby bluegrass	926,000 926,000 925,000 925,000	2 8 9 14

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Poa compressa	POCO	I	Canada bluegrass	2,500,000 2,500,000 2,495,000 2,500,000	2 8 11 14
Poa cusickii	POCU	N	Cusick bluegrass	890,000	13
Poa gracillima	POGR	N	Pacific bluegrass	1,007,043	13
Poa nemoralis interior	POIN	N	inland bluegrass	1,850,000	13
Poa nervosa	PONE	N	wood bluegrass	951,667	13
Poa Nevadensis	PONE	N	Nevada bluegrass	1,082,000	2
Poa pratensis	POPR	I	Kentucky bluegrass	2,156,000- 2,200,000 2,156,000 2,177,000 1,745,000	1 2 8 11
Poa sandbergii	POSA	N	Sandberg blurgrass	925,000 866,412	8 13
Poa secunda	POSE	N	Sandburg bluegrass	925,000 925,000 925,000 925,000	1 2 11 14
Poa species	POSP	N	bluegrass	1,070,000	13
Polygonum aviculare	POAV	N	prostrate knotweed	672,592	5
Polygonum convolvulus	POCO10	I	black bindweed	64,857	5
Polygonum erectum	POER2	N	erect knotweed	213,647	5
Polygonum pensylvanicum	POPE2	N	Pennsylvania smartweed	126,111	5
Polygonum persicaria	POPE3	I	spottedthumb knotweed	255,775	5
Polygonum ramosissimum	PORA3	N	bushy knotweed	109,397	5
Portulaca oleracea	POOL	N	little hogweed	3,492,307	5
Potentilla anserina	POAN	N	silverweed cinquefoil	1,200,000	13
Potentilla arguta	POAR	N	white cinquefoil	3,200,000	13
Potentilla fruiticosa	POFR	N	shrubby cinquefoil	1,000,000	1
Potentilla glandulosa	POGL	N	gland cinquefoil	3,378,000- 1,100,000 4,429,000	5 13
Potentilla glandulosa	POGL9	N	gland cinquefoil	3,378,000- 4,429,000	5
Prunus americana	PRAM	N	American plum	avg. 870 550-1,500	3 11
Prunus pensylvanica	PRPE	N	pincherry	avg. 14,200 8,000-21,800	3 11
Prunus pumila besseyi	PRBE	N	Bessey cherry	avg. 2,400 1,500-4,000 2,965	3 11 10

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Prunus virginiana	PRVI	N	chokecherry	4,790 avg. 4,790 6,442 4,150 4,500	1 3 11 10 15
Prunus virginiana melanocarpa	PRVI	N	black chokecherry	4,150 4,250	10 13
Psoralea tenuiflora	PSTE3	N	slimstem scurfpea	26,300	5
Puccinella distans	PUDI	I	weeping alkaligrass	1,200,000 1,200,000 1,250,000	8 14 15
Purshia tridentata	PUTR	N	antelope bitterbrush	15,000 15,400 13,400-19,000 15,400 15,370	1 3 11 14 10
Quercus gambelli	QUGA	N	Gambel oak	300-350	11
Quercus trubinella	QUTR	N	shrub liveoak	unknown	3
Raphanus sativus	RASA2	N	wild radish	34,020	5
Rhamnus cathartica	RHCA	I	European buckthorn	avg. 19,100 13,000-28,400	3 11
Rheum rhaponticum	RHRH	I	false rhubarb	27,200	5
Rhinanthus crista-galli	RHCR	N	crista rhinanthus	229,078	13
Rhus glabra	RHGL	N	smooth sumac	avg. 20,300 68,800 24,000-126,000	3 7 11
Rhus trilobata	RHTR	N	skunkbush sumac	ave 49,000 10,600-30,000 18,895 20,454	3 11 10 15
Ribes americanum	RIAM	N	American black currant	avg. 313,000 247,000-336,000	3 3
Ribes aureum	RIAU	N	golden currant	233,000 avg. 233,000 200,000-285,000 356,180	1 3 11 10
Ribes cereum	RICE	N	wax currant	avg. 251,000 201,000-283,000 375,000	3 11 15
Ribes inerme	RIIN	N	whitestem gooseberry	avg. 366,000 354,000-398,000	3 11
Ribes lacustre	RILA	N	prickly currant	515,000 Avg. 515,000	3 11
Ribes montigenum	RIMO	N	gooseberry currant	142,000 Avg. 142,00 185,595	3 11 10
Ribes species	RISP	N	currant	575,000	13

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Ribes viscosissimum	RIVI	N	sticky currant	avg. 298,000 255,000-349,000	3 11
Rorippa nasturtium-aquaticum	RONA2	I	watercress	2,346,000	5
Rosa acicularis	ROAC	N	prickly rose	32,000	7
Rosa arkansana	ROAR	N	Arkansas rose	24,500	3
Rosa multiflora	ROMU	N	multiflora rose	50,000-81,536 50,000-82,000	3 11
Rosa nutkana	RONU	N	Nutkana rose	30,000-60,000 30,000-60,000	3 11
Rosa species	ROSP	N	rose	60,000	13
Rosa woodsii	ROWO	N	Woods rose	48,000 50,000 35,000-65,000 45,300 62,500	1 3 11 10 15
Rubus idaeus	RUID	N	red raspberry	211,833	13
Rubus leucodermis	RULE	N	whitebark raspberry	422,168	3
Rubus occidentalis	RUOC	N	blackcap raspberry	avg. 334,000 286,000-384,000	3 11
Rubus parviflorus	RUPA	N	thimbleberry	204,000 204,000	7 13
Rubus strigosus	RUST	N	American red raspberry	384,000	3
Rudbeckia hirta	RUHI	N	blackeyed susan	1,700,000	6
Rudbeckia laciniata	RULA3	N	cutleaf coneflower	252,222	5
Rumex altissimus	RUAL4	N	pale dock	864,762	5
Rumex occidentalis	RUOC3	N	western dock	567,500	5
Salix berbbiana	SABE	N	Bebb willow	2,500,000	3
Salix exigua	SAEX	N	coyote willow	10,000,000 10,000,000	3 11
Salix interior	SAIN	N	sandbar willow	unknown	3
Salix petiolaris	SEPE	N	meadow willow	500,000 500,000	3 11
Salix scouleriana	SASC	N	Scouler willow	6,500,000 6,500,000	3 11
Salvia lyrata	SALY	N	sage	330,000	6
Sambucus canadensis	SACA	N	American elder	175,000-468,220 231,550	3 7
Sambucus coerulea	SACO	N	blueberry elder	117,000-259,000 216,770	3 10
Sambucus melanocarpa	SAME	N	blackhead elder	unknown	3
Sambucus racemosa	SARA	N	scarlet elder	avg. 286,000 192,000-377,000	3 3

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Sanguisorba minor	SAMI	I	small burnet	42,000 55,000 55,000 55,115	1 8 14 10
Sanicula marilandica	SAMA2	N	black sanicle	58,961	5
Sarcobatus vermiculatus	SAVE	N	greasewood	193,000-257,000 286,000	3 14
Schizachyrium scoparium	SCSC	N	little bluestem	225,000 260,000 240,000 260,000	1 8 9 14
Secale cereale	SECE	I	rye	18,000 18,000	8 11
Shepherdia argentea	SHAR	N	silver buffaloberry	41,000 avg. 41,000 10,980 41,666	1 3 10 15
Shepherdia canadensis	SHCA	N	russet buffaloberry	59,215 52,000 59,215 61,475	3 7 10 15
Sibbaldia procumbens	SIPR	N	prostrate sibbaldia	893,701	13
Silene antirrhina	SIAN2	N	sleepy silene	4,540,000	5
Silene noctiflora	SINO	I	nightflowering silene	534,117	5
Sisymbrium altissimum	SIAL2	I	tall tumblemustard	2,594,285	5
Sisyrinchium angustifolium	SIAN3	N	narrowleaf blueeyed grass	756,666	5
Sisyrinchium angustifolium	SIAN	N	blueeyedgrass	2,050,000	6
Sitanion hystrix	SIHY	N	bottlebrush squirreltail	191,555	10
Solanum rostratum	SORO	N	buffalobur nightshade	197,391	5
Solanum triflorum	SOTR	N	cutleaf nightshade	394,782	5
Solidago canadensis	SOCA	N	Canada goldenrod	2,000,000 7,200,000	7 13
Sonchus arvensis	SOAR2	I	field sowthistle	1,194,736	5
Sorghastrum nutans	SONU	N	Indiangrass	170,000 175,000 175,000	1 9 14
Sphaeralcea grossulariaefolia (*S.coccinea*)	SPGR	N	scarlet globemallow	500,000	1
Spiraea caespitosa	SPCA	N	dwarf spiraea	unknown	3
Sporobolus airoides	SPAI	N	alkali sacaton	1,200,000 1,750,000 1,758,000 1,600,000 1,750,000	1 3 8 9 14

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Sporobolus contractus	SPCO	N	spike dropseed	2,800,000 2,800,000	9 14
Sporobolus cryptandrus	SPCR	N	sand dropseed	5,298,000 5,600,000 5,300,000	8 9 14
Sprorobolus giganteus	SPGI	N	giant dropseed	1,723,000 1,400,000	8 9
Stipa columbiana	STOC	N	Columbia needlegrass	150,000 213,000	8 13
Stipa comata	STOC	N	needle and thread	115,000 115,000 115,000 115,000 160,714	8 9 14 13 15
Stipa occidentalis	STOC	N	Western needlegrass	311,000 259,000	7 13
Stipa richardsonii	STRI	N	Richardson needlegrass	218,000 204,505	7 13
Stipa viridula	STVI	N	green needlegrass	181,000 181,000 165,000 180,000	1 8 9 14
Symphoricarpos albus	SYAL	N	snowberry	54,000-113,000 61,087	11 13
Symphoricarpos albus albus	SYAL	N	snowberry	avg. 76,000	3
Symphoricarpos longiflorus	SYLO	N	longflower snowberry	unknown	3
Symphoricarpos occidentalis	SYOC	N	Western snowberry	74,400 avg. 74,400 52,000-98,700	1 3 11
Symphoricarpos orbiculatus	SYOR	N	Indian coralberry	avg. 140,000 135,000-144,000	3 11
Symphoricarpos oreophilus	SYOR	N	mountain snowberry	54,065 53,900 54,065 56,250	3 7 10 15
Symphoricarpos species	SYSP	N	snowberry	79,000	13
Tamarix pentandra	TAPE	I	fivestamen tamarisk	unknown	3
Taraxacum officinale	TAOF	I	dandelion	562,480	5
Tetradymia canescens	TECA	N	gray horsebrush	unknown	3
Tetradymia spinosa	TESP	N	cottonthorn horsebrush	unknown	3
Teucrium canadense	TECA3	N	germander	259,428	5
Thelypodium integrifolium	THIN	N	entireleaved thelypody	1,418,750	5
Thermopsis rhombifolia	THRH	N	prairie thermopsis	30,000	5
Thlaspi arvense	THAR5	I	field pennycress	578,343	5
Tradescantia occidentalis	TROC	N	prairie spiderwort	151,333	5

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Tragopogon porrifolius	TRPO	I	salsify	29,484	5
Tridens flavus	TRFL	N	purpletop tridens	465,000	6
Trifolium fragiferum	TRFR	I	strawberry clover	288,000 300,000 300,000 317,000 300,000	5 8 9 11 14
Trifolium hybridum	TRHY	I	alsike clover	682,000 680,000 680,000 479,000 700,000	2 5 8 11 14
Trifolium pratense	TRPR	N	red clover	281,000 272,160 275,000 275,000 285,000 275,000	2 5 8 9 11 14
Trifolium procumbens	TRPR7	I	large hopclover	2,469,280	5
Trifolium repens	TRRE	I	white clover	825,000 800,000 800,000 850,000 700,000 856,000	1 2 5 8 9 11
Trisetum spicatum	TRSP	N	spike trisetum		
Trisetum spicatum montanum	TRMO	N	Rocky Mtn. trisetum	1,700,000	13
Urtica dioica	URDI	I	stinging nettle	4,323,809	5
Vaccinium caespitosum	VACA	N	dwarf blueberry	avg. 5,300,000 3,700,000- 6,000,000	3 11
Verbascum thapsus	VETH	I	common mullein	5,044,444	5
Verbena bracteata	VEBR	N	bigbract verbena	908,000	5
Verbena hastata	VEHA2	N	swamp verbena	1,418,750	5
Verbena stricta	VEST	N	hoary verbena	534,117	5
Veronica peregrina	VEPE2	N	neckweed	15,133,333	5
Viburnum lentago	VILE	N	nannyberry	4,320-12,450 2,200-12,400	3 11
Vicia americana	VIAM	N	American vetch	33,000 24,500 41,000	1 5 9
Vicia villosa	VIVI	N	hairy vetch	16,000-20,000 20,000 20,000 18,000 20,000	5 8 9 11 14
Viguiera multiflora	VIMU	N	showy goldeneye	1,054,885	5

Scientific Name	Symbol	N/I	Common Name	Seeds/lb.	Ref.
Vitis riparia	VIRI	N	riverbank grape	14,500	3
Wyethia amplexicaulis	WYAM	N	mulesear	24,625	5
Xerophyllum tenax	XETE	N	beargrass	217,333	13
Yucca angustissima	YUAN	N	fineleaf yucca	unknown	
Yucca baccata	YUBA	N	Spanish bayonet	unknown 22,700	3 7
Yucca glauca	YUGL	N	Great Plains yucca	27,000 22,700	3 7
Yucca harrimaniae	YUHA	N	Harriman yucca	unknown	3