TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE
PORTLAND, OREGON JULY 2014

RANGE TECHNICAL NOTE NO. 27

Dry Weight Percentages of Selected Oregon Grasses, Grass-likes, Forbs, Vines, Shrubs, and Trees

This technical note is based on information contained in a WNTSC technical note.

INTRODUCTION:

The green weight of field clipped vegetation needs to be converted to air-dry weight for immediate stocking recommendations, Ecological Site Descriptions, and Forage Suitability Groups.

Air-dry weight in pounds per acre (lbs./acre) or in kilograms per hectare (kg/ha) differentiate Ecological Site Description's characteristic vegetation of the reference state, the plant association tables, and the production data found in Forage Suitability Groups. The field green-weight must be converted to air-dry weight. Air-dry weight can be determined by using these conversion tables based on species and phenological stage of growth. The air-dry weight of all plant species are documented and inventoried during the conservation planning process and development of Ecological Site Descriptions.

The relationship of green weight to air-dry weight varies according to such factors as exposure, amount of shading, time since last rain, unseasonable dry periods, and the phenological stage of the plant. Thus, ranges of dry-weight are common in the tables.

Prescribed Grazing (528) requires a Forage-Animal Balance developed for the grazing plan. This balance ensures forage produced or available meets forage demand of livestock and/or wildlife. Air-dry forage consumed in one month is estimated to be 912.5 pounds per 1.000 pounds of grazing animal equivalent. This amount is known as an Animal Unit Month (AUM).

Usable production is a method of determining stocking rates based on measuring the total amount of forage (standing crop) per acre and converting green weight to air dry weights and into AUM's. The only production to be considered in determining stocking rate is the current year's forage growth below 4.5 feet vertical height. Forage from plant species that are undesirable, non-consumed, or toxic to the kind and class of livestock intended to graze the area should be excluded. The air dry weight is summarized for the entire area to be grazed

after any necessary adjustments are made. Read Chapter 5 Management of Grazing Lands in the National Range and Pasture Handbook for information on adjustments.

HOW TO USE THE TABLES:

The tables contain the Plant Code; Phenological Stage Classification (occurrence of natural events in their annual cycle). The phenological classifications for grasses, forbs, and tree/shrubs are described separately; the present Scientific Name; Historic or Archived Scientific Name; Common Name, and a Notes column.

Example 1: During a high precipitation year, Russian wildrye is clipped while in stage 3. The field measured green weight is 200 pounds/acre.

PSJU3 = 200 pounds X .40 = 80 pounds air-dry weight.

Example 2: During a low precipitation year, Russian wildrye is clipped while in stage 3. The field measured green weight is 125 pounds/acre.

PSJU3 = 125 pounds X .50 = 62.5 air-dry pounds/acre.

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Dry Weight Percentages of Selected Oregon Grasses, Grasslikes, Forbs, Shrubs, and Trees

GRASS AND GRASSLIKES

GRASS PHENOLOGICAL STAGE CLASSIFICATION:

1 -GREEN LEAVES BEFORE BOOT
2- BOOT STAGE
3- SEED SOFT DOUGH TO RIPE
4- SEED DISSEMINATION
5- WINTER DORMANCY CURED

INTRODUCED COOL-SEASON PERENNIAL GRASS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
AGCR	**25-30**	**40-45**	**50-55**	**60**	**75-90**	Agropyron cristatum	Agropyron cristatum	Fairway crested wheatgras	
AGDE2	**25-30**	**40-45**	**50-55**	**60**	**75-90**	Agropyron desertorum	Agropyron desertorum	Standard crested wheatgra	
AGCRxAGDE2	**25-30**	**40-45**	**50-55**	**60**	**75-90**	A. cristatum x A. desertorum		Crested wheatgrass cross	
AGFR	**25-30**	**40-45**	**50-55**	**60-65**	**75-90**	Agropyron fragile	Agropyron sibiricum	Siberian wheatgrass	
ALAR	**25**	**35-40**	**45-50**	**55-60**	**70**	Alopecurus arundinaceus	Alopecurus arundinaceus	Creeping foxtail	strong rhizomes
ARELE	**25**	**35-40**	**40-45**	**50-55**	**65-85**	Arrhenatherum elatius var. elatius	Arrhenatherum elatius	Tall oatgrass	
BRER3	**20-25**	**35-40**	**40-45**	**50-55**	**75-85**	Bromus erectus	Bromus riparius	Meadow brome	short rhizomes
BRIN2	**20-25**	**35-40**	**40-45**	**50-55**	**75-85**	Bromus inermis	Bromus inermis	Smooth brome	sod-forming
DAGL	**20-25**	**30-35**	**40-45**	**50-55**	**60-80**	Dactylis glomerata	Dactylus glomerata	Orchardgrass	
FEBR7	**25-35**	**40-45**	**45-50**	**55-60**	**75-85**	Festuca brevipila	Festuca ovina duriuscula	Hard fescue	
FEOV	**25-35**	**40-45**	**45-50**	**55-60**	**75-85**	Festuca ovina	Festuca ovina	Sheep fescue	
LOPE	**25-30**	**40-45**	**45-55**	**55-60**	**70-85**	Lolium perenne	Lolium perenne	Perennial ryegrass	
PHAR3	**25**	**40-45**	**50-55**	**60**	**75**	Phalaris arundinacea	Phalaris arundinacea	Reed canarygrass	sod- forming
PHPR3	**25**	**35-40**	**45-55**	**55-65**	**70-90**	Phleum pratensis	Phleum pratensis	Timothy	
POPR	**20-25**	**35-40**	**45-50**	**55-60**	**65-70+**	Poa pratensis	Poa pratensis	Kentucky bluegrass	sod-forming
SCAR7	**25**	**35-40**	**45-50**	**55-60**	**70**	Schedonorus arundinaceus	Festuca arundinacea	Tall fescue	
THIN6	**25**	**40-45**	**45-50**	**55-60**	**75-85**	Thinopyrum intermedium	Agropyron intermedium	Intermediate wheatgrass	short rhizomes
THIN6	**25-30**	**38-43**	**45-50**	**55-60**	**70-85**	Thinopyrum intermedium	Agropyron trichophorum	Pubescent wheatgrass	short rhizomes
THPO7	**25**	**40-45**	**48-55**	**55-65**	**80-90**	Thinopyrum ponticum	Agropyron elongatum	Tall wheatgrass	
PSJU3	**25**	**35-40**	**40-50**	**55-65**	**70-85**	Psathyrostachys juncea	Elymus junceus	Russian wildrye	

Developed from WNTSC Technical Note

Prepared by Bob Gillaspy, 6/30/2014

Dry Weight Percentages of Selected Oregon Grasses, Grasslikes, Forbs, Shrubs, and Trees

GRASS PHENOLOGICAL STAGE CLASSIFICATION:

1 -GREEN LEAVES BEFORE BOOT
2- BOOT STAGE
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5- WINTER DORMANCY CURED

NATIVE COOL-SEASON PERENNIAL GRASS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
ACHY	**30-35**	**45-50**	**50-55**	**60-75**	**80**	Achnatherum hymenoides	Oryzopsis hymenoides	Indian ricegrass	
ACLE9	**25-30**	**40-45**	**50-55**	**60-65**	**70+**	Achnatherum lettermanii	Stipa lettermani	Letterman needlegrass	
ACNEN2	**25-30**	**40-45**	**50**	**55-60**	**75+**	Achnatherum nelsonii ssp. nelsonii	Stipa columbiana	Columbia needlegrass	
ACNEN2	**25-30**	**40-45**	**50**	**55-60**	**70+**	Achnatherum nelsonii ssp. nelsonii	Stipa williamsi	Williams needlegrass	
ACTH7	**25-30**	**40-45**	**50-55**	**60-65**	**80+**	Achnatherum thurberianum	Stipa thurberiana	Thurber needlegrass	
BRMA4	**20-25**	**35-40**	**40-45**	**50-75**	**65-85**	Bromus marginatus	Bromus marginatus	Mountain brome	short-lived
BRVU		**44**				Bromus vulgaris	Bromus vulgaris	Columbia brome	
ELEL5	**25-35**	**45-50**	**55-60**	**65-70**	**85-90**	Elymus elymoides	Sitanion hystrix	Bottlebrush squirreltail	
ELGL	**25**	**35**	**40**	**75**	**75-85**	Elymus glaucus	Elymus glaucus	Blue wildrye	short-lived
ELLA3	**25-30**	**45-50**	**53-56**	**60-65**	**80-90**	Elymus lanceolatus ssp. lanceolatus	Agropyron riparium	Streambank wheatgrass	rhizomatous
ELLAL	**25**	**45-50**	**55-60**	**60-65**	**85-90**	Elymus lanceolatus ssp. lanceolatus	Agropyron dasystachyum	Thickspike wheatgrass	rhizomes
ELTRT	**25-30**	**40-45**	**50-55**	**60-65**	**75-90**	Elymus trachycaulus ssp. trachycaulus	Agropyron trachycaulum	Slender wheatgrass	short-lived
ELWA2	**25-30**	**40-50**	**50-55**	**55-65**	**80-90**	Elymus wawawaiensis	Agropyron spicatum	Snake River wheatgrass	
FEID	**25-35**	**40**	**45-50**	**50-60**	**75-85**	Festuca idahoensis	Festuca idahoensis	Idaho fescue	
HECO26	**25-35**	**40-50**	**50-55**	**60-65**	**70+**	Hesperostipa comata	Stipa comata	Needle & Thread	
KOMA	**20-35**	**38-50**	**50-55**	**60-65**	**75-85**	Koeleria macrantha	Koeleria cristata	Prairie junegrass	
LECI4	**25-30**	**45-50**	**50-55**	**60-65**	**65-80**	Leymus cinereus	Elymus cinereus	Basin wildrye	
MEBU	**20-30**	**40-45**	**45-50**	**50-55**	**80-85**	Melica bulbosa	Melica bulbosa	Oniongrass	
PASM	**25-35**	**45-55**	**53-58**	**60-65**	**70-90**	Pascopyrum smithii	Agropyron smithii	Western wheatgrass	rhizomes
POFE	**25-35**	**45**		**50-60**	**90-95**	Poa fendleriana	Poa fendleriana	Muttongrass	
POSE	**25-30**	**38-45**	**50-55**	**60-65**	**70+**	Poa secunda	Poa ampla	Sandberg (big) bluegrass	
POSE	**20-30**	**38-50**	**50-55**	**60-65**	**70+**	Poa secunda	Poa nevadensis	Sandberg (Nevada) bluegrass	
POSE		**69**			**63**	Poa secunda	Poa sandbergii	Sandberg bluegrass	
POSE	**25-30**	**40-45**	**50-55**	**55-60**	**65-90**	Poa secunda	Poa secunda	Sandberg bluegrass	
PSSPI	**25-30**	**35-40**	**45**	**50-60**	**80-90**	Pseudoroegneria spicata spp.inermis	Agropyron inerme	Beardless wheatgrass	strong tillers
PSSPS	**25-30**	**40-50**	**50-55**	**55-65**	**80-90**	Pseudoroegneria spicata ssp. spicata	Agropyron spicatum	Bluebunch wheatgrass	

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NATIVE WARM-SEASON PERENNIAL GRASS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
ARPUL	**28-35**	**40-45**	**50-55**	**60-65**	**85-90**	Aristida purpurea var. longiseta	Aristida longiseta	Red threeawn	
CARU	**25-30**	**35-40**	**40-45**	**45-50**		Calamagrostis rubescens	Calamagrostis rubescens	Pinegrass	rhizomatous
SPCR	**30-45**	**40-50**	**50**	**60-70**	**90**	Sporobolus cryptandrus	Sporobolus cryptandrus	Sand dropseed	
SPAI	**30-40**	**45-60**	**55**	**65**	**80**	Sporobolus airoides	Sporobolus airoides	Alkali sacaton	

INTRODUCED COOL-SEASON ANNUAL GRASS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
BRAR5				**56**		Bromus arvensis	Bromus japonicus	Japanese brome	tillers
BRRU2				**70**		Bromus rubens	Bromus rubrum	Red brome	
BRTE	**20-30**	**35-50**	**50-55**	**60-65**	**85-90**	Bromus tectorum	Bromus tectorum	Cheatgrass	

NATIVE COOL-SEASON ANNUAL GRASS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
VUOCG				**80**		Vulpia octoflora	Festuca octoflora	Sixweeks fescue	

GRASSLIKE

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
CAFI	**30**	**49**	**55**	**60-67**	**80**	Carex filifolia	Carex filifolia	Threadleaf sedge	
CAGE2	**40**	**50**	**55**	**60**	**75**	Carex geyeri	Carex geyeri	Elk sedge	rhizomatus
ELEOC				**38**		Eleocharis sp.	Eleocharis sp.	Spikerush	
JUNCO	**20**	**40-45**	**55-60**			Juncus balticus	Juncus spp	Wiregrass, Baltic rush	

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FORBS and VINES

FORB PHENOLOGICAL STAGE CLASSIFICATION:

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NATIVE PERENNIAL FORBS

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
ACMI2		**31-49**				Achillea millefolium	Achillea millefolium	Common yarrow	
AGUR	**25**	**30-40**	**45**			Agastache urticifolia	Agastache urticifolia	Horsemint/hyssop	rhizomatous
AGGL	**17-20**	**45**				Agoseris glauca	Agoseris pumila	Mountain dandelion	
ALAC4	**15**	**20-40**		**70**	**70-90**	Allium acuminatum	Allium acuminatum	Onion	
ANRO2	**35**	**55**		**85**		Antennaria rosea	Antennaria rosea	Pussytoes	
ARLU	**18**			**43-45**	**65+**	Artemisia ludoviciana	Artemisia ludoviciana	Louisiana sagewort & cudweed	rhizomatous
ASCO9			**47**			Astragalus columbianus	Astragalus columbia	Columbia vetch	
ASSP4	**31**					Astragalus spaldingii	Astrogalus spaldingii	Milkvetch, spalding's	
BASA3	**17-32**	**27-36**	**35-45**	**45-50**	**65+**	Balsamorhiza sagittata	Balsamorhiza sagittata	Arrowleaf balsamroot	
CAAN7		**27**	**30**	**35**	**50+**	Castilleja angustifolia	Castilleja spp.	Indian paintbrush	
COUMP	**20**	**50**				Comandra umbellata ssp. pallida	Comandra palida	Bastard toadflax	
CRCA2	**20-25**	**30-40**	**35**	**40**	**50**	Crepis acuminata	Crepis acuminata	Tapertip hawksbeard	
DEOC	**22**	**28**	**30**	**35**	**50**	Delphinium ×occidentale	Delphinium spp.	Tall larkspur	
DENU2	**25**	**30**	**35**	**40**	**50**	Delphinium nuttallianum	Delphinium spp.	Low larkspur	
DICA14				**70**		Dichelostemma capitatum	Dicheloatemma spp	Bluedicks	corm
ERCH4					**60-100**	Erigeron chrysopsidis	Erigeron chrysopsidis	Dwarf yellow fleabane	
ERSP4	**22**	**25**	**33**	**35**	**55**	Erigeron speciosus	Erigeron speciosus	Daisies	
ERHE2	**45-50**		**67-70**	**90**		Eriogonum heracleoides	Erigonum heraculoides	Wyeth buckwheat	
ERUM	**20-25**	**30-40**	**46**	**50-55**	**65+**	Eriogonum umbellatum	Eriogonum umbellatum	Sulphur-flower buckwheat	
FRSP		**20**	**20**			Frasera speciosa	Fraseria speciosa	Elkweed	
GABO2	**17-20**			**45-50**	**85**	Galium boreale	Galium boreale	Bedstraw	
GEMA4	**20**					Geum macrophyllum	Geum macrophyllum	Largeleaf avens	
GETR		**39**				Geum triflorum	Geum triflorum	Old Man's Whiskers	
HEUN	**20**	**30-35**	**38-45**	**50-55**	**65+**	Helianthella uniflora	Helianthella uniflora	Oneflower sunflower	
HEMA80	**20**	**20**	**20**	**22**	**30**	Heracleum maximum	Heracleum lanatum	Cow parsnip	
HECH	**40**					Heuchera chlorantha	Heuchera spp.	Alumroot	
HISCA	**15-20**	**25-30**		**35-40**	**65+**	Hieracium scouleri var. albertinum	Hieracium albertinum	Hawkweed	
LIPU11				**60**		Leptodactylon pungens	Leptodactylon pungens	Granite gilia	
LUARM4					**57**	Lupinus arbustus	Lupinus laxiflorus	Spur Lupine	

FORB PHENOLOGICAL STAGE CLASSIFICATION:

1- GREEN BEFORE FLOWERING
2 - FULL BLOOM PETALS FALLING
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4 - FRUIT RIPE OR FALL DORMANCY
5 - SEED DISSEMINATION OR WINTER DORMANCY

NATIVE PERENNIAL FORBS continued

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
LUSE4			32		39	Lupinus sericeus	Lupinus sericeus	Silky Lupine	
LUPIN	18-25	25-30	30-35	40-45	50-90	Lupinus	Lupinus spp.	Lupine	
MEAR6	15-18	20-25	22	30	50-75	Mertensia arizonica	Mertensia leonardi	Bluebells	
OSOC	15-18	21	25	30	50-70	Osmorhiza occidentalis	Osmorhiza occidentalis	Sweet anise	
PABR			30-38	40		Paeonia brownii	Paeonia brownii	Peony	
PHHO	35	50		75		Phlox hoodii	Phlox hoodii	Hoods phlox	
PHLO2	20-25	35-40	50		70-80	Phlox longifolia	Phlox longifolia	Longleaf phlox	
POAR7	50					Potentilla arguta	Potentilla arguta	Galley cinquefoil	
POGR9	44	50				Potentilla gracilis	Potentilla gracilis	Northwest cinquefoil	
POTEN	15-20	25	30-35	38-45	55+	Potentilla	Potentilla spp.	Cinquefoil	
RUOC2	20	25-35		30-40	55-70	Rudbeckia occidentalis	Rudbeckia occidentalis	Coneflower	
PACA15		24				Packera cana	Senecio canus	Wooly groundsel	
SESE2	15-20	25-30	35	40	55+	Senecio serra	Senecio serre	Butterweed	
SOMI2	30					Solidago Missouriensis	Solidago Missouriensis	Missouri goldenrod	
PSJA2	23	25	30	31	90	Pseudostellaria jamesiana	Stellaria jamesiana	Starwort	
TAOF	20	25				Taraxacum officinale	Taraxacum officinale	Dandelion	
THFE	23	30	36	40	70	Thalictrum fendleri	Thalictrum fendleri	Meadow rue	
VAOC2		20		25		Valeriana occidentalis	Valeriana occidentalis	Valerian	
VIOLA	15-20	20-25	30	38		Viola	Viola spp.	Violet	
WYAM	20-25	25-30	35	40	55+	Wyethia amplexicaulis	Wyethia amplexicaulis	Mulesear	
LESQU				65		Lesquerella	Lesquerella spp	Tallow weed	
ARCA12	30-35	65		80-85		Artemisia campestris ssp. borealis	Artemisia spp.	Sageworts	biennial
CHAL7	29					Chenopodium album	Chenopodium spp	Lambsquarters	
CRSE11	50					Croton setigerus	Croton spp	Dove seed	
GEVI2	20	38	30-35	40-45	55-70	Geranium viscosissimum	Geranium viscosissimum	Sticky geranium	
HEAN3	25	50		95		Helianthus annuus	Helianthus annuus	Annual sunflower	
LAOCO	25	45		95		Lappula occidentalis var. occidentalis	Lappula redowskii	Stickseed	biennial
ORLU2	15	20	25	35	45+	Orthocarpus luteus	Orthocarpus spp.	Owl-clover	
PODO4	25	40		85		Polygonum douglasi	Polygonum douglasi	Knotweed	
SEIN2	15-20	23-30	30-40	40-45	55+	Senecio integerrimus	Senecio integerrimus	Lambstongue	biennial
SOAM	20					Solanum americanum	Solanum nigrum	Black nightshade	
SPCO	40-45	55		80-90		Sphaeralcea coccinea	Sphaeralcea coccinea	Scarlet globemallow	biennial
THIN			50			Thelypodium integrifolium	thelypodium integrifolium	Entire leaved thelypod	biennia
AMRE		20				Amaranthus retroflexus	Amaranthus spp	Red root	
AMTE3				80		Amsinckia tessellata	Amsinckia spp	Fiddle neck	
LAPPU				85		Lappula	Lappula spp	Stick seed	biennial
PLOV				75		Plantago ovata	Plantago spp	Indian wheat	

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NATIVE VINE

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
LABR	**15-20**		**25-40**		**50-80**	Lathyrus brachycalyx	Lathyrus spp.	Peavine, Bonneville pea	
VIAM	**20**	**25-30**		**75**		Vicia americana	Vicia americana	American vetch	rhizomatous
HULU	**30**			**80**		Humulus lupulus	Humulus spp	Hop	

INTRODUCED FORBS/VINE

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
COAR4		**35**				Convolvulus arvensis	Convolvulus spp	Field bindweed	perennial, vine
CYOF	**20**	**35**		**90**		Cynoglossum officinale	Cynoglossum officinale	Houndstonque	biennial
SAKA	**30**	**50**		**100**		Salsola kali	Salsola kali	Russian thistle	annual
SATR12	**25**	**30**	**45**	**50**	**65**	Salsola tragus	Salsola tenuifolia	Prickly Russian thistle	annual
TRDU	**33**					Tragopogon dubius	Tragopogon dubius	Salsify	annual/biennial
TRLA30	**30**	**50**		**75**		Tragopogon lamottei	Tragopogon pratensis	Goatsbeard	biennial
ASCI4	**20**	**30**				Astragalus cicer	Astragalus cicer	Cicer milkvetch	perennial
ERCI6		**40**		**60**		Erodium cicutarium	Erodium spp	Alfilaria	annual/biennial
MESA	**20**	**30**		**39-42**		Medicago sativa	Medicago sativa	Alfalfa	annual/perennial
MELIL	**20**	**30**				Melilotus	Melilotus spp.	Sweetclover	biennial
ONVI	**20**	**30**				Onobrychis sativa	Onobrychis sativa	Sainfoin	perennial, forb

Dry Weight Percentages of Selected Oregon Grasses, Grasslikes, Forbs, Shrubs, and Trees

TREE/SHRUB/SUBSHRUB

SHRUB PHENOLOGICAL STAGE CLASSIFICATION:

1 - GREEN LEAVES ONLY OR FULL LEAF STAGE
2 - FLOWERS IN BUD, GREEN FLOWERING STAGE
3 - FLOWERS OPEN OR FRUIT DROP
4 - SEED MATURITY OR FALL DORMANCY * = GREEN FRUIT WT
5 - WINTER DORMANCY OR CURED LEAVES ** = DRY FRUIT WEIGHT

NATIVE TREE/SHRUB

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
ACGL	**30**					Acer glabrum	Acer glabrum	Rocky Mtn. maple	
AMAL2	**35**	**45**	**85**	**30***	**85****	Amelanchier alnifolia	Amelanchier alnifolia	Serviceberry	
ARTR2	**35-55**	**40-65**	**50**	**55-75**	**60-90**	Artemisia tridentata	Artemisia tridentata	Big sagebrush	
CEVE	**35**	**45**	**50**	**65**		Ceanothus velutinus	Ceanothus velutinus	Snowbrush	thicket forming
JUOS			**58**			Juniperus osteosperma	Juniperus osteosperma	Utah Juniper	single stem
JUSC2	**45**	**55**	**60**	**35***	**85****	Juniperus scopulorum	Juniperus scopulorum	Juniper	stoloniferous
POTR5	**20**	**20**	**37-50**	**52-56**		Populus tremuloides	Populus tremuloides	Quaking aspen	single stem
PREM			**43**	**69**		Prunus emarginata	Prunus emarginata	Bitter-cherry	thicket forming
PRVI	**30**	**40-46**	**65**	**40***	**90****	Prunus virginiana	Prunus virginiana	Chokecherry	
SALIX		**30**				Salix	Salix spp.	Willow	
SANIC6	**15**	**45**	**60**	**30***	**80****	Sambucus cerulea	Sambucus cerulea	Elderberry	

Developed from WNTSC Technical Note

Prepared by Bob Gillaspy, 6/30/2014

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NATIVE SHRUB

PLANT CODE	1	2	3	4	5	PRESENT SCIENTIFIC NAME	HISTORIC SCIENTIFIC NAME	COMMON NAME	NOTES
ARPA6				**60**		Arctostaphylos patula	Arctostaphylos spp	Greenleaf manzanita	
ARAR8	**45**	**60**	**54-70**	**60-75**		Artemisia arbuscula	Artemisia arbuscula	Low sagebrush	single stem
ARNO4	**40**	**55**	**50-75**	**60-75**		Artemisia nova	Artemisia nova	Black sagebrush	
ARTR4	**40**		**38-50**			Artemisia tripartita	Artemisia tripartita	Threetip sagebrush	
ARCA13	**35**	**50**	**70**			Artemisia cana	Artemisia cana	Silver sagebrush	rhizomatous
ATCA2	**58**			**60**		Atriplex canescens	Atriplex canescens	Fourwing saltbush	
ATCO	**40**	**60**	**75**			Atriplex confertifolia	Atriplex confertifolia	Shadscale	
ATCO				**40**		Atriplex confertifolia	Atriplex jonesii	Mound saltbush	
MARE11		**37-67**				Mahonia repens	Berberis repens	Oregongrape	stoloniferous
MATR3	**50**	**65**				Mahonia trifoliolata	Berberis spp	Algerita	
CEGR				**70**		Ceanothus greggii	Ceanothus greggii	Buckbrush	
ERNAO	**30-40**	**45-50**	**55-60**	**65**	**70+**	Ericameria nauseosa ssp. consimilis	Chrysothamnus nauseosus	Rubber rabbitbrush	
CHVI8	**30**	**37-45**	**50-60**	**65**	**70+**	Chrysothamnus viscidiflorus	Chrysothamnus viscidiflorus	Green rabbitbrush	
EPVI	**10**			**55**		Ephedra viridis	Ephedra spp	Mormontea	
KRLA2	**20-25**	**60-67**	**65**			Krascheninnikovia lanata	Eurotia lanata	Winterfat	
GUSA2	**30**	**50**	**75**			Gutierrezia sarothrae	Gutierrezia sarothrae	Broom snakeweed	
HODI	**50**					Holodiscus discolor	Holodiscus discolor	Oceanspray	
OPUNT				**30**		Opuntia	Opuntia spp	Pricklypear (fruit only)	succulent
OPUNT	**10**	**15**	**13-20**	**10***	**70****	Opuntia	Opuntia spp.	Pricklypear	succulent
PHLE4	**33**					Philadelphus lewisii	Philadelphus lewisii	Mockorange	
PHMA5				**74**		Physocarpus malvaceus	Physocarpus malvaceus	Ninebark	
PUTR2	**30-35**	**40-45**	**55-65**	**65**		Purshia tridentata	Purshia tridentata	Bitterbrush	
RHTR				**50**		Rhus trilobata	Rhus trilobata	Skunkbush sumac, Squaw	rhizomatous
RIBES			**45**			Ribes	Ribes	Currant	
ROWO	**20-25**	**35**	**35-50**	**50***	**85****	Rosa woodsii	Rosa spp.	Rose	rhizomatous
SAVE4	**35**	**38-45**	**60**			Sarcobatus vermiculatus	Sarcobatus vermiculatus	Greasewood	
SEFLF				**20***		Senecio flaccidus	Senecio longilobus	Woolly groundsel	
SYAL	**25-30**	**35-40**	**65**	**30-40***	**85****	Symphoricarpos albus	Symphoricarpos spp	Snowberry	rhizomatus
TECA2			**55**	**70**		Tetradymia canescens	Tetradymia canescens	Horsebrush	