

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE BERKELEY, CALIFORNIA SOIL CONSERVATION SERVICE

TN - Range - 23

October 17, 1963

TABLES FOR CONVERTING GREEN HERBAGE WEIGHTS TO DRY WEIGHTS

Because we are now expressing percent composition of vegetative species in terms of weight, we need a method of converting from green to dry weight in the field. The following tables were developed from clipping plot records made since 1954 by all personnel in the State.

The factors shown in the tables represent a mean of all individual species clipped. Individual judgment should be applied when using the factors. They are for general guidance only.

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GRASSES AND GRASSLIKE PLANTS

(Multiply green weight by the percentage factor shown below to determine dry weight)

		GROWTH STAGE				
		Green Before Flower- ing %	Green Flower- ing Stage %	Seed Maturity or Fall Dor- mancy %	Winter Dor- mancy %	
<u>(GRASSES)</u>	Plant Name	Scientific Name				
	Alkali-sacaton	(Sporobolus airoides)	40	55	70	80+
		(Andropogen hirtiflorus)	50	-	-	90+
	Big sacaton	(Sporobolus wrightii)	35	50	60	80+
	Big galleta	(Hilaria rigida)	40	55	83	90+
	Blue grama	(Bouteloua gracilis)	40	50	65	90+

GROWTH STAGE

(GRASSES - Contd.)

Plant Name	Scientific Name	Green Before Flowering %	Green Flowering Stage %	Seed Maturity or Fall Dormancy %	Winter Dormancy %
Black grama	(Bouteloua eriopoda)	40	60	75	85+
Boer lovegrass	(Eragrostis chloromelas)	30	45	60	85+
Bullgrass	(Muhlenbergia emersleyi)	30	45	75	90-95
Bush Muhly	(Muhlenbergia Porteri)	-	-	73	-
Curly-mesquite	(Hilaria belangeri)	40	60-70	80	90-95
Canebeard grass	(Andropogon saccharoides)	30	45	60	90+
Cottontop	(Trichachne californica)	40	60	65	90+
Fluffgrass	(Tridens pulchellus)	-	50	70	90+
Fall witch-grass	(Leptoloma cognatum)	40	60	84	90
Galleta	(Hilaria Jamesii)	50	56	80	90
Gyp dropseed	(Sporobolus Nealleyi)	-	78	-	-
Hairy grama	(Bouteloua hirsuta)	40	50	70	90+
Halls panic	(Panicum Hallii)	-	50	-	90+
Indian ricegrass	(Oryzopsis hymenoides)	35	45	60-75	80
Lehmann lovegrass	(Eragrostis Lehmanniana)	40	55	60	80

GROWTH STAGE		GROWTH STAGE			
(GRASSES - Contd.)		Green Before Flower- ing %	Green Flower- ing Stage %	Seed Maturity or Fall Dorman- cy %	Winter Dor- mancy %
Plant Name	Scientific Name				
Mutton grass	(<i>Poa fendleriana</i>)	35	45	50-60	90-95
Mountain junegrass	(<i>Koeleria cristata</i>)	35	50	70	90
Needle-and-thread	(<i>Stipa comata</i>)	35	57	60	90
Plains lovegrass	(<i>Eragrostis intermedia</i>)	25	50	60	90
Purple grama	(<i>Bouteloua radicata</i>)	45	60	70-80	95
Plains bristle- grass	(<i>Setaria macrostachya</i>)	-	40	50	80
Rothrock grama	(<i>Bouteloua rothrockii</i>)	45	55	70	90
Wild-Rye	(<i>Elymus salina</i>)	-	-	70	90
Squirrel tail	(<i>Sitanion hystrix</i>)	45	60	70	90
Sand dropseed	(<i>Sporobolus cryptandrus</i>)	30	50	70	90+
Si de-oats grama	(<i>Bouteloua curtipendula</i>)	40	-	70-78	90
Slim tridens	(<i>Tridens muticus</i>)	40	55	60	90
Sprucetop grama	(<i>Bouteloua chondrosioides</i>)	45	60	55-77	90
Sprangletop	(<i>Leptochloa dubia</i>)	30	45	70-85	95
Short three-awns	(<i>Aristida</i> spp.)	30	50	60	90
Tall three-awns	(<i>Aristida</i> spp.)	35	-	60	90-93
Tanglehead	(<i>Heteropogon contortus</i>)	30	45	70	90
Tobosa	(<i>Hilaria mutica</i>)	35-40	40-55	65	90-95
Texas beardgrass	(<i>Andropogon cirratus</i>)	30	45-50	60	90-95
Vine-mesquite	(<i>Panicum obtusum</i>)	25	50	70	90
Wolftail	(<i>Lycurus phleoides</i>)	40	55	65	90

GROWTH STAGE

(SHRUBS) Plant Name	Scientific Name	GROWTH STAGE			
		Green Before Flower- ing %	Green Flower- ing Stage %	Seed Maturity or Fall Dormancy %	Winter Dor- mancy %
Arizona oak	(<i>Quercus arizonica</i>)	40	-	50	-
Algerita	(<i>Berberis</i> spp.)	50	65	-	-
	(<i>Aplopappus laricifolius</i>)	44	-	-	-
Bastard mesquite	(<i>Desmanthus</i> sp.)	-	20	-	-
Big sagebrush	(<i>Artemisia tridentata</i>)	50-55	60-65	85	90
Bigelow sage- brush	(<i>Artemisia Bigelovii</i>)	49	60	75	90
Beargrass (leaves only)	(<i>Nolina</i> spp.)	-	-	60	-
Buckbrush	(<i>Ceanothus greggii</i>)	-	-	70	-
Chamiza	(<i>Atriplex canescens</i>)	58	-	60	-
Creosote-bush	(<i>Larrea tridentata</i>)	60	60	65	70
Emory oak	(<i>Quercus Emoryi</i>)	-	-	45	-
Fairyduster	(<i>Calliandra eriophylla</i>)	-	45	60-80	-
Greasewood	(<i>Sarcobatus vemiculatus</i>)	-	-	40	-
Mound salt- bush	(<i>Atriplex jonesii</i>)	-	-	40	-
Manzanita	(<i>Arctostaphylos</i> spp.)	-	-	60	-
Mesquite (leaves)	(<i>Prosopis</i> spp.)	-	-	53	-
Mormontea	(<i>Ephedra</i> spp.)	10	-	55	-
Mesquite (stems)	(<i>Prosopis</i> spp.)	-	-	86	-
Pricklypear (fruit only)	(<i>Opuntia</i> spp.)	-	-	30	-
Paloverde (leaves only)	(<i>Cercidium</i> spp.)	65	-	-	-

		GROWTH STAGE				
		Green	Green	Seed		
		Before	Flower-	Maturity	Winter	
		Flower-	ing	or Fall	Dor-	
		ing %	Stage %	Dorman-	mancy	
				cy %	%	%
(SHRUBS - Contd.)						
Pincushion (fruit only)	(Mammillaria spp.)	-	-	13	-	-
Ocotillo leaves	(Fouquieria splendens)	-	45	-	-	-
Ocotillo flowers	" "	-	40	-	-	-
Rabbit-brush	(Chrysothamnus spp.)	35	50	-	-	-
Ratany	(Krameria spp.)	35	50	75	80	-
Redberry buckthorn	(Rhamnus crocea)	-	-	40	-	-
Sand sagebrush	(Artemisia filifolia)	-	-	40	-	-
Snakeweed	(Gutierrezia spp.)	30	-	70-60	-	-
Squawbush	(Rhus trilobata)	-	-	50	-	-
Shrub buckwheat	(Eriogonum spp.)	-	40	70	-	-
Tar-bush	(Flourensia cernua)	-	-	-	-	63
Turbinella oak	(Quercus turbinella)	-	50	65	-	-
Twinberry	(Menodora spp.)	-	40	50	-	-
Wait-a-bit	(Mimosa biuncifera)	-	-	50	65	-
Whitethorn	(Acacia constricta)	-	-	40	-	-
Winterfat	(Eurotia lanata)	20	67	60	-	-
Woolly groundsel	(Senecio longilobus)	-	-	20	-	-
Zinnia	(Zinnia spp.)	-	40	60	74	-
Yucca & sotol	(Yucca & Dasyilirion spp.)	55	65	70	75	-

(PERENNIAL FORBS)

Aster	(Aster spp.)	-	40	-	-	-
Bastard-Toadflax	(Comandra pallida)	20	-	-	-	-

		GROWTH STAGE			
		Green	Green	Seed	Winter
		Before	Flower-	Maturity	Dor-
		Flower-	ing	or Fall	mancy
(PERENNIAL FOR BS - Contd.)		ing %	Stage %	Dor-	mancy %
Plant Name	Scientific Name			mancy %	%
Bluedicks	(Dichelostemma spp.)	-	-	70	
	(Convolvulus spp.)	-	35	-	
	(Cracca spp.)	-	15	-	
	(Cry ptantha flava)	-	-	58	
Doveseed	(Croton spp.)	50	-	-	
Buckwheat	(Eriogonum spp.)	42	-	-	
Globemallow	(Sphaeralcea spp.)	45	-	80	
Herbaceous					
sage	(Artemesia spp.)	30	-	80	
Hop	(Humulus spp.)	30	-	80	
	(Lathyrus spp.)	20	-	80	
Lambsquarters	(Chenopodium spp.)	29	-	-	
Morning-glory	(Evoluulus spp.)	-	15	-	
	(Pectis longpipes)	-	60	-	
	(Perezia nana)	-	-	64	
	(Penstemon barbatus)	-	-	50	
	(Penstemon				
	linarioides)	-	50	-	
Phlox	(Phlox spp.)	35	-	-	
Spurge,					
prostrate	(Euphorbia spp.)	-	35	-	
	(Solanum nigrum)	20	-	-	
Trailing daisy	(Erigeron				
	flagellaris)	30	-	-	
Noseburn	(Tragia spp.)	30	-	-	

(PERENNIAL FORBS)

	(Aster spp.)				
	(Comandra pallida)				

		GROWTH STAGE			
(ANNUALS, GRASSES & FORBS)		Green	Green	Seed	Winter
Plant Name	Scientific Name	Before	Flower-	Maturity	Dor-
		Flower-	ing	or Fall	mancy
		ing %	Stage %	Dor-	mancy %
				mancy %	%
Mixed annuals		-	-	70	
Alfilaria	(Erodium spp.)	-	40	60	
Fiddle-neck	(Amsinckia spp.)	-	-	80	
Indian-pipeweed	(Eriogonum inflatum)	-	-	70	
Indian-wheat	(Plantago spp.)	-	-	75	
	(Portulaca spp.)	-	10	50	
Redroot	(Amaranthus spp.)	-	20	-	
Red brome	(Bromus rubrum)	-	-	70	
Russian thistle	(Salsola kali)	35	-	-	
Sixweeks fescue	(Festuca octoflora)	-	-	80	
Stickseed	(Lappula spp.)	-	-	85	
Tallowweed	(Lesquerella spp.)	-	-	65	

GROWTH STAGE

Plant Name	Scientific Name	Flower- ing %	Green Before Flower- ing %	Green Flower- or Fall Dor- mancy %	Maturity or Fall Dor- mancy %	Seed Winter	GROWTH STAGE	
							Flower- ing %	Green Before Flower- ing %
Mixed annuals		-	-	-	-	70		
Afflata	(Erodium spp.)	-	-	40	-	60		
Fiddle-neck	(Amsinckia spp.)	-	-	-	-	80		
Indian-pipeweed	(Eriogonum infatum)	-	-	-	-	70		
Indian-wheat	(Plantago spp.)	-	-	-	-	75		
	(Portulaca spp.)	-	-	10	-	50		
Redroot	(Amaranthus spp.)	-	-	20	-	-		
Red bromes	(Bromus rubrum)	-	-	-	-	70		
Russian thistle	(Salsola kali)	35	-	-	-	-		
Sixweeks fescue	(Festuca octiflora)	-	-	-	-	80		
Sticksseed	(Lappula spp.)	-	-	-	-	85		
Tallowweed	(Lesquerella spp.)	-	-	-	-	65		