

**United States Department of Agriculture
Natural Resources Conservation Service**

MONTANA INDIVIDUAL VEGETATIVE PRACTICES

**MT-CPA-15V
(Rev.) 2/11**

Name: _____ Title: _____ Date: _____
 Approved by: _____ Title: _____ Date: _____

PRACTICE (Discipline)	PRACTICE CODE	CONTROLLING FACTOR	UNITS	JOB CLASS					RESPONSIBILITY LIMITS		
				I	II	III	IV	V	INVENTORY AND EVALUATION	DESIGN	IMPLEMENTATION
Access Control (Forestry)	472	Area	acre	<40	40-80	80-160	160-320	>320			
Alley Cropping (Forestry)	311	Precipitation	in./yr.	Irrigation	>19	15-19	10-15	<10			
Combustion Improvement System (WQ)	372	See Pumping Plant for engine replacement.	HP								
Dust Control on Unpaved Roads and Surfaces (WQ)	373	Contributing Area	acre	None	None	3	10	All			
Brush Management (Range)	314	Method ^{1/} Brush Species Ecological Sites	type no. no.	Biological 1 1	Mechanical 2 2	Chemical 3 3	Burning >3 >3				
^{1/} In order to obtain Job Class 3 for chemical control, the individual must also have appropriate job approval for 595–Pest Management. In order to obtain Job Class 4 for burning the individual must also have appropriate job approval for 338–Prescribed Burning.											
Channel Bank Vegetation (Agr-Engr)	322	Velocity Bankfull Stream Type Precipitation	fps Rosgen in./yr.	none none >15	3 B–C 12-15	4 B–C–F 9-12	6 All but D–E All	10 All All			
Conservation Cover (Agronomy)	327	Precipitation	in./yr.	>15	12-15	9-12	All				
Conservation Crop Rotation (Agronomy)	328	Precipitation Rotation	in./yr. type	12 crop/fallow	14 2-crops/ 1-fallow	16 continuous cropping	All All				

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Constructed Wetland (Biology-Engr)	656	Wetland Surface Area Drainage Area Climate	acre acre Frost- free days	None None None	.5 5 >130	1 10 110-130	5 50 All	All All All			
Cover Crop (Agronomy)	340	Precipitation Species	in./yr. no.	>15 <3	12-15 <4	All All	All	All			
APPLICABLE MULCHING REQUIREMENTS FOR CRITICAL AREA PLANTING ARE: 484-MULCHING											
Critical Area Planting (Plant Materials- Engr)	342	Area Slope Treatment	acre pct type	<.1 <10 vegetative	.5 <20 vegetative	1 ≥20 shape	5 ≥30 mulch	All All All			
Cross Wind Trap Strips (Agronomy)	589C	Contributing area Soil erodibility	acre I Factor	≤40 ≤86	≤80 All	≤160 All	All				
Early Successional Habitat Development/ Management (Biology)	647	Area Treatment	acre type	<50 mechanical	50-160 herbicide	>160 grazing	All Burn	All			
Feed Management (Agronomy)	592	Diet technology method	type	None	None	None	None	None			
Fence (Range)	382	Fence design Slope Limitations ^{2/} (stoniness, wet areas, snow, wildlife)	type pct no.	Barbed <15 1	Woven 15-30 1	Permanent Electric 15-30 3	Special Situation >30 3				
^{2/} Common limitations to fence design include sandy or gravelly soils, presence of stones, wetland and riparian areas, areas of high snow accumulation, and special considerations needed for wildlife movements.											

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Field Border (Agronomy)	386	Width	feet	None	All	All	All	All			
Filter Strip (Agronomy- Engr)	393	Contributing Area Contributing Slope	acre percent	0.5 <2	1 <10	5 <30	10 All	All All			
Firebreak (Forestry)	394	Slope	pct	<10	10-20	20-30	30-40	>40			
Fish Passage (Biology)	396	Capacity–bankfull Velocity–bankfull Stream Type	cfs fps Rosgen	None None None	300 3 B-C	1200 4 B-C-E-F	3000 6 All	All low hazard			
Forage and Biomass Planting (Agronomy)	512	Precipitation	inches	>15	12-15	9-12	All	All			
Forage Harvest Management (Agronomy)	511	Species Pastures/Fields	no. no.	1 <3	2 3-5	3 5-10	All All				
Forest Slash Treatment (Forestry)	384	Area	acre	<40	40-80	80-160	160-320	>320			
Forest Stand Improvement (Forestry)	666	Area Type	acre method	<10 Mechanical	10-40 Chemical	40-80 All	80-160	>160			
Forest Trails and Landings (Forestry-Engr)	655	Slope Equipment Stream Crossings Pipe Diameter	percent limits feet inches	<5 slight <2 None	5-10 moderate 2-5 None	10-20 severe 5-10 24	20-40 All 10-20 42	>40 >20 All			
Fuel Break (Forestry)	383	Area	acre	<40	40-80	80-160	160-320	>320			
Grassed Waterway (Agronomy- Engr)	412	Capacity	cfs	50	100	300	500	All			

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Grazing Land Mechanical Treatment (Range)	548	Slope Soil Limitations ^{3/} (stones, salinity, complexity) Grass Species expected to respond	percent	0-2	3-7	8-11	12-15				
			no.	0	1	2	>2				
^{3/} Common limitations to mechanical treatment include gravelly soils, cobbles or stones, saline or alkali areas, and more than one ecological site.											
Hedgerow Planting (Biology)	422	Species Precipitation	no. in./yr.	1 irrigation	2 >17	3 14	>3 11	All All			
Herbaceous Weed Control (Agronomy/ Plant Materials)	797 (315)	Area Weeds Insect/Disease Win-Pest	acre no. I (Basic)	<40 1 1	160 4 4 II (apply with assistance)	>160 4 >4 III (apply independ- ently)					
Herbaceous Wind Barriers (Agronomy)	603	Soil Climatic Factor	texture I-factor C-factor	L, Sil <86 70	Sl, Cl 134 80	C, S, GR All 90	All All				
Mulching (Agronomy)	484	Material	type	None	Soil	Straw	Fabric	All			
Nutrient Management (Agronomy- Engr)	590	Nutrient	type	None	Commercial and Organic Fertilizer Sil-CL	Commercial and Organic Fertilizer Sandy Gravel	Ag Waste All	Sludge All			
		Soil	texture								
APPROVAL AUTHORITY FOR PEST MANAGEMENT SHALL BE IN ACCORDANCE WITH MONTANA STATE REGULATIONS											
Pest Management (Agronomy)	595	Area Pests (Weeds Insect/Disease, etc.) Win-Pest	acre no.	<40 1 (Basic)	160 4 (apply with assistance)	>160 >4 (apply independ- ently)					

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Prescribed Burning (Forestry)	338	Area Vegetation Terrain	acre type % slope	<640 non-volatile ≤15	<320 volatile ≤8	<640 volatile ≤15	All All All	---			
Prescribed Grazing (Range)	528	Rangeland/Riparian Grazing Strategy Forage quantity/Animal demand Ratio ^{4/} Land uses	type no. no.	Deferred rotation & >1.3 & 1	Rest rotation & 1.3-.8 & 2	Deferred rest rotation & .8-.6 & 3	Short duration & <.6 & >3	Combination			
		Forestland Grazing/Riparian Grazing limitation factors ^{5/} (slope, water, roads, barriers) Forage quantity/Animal Demand Ration ^{4/} Land uses	no. no. no.	1 & >1.3 & 1	2 & 1.3-.8 & 2	3 & .8-.6 & 3	>3 & <.6 & 3				
		Pastureland Grazing Strategy Forage quantity/Animal demand Ratio ^{4/} Land uses	type no. no.	Deferred rotation, dryland & >1.3 & 1	Deferred rotation, irrigated & 1.3-.8 & 2	Short duration, dryland & .8-.5 & 3	Short duration, irrigated & <.5 & >3				

^{4/} The forage quantity/animal demand ratio is the relationship between the amount of forage available in the present grazing situation to the amount of forage needed by the animals being planned for.
For example, if the animal need is 250 AUMs and the forage inventory shows there is more than adequate forage, 350 AUMs, the ratio is 350/250 = 1.4, Job Class 1.
If the forage inventory shows only 175 AUMs available, the ratio is 175/250 = .7, Job Class 3. There will be fewer options in the design of the grazing system under the second situation.

^{5/} Forestland grazing limitations include slopes >20 Percent—greater than .5 miles to drinking water—timber harvest slash that limits livestock movement—less than 2 roads or trails for access and any other barriers to livestock distribution.

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Range Planting (Range)	550	Objectives Ecological sites Precipitation	type no. inches	Livestock Forage 1 ≥15	Erosion Control 2 12-14	Wildlife Habitat 3 10-12	Site Reclamation >3 <10				
Residue and Tillage Management, Mulch Till (Agronomy)	345	Area Precipitation Climatic Factor	in./yr. acre I-factor C-factor	>12 <80 <86 70	>12 320 86 80	≤12 All 86 90	All All 134 All				
Residue and Tillage Management, No-till/Strip Till/Direct Seed (Agronomy)	329	Precipitation Area Climatic Factor	in./yr. acre I-factor C-factor	>12 <80 <86 70	>12 320 86 80	≤12 All 86 90	All All 134 All	All			
Residue and Tillage Management, Ridge Till (Agronomy)	346	Precipitation Area Climatic Factor	in./yr. acre I-factor C-factor	>12 <80 <86 70	>12 320 86 80	≤12 All 86 90	All All 134 All				
Residue Management, Seasonal (Agronomy)	344	Precipitation Area Climatic Factor	in./yr. acre I-factor C-factor	12> <80 <86 70	>12 320 86 80	≤12 All 86 90	All All 134 All	All			
Restoration and Management of Rare or Declining Habitats (Biology)	643	Area Precipitation T&E Species	acre in./yr. no.	<40 >19 0	80 15-19 1	160 10-15 2	All All 3	All			
Riparian Forest Buffer (Forestry)	391	Area Precipitation	acre in./yr.	<40 >19	40-80 15-19	80-160 10-15	160-320 <10	All			
Riparian Herbaceous Cover (Biology)	390	Area Treatment	acre type	<1 vegetative	2 vegetative	10 shaping	All mulch				
Salinity and Sodic Soil Management (Agronomy)	610	Acres of recharge area	acre	<50	<100	<320	<640	All			

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Shallow Water Development and Management (Biology)	646	T&E Species Area Active Moist Soil Management	no. acre Yes or No	0 <0.5 No	1 5 No	2+ >5 Yes	All				
Silvopasture Establishment (Forestry)	381	Precipitation Area	in./yr. acre	Irrigation <40	>19 40-80	15-19 80-160	10-15 160-320	<10 >320			
Stream Habitat Improvement and Management (Biology)	395	Capacity–Bankfull Velocity–Bankfull Stream type	cfs fps Rosgen	None	300 3 B–C	1200 4 B–C–E–F	3000 6 All	All Low Hazard			
Stripcropping (Agronomy)	585	Climatic Factor	I-factor C-factor	<80 70	134 80	Irrigated 90	All All				
Tree/Shrub Establishment (Forestry)	612	Precipitation	in./yr.	Irrigation	>19	15-19	10-15	<10			
Tree/Shrub Pruning (Forestry)	660	Area	acre	All							
Tree/Shrub Site Preparation (Forestry)	490	Area	acre	<10	10-20	20-40	40-80	>80			
Upland Wildlife Habitat Management (Biology)	645	Wildlife Species Area T&E Species	no. acre no.	1 <160 0	2 All 1	3-5 2+					
Waste Utilization (Agronomy- Engr)	633	Animal Units Waste Source Soil texture	no. Liquid or Solid Sa=Sand Si=Silt Cl=Clay	<100 Solid Cl	<500 Solid Si	All Solid or Liquid Sa	All All All				
Wetland Creation (Biology-Engr)	658	Area Drainage Area	acres acres	None None	1 10	5 250	10 2000	All All			

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Wetland Enhancement (Biology-Engr)	659	Area	acres	None	1	5	10	All			
Wetland Restoration (Biology-Engr)	657	Area	acres	None	1	5	10	All			
Wetland Wildlife Habitat Management (Biology)	644	Area T&E Species Wildlife Species	acre no. no.	<40 0 1	40-60 1 2	>60 2+ 3-5		≥6			
Windbreak Shelterbelt Establishment (Forestry)	380	Precipitation	in./yr.	Irrigation	>19	15-19	10-15	<10			
Windbreak Shelterbelt Renovation (Forestry)	650	Precipitation	in./yr.	Irrigation	>19	15-19	10-15	<10			
CNMP	Plan	Certified	AUM	<300	≤1,000	>1,000	>5,000	All			
RUSLE (Water)	Test	Certified	Yes		With Supervision	All					
WEPS	Test	Certified	Yes	None	With Supervision	All					