Northwest

	Grass	Ref		Brush	Ref		Timber	Ref		Crop (ag)	Ref	
Seasonal ERT Suites:												
Spring suite (list ERT's using brief terms)	55%	5,6,7,9,10,11,14,18	Aggressive Control Grass Suite	70%	3,8,9,12,13,	Reducing Fuels Consumption Brush Suite	40%	1,12,15,16,18,19,22	Fuel Consumption Control Suite	0%		No ERT Suite
Summer suite (list ERTs)	65%	18,6	Limited Options Grass Suite	45%	6,7,10,11,18	Low Intensity Brush Suite	45%	1,2,3,4,22	Fuel Reduction Suite	20-40%	1,2,3,10	Low Escape Probability Crop Suite
Fall suite (list ERTs)	65%	9,10,11	Combustion Efficiency Grass Suite	65%	3,10,11,13,18	Combustion Efficiency Brush Suite	40-65%	1,2,4,12,13,17,18,21,22	Pot Pourri Timber Suite	60-80%	20,21,22	Common Orchard Crop Suite
Winter suite (list ERTs)	10%	5,9,12	Selective Burning Grass Suite	70%	15,9	Lite Fuels Only Suite	10-40%	12,13,15,16,17,20,21,22	Combustion Efficiency Timber Suite	70-80%	20,21,22	Common Orchard Crop Suite

Southwest

	Grass	Ref		Brush	Ref		Timber	Ref		Crop (ag)	Ref	
Seasonal ERT Suites:												
Spring suite (list ERT's using brief terms)	55%	5,6,9,10,11,18	Aggressive Control Grass Suite	45%	3,5,6,8,9,10	Reducing Fuels/Low Intensity Brush Suite	45%	1,7,8,9,10,12,13,15,16,18,19	Pot Pourri Timber Suite	50%	3,10,11,21	Common Crop Suite
Summer suite (list ERTs)	55%	5,6,9,10,11	Limited Options Grass Suite	40%	5,6,7,8,18	Limited Options Brush Suite	30%	1,10,12,17,19	Limited Options Timber Suite	50%	3,10,11,21	Common Crop Suite
Fall suite (list ERTs)	55%	5,6,7,10,11,12,13,18	Aggressive Control Grass Suite	45%	3,5,10,11,13,18	Combustion Efficiency Brush Suite	45%	1,2,3,4,10,11,12,13,16,17,18,19	Pot Pourri Timber suite	70%	3,10,11,21	Common Crop Suite
Winter suite (list ERTs)	55%	5,6,10,11,13,18	Combustion Efficiency Grass Suite	45%	3,5,10,11,13,18	Combustion Efficiency Brush Suite	60%	1,10,11,12,13,19,21	Combustion Efficiency Timber Suite	70%	3,10,11,21	Common Crop Suite

Intermountain West

	Grass	Ref		Brush	Ref		Timber	Ref		Crop (ag)	Ref	
Seasonal ERT Suites:												
Spring suite (list ERT's using brief terms)	55%	5,6,7,9,10,11,14,18	Aggressive Control Grass Suite	40%	3,5,6,9,13	Reducing Fuels Consumption Brush Suite	40%	1,9,10,12,13,15,16,18,19,21	Pot Pourri Timber Suite	50%	10,11	Combustion Efficiency Crop Suite
Summer suite (list ERTs)	60%	5,6,10,11,18	Limited Options Grass Suite	40%	5,6,7,10,11,13,18	Limited Options Brush Suite	45%	1,2,3,4,10,12,19	Fuel Reduction Suite	40%	1,3,10,11	Common Crop Suite
Fall suite (list ERTs)	65%	5,6,7,10,11,18	Combustion Efficiency Grass Suite	60%	3,5,10,11,13,18	Combustion Efficiency Brush Suite	60%	1,2,4,10,12,13,17,18,19,21	Pot Pourri Timber Suite	70%	10,20,21,22	Common Orhard Crop Suite
Winter suite (list ERTs)	25%	5,6,9,10,11,18	Combustion Efficiency Grass Suite	50%	3,5,9,13,15,17,18	Combustion Efficiency Brush Suite	20%	10,12,13,15,16,19,20,21	Fuel Consumption Control Timber Suite	0%		No ERT Suite

Alaska

	Grass	Ref		Brush	Ref	Timber	Ref		Crop (ag)	Ref		Tundra	Ref
Seasonal ERT Suites:													
Spring suite (April - May)	55%	3,5,9,10,11,12,13,15,16,17,18,19		45%	1,2,3,4,5,7,8,9,10,11,12,13,15,16,17,19,20,21,22	35%	1,2,3,4,5,7,8,9,10,11,12,13,15,16,17,19		55%	3,5,9,10,11,12,13,15,16,17,18,19,20,21		5-10%	5,10,16,17,18
Summer suite (June - August)	60%	3,7,8,10,11,12,13,14,16,18,24		40%	5,12,13,1,3,14,15,16,17,7,11,19,23	40%	1,2,3,4,5,7,8,10,11,12,13,15,16,17,18,19,23,24		60%	3,4,6,7,10,11,12,13,14		15-20%	5,10,11,12,16,18,19,24
Fall suite (September - October)	65%	7,11		45%	13,3,14,7,11,19,21,22	35-60%	1,2,3,4,13,20,21		65%	7,11			N/A
Winter suite (November - March)		N/A		65%	1,2,3,4,7,18,19,20,21,22	5-35%	1,2,3,4,7,18,19,20,21,22		25%	20,21			N/A

References:

Northwest *J. Russell, USDA-FS/USDOI-BLM*

Southwest *M. Fitch, USDA-FS; P. Lahm, USDA-FS*

Intermountain West *K. Paintner, USDOI-NPS*

Alaska *D. Lockwood, FWS; K. Howard, AFS; and R. Schmoll, AK State DOF*

Emissions Reduction Method	Percent PM2.5 Emission Reduction SOUTHWEST (CA, NV, UT, AZ, NM)								Percent PM2.5 Emission Reduction NORTHWEST (OR, WA, AK)								Percent PM2.5 Emission Reduction INTERMOUNTAIN WEST (CO, MT, WY, ID)								Percent PM2.5 Emission Reduction ALASKA									
	Primary Fuel Type								Primary Fuel Type								Primary Fuel Type								Primary Fuel Type									
	Grass	Ref	Brush	Ref	Timber	Ref	Crop (ag)	Ref	Grass	Ref	Brush	Ref	Timber	Ref	Crop (ag)	Ref	Grass	Ref	Brush	Ref	Timber	Ref	Crop (ag)	Ref	Grass	Ref	Brush	Ref	Timber	Ref	Tundra	Ref	Crop (ag)	Ref
Pre-Burn Fuel Removal	% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem				% rem		% rem					
Firewood Sales					% rem								% rem								% rem						ND		% rem					
Mechanical Processing	% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem				% rem	
Biomass Utilization (exept for Elect Gen)	% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem		% rem				% rem		% rem				% rem	
Mosaic Burning	% nb		% nb		% nb				% nb		% nb		% nb				% nb		% nb		% nb				% nb		% nb		% nb		% nb		ND	
Ungulates	67%	1							67%	1							67%	1	67%	1	67%	1	67%	1									67%	
Burn More Frequently			83%	1							83%	1					83%	1	83%	1	83%	1					83%	1						
Underburn Before Litter Fall																											ND		ND					
Burn Before Green Up	46%	4					46%	4	46%	4					46%	4	46%	4					46%	4	46%	4	ND						46%	4
Backing Fire (grass, pine needle litter)	67%	2	45%	2	45%	2	50%	3	67%	2	45%	2	45%	2	50%	3	67%	2	45%	2	45%	2	50%	3	67%	2	45%	2	45%		22%		50%	3
Maintain fire line intensity (grass, PNL, othe	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%	2	50%		25%		50%	2
Isolating Fuels					10%	2							10%	2							10%	1			ND		ND		10%		10%		ND	
Concentration Burning					70%	2					70%	2	70%	2					70%	2	70%	2	70%	2	ND		ND		70%				70%	2
Chemical Treatment																																		
High Moisture in Large Fuels					43%	1							43%	1							43%	1			ND		ND		43%				ND	
Moist Litter and Duff					26%	1							26%	1							26%	1			ND		ND		26%		13%		ND	
Burn Before Large Activity Fuels Cure					44%	1							44%	1							44%	1			ND		ND		44%				ND	
Aerial Ignition/Mass Ignition	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1	10%	1			10%		10%		10%	1
Rapid Mop-Up			10%	2	10%	2					10%	2	10%	2					10%	2	10%	2			ND		10%	1	10%		10%		ND	
Windrow Burning			13%	1	13%	1	13%	1			13%	1	13%	1	13%	1			13%	1	13%	1	13%	1			13%	2	13%				13%	1
Pile Burning			70%	2	70%	2	70%	2			70%	2	70%	2	70%	2			70%	2	70%	2	70%	2			70%	1	70%				70%	2
Air Curtain Incinerators							85%	3							85%	3							85%	3			ND	2						
Low Moisture Burning																											ND		ND					
Landscape Burning																													ND		ND			

	Emission reduction factor References
% rem	Enter % (by mass) of fuel removed due to ERT application
% nb	Enter % of acres not blackened due to ERT application
	Emission Reduction Method not applicable to veg type
	ERT NEVER/RARELY used in region
	ERT OCCASSIONALLY used, most approp ERT used
	ERT COMMONLY/VERY COMMONLY used, ERT for any veg type used
	ERT COMMONLY/VERY COMMONLY used, most approp ERT used

References:

1 Smoke Management Guide for Rx and Wildland Fire, 2001 USFS PNW
2 FEJF ERT % Reductions - wildland fire (MACTEC)
3 FEJF ERT % Reductions - agricultural burning (MACTEC)
4 Air Sciences Inc., Wheat Grass Emission Burning Study, July 2003
5 20 - 25 Smoke Management Guide - if ERT's optimally used, 20-25 percent emissions reduction assuming other factors held constant and land management goals were still met.