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# **PHOTO GUIDE FOR APPRAISING DOWNED WOODY FUELS IN MONTANA FORESTS:**

**Interior Ponderosa Pine,  
Ponderosa Pine-Larch-Douglas-Fir,  
Larch-Douglas-Fir, and  
Interior Douglas-Fir Cover Types**

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## **RESEARCH SUMMARY**

Two series of color photographs show different levels of downed woody material resulting from natural processes in two forest cover types in Montana. Each photo is supplemented by inventory data describing the size, weight, volume, and condition of the debris pictured. A subjective evaluation of potential fire behavior under an average bad fire weather situation is given.

Instructions are provided for using the photos to describe fuels and to evaluate potential fire hazard.

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## **PURPOSE OF PHOTO SERIES**

This photo guide contains information that can be used to appraise the dead woody debris on the forest floor of interior ponderosa pine, ponderosa pine - larch - Douglas-fir, larch - Douglas-fir, and interior Douglas-fir. The guide is primarily for natural (non-slash) fuels, although some of the photos include old logging and thinning slash. Natural fuels result from wind, snow, and mechanical breakage, natural pruning of lower branches, needle fall, windthrow, blow-down, and the falling of trees killed by insects, disease, fire, and competition for light and moisture. The old logging and thinning slash shown has either been treated or left untreated. It can therefore be considered a part of the natural fuel complex.

This guide is designed to help forest managers describe the deadwood on the forest floor, to estimate the amount of such material, and to evaluate its fire hazard. The photos show a variety of fuel situations that exist in ponderosa pine, western larch, and Douglas-fir forests in Montana and surrounding Northern Rocky Mountain areas.

The fuel appraisal obtained from this guide can be used to plan fire management strategies including fire prevention, fuel treatment, prescribed fire, dispatch-

ing for fire suppression, and establishing criteria for unscheduled prescribed fires.

The photos provide a relatively quick and inexpensive aid for accomplishing fuel appraisal over large forested areas. Although the precision of this procedure is unknown, it is expected to be intermediate: less than standard fuel inventory but greater than designating a stylized fuel model such as used in the National Fire Danger Rating System.

Perhaps the strongest feature of this series is the fire potential rating with each photo. Alternative methods for evaluating fire potential are generally unavailable, and those methods that do exist are outdated or not well suited for rating nonuniform fuel situations.

## **USING THE PHOTOS**

### **Arranging the Photos**

The photos and accompanying data sheets are presented in four series, one for each cover type:

Series 1—Interior ponderosa pine cover type.

Series 2—Ponderosa pine - larch - Douglas-fir cover type.

Series 3—Larch - Douglas-fir cover type.

Series 4—Interior Douglas-fir cover type.

Within each series, the photos are arranged according to total fuel loading. The first photo in each series shows the lightest fuel load, the last shows the heaviest load.

## The Data Sheet

The fuel complex shown in each photo is described on an accompanying data sheet in terms of the following characteristics:

1. Forest cover type.
2. Montana habitat type.
3. Stand and site data: age of overstory dominants, average slope, aspect, elevation, and fire ecology group.
4. Down and dead woody fuel loadings by size class.
5. Other fuel data: average duff depth and for fuels 3 inches (7.62 cm) in diameter and greater, the average diameter, the percent rotten, and the volume of sound material.
6. National Fire Danger Rating System fuel model.
7. Stylized fuel model.

Symbols used for forest vegetation are the standard symbols for Northern Region plants (USDA Forest Service 1969). The symbols represent the first two letters of the generic name and the first two letters of

the specific name of the plant species (such as PIPO - *Pinus ponderosa*).

## Describing the Fuel Complex

Several important fuel characteristics can be seen in each photo: (1) The amount of fuel in the different diameter classes, (2) the general condition of the fuel (sound versus rotten), (3) the distribution of the fuel over the area, and (4) the depth of the fuel (each black and white section on the plot marker is 1 foot [0.3048 m]). Consequently, the manager can use the photos to estimate values for these characteristics of woody debris on the forest floor.

To use the photos to describe downed woody fuels, simply inspect the fuel complex and then select the photo that most nearly compares with what is on the ground. Then use the information on the data sheet to describe the observed fuel complex.

Perhaps no one photo adequately represents the actual situation. If this is the case, select two photos that bracket the observed fuel complex and then interpolate between the values on the data sheets accompanying the selected photos.

Rather than trying to select one photo or a pair of photos that best reflects the entire fuel complex, the



user could describe each of the above-mentioned fuel characteristics separately. This could be done by using the following procedure suggested by Maxwell and Ward (1976a, 1976b) as adapted by Koski and Fischer (1979):

1. Observe each of the characteristics of the fuel complex on the ground.
2. For each characteristic, select the photo that most nearly matches, or photos that bracket the observed situations.
3. For each characteristic, obtain a value from the data sheet accompanying the selected photo (or interpolate a value if a pair of photos was selected).

The above procedure should only be used when a single photo or a pair of photos can't be used to describe the observed situation. For most fuel situations, any improvement in estimates obtained by rating each fuel characteristic separately is not justified by the increased time it takes to get them.

These procedures refer to use of the photos at a specific point. This can be a representative point and the results applied to an entire forest stand. This method is satisfactory when the fuels are uniform throughout the stand. It will be difficult to select a representative point in many stands. The photos can be used to sample stands when nonuniform fuels

preclude the selection of a representative point. The procedure is as follows:

1. Establish 10 or more points, spread systematically through the stand.
2. At each point evaluate the fuels within clear eyesight.
3. Summarize the results as a simple average for the stand or express the results as the percent of area in several classes (for example, 40 percent of stand >10 tons/acre, 60 percent of stand <30 tons/acre).

## **Rating Fire Potential**

The data sheet for each photo contains adjective ratings for five different expressions of fire behavior: rate of spread, intensity, torching, crowning, and resistance to control. An overall fire behavior potential rating is also given for the fuel complex pictured. The ratings are for an "average bad" fire weather situation defined as: 80°-90° F temperature (27°-32° C), 15-20 percent relative humidity, 10-15 mi/h windspeed (16-24 km/h), and 4 weeks since a significant rain (0.10 inch [0.25 cm] or greater).

This approach to estimating fire potential is not without precedent in the Northern Rocky Mountains. In many ways it is a refinement of the time tested concept of fuel rating introduced more than 40 years ago by L. G. Hornby (1936).

The adjective ratings nil, low, medium, high, and extreme are defined as follows for each of the different expressions of fire behavior:

### **Rate of Spread**

Nil—fire cannot sustain itself.

Low—spread will be slow and discontinuous.

Medium—uniform spread possible, but can be stopped by aggressive ground attack with hand tools.

High—spread will be rapid; indirect attack on fire front may be required for control.

Extreme—spread will be explosive; little chance of control until weather changes.

### **Intensity**

Nil—fire cannot sustain itself.

Low—cool fire; very little hot spotting required for control.

Medium—fire will burn hot in places; aggressive hot spotting with hand tools likely to be successful.

High—too hot for sustained direct attack with hand tools; aerial tankers or large ground tanker required to cool fire front.

Extreme—direct ground attack not possible; air or ground tanker attack likely to be ineffective.

### **Torching**

Nil—no chance of torching.

Low—occasional tree may torch-out.

Medium—pole-sized understory trees likely to torch-out.

High—Most of understory and occasional overstory trees likely to torch-out.

Extreme—entire stand likely to torch-out.

### **Crowning**

Nil—sustained spread in crowns will not occur.

Low—sustained spread in crowns unlikely.

Medium—some crowning likely but will not be continuous.

High—sustained crowning likely.

Extreme—sustained crowning will occur.

### **Resistance to Control**

Nil—no physical impediments to line building and holding.

Low—occasional tough spots but not enough to cause serious line building and holding problems.

Medium—hand line construction will be difficult and slow, but dozers can operate without serious problems.

High—slow work for dozers, very difficult for hand crews; hand line holding will be difficult.

Extreme—neither dozers nor hand crews can effectively build and hold line.

## **Overall**

Nil—fire will not sustain itself.

Low—fire can be easily controlled by several smokechasers with hand tools.

Medium—aggressive crew-sized (6-10 persons) initial attack required for successful control.

High—aggressive crew-sized (25 persons) initial attack with substantial reinforcement required for successful control; 10 percent chance that initial control action will fail.

Extreme—90 percent chance that initial control action will fail.

Procedures for using the photos to estimate fire potential are the same as those given for describing the fuel complex.

## **PHOTO GUIDE DEVELOPMENT**

This photo guide was developed using the technique explained by Fischer (1981), which involved the following steps:

1. The fuel complexes photographed were selected to represent the range of fuel situations observed to

exist for the cover type in Montana.

2. Sample plots are generally laid out and photographed in accordance with procedures suggested by USDA Forest Service (1975).

3. Fuels were sampled and described using fuel inventory and computational techniques developed by Brown (1974).

4. Habitat types are according to Pfister and others (1977). Cover types are according to SAF (1954).

5. Fire potential ratings are based on subjective evaluation by experienced fire managers using the adjective ratings and definitions in the preceding section of this guide.

6. National Fire Danger Rating fuel model assignment was by the author using definitions provided by Deeming and others (1977). Stylized fuel model assignment was by the author using definitions provided by Albin (1976).

7. The fire ecology group assignment was by the author using the definitions provided by Davis and others (1980).

8. Stand and site data were obtained using standard forestry field techniques.

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**SERIES 1**  
**INTERIOR PONDEROSA PINE**  
**SAF COVER TYPE 237**





## DATA SHEET

Stand No. 24

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 142, Ponderosa pine/Idaho fescue-Idaho fescue phase (PIPO/FEID-FEID)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA			FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.5</u> in <u>3.81</u> cm			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0	0	Average diameter, 3+fuels: <u>4.0</u> in <u>10.16</u> cm					
0.25-1	0.6	0.13	Percent rotten, 3+fuels: <u>0</u> %			Rate of Spread: <u>low</u>		
1-3	0.4	0.09	Volume of sound 3+fuels: <u>9</u> ft <sup>3</sup> /ac <u>0.6</u> m <sup>3</sup> /ha			Intensity: <u>low</u>		
Subtotal 0-3	1.0	0.22	<b>STAND AND SITE DATA</b>			Torching: <u>low</u>		
3-6	0.1	0.02	Age of overstory dominants: PIPO <u>137</u> yrs			Crowning: <u>nil</u>		
6-10	0	0	Average slope: <u>10</u> % Aspect: <u>south</u> Elevation: <u>3100</u> ft <u>945</u> m			Resistance to control: <u>low</u>		
10-20	0	0				Overall Fire Potential <u>LOW</u>		
20+	0	0				<b>STAND LOCATION</b>		
SUBTOTAL 3+	0.1	0.02				National Forest: <u>Lolo</u>		
TOTAL	1.1	0.24	Ranger District: <u>Ninemile</u>			Drainage: <u>Ninemile Cr.</u>		
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks: _____ <u>Fire Ecology Group Two</u>			Photo taken: <u>9/24/76</u>		
<u>U</u>	<u>9</u>					By: <u>W. C. Fischer</u>		



## DATA SHEET

Stand No. 18

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 313, Douglas-fir/snowberry-snowberry phase (PSME/SYAL-SYAL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>0.7</u> in <u>1.78</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels: <u>4.0</u> in <u>10.16</u> cm			
0.25-1	0.6	0.13	Percent rotten, 3+fuels: <u>11</u> %		Rate of Spread: <u>medium</u>	
1-3	1.1	0.25	Volume of <b>sound</b> 3+fuels: <u>85</u> ft <sup>3</sup> /ac <u>6.0</u> m <sup>3</sup> /ha		Intensity: <u>low</u>	
Subtotal 0-3	2.0	0.45	<b>STAND AND SITE DATA</b>		Torching: <u>nil</u>	
3-6	0.7	0.16			Age of overstory dominants: PIPO <u>87</u> yrs	
6-10	0.4	0.09	PSME <u>67</u> yrs		Resistance to control: <u>low</u>	
10-20	0	0	Average slope: <u>20</u> % Aspect: <u>west</u> Elevation: <u>3210</u> ft <u>978</u> m		<b>STAND LOCATION</b>	
20+	0	0			National Forest: <u>Lolo</u>	
SUBTOTAL 3+	1.1	0.25	Remarks: <u>Fire Ecology Group Six</u>		Ranger District: <u>Ninemile</u>	
TOTAL	3.1	0.70			Drainage: <u>Mill Cr.</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				Photo taken: <u>9/22/76</u>	
C/U	2/9				By: <u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 23

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 130, Ponderosa pine/bluebunch wheatgrass (PIPO/AGSP)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0.2	0.04	Average duff depth: <u>0.6</u> in		Rate of Spread: <u>medium</u>		
0.25-1	0.3	0.07	<u>1.52</u> cm		Intensity: <u>low</u>		
1-3	0.9	0.20	Average diameter, 3+fuels:		Torching: <u>low</u>		
			<u>4.9</u> in		Crowning: <u>low</u>		
			<u>12.45</u> cm		Resistance to control: <u>low</u>		
			Percent rotten, 3+fuels: <u>13</u> %		Overall Fire Potential <b>LOW</b>		
			Volume of <b>sound</b> 3+fuels:				
Subtotal 0-3	1.4	0.31	<u>171</u> ft <sup>3</sup> /ac		<b>STAND LOCATION</b>		
			<u>12.0</u> m <sup>3</sup> /ha		National Forest: <u>Lolo</u>		
			<b>STAND AND SITE DATA</b>		Ranger District: <u>Ninemile</u>		
			Age of overstory dominants:		Drainage: <u>Ninemile Cr.</u>		
			<u>PIPO</u> <u>67 yrs</u>		Photo taken: <u>9/24/76</u>		
			Average slope: <u>19</u> %		By: <u>W. C. Fischer</u>		
			Aspect: <u>southeast</u>				
			Elevation: <u>3100</u> ft <u>945</u> m				
			Remarks: <u>Fire Ecology Group Two</u>				
<b>NFDRS FUEL MODEL</b>		<b>STYLIZED FUEL MODEL</b>					
<b>U</b>		<b>9</b>					



## DATA SHEET

Stand No. 33A

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 171, Ponderosa pine/snowberry-creeping Oregon grape phase  
(PIPO/SYAL-BERE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.3	0.07	Average duff depth: <u>1.7</u> in <u>4.32</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	1.0	0.22	Average diameter, 3+fuels: <u>8.9</u> in <u>22.61</u> cm			
1-3	0.5	0.11	Percent rotten, 3+fuels: <u>87</u> %		Rate of Spread: <u>high</u>	
Subtotal 0-3	1.8	0.40	Volume of <b>sound</b> 3+fuels: <u>42</u> ft <sup>3</sup> /ac <u>2.9</u> m <sup>3</sup> /ha		Intensity: <u>high</u>	
3-6	0.5	0.11	<b>STAND AND SITE DATA</b>		Torching: <u>high</u>	
6-10	0.2	0.04			Age of overstory dominants: <u>PIPO</u> <u>180 yrs</u>	
10-20	3.2	0.72			Resistance to control: <u>medium</u>	
20+	0	0			<b>STAND LOCATION</b>	
SUBTOTAL 3+	3.9	0.87				
TOTAL	5.7	1.27				
NFDRS FUEL MODEL	STYLIZED FUEL MODEL					
<b>U</b>	<b>9</b>					





## DATA SHEET

Stand No. 30A

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 171, Ponderosa pine/snowberry-creeping Oregon grape phase  
(PIPO/SYAL-BERE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.2	0.04	Average duff depth: <u>1.1</u> in <u>2.79</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	0.6	0.13	Average diameter, 3+fuels: <u>5.8</u> in <u>14.73</u> cm			
1-3	1.9	0.43	Percent rotten, 3+fuels: <u>79</u> %		Rate of Spread: <u>medium</u>	
Subtotal 0-3	2.7	0.60	Volume of sound 3+fuels: <u>67</u> ft <sup>3</sup> /ac <u>4.7</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
3-6	0.7	0.16	<b>STAND AND SITE DATA</b>		Torching: <u>medium</u>	
6-10	2.4	0.54			Age of overstory dominants: PIPO <u>60</u> yrs	
10-20	0.9	0.20			Resistance to control: <u>medium</u>	
20+	0	0			Overall Fire Potential <u>MEDIUM</u>	
SUBTOTAL 3+	4.0	0.90			National Forest: <u>Custer</u>	
TOTAL	6.7	1.50			Average slope: <u>5</u> %	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect: <u>northeast</u>		Drainage: <u>Stocker Branch Cr.</u>	
U	9		Elevation: <u>4460</u> ft <u>1359</u> m		Photo taken: <u>8/9/78</u>	
			Remarks: <u>Fire Ecology Group Three</u>		By: <u>W. C. Fischer</u>	



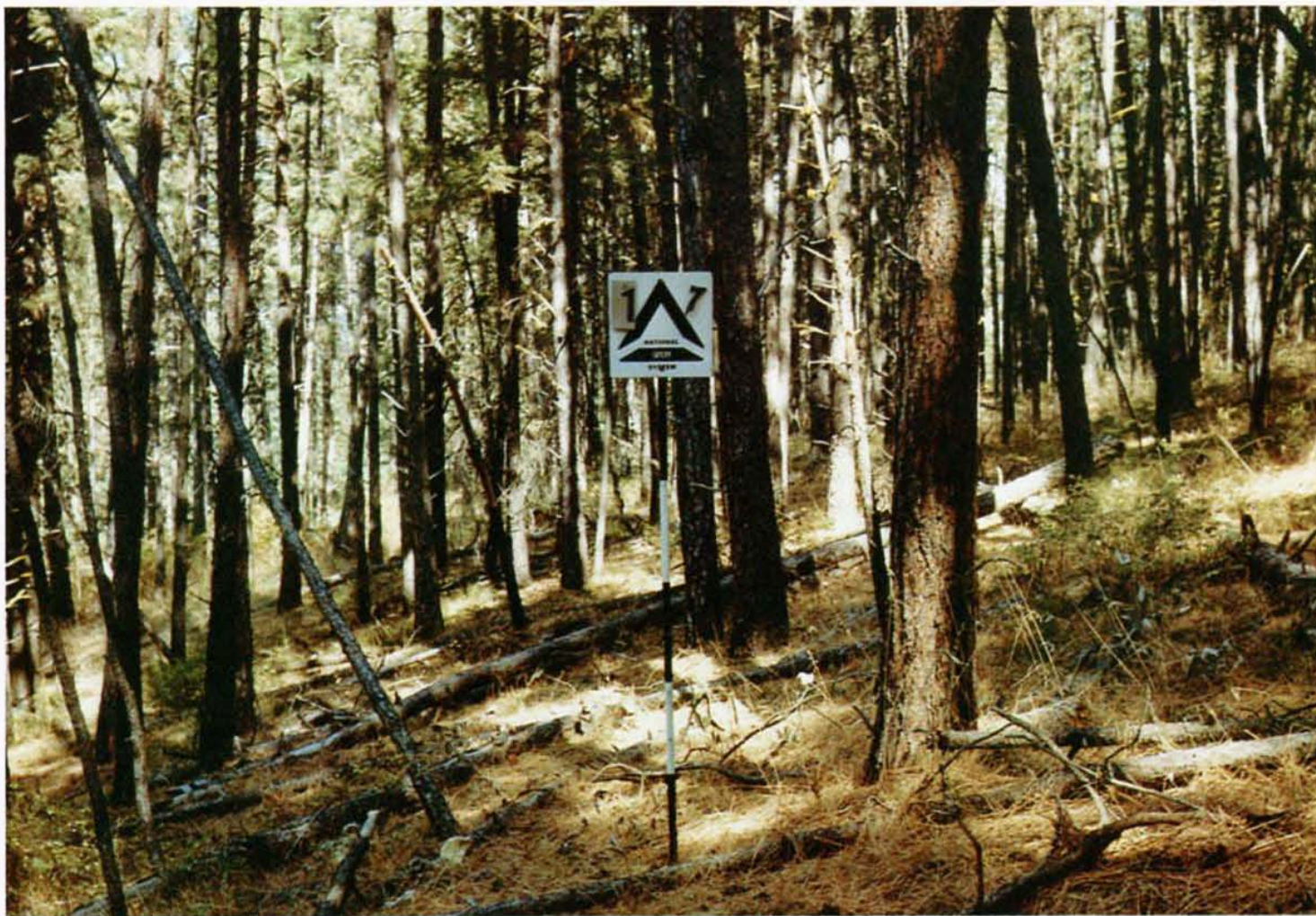
## DATA SHEET

Stand No. 32A

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 141, Ponderosa pine/Idaho fescue-Idaho fescue phase (PIPO/FEID-FEID)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.5	0.11	Average duff depth: <u>1.1</u> in <u>2.79</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	1.9	0.43	Average diameter, 3+fuels: <u>4.3</u> in <u>10.92</u> cm			
1-3	4.5	1.01	Percent rotten, 3+fuels: <u>53</u> %		Rate of Spread: <u>high</u>	
Subtotal 0-3	6.9	1.55	Volume of <b>sound</b> 3+fuels: <u>130</u> ft <sup>3</sup> /ac <u>9.1</u> m <sup>3</sup> /ha		Intensity: <u>high</u>	
3-6	1.0	0.22	<b>STAND AND SITE DATA</b>		Torching: <u>high</u>	
6-10	2.5	0.56			Age of overstory dominants: <u>PIPO</u> <u>58 yrs</u>	
10-20	0	0			Resistance to control: <u>medium</u>	
20+	0	0			Average slope: <u>3</u> % Aspect: <u>southwest</u> Elevation: <u>4180</u> ft <u>1274</u> m	
SUBTOTAL 3+	3.5	0.78			<b>STAND LOCATION</b>	
TOTAL	10.4	2.33			Remarks: <u>Fire Ecology Group Two</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				Ranger District: <u>Ft. Howes</u>	
<b>G</b>	<b>10</b>				Drainage: <u>Stocker Branch Cr.</u>	
					Photo taken: <u>8/9/78</u>	
					By: <u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 17

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine  
 MONTANA HABITAT TYPE: NO. 313, Douglas-fir/snowberry-snowberry phase (PSME/SYAL-SYAL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.1	0.02	Average duff depth: <u>2.7</u> in		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	1.1	0.25	<u>6.86</u> cm			
1-3	2.7	0.61	Average diameter, 3+fuels: <u>4.3</u> in		Rate of Spread: <u>medium</u>	
			<u>10.92</u> cm		Intensity: <u>low</u>	
			Percent rotten, 3+fuels: <u>5</u> %		Torching: <u>nil</u>	
Subtotal 0-3	3.9	0.88	Volume of sound 3+fuels: <u>494</u> ft <sup>3</sup> /ac		Crowning: <u>nil</u>	
			<u>34.6</u> m <sup>3</sup> /ha		Resistance to control: <u>low</u>	
3-6	4.2	0.94	STAND AND SITE DATA			
6-10	2.3	0.52	Age of overstory dominants:		Overall Fire Potential <u>LOW</u>	
10-20	0	0	<u>PIPO</u> <u>87</u> yrs		STAND LOCATION	
20+	0	0	<u>PSME</u> <u>67</u> yrs		National Forest: <u>Lolo</u>	
					Ranger District: <u>Ninemile</u>	
SUBTOTAL 3+	6.5	1.46			Drainage: <u>Mill Cr.</u>	
TOTAL	10.4	2.34	Average slope: <u>30</u> %		Photo taken: <u>9/22/76</u>	
			Aspect: <u>west</u>			
NFORS FUEL MODEL	STYLIZED FUEL MODEL		Elevation: <u>3310</u> ft <u>1009</u> m		By: <u>W. C. Fischer</u>	
U			Remarks: <u>Fire Ecology Group Two</u>			
	9					



## DATA SHEET

Stand No. 31A

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 141, Ponderosa pine/Idaho fescue-Idaho fescue phase (PIPO/FEID-FEID)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>0.8</u> in <u>2.03</u> cm		Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain
0-0.25	0.2	0.04	Average diameter, 3+fuels: <u>7.5</u> in		
0.25-1	0.4	0.09	<u>19.05</u> cm		Rate of Spread: <u>high</u>
1-3	0.7	0.16	Percent rotten, 3+fuels: <u>80</u> %		Intensity: <u>high</u>
Subtotal 0-3	1.3	0.29	Volume of <b>sound</b> 3+fuels: <u>154</u> ft <sup>3</sup> /ac <u>10.8</u> m <sup>3</sup> /ha		Torching: <u>high</u>
3-6	1.0	0.22	<b>STAND AND SITE DATA</b>		Crowning: <u>high</u>
6-10	2.9	0.65	Age of overstory dominants: <u>PIPO</u> <u>148 yrs</u>		Resistance to control: <u>medium</u>
10-20	5.5	1.23			Overall Fire Potential <b>HIGH</b>
20+	0	0			<b>STAND LOCATION</b>
SUBTOTAL 3+	9.4	2.10	Average slope: <u>7</u> %		National Forest: <u>Custer</u>
TOTAL	10.7	2.39	Aspect: <u>northeast</u>		Ranger District: <u>Ft. Howes</u>
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>		Elevation: <u>4160</u> ft <u>1268</u> m		Drainage: <u>Stocker Branch Cr.</u>
<b>U</b>	<b>9</b>		Remarks: <u>Fire Ecology Group Two</u>		Photo taken: <u>8/9/78</u>
					By: <u>W. C. Fischer</u>





## DATA SHEET

Stand No. 29A

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine

MONTANA HABITAT TYPE: NO. 141, Ponderosa pine/Idaho fescue-Idaho fescue phase (PIPO/FEID-FEID)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>0.4</u> in <u>1.02</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average diameter, 3+fuels: <u>4.3</u> in		Rate of Spread: <u>medium</u>	
0.25-1	1.3	0.29	<u>10.92</u> cm		Intensity: <u>low</u>	
1-3	3.2	0.72	Percent rotten, 3+fuels: <u>29</u> %		Torching: <u>nil</u>	
Subtotal 0-3	4.7	1.05	Volume of sound 3+fuels: <u>381</u> ft <sup>3</sup> /ac <u>26.7</u> m <sup>3</sup> /ha		Crowning: <u>nil</u>	
3-6	3.4	0.76	<b>STAND AND SITE DATA</b>		Resistance to control: <u>low</u>	
6-10	0.9	0.20	Age of overstory dominants: <u>PIPO</u> <u>100 yrs</u>		<b>STAND LOCATION</b>	
10-20	2.4	0.54			National Forest: <u>Custer</u>	
20+	0	0			Ranger District: <u>Ft. Howes</u>	
SUBTOTAL 3+	6.7	1.50			Drainage: <u>Cow Cr.</u>	
TOTAL	11.4	2.55	Average slope: <u>7</u> %		Photo taken: <u>8/9/78</u>	
Aspect: <u>northwest</u>			Elevation: <u>4430</u> ft <u>1350</u> m		By: <u>W. C. Fischer</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks: <u>old burn</u>			
<u>C</u>	<u>2</u>		<u>Fire Ecology Group Two</u>			



## DATA SHEET

Stand No. 72

FOREST COVER TYPE: SAF NO. 237, Interior ponderosa pine  
 MONTANA HABITAT TYPE: NO. 171, Ponderosa pine/snowberry-snowberry phase (PIPO/SYAL-SYAL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>2.1</u> in <u>5.33</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.1	0.02	Average diameter, 3+fuels:	<u>4.4</u> in <u>11.18</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	2.2	0.49	Percent rotten, 3+fuels:	<u>55</u> %	Intensity:	<u>medium</u>
1-3	4.4	0.99	Volume of sound 3+fuels:	<u>355</u> ft <sup>3</sup> /ac <u>24.8</u> m <sup>3</sup> /ha	Torching:	<u>high</u>
Subtotal 0-3	6.7	1.50	<b>STAND AND SITE DATA</b>		Crowning:	<u>high</u>
3-6	5.3	1.19	Age of overstory dominants:	<u>PIPO</u> <u>80</u> yrs	Resistance to control:	<u>low</u>
6-10	2.3	0.52			Overall Fire Potential	MEDIUM
10-20	2.1	0.47			<b>STAND LOCATION</b>	
20+	0	0			National Forest:	<u>Lolo</u>
SUBTOTAL 3+	9.7	2.18			Ranger District:	<u>Missoula</u>
TOTAL	16.4	3.68			Drainage:	<u>Woods Gulch</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Average slope:	<u>26</u> %	Photo taken:	<u>7/27/77</u>
<b>G</b>	<b>10</b>		Aspect:	<u>southeast</u>	By:	<u>W. C. Fischer</u>
			Elevation:	<u>3880</u> ft <u>1183</u> m		
			Remarks:	<u>Fire Ecology Group Two</u>		



**SERIES 2**  
**PONDEROSA PINE - LARCH - DOUGLAS-FIR**  
**SAF COVER TYPE 214**



## DATA SHEET

Stand No. 76

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING			
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>						
0-0.25	0.1	0.02	Average duff depth: <u>1.0</u> in <u>2.54</u> cm		Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain			
0.25-1	0.9	0.20	Average diameter, 3+fuels: <u>3.9</u> in <u>9.91</u> cm					
1-3	0.8	0.18	Percent rotten, 3+fuels: <u>65</u> %		Rate of Spread: <u>low</u>			
Subtotal 0-3	1.8	0.40	Volume of sound 3+fuels: <u>20</u> ft <sup>3</sup> /ac <u>1.4</u> m <sup>3</sup> /ha		Intensity: <u>low</u>			
3-6	0.6	0.13	STAND AND SITE DATA				Torching: <u>low</u>	
6-10	0.1	0.02	Age of overstory dominants: PIPO <u>214</u> yrs		Crowning: <u>low</u>		Resistance to control: <u>low</u>	
10-20	0	0	PSME <u>57</u> yrs		Overall Fire Potential <u>LOW</u>			
20+	0	0			STAND LOCATION			
SUBTOTAL 3+	0.7	0.15			National Forest: <u>Lolo</u>			
TOTAL	2.5	0.55	Average slope: <u>10</u> % Aspect: <u>southwest</u> Elevation: <u>4900</u> ft <u>1494</u> m		Ranger District: <u>Missoula</u>			
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks: _____ <u>Fire Ecology Group Six</u>		Drainage: <u>Woods Gulch</u>			
C/U	2/9				Photo taken: <u>7/27/77</u>			
					By: <u>W. C. Fischer</u>			





# DATA SHEET

Stand No. 69

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.5</u> in <u>3.81</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels: <u>5.1</u> in <u>12.95</u> cm			
0.25-1	0.8	0.18	Percent rotten, 3+fuels: <u>38</u> %		Rate of Spread: <u>medium</u>	
1-3	0.3	0.07	Volume of sound 3+fuels: <u>56</u> ft <sup>3</sup> /ac <u>3.9</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
Subtotal 0-3	1.4	0.32	<b>STAND AND SITE DATA</b>		Torching: <u>high</u>	
3-6	0.3	0.07	Age of overstory dominants: PIPO <u>125</u> yrs		Crowning: <u>medium</u>	
6-10	0.2	0.04	PSME <u>55</u> yrs		Resistance to control: <u>medium</u>	
10-20	0.6	0.13	Average slope: <u>23</u> %		<b>STAND LOCATION</b>	
20+	0	0	Aspect: <u>southwest</u>			
SUBTOTAL 3+	1.1	0.24	Elevation: <u>3780</u> ft <u>1152</u> m		National Forest: <u>Lolo</u>	
TOTAL	2.5	0.56	Remarks: _____ <u>Fire Ecology Group Six</u>		Ranger District: <u>Missoula</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>				Drainage: <u>Rattlesnake Cr.</u>	
<b>H</b>	<b>8</b>				Photo taken: <u>7/15/77</u>	
					By: <u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 80

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 293, Douglas-fir/twinflower-blue huckleberry phase (PSME/LIBO-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.5</u> in <u>3.81</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels: <u>4.3</u> in		Rate of Spread: <u>medium</u>	
0.25-1	0.8	0.18	<u>10.92</u> cm		Intensity: <u>medium</u>	
1-3	0.7	0.16	Percent rotten, 3+fuels: <u>74</u> %		Torching: <u>high</u>	
Subtotal 0-3			Volume of sound 3+fuels: <u>42</u> ft <sup>3</sup> /ac		Crowning: <u>medium</u>	
	1.8	0.41	<u>2.9</u> m <sup>2</sup> /ha		Resistance to control: <u>medium</u>	
3-6	0.8	0.18	STAND AND SITE DATA			
6-10	1.1	0.25	Age of overstory dominants:			
10-20	0	0	<u>LAOC</u> <u>280 yrs</u>			
20+	0	0	<u>PSME</u> <u>133 yrs</u>			
SUBTOTAL 3+			Average slope: <u>60</u> %			
	1.9	0.43	Aspect: <u>northwest</u>			
TOTAL			Elevation: <u>4660</u> ft <u>1420</u> m			
	3.7	0.84	Remarks: _____			
NFDRS FUEL MODEL		STYLIZED FUEL MODEL		STAND LOCATION		
H		8		National Forest: <u>Lolo</u>		
				Ranger District: <u>Missoula</u>		
				Drainage: <u>Woods Gulch</u>		
				Photo taken: <u>7/28/77</u>		
				By: <u>W. C. Fischer</u>		
				Fire Ecology Group Six		



## DATA SHEET

Stand No. 70

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.2</u> in <u>3.05</u> cm	Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+fuels:	<u>4.6</u> in <u>11.68</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.4	0.31	Percent rotten, 3+fuels:	<u>92</u> %	Intensity:	<u>medium</u>
1-3	1.1	0.25	Volume of sound 3+fuels:	<u>36</u> ft <sup>3</sup> /ac <u>2.5</u> m <sup>3</sup> /ha	Torching:	<u>medium</u>
Subtotal 0-3	2.9	0.65	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	3.2	0.72	Age of overstory dominants:		Resistance to control:	<u>medium</u>
6-10	0.7	0.16	PIPO	<u>75 yrs</u>	Overall Fire Potential	MEDIUM
10-20	1.4	0.31	PSME	<u>72 yrs</u>	<b>STAND LOCATION</b>	
20+	0	0			National Forest:	<u>Lolo</u>
SUBTOTAL 3+	5.3	1.19			Ranger District:	<u>Missoula</u>
TOTAL	8.2	1.84	Average slope:	<u>20</u> %	Drainage:	<u>Rattlesnake Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	<u>southeast</u>	Photo taken:	<u>7/15/77</u>
<b>H</b>	<b>8</b>		Elevation:	<u>3750</u> ft <u>1143</u> m	By:	<u>W. C. Fischer</u>
			Remarks:	<u>Fire Ecology Group Six</u>		



## DATA SHEET

Stand No. 64

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.6</u> in <u>4.06</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average diameter, 3+ fuels: <u>4.6</u> in <u>11.68</u> cm			
0.25-1	0.7	0.16	Percent rotten, 3+ fuels: <u>70</u> %		Rate of Spread: <u>medium</u>	
1-3	0.8	0.18	Volume of sound 3+ fuels: <u>180</u> ft <sup>3</sup> /ac <u>12.6</u> m <sup>3</sup> /ha		Intensity: <u>low</u>	
Subtotal 0-3	1.7	0.38	<b>STAND AND SITE DATA</b>		Torching: <u>low</u>	
3-6	3.4	0.76	Age of overstory dominants: PIPO <u>128</u> yrs		Crowning: <u>low</u>	
6-10	4.3	0.96	LAOC <u>110</u> yrs		Resistance to control: <u>medium</u>	
10-20	0	0	ABGR <u>92</u> yrs		<b>STAND LOCATION</b>	
20+	0	0	Average slope: <u>20</u> % Aspect: <u>southeast</u> Elevation: <u>4260</u> ft <u>1298</u> m			
SUBTOTAL 3+	7.7	1.72	Remarks: _____		National Forest: <u>Lolo</u>	
TOTAL	9.4	2.10	Fire Ecology Group Six		Ranger District: <u>Missoula</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				Drainage: <u>Rattlesnake Cr.</u>	
H	8		Photo taken: <u>7/14/77</u>		By: <u>W. C. Fischer</u>	





## DATA SHEET

Stand No. 79

FOREST COVER TYPE: SAF NO. 214 Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 282 Douglas-fir/blue huckleberry-kinnikinnick phase (PSME/VAGL-ARUV)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.8</u> in <u>4.57</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average diameter, 3+fuels: <u>5.1</u> in <u>12.95</u> cm			
0.25-1	0.7	0.16	Percent rotten, 3+fuels: <u>26</u> %		Rate of Spread: <u>medium</u>	
1-3	0.5	0.11	Volume of <b>sound</b> 3+fuels: <u>526</u> ft <sup>3</sup> /ac <u>36.8</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
Subtotal 0-3	1.4	0.31	<b>STAND AND SITE DATA</b>		Torching: <u>low</u>	
3-6	3.1	0.69	Age of overstory dominants: LAOC <u>280 yrs</u>		Crowning: <u>low</u>	
6-10	5.1	1.14	PIPO <u>270 yrs</u>		Resistance to control: <u>low</u>	
10-20	0.8	0.18	PSME <u>133 yrs</u>		<b>STAND LOCATION</b>	
20+	0	0	PICO <u>27 yrs</u>			
SUBTOTAL 3+	9.0	2.01	Average slope: <u>30</u> % Aspect: <u>northwest</u>		National Forest: <u>Lolo</u>	
TOTAL	10.4	2.32	Elevation: <u>4730</u> ft <u>1442</u> m		Ranger District: <u>Missoula</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>		Remarks: _____ <u>Fire Ecology Group Six</u>		Drainage: <u>Woods Gulch</u>	
<b>H</b>	<b>8</b>				Photo taken: <u>7/28/77</u>	
					By: <u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 75

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.2</u> in <u>3.05</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels: <u>3.6</u> in <u>9.14</u> cm			
0.25-1	1.4	0.31	Percent rotten, 3+fuels: <u>37</u> %		Rate of Spread: <u>medium</u>	
1-3	4.6	1.03	Volume of sound 3+fuels: <u>211</u> ft <sup>3</sup> /ac <u>14.8</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
Subtotal 0-3	6.5	1.45	<b>STAND AND SITE DATA</b>		Torching: <u>medium</u>	
3-6	3.1	0.69	Age of overstory dominants: PIPO <u>65 yrs</u>		Crowning: <u>low</u>	
6-10	0.5	0.11	PSME <u>64 yrs</u>		Resistance to control: <u>low</u>	
10-20	0.7	0.16	Average slope: <u>10</u> % Aspect: <u>southwest</u> Elevation: <u>4480</u> ft <u>1366</u> m		Overall Fire Potential <u>MEDIUM</u>	
20+	0	0			<b>STAND LOCATION</b>	
SUBTOTAL 3+	4.3	0.96	Remarks: <u>Fire Ecology Group Six</u>		National Forest: <u>Lolo</u>	
TOTAL	10.8	2.41			Ranger District: <u>Missoula</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>				Drainage: <u>Woods Gulch</u>	
<b>U</b>	<b>9</b>				Photo taken: <u>7/27/77</u>	
					By: <u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 73

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.5	0.11	Average duff depth: <u>1.2</u> in		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
			<u>3.05</u> cm			
			Average diameter, 3+fuels:		Rate of Spread: <u>medium</u>	
0.25-1	1.0	0.22	<u>6.0</u> in		Intensity: <u>low</u>	
1-3	1.1	0.25	<u>15.24</u> cm		Torching: <u>low</u>	
			Percent rotten, 3+fuels: <u>68</u> %		Crowning: <u>low</u>	
			Volume of sound 3+fuels:		Resistance to control: <u>low</u>	
Subtotal 0-3	2.6	0.58	<u>230</u> ft <sup>3</sup> /ac		Overall Fire Potential <b>LOW</b>	
			<u>16.1</u> m <sup>3</sup> /ha			
			STAND AND SITE DATA			
3-6	1.8	0.40	Age of overstory dominants:			
6-10	5.6	1.26	PIPO <u>172</u> yrs			
10-20	1.5	0.34	PSME <u>110</u> yrs			
20+	0	0				
SUBTOTAL 3+	8.9	2.00	Average slope: <u>40</u> %		STAND LOCATION	
TOTAL	11.5	2.58	Aspect: <u>southeast</u>		National Forest: <u>Lolo</u>	
			Elevation: <u>4080</u> ft <u>1244</u> m		Ranger District: <u>Missoula</u>	
			Remarks: <u>Fire Ecology Group Six</u>		Drainage: <u>Woods Gulch</u>	
					Photo taken: <u>7/27/77</u>	
					By: <u>W. C. Fischer</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL					
H	8					



## DATA SHEET

Stand No. 77

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 322, Douglas-fir/pinegrass-kinnikinnick phase (PSME/CARU-ARUV)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.7</u> in <u>4.32</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.1	0.02	Average diameter, 3+fuels: <u>9.3</u> in <u>23.62</u> cm		Rate of Spread: <u>medium</u>	
0.25-1	0.5	0.11	Percent rotten, 3+fuels: <u>81</u> %		Intensity: <u>medium</u>	
1-3	0.8	0.18	Volume of sound 3+fuels: <u>167</u> ft <sup>3</sup> /ac <u>11.7</u> m <sup>3</sup> /ha		Torching: <u>medium</u>	
Subtotal 0-3	1.4	0.31	<b>STAND AND SITE DATA</b>		Crowning: <u>low</u>	
3-6	0.1	0.02	Age of overstory dominants: PIPO <u>190</u> yrs		Resistance to control: <u>low</u>	
6-10	2.0	0.45	PSME <u>188</u> yrs		<b>STAND LOCATION</b>	
10-20	8.8	1.97	LAOC <u>145</u> yrs		National Forest: <u>Lolo</u>	
20+	0	0	Average slope: <u>20</u> %		Ranger District: <u>Missoula</u>	
SUBTOTAL 3+	10.9	2.44	Aspect: <u>southwest</u>		Drainage: <u>Woods Gulch</u>	
TOTAL	12.3	2.75	Elevation: <u>4780</u> ft <u>1457</u> m		Photo taken: <u>7/28/77</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>		Remarks: _____		By: <u>W. C. Fischer</u>	
<b>H</b>	<b>8</b>		<u>Fire Ecology Group Six</u>			





## DATA SHEET

Stand No. 84

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 283, Douglas-fir/blue huckleberry-beargrass phase (PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>0.8</u> in <u>2.03</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.7	0.16	Average diameter, 3+fuels: <u>5.1</u> in		Rate of Spread: <u>medium</u>	
0.25-1	2.3	0.52	<u>12.95</u> cm		Intensity: <u>medium</u>	
1-3	2.0	0.45	Percent rotten, 3+fuels: <u>0</u> %		Torching: <u>medium</u>	
Subtotal 0-3			Volume of sound 3+fuels: <u>1093</u> ft <sup>3</sup> /ac <u>16.5</u> m <sup>3</sup> /ha		Crowning: <u>low</u>	
3-6	4.3	0.96	<b>STAND AND SITE DATA</b>			
6-10	8.0	1.79	Age of overstory dominants:		<b>STAND LOCATION</b>	
10-20	1.3	0.29	LAOC <u>71</u> yrs		National Forest: <u>Lolo</u>	
20+	0	0	PIPO <u>60</u> yrs		Ranger District: <u>Missoula</u>	
SUBTOTAL 3+			PSME <u>60</u> yrs		Drainage: <u>Howard Cr.</u>	
TOTAL			Average slope: <u>20</u> %		Photo taken: <u>8/22/77</u>	
			Aspect: <u>southwest</u>			
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation: <u>5470</u> ft <u>1667</u> m		By: <u>W. C. Fischer</u>	
J	12		Remarks: <u>old thinning slash</u> <u>Fire Ecology Group Six</u>			



## DATA SHEET

Stand No. 74

FOREST COVER TYPE: SAF NO. 214, Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0.9	0.20	Average duff depth: <u>1.9</u> in		Rate of Spread: <u>medium</u>		
			<u>4.83</u> cm		Intensity: <u>medium</u>		
0.25-1	1.7	0.38	Average diameter, 3+fuels:		Torching: <u>medium</u>		
			<u>5.0</u> in		Crowning: <u>medium</u>		
1-3	3.6	0.81	<u>12.70</u> cm		Resistance to control: <u>medium</u>		
			Percent rotten, 3+fuels: <u>32</u> %		Overall Fire Potential <b>MEDIUM</b>		
			Volume of sound 3+fuels:				
Subtotal 0-3	6.2	1.39	<u>758</u> ft <sup>3</sup> /ac		<b>STAND LOCATION</b>		
			<u>53.0</u> m <sup>3</sup> /ha		National Forest: <u>Lolo</u>		
			STAND AND SITE DATA			Ranger District: <u>Missoula</u>	
3-6	4.0	0.90	Age of overstory dominants:			Drainage: <u>Woods Gulch</u>	
			PIPO <u>173</u> yrs			Photo taken: <u>7/27/77</u>	
6-10	4.5	1.01	PSME <u>56</u> yrs				
10-20	1.8	0.40					
20+	3.7	0.83	Average slope: <u>40</u> %				
			Aspect: <u>southeast</u>				
SUBTOTAL 3+	14.0	3.14	Elevation: <u>4300</u> ft <u>1311</u> m				
			Remarks: _____				
			<u>Fire Ecology Group Six</u>				
NFDRS FUEL MODEL	STYLIZED FUEL MODEL						
G	10						



## DATA SHEET

Stand No. 78

FOREST COVER TYPE: SAF NO. 214

Ponderosa pine - larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 293

Douglas-fir/twinflower-blue huckleberry phase (PSME/LIBO-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			
0-0.25	0.2	0.04	Average duff depth: <u>1.9</u> in <u>4.83</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain
0.25-1	1.1	0.25	Average diameter, 3+fuels: <u>8.4</u> in <u>21.34</u> cm		
1-3	1.7	0.38	Percent rotten, 3+fuels: <u>46</u> %		Rate of Spread: <u>medium</u>
Subtotal 0-3	3.0	0.67	Volume of sound 3+fuels: <u>1505</u> ft <sup>3</sup> /ac <u>105.3</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>
3-6	3.3	0.74	<b>STAND AND SITE DATA</b>		Torching: <u>medium</u>
6-10	0.7	0.16	Age of overstory dominants: PIPO <u>320</u> yrs		Crowning: <u>medium</u>
10-20	31.0	6.95	LAOC <u>224</u> yrs		Resistance to control: <u>medium</u>
20+	0	0	PSME <u>70</u> yrs		Overall Fire Potential <u>MEDIUM</u>
SUBTOTAL 3+	35.0	7.85	Average slope: <u>30</u> %		<b>STAND LOCATION</b>
TOTAL	38.0	8.52	Aspect: <u>northwest</u>		National Forest: <u>Lolo</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation: <u>4800</u> ft <u>1463</u> m		Ranger District: <u>Missoula</u>
<b>G</b>	<b>10</b>		Remarks: <u>Fire Ecology Group Six</u>		Drainage: <u>Woods Gulch</u>
					Photo taken: <u>7/28/77</u>
					By: <u>W. C. Fischer</u>



**SERIES 3**  
**LARCH - DOUGLAS-FIR**  
**SAF COVER TYPE 212**





## DATA SHEET

Stand No. 68

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 322, Douglas-fir/pinegrass-kinnikinnick phase (PSME/CARU-ARUV)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.8</u> in <u>4.57</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels:	<u>0</u> in <u>0</u> cm	Rate of Spread:	<u>low</u>
0.25-1	0.7	0.16	Percent rotten, 3+fuels:	<u>0</u> %	Intensity:	<u>low</u>
1-3	0.2	0.04	Volume of <b>sound</b> 3+fuels:	<u>0</u> ft <sup>3</sup> /ac <u>0</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	1.4	0.31	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	0	0	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	0	0	LAOC	<u>50</u> yrs	Overall Fire Potential	LOW
10-20	0	0	PSME	<u>50</u> yrs	<b>STAND LOCATION</b>	
20+	0	0	PICO	<u>50</u> yrs	National Forest:	<u>Lolo</u>
SUBTOTAL 3+	0	0	Average slope:	<u>1</u> %	Ranger District:	<u>Missoula</u>
TOTAL	1.4	0.31	Aspect:	<u>northeast</u>	Drainage:	<u>Rattlesnake Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation:	<u>3930</u> ft <u>1198</u> m	Photo taken:	<u>7/14/77</u>
<b>H</b>	<b>8</b>		Remarks:		By:	<u>W. C. Fischer</u>
			Fire Ecology Group Six			



## DATA SHEET

Stand No. 31

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.6</u> in <u>4.06</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels: <u>3.6</u> in <u>9.14</u> cm			
0.25-1	1.2	0.27	Percent rotten, 3+fuels: <u>14</u> %		Rate of Spread: <u>low</u>	
1-3	1.2	0.27	Volume of <b>sound</b> 3+fuels: <u>139</u> ft <sup>3</sup> /ac <u>9.7</u> m <sup>3</sup> /ha		Intensity: <u>low</u>	
Subtotal 0-3	2.9	0.65	<b>STAND AND SITE DATA</b>		Torching: <u>low</u>	
3-6	1.7	0.38	Age of overstory dominants: PSME <u>130</u> yrs		Crowning: <u>low</u>	
6-10	0.3	0.07	PIPO <u>120</u> yrs		Resistance to control: <u>low</u>	
10-20	0	0	Average slope: <u>50</u> %		<b>STAND LOCATION</b>	
20+	0	0	Aspect: <u>northwest</u>			
SUBTOTAL 3+	2.0	0.45	Elevation: <u>5490</u> ft <u>1673</u> m		National Forest: <u>Lolo</u>	
TOTAL	4.9	1.10	Remarks: <u>Fire Ecology Group Six</u>		Ranger District: <u>Missoula</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>				Drainage: <u>W. Fk. Swartz Cr.</u>	
<b>H</b>	<b>8</b>				Photo taken: <u>6/20/77</u>	
					By: <u>W. C. Fischer</u>	



# DATA SHEET

Stand No. 71

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir  
MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>2.3</u> in <u>5.84</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels:	<u>3.3</u> in <u>8.38</u> cm	Rate of Spread: <u>medium</u>	
0.25-1	1.9	0.43	Percent rotten, 3+fuels:	<u>67</u> %	Intensity: <u>medium</u>	
1-3	2.1	0.47	Volume of sound 3+fuels:	<u>21</u> ft <sup>3</sup> /ac <u>1.5</u> m <sup>3</sup> /ha	Torching: <u>medium</u>	
Subtotal 0-3	4.5	1.01	<b>STAND AND SITE DATA</b>		Crowning: <u>low</u>	
3-6	0.8	0.18	Age of overstory dominants:	<u>PSME</u> <u>75 yrs</u>	Resistance to control: <u>medium</u>	
6-10	0	0	<u>LAOC</u> <u>65 yrs</u>	Overall Fire Potential <u>MEDIUM</u>		
10-20	0	0	<b>STAND LOCATION</b>		National Forest: <u>Lolo</u>	
20+	0	0			Ranger District: <u>Missoula</u>	
SUBTOTAL 3+	0.8	0.18			Drainage: <u>Spring Cr.</u>	
TOTAL	5.3	1.19	Average slope:	<u>80</u> %	Photo taken: <u>7/15/77</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL	Aspect:	<u>northeast</u>	Elevation:	<u>3480</u> ft <u>1061</u> m	By: <u>W. C. Fischer</u>
<b>H</b>	<b>8</b>	Remarks:	<u>Fire Ecology Group Six</u>			



## DATA SHEET

Stand No. 14

FOREST COVER TYPE: SAF NO. 212 Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 261 Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0.7	0.16	Average duff depth: <u>2.4</u> in		Rate of Spread: <u>low</u>		
0.25-1	1.3	0.29	<u>6.10</u> cm		Intensity: <u>low</u>		
1-3	3.1	0.69	Average diameter, 3+fuels:		Torching: <u>low</u>		
			<u>4.3</u> in		Crowning: <u>low</u>		
			<u>10.92</u> cm		Resistance to control: <u>low</u>		
			Percent rotten, 3+fuels: <u>58</u> %		Overall Fire Potential <b>LOW</b>		
			Volume of sound 3+fuels:				
Subtotal 0-3	5.1	1.14	<u>250</u> ft <sup>3</sup> /ac		<b>STAND LOCATION</b>		
			<u>17.5</u> m <sup>2</sup> /ha		National Forest: <u>Lolo</u>		
			<b>STAND AND SITE DATA</b>		Ranger District: <u>Ninemile</u>		
			Age of overstory dominants:		Drainage: <u>Mill Cr.</u>		
			PSME <u>80 yrs</u>		Photo taken: <u>9/22/76</u>		
					By: <u>W. C. Fischer</u>		
			Average slope: <u>2</u> %				
			Aspect: <u>north</u>				
			Elevation: <u>3400</u> ft <u>1036</u> m				
			Remarks: _____				
			<u>Fire Ecology Group Six</u>				
			_____				
			_____				
<b>NFDRS FUEL MODEL</b>		<b>STYLIZED FUEL MODEL</b>					
<b>H/G</b>		<b>8/10</b>					





## DATA SHEET

Stand No. 88

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 292, Douglas-fir/twinflower-pinegrass phase (PSME/LIBO-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>2.2</u> in <u>5.59</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average diameter, 3+fuels:	<u>4.1</u> in <u>10.41</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.5	0.34	Percent rotten, 3+fuels:	<u>25</u> %	Intensity:	<u>low</u>
1-3	4.0	0.90	Volume of sound 3+fuels:	<u>462</u> ft <sup>3</sup> /ac <u>32.3</u> m <sup>3</sup> /ha	Torching:	<u>nil</u>
Subtotal 0-3	5.7	1.28	<b>STAND AND SITE DATA</b>		Crowning:	<u>nil</u>
3-6	5.2	1.17	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	2.5	0.56	LAOC	<u>285 yrs</u>	Overall Fire Potential	<u>LOW</u>
10-20	0	0	PSME	<u>246 yrs</u>	<b>STAND LOCATION</b>	
20+	0	0			National Forest:	<u>Lolo</u>
SUBTOTAL 3+	7.7	1.73			Ranger District:	<u>Missoula</u>
TOTAL	13.4	3.01	Average slope:	<u>23</u> %	Drainage:	<u>N. Fk. Howard Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	<u>northwest</u>	Photo taken:	<u>8/29/77</u>
<u>C</u>	<u>2</u>		Elevation:	<u>4480</u> ft <u>1366</u> m	By:	<u>W. C. Fischer</u>
			Remarks:	<u>old seed-tree cut</u> <u>Fire Ecology Group Six</u>		



## DATA SHEET

Stand No. 13

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 521, Grand fir/queencup beadlily-queencup beadlily phase  
(ABGR/CLUN-CLUN)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.8</u> in <u>4.57</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels:	<u>4.7</u> in <u>11.94</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.5	0.34	Percent rotten, 3+fuels:	<u>33</u> %	Intensity:	<u>medium</u>
1-3	3.5	0.78	Volume of sound 3+fuels:	<u>908</u> ft <sup>3</sup> /ac <u>63.5</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	5.3	1.19	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	9.3	2.08	Age of overstory dominants:		Resistance to control:	<u>medium</u>
6-10	5.0	1.12	PSME	<u>100</u> yrs	Overall Fire Potential	MEDIUM
10-20	2.6	0.58	ABGR	<u>50</u> yrs	<b>STAND LOCATION</b>	
20+	0	0	Average slope:	<u>10</u> %	National Forest:	<u>Lolo</u>
SUBTOTAL 3+	16.9	3.78	Aspect:	<u>north</u>	Ranger District:	<u>Ninemile</u>
TOTAL	22.2	4.97	Elevation:	<u>3410</u> ft <u>1039</u> m	Drainage:	<u>Mill Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks:			
<b>G</b>	<b>10</b>		<u>Fire Ecology Group Eleven</u>	Photo taken:	<u>9/22/76</u>	
				By:	<u>W. C. Fischer</u>	



## DATA SHEET

Stand No. 9

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 691, Subalpine fir/beargrass-blue huckleberry phase  
(ABLA/XETE-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.1	0.02	Average duff depth: <u>0.5</u> in		Rate of Spread: <u>medium</u>	
			<u>1.27</u> cm			
			Average diameter, 3+fuels:			
			<u>5.6</u> in			
0.25-1	1.0	0.22	<u>14.22</u> cm		Intensity: <u>low</u>	
1-3	4.0	0.90	Percent rotten, 3+fuels: <u>7</u> %		Torching: <u>nil</u>	
Subtotal			Volume of sound 3+fuels:		Crowning: <u>nil</u>	
0-3	5.1	1.14	<u>1358</u> ft <sup>3</sup> /ac		Resistance to control: <u>low</u>	
			<u>95.0</u> m <sup>3</sup> /ha		Overall Fire Potential <b>LOW</b>	
STAND AND SITE DATA			Age of overstory dominants: _____ _____ _____ _____			
3-6	4.5	1.01				
6-10	5.1	1.14				
10-20	8.7	1.95				
20+	0	0				
SUBTOTAL					Average slope: <u>29</u> %	
3+	18.3	4.10	Aspect: <u>southwest</u>		National Forest: <u>Lolo</u>	
TOTAL			Elevation: <u>5720</u> ft <u>1744</u> m		Ranger District: <u>Missoula</u>	
NFDRS FUEL MODEL			Remarks: <u>old clearcut and burn</u> <u>Fire Ecology Group Eight</u>		Drainage: <u>Cloudburst Cr.</u>	
STYLIZED FUEL MODEL					Photo taken: <u>9/17/76</u>	
A					By: <u>S. Cox</u>	
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# DATA SHEET

Stand No. 89

FOREST COVER TYPE: SAF NO. 212 Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 292 Douglas-fir/twinflower-pinegrass phase (PSME/LIBO-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.6</u> in <u>4.06</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.6	0.13	Average diameter, 3+fuels: <u>4.9</u> in <u>12.45</u> cm			
0.25-1	5.0	1.12	Percent rotten, 3+fuels: <u>12</u> %		Rate of Spread: <u>medium</u>	
1-3	2.2	0.49	Volume of sound 3+fuels: <u>1134</u> ft <sup>3</sup> /ac <u>79.4</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
Subtotal 0-3	7.8	1.74	<b>STAND AND SITE DATA</b>		Torching: <u>low</u>	
3-6	6.8	1.52	Age of overstory dominants: PSME <u>105</u> yrs		Crowning: <u>low</u>	
6-10	9.3	2.08			Overall Fire Potential <u>MEDIUM</u>	
10-20	0	0	Average slope: <u>54</u> % Aspect: <u>northwest</u> Elevation: <u>4240</u> ft <u>1292</u> m		<b>STAND LOCATION</b>	
20+	0	0			National Forest: <u>Lolo</u>	
SUBTOTAL 3+	16.1	3.60	Remarks: <u>old partial cut</u> <u>Fire Ecology Group Six</u>		Ranger District: <u>Missoula</u>	
TOTAL	23.9	5.34			Drainage: <u>N. Fk. Howard Ck.</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				Photo taken: <u>8/29/77</u>	
<b>K/G</b>	<b>11/10</b>				By: <u>W. C. Fischer</u>	





## DATA SHEET

Stand No. 5

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 661, Subalpine fir/twinflower-twinflower phase (ABLA/LIBO-LIBO)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>3.2</u> in <u>8.13</u> cm	Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels:	<u>8.2</u> in <u>20.83</u> cm	Rate of Spread:	<u>low</u>
0.25-1	2.1	0.47	Percent rotten, 3+fuels:	<u>81</u> %	Intensity:	<u>low</u>
1-3	4.4	0.99	Volume of sound 3+fuels:	<u>264</u> ft <sup>3</sup> /ac <u>18.5</u> m <sup>3</sup> /ha	Torching:	<u>medium</u>
Subtotal 0-3	7.0	1.57	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	1.5	0.34	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	0	0	LAOC	<u>81 yrs</u>	Overall Fire Potential	<u>LOW</u>
10-20	16.2	3.63	PICO	<u>77 yrs</u>	<b>STAND LOCATION</b>	
20+	0	0			National Forest:	<u>Lolo</u>
SUBTOTAL 3+	17.7	3.97			Ranger District:	<u>Missoula</u>
TOTAL	24.7	5.54	Average slope:	<u>10</u> %	Drainage:	<u>Cloudburst Ck.</u>
Aspect:			<u>west</u>		Photo taken:	<u>9/16/76</u>
Elevation:	<u>5095</u> ft	<u>1553</u> m	Remarks:			
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		<u>Fire Ecology Group Nine</u>			
<b>G</b>	<b>10</b>					
				By:	<u>S. Cox</u>	



## DATA SHEET

Stand No. 29

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 283, Douglas-fir/blue huckleberry-beargrass phase (PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain  Rate of Spread: <u>low</u>  Intensity: <u>low</u>  Torching: <u>low</u>  Crowning: <u>low</u>  Resistance to control: <u>low</u>  Overall Fire Potential <u>LOW</u>
0-0.25	0.3	0.07	Average duff depth: <u>1.7</u> in		
0.25-1	1.7	0.38	<u>4.32</u> cm		
1-3	1.9	0.43	Average diameter, 3+ fuels:		
			<u>5.4</u> in		
			<u>13.72</u> cm		
			Percent rotten, 3+ fuels: <u>47</u> %		
			Volume of sound 3+ fuels:		
			<u>932</u> ft <sup>3</sup> /ac		
			<u>65.2</u> m <sup>3</sup> /ha		
Subtotal 0-3	3.9	0.88	<b>STAND AND SITE DATA</b>		
3-6	5.9	1.32	Age of overstory dominants:		
6-10	14.9	3.34	LAOC <u>130</u> yrs		
10-20	1.3	0.29	PSME <u>115</u> yrs		
20+	0	0	PICO <u>105</u> yrs		
			Average slope: <u>40</u> %		
			Aspect: <u>northwest</u>		
			Elevation: <u>5425</u> ft <u>1654</u> m		
			Remarks: _____		
			<u>Fire Ecology Group Six</u>		
			Photo taken: <u>6/20/77</u>		
			By: <u>W. C. Fischer</u>		
			<b>STAND LOCATION</b>		
			National Forest: <u>Lolo</u>		
			Ranger District: <u>Missoula</u>		
			Drainage: <u>W. Fk. Swartz Cr.</u>		
<b>NFDRS FUEL MODEL</b>		<b>STYLIZED FUEL MODEL</b>			
<b>G</b>		<b>10</b>			



## DATA SHEET

Stand No. 30

FOREST COVER TYPE: SAF NO. 212 Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 261 Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain  Rate of Spread: <u>low</u>  Intensity: <u>low</u>  Torching: <u>low</u>  Crowning: <u>low</u>  Resistance to control: <u>low</u>  Overall Fire Potential: <u>LOW</u>
0-0.25	0.3	0.07	Average duff depth: <u>1.5</u> in <u>3.81</u> cm		
0.25-1	0.7	0.16	Average diameter, 3+fuels: <u>8.9</u> in <u>22.61</u> cm		
1-3	0.8	0.18	Percent rotten, 3+fuels: <u>80</u> %		
Subtotal 0-3	1.8	0.41	Volume of sound 3+fuels: <u>410</u> ft <sup>3</sup> /ac <u>28.7</u> m <sup>3</sup> /ha		
3-6	1.6	0.36	<b>STAND AND SITE DATA</b>		
6-10	4.0	0.90	Age of overstory dominants: <u>PSME</u> <u>230 yrs</u>		
10-20	16.8	3.77			
20+	3.1	0.69			
SUBTOTAL 3+	25.5	5.72	Average slope: <u>50</u> % Aspect: <u>northwest</u> Elevation: <u>5470</u> ft <u>1667</u> m		
TOTAL	27.3	6.13	Remarks: <u>Fire Ecology Group Six</u>		
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>		<b>STAND LOCATION</b>		
<b>G</b>	<b>10</b>		National Forest: <u>Lolo</u>		
			Ranger District: <u>Missoula</u>		
			Drainage: <u>W. Fk. Swartz Cr.</u>		
			Photo taken: <u>6/20/77</u>		
			By: <u>W. C. Fischer</u>		



## DATA SHEET

Stand No. 56

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 203, Douglas-fir/blue huckleberry-beargrass phase (PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.9</u> in <u>4.83</u> cm	Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+fuels:	<u>4.9</u> in <u>12.45</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	2.7	0.61	Percent rotten, 3+fuels:	<u>52</u> %	Intensity:	<u>medium</u>
1-3	3.5	0.78	Volume of sound 3+fuels:	<u>897</u> ft <sup>3</sup> /ac <u>62.8</u> m <sup>3</sup> /ha	Torching:	<u>medium</u>
Subtotal 0-3	6.6	1.48	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	11.7	2.62	Age of overstory dominants:		Resistance to control:	<u>medium</u>
6-10	4.0	0.90	<u>PICO</u>	<u>42</u> yrs	Overall Fire Potential	MEDIUM
10-20	7.4	1.66	<u>PSME</u>	<u>30</u> yrs	<b>STAND LOCATION</b>	
20+	0	0	<u>LAOC</u>	<u>30</u> yrs	National Forest:	<u>Lolo</u>
SUBTOTAL 3+	23.1	5.18	Average slope:	<u>60</u> %	Ranger District:	<u>Missoula</u>
TOTAL	29.7	6.66	Aspect:	<u>northeast</u>	Drainage:	<u>Swartz Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation:	<u>5470</u> ft <u>1667</u> m	Photo taken:	<u>7/6/77</u>
<b>G</b>	<b>10</b>		Remarks:	<u>old thinning slash</u> <u>Fire Ecology Group Six</u>	By:	<u>W. C. Fischer</u>





## DATA SHEET

Stand No. 33

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 670, Subalpine fir/menziesia (ABLA/MEFE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0.5	0.11	Average duff depth: <u>2.5</u> in		Rate of Spread: <u>high</u>		
0.25-1	2.9	0.65	<u>6.35</u> cm		Intensity: <u>high</u>		
1-3	12.9	2.89	Average diameter, 3+fuels:		Torching: <u>medium</u>		
			<u>4.2</u> in		Crowning: <u>medium</u>		
			<u>10.67</u> cm		Resistance to control: <u>high</u>		
			Percent rotten, 3+fuels: <u>35</u> %		Overall Fire Potential <b>HIGH</b>		
			Volume of sound 3+fuels:				
Subtotal 0-3	16.3	3.65	<u>1070</u> ft <sup>3</sup> /ac		<b>STAND LOCATION</b>		
			<u>74.9</u> m <sup>3</sup> /ha		National Forest: <u>Lolo</u>		
			<b>STAND AND SITE DATA</b>		Ranger District: <u>Missoula</u>		
			Age of overstory dominants:		Drainage: <u>W. Fk. Swartz Cr.</u>		
			LAOC <u>134</u> yrs		Photo taken: <u>6/20/77</u>		
			PICO <u>120</u> yrs				
			PSME <u>90</u> yrs		By: <u>W. C. Fischer</u>		
			Average slope: <u>50</u> %				
			Aspect: <u>east</u>				
			Elevation: <u>5555</u> ft <u>1693</u> m				
			Remarks: <u>Fire Ecology Group Nine</u>				
<b>NFDRS FUEL MODEL</b>		<b>STYLIZED FUEL MODEL</b>					
<b>G</b>		<b>10</b>					



## DATA SHEET

Stand No. 91

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 691, Douglas-fir/blue huckleberry-beargrass phase (PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.3</u> in <u>3.3</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.7	0.16	Average diameter, 3+fuels:	<u>4.0</u> in <u>10.16</u> cm	Rate of Spread:	<u>high</u>
0.25-1	2.9	0.65	Percent rotten, 3+fuels:	<u>1</u> %	Intensity:	<u>high</u>
1-3	6.7	1.50	Volume of sound 3+fuels:	<u>2216</u> ft <sup>3</sup> /ac <u>155.1</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	10.3	2.31	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	23.2	5.20	Age of overstory dominants:		Resistance to control:	<u>medium</u>
6-10	4.7	1.05	LAOC	<u>70 yrs</u>	Overall Fire Potential	<b>HIGH</b>
10-20	0	0	PSME	<u>62 yrs</u>	<b>STAND LOCATION</b>	
20+	0	0	PICO	<u>60 yrs</u>	National Forest:	<u>Lolo</u>
SUBTOTAL 3+	27.9	6.25	Average slope:	<u>30</u> %	Ranger District:	<u>Missoula</u>
TOTAL	38.2	8.56	Aspect:	<u>northwest</u>	Drainage:	<u>Howard Cr.</u>
Elevation:	<u>5270</u> ft	<u>1606</u> m	Remarks:	<u>old thinning slash</u>		
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		<u>Fire Ecology Group Six</u>			
<b>I</b>	<b>13</b>		Photo taken: <u>8/29/77</u>			
			By: <u>W. C. Fischer</u>			



## DATA SHEET

Stand No. 7

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir  
 MONTANA HABITAT TYPE: NO. 691, Subalpine fir/beargrass-blue huckleberry phase  
(ABLA/XETE-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>					
0-0.25	0.5	0.11	Average duff depth: <u>2.1</u> in <u>5.33</u> cm		Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0.25-1	2.1	0.47	Average diameter, 3+fuels: <u>4.7</u> in <u>11.94</u> cm				
1-3	6.5	1.46	Percent rotten, 3+fuels: <u>0</u> %		Rate of Spread: <u>medium</u>		
Subtotal 0-3	9.1	2.04	Volume of sound 3+fuels: <u>4023</u> ft <sup>3</sup> /ac <u>281.5</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>		
3-6	18.2	4.08	<b>STAND AND SITE DATA</b>				
6-10	3.9	0.87	Age of overstory dominants:		Overall Fire Potential <u>MEDIUM</u>		
10-20	0	0	PICO <u>87</u> yrs		<b>STAND LOCATION</b>		
20+	28.1	6.30	LAOC <u>80</u> yrs		National Forest: <u>Lolo</u>		
SUBTOTAL 3+	50.2	11.25	ABLA <u>70</u> yrs		Ranger District: <u>Missoula</u>		
TOTAL	59.3	13.29	Average slope: <u>10</u> %		Drainage: <u>Cloudburst Cr.</u>		
NFDRS FUEL MODEL		STYLIZED FUEL MODEL		Aspect: <u>west</u>		Photo taken: <u>9/17/76</u>	
<b>G</b>		<b>10</b>		Elevation: <u>5415</u> ft <u>1651</u> m		By: <u>S. Cox</u>	
				Remarks: <u>old thinning slash -</u> <u>dozer trampled</u>			
				<u>Fire Ecology Group Eight</u>			



## DATA SHEET

Stand No. 32

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	1.5	0.34	Average duff depth: <u>1.4</u> in <u>3.56</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	4.4	0.99	Average diameter, 3+fuels: <u>4.9</u> in <u>12.45</u> cm			
1-3	10.3	2.31	Percent rotten, 3+fuels: <u>4</u> %		Rate of Spread: <u>high</u>	
Subtotal 0-3	16.2	3.64	Volume of sound 3+fuels: <u>3673</u> ft <sup>3</sup> /ac <u>257.0</u> m <sup>3</sup> /ha		Intensity: <u>high</u>	
3-6	20.8	4.66	<b>STAND AND SITE DATA</b>		Torching: <u>medium</u>	
6-10	27.1	6.08			Age of overstory dominants: LAOC <u>150</u> yrs	
10-20	0	0	PSME <u>140</u> yrs		Resistance to control: <u>medium</u>	
20+	0	0	PICO <u>130</u> yrs		<b>STAND LOCATION</b>	
SUBTOTAL 3+	47.9	10.74	Average slope: <u>60</u> % Aspect: <u>east</u> Elevation: <u>5525</u> ft <u>1684</u> m			
TOTAL	64.1	14.38	Remarks: <u>recent thinning slash in</u> <u>old clearcut</u> <u>Fire Ecology Group Six</u>		Overall Fire Potential <u>HIGH</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				National Forest: <u>Lolo</u>	
<b>I</b>	<b>13</b>				Ranger District: <u>Missoula</u>	
					Drainage: <u>W. Fk. Swartz Cr.</u>	
					Photo taken: <u>6/20/77</u>	
					By: <u>W. C. Fischer</u>	





## DATA SHEET

Stand No. 8

FOREST COVER TYPE: SAF NO. 212 Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 691 Subalpine fir/beargrass-blue huckleberry phase  
(ABLA/XETE-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	1.5	0.34	Average duff depth: <u>4.6</u> in <u>11.68</u> cm		Rate of Spread: <u>high</u>	
0.25-1	3.1	0.69	Average diameter, 3+fuels: <u>4.7</u> in <u>11.94</u> cm		Intensity: <u>high</u>	
1-3	11.0	2.47	Percent rotten, 3+fuels: <u>9</u> %		Torching: <u>medium</u>	
Subtotal 0-3	15.6	3.50	Volume of <b>sound</b> 3+fuels: <u>5024</u> ft <sup>3</sup> /ac <u>351.5</u> m <sup>3</sup> /ha		Crowning: <u>low</u>	
3-6	34.8	7.80	<b>STAND AND SITE DATA</b>			
6-10	20.5	4.60	Age of overstory dominants: PICO <u>87</u> yrs		<b>STAND LOCATION</b>	
10-20	0.6	0.13	LAOC <u>80</u> yrs		National Forest: <u>Lolo</u>	
20+	0	0	ABLA <u>70</u> yrs		Ranger District: <u>Missoula</u>	
SUBTOTAL 3+	55.9	12.53	Average slope: <u>40</u> %		Drainage: <u>Cloudburst Cr.</u>	
TOTAL	71.5	16.03	Aspect: <u>north</u>		Photo taken: <u>9/17/76</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation: <u>5720</u> ft <u>1744</u> m		By: <u>S. Cox</u>	
<b>I</b>	<b>13</b>		Remarks: <u>old thinning slash</u>			
			<u>Fire Ecology Group Eight</u>			



# DATA SHEET

Stand No. 28

FOREST COVER TYPE: SAF NO. 212, Larch - Douglas-fir

MONTANA HABITAT TYPE: NO. 283, Douglas-fir/blue huckleberry-beargrass phase  
(PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.3	0.07	Average duff depth: <u>2.7</u> in		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	1.5	0.34	<u>6.86</u> cm			
1-3	4.3	0.96	Average diameter, 3+fuels:		Rate of Spread: <u>low</u>	
			<u>5.6</u> in		Intensity: <u>medium</u>	
			<u>14.22</u> cm		Torching: <u>low</u>	
			Percent rotten, 3+fuels: <u>21</u> %		Crowning: <u>low</u>	
Subtotal 0-3	6.1	1.37	Volume of <b>sound</b> 3+fuels:		Resistance to control: <u>medium</u>	
			<u>4304</u> ft <sup>3</sup> /ac		Overall Fire Potential <b>MEDIUM</b>	
			<u>301.2</u> m <sup>3</sup> /ha			
			STAND AND SITE DATA		STAND LOCATION	
			Age of overstory dominants:		National Forest: <u>Lolo</u>	
			PSME <u>110</u> yrs		Ranger District: <u>Missoula</u>	
			PICO <u>95</u> yrs		Drainage: <u>W. Fk. Swartz Cr.</u>	
			Average slope: <u>30</u> %		Photo taken: <u>6/20/77</u>	
			Aspect: <u>northwest</u>		By: <u>W. C. Fischer</u>	
			Elevation: <u>5500</u> ft <u>1676</u> m			
			Remarks: _____			
			<u>Fire Ecology Group Six</u>			
			_____			
NFORS FUEL MODEL	STYLIZED FUEL MODEL					
G	10					



**SERIES 4**  
**INTERIOR DOUGLAS-FIR**  
**SAF COVER TYPE 210**



## DATA SHEET

Stand No. 43

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 283, Douglas-fir/blue huckleberry-beargrass phase  
(PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.4</u> in <u>3.56</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+fuels:	<u>4.3</u> in <u>10.92</u> cm	Rate of Spread:	<u>low</u>
0.25-1	1.2	0.27	Percent rotten, 3+fuels:	<u>0</u> %	Intensity:	<u>low</u>
1-3	0.8	0.18	Volume of <b>sound</b> 3+fuels:	<u>37</u> ft <sup>3</sup> /ac <u>2.6</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	2.4	0.54	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	0.5	0.11	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	0	0	PICO	<u>100</u> yrs	Overall Fire Potential	LOW
10-20	0	0	PSME	<u>84</u> yrs	<b>STAND LOCATION</b>	
20+	0	0	Average slope:	<u>57</u> %	National Forest:	<u>Lolo</u>
SUBTOTAL 3+	0.5	0.11	Aspect:	<u>southeast</u>	Ranger District:	<u>Missoula</u>
TOTAL	2.9	0.65	Elevation:	<u>6145</u> ft <u>1873</u> m	Drainage:	<u>Gilbert Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks:		Photo taken:	<u>6/23/77</u>
<b>H</b>	<b>8</b>		<u>Fire Ecology Group Six</u>		By:	<u>W. C. Fischer</u>









## DATA SHEET

Stand No. 39A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 312, Douglas-fir/snowberry-pinegrass phase (PSME/SYAL-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.4</u> in <u>3.56</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+ fuels: <u>4.8</u> in		Rate of Spread: <u>low</u>	
0.25-1	0.7	0.16	<u>12.19</u> cm		Intensity: <u>low</u>	
1-3	1.3	0.29	Percent rotten, 3+ fuels: <u>98</u> %		Torching: <u>low</u>	
Subtotal 0-3			Volume of sound 3+ fuels: <u>7</u> ft <sup>3</sup> /ac <u>0.5</u> m <sup>3</sup> /ha		Crowning: <u>low</u>	
3-6	1.4	0.31	<b>STAND AND SITE DATA</b>			
6-10	2.5	0.56	Age of overstory dominants: PSME <u>75</u> yrs		<b>STAND LOCATION</b>	
10-20	0	0			National Forest: <u>Lewis &amp; Clark</u>	
20+	0	0			Ranger District: <u>White Sulphur Springs</u>	
SUBTOTAL 3+					Drainage: <u>Whitetail Deer Cr.</u>	
TOTAL			Average slope: <u>13</u> %		Photo taken: <u>8/15/78</u>	
			Aspect: <u>southwest</u>		By: <u>W. C. Fischer</u>	
			Elevation: <u>6330</u> ft <u>1929</u> m			
NFDRS FUEL MODEL			STYLIZED FUEL MODEL		Remarks: <u>Fire Ecology Group Six</u>	
<b>H</b>			<b>8</b>			



## DATA SHEET

Stand No. 41A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 220, Douglas-fir/Idaho fescue (PSME/FEID)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>0.9</u> in <u>2.29</u> cm	Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels:	<u>5.8</u> in <u>14.73</u> cm	Rate of Spread:	<u>low</u>
0.25-1	1.5	0.34	Percent rotten, 3+fuels:	<u>25</u> %	Intensity:	<u>low</u>
1-3	0.8	0.18	Volume of sound 3+fuels:	<u>228</u> ft <sup>3</sup> /ac <u>16.0</u> m <sup>3</sup> /ha	Torching:	<u>nil</u>
Subtotal 0-3	2.8	0.63	<b>STAND AND SITE DATA</b>		Crowning:	<u>nil</u>
3-6	0.6	0.13	Age of overstory dominants:	<u>PSME</u> <u>103</u> yrs	Resistance to control:	<u>low</u>
6-10	1.8	0.40	Remarks: <u>Fire Ecology Group Five</u>		Overall Fire Potential	<u>LOW</u>
10-20	1.4	0.31			<b>STAND LOCATION</b>	
20+	0	0			National Forest:	<u>Lewis &amp; Clark</u>
SUBTOTAL 3+	3.8	0.84			Ranger District:	<u>White Sulphur Springs</u>
TOTAL	6.6	1.47	Average slope:	<u>9</u> %	Drainage:	<u>Spring Cr.</u>
Aspect:	<u>southeast</u>		Elevation:	<u>6985</u> ft <u>2129</u> m	Photo taken:	<u>8/15/78</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				By:	<u>W. C. Fischer</u>
<b>H</b>	<b>8</b>					



## DATA SHEET

Stand No. 49

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 323, Douglas-fir/pinegrass-pinegrass phase (PSME/CARU-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	1.0 in 2.54 cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+fuels:	7.3 in 18.54 cm	Rate of Spread:	medium
0.25-1	0.9	0.20	Percent rotten, 3+fuels:	71 %	Intensity:	low
1-3	1.2	0.27	Volume of sound 3+fuels:	120 ft <sup>3</sup> /ac 8.4 m <sup>3</sup> /ha	Torching:	low
Subtotal 0-3	2.5	0.56	<b>STAND AND SITE DATA</b>		Crowning:	low
3-6	0.6	0.13	Age of overstory dominants:		Resistance to control:	low
6-10	1.0	0.22	PSME	295 yrs	<b>STAND LOCATION</b>	
10-20	3.7	0.83	PIPO	150 yrs	National Forest:	Lolo
20+	0	0			Ranger District:	Missoula
SUBTOTAL 3+	5.3	1.18			Drainage:	Gilbert Cr.
TOTAL	7.8	1.74	Average slope:	70 %	Photo taken:	6/24/77
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	northwest	By:	W. C. Fischer
C/H	2/8		Elevation:	5800 ft 1768 m	Remarks:	
					Fire Ecology Group Six	





## DATA SHEET

Stand No. 28A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 323, Douglas-fir/pinegrass-pinegrass phase (PSME/CARU-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average duff depth: <u>2.4</u> in		Rate of Spread: <u>high</u>	
			<u>6.10</u> cm		Intensity: <u>medium</u>	
0.25-1	1.1	0.25	Average diameter, 3+fuels: <u>3.9</u> in		Torching: <u>low</u>	
1-3	3.6	0.81	<u>9.91</u> cm		Crowning: <u>medium</u>	
			Percent rotten, 3+fuels: <u>41</u> %		Resistance to control: <u>medium</u>	
Subtotal 0-3	5.1	1.15	Volume of sound 3+fuels: <u>151</u> ft <sup>3</sup> /ac		Overall Fire Potential <b>MEDIUM</b>	
			<u>10.6</u> m <sup>3</sup> /ha			
3-6	2.0	0.45	STAND AND SITE DATA			
6-10	0.8	0.18	Age of overstory dominants:		STAND LOCATION	
10-20	0.4	0.09	PICO <u>77</u> yrs		National Forest: <u>Helena</u>	
20+	0	0	PSME <u>70</u> yrs		Ranger District: <u>Lincoln</u>	
					Drainage: <u>Keep Cool Cr.</u>	
SUBTOTAL 3+	3.2	0.72	Average slope: <u>14</u> %		Photo taken: <u>7/28/78</u>	
			Aspect: <u>northeast</u>			
TOTAL	8.3	1.87	Elevation: <u>5250</u> ft <u>1600</u> m		By: <u>W. C. Fischer</u>	
			Remarks: _____			
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Fire Ecology Group Six			
H/G	8/10					



## DATA SHEET

Stand No. 36A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 292, Douglas-fir/twinflower-pinegrass phase (PSME/LIBO-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>2.8</u> in <u>7.11</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels:	<u>4.2</u> in <u>10.67</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.5	0.34	Percent rotten, 3+fuels:	<u>76</u> %	Intensity:	<u>medium</u>
1-3	4.2	0.94	Volume of sound 3+fuels:	<u>78</u> ft <sup>3</sup> /ac <u>5.5</u> m <sup>3</sup> /ha	Torching:	<u>medium</u>
Subtotal 0-3	6.2	1.39	<b>STAND AND SITE DATA</b>		Crowning:	<u>medium</u>
3-6	2.3	0.52	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	1.9	0.43	<u>PSME</u> <u>109</u> yrs	<b>STAND LOCATION</b>		
10-20	0	0	<u>PICO</u> <u>106</u> yrs	National Forest:	<u>Lewis &amp; Clark</u>	
20+	0	0	<u>PICEA</u> <u>86</u> yrs	Ranger District:	<u>White Sulphur Springs</u>	
SUBTOTAL 3+	4.2	0.95	Average slope:	<u>16</u> %	Drainage:	<u>Fourmile Cr.</u>
TOTAL	10.4	2.34	Aspect:	<u>northwest</u>	Photo taken:	<u>8/10/78</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation:	<u>6050</u> ft <u>1844</u> m	By:	<u>W. C. Fischer</u>
<b>G</b>	<b>10</b>		Remarks:	<u>Fire Ecology Group Six</u>		



## DATA SHEET

Stand No. 27A

FOREST COVER TYPE: SAF NO. 210

Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 283

Douglas-fir/blue huckleberry-beargrass phase (PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	1.9 in 4.83 cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average diameter, 3+fuels:	5.6 in 14.22 cm	Rate of Spread:	medium
0.25-1	0.8	0.18	Percent rotten, 3+fuels:	92 %	Intensity:	medium
1-3	1.2	0.27	Volume of sound 3+fuels:	55 ft <sup>3</sup> /ac 3.9 m <sup>3</sup> /ha	Torching:	low
Subtotal 0-3	2.2	0.49	<b>STAND AND SITE DATA</b>		Crowning:	low
3-6	1.9	0.43	Age of overstory dominants:	86 yrs	Resistance to control:	low
6-10	5.2	1.17	PSME		Overall Fire Potential	MEDIUM
10-20	1.7	0.38	<b>STAND LOCATION</b>		National Forest:	Helena
20+	0	0	Average slope:	17 %	Ranger District:	Lincoln
SUBTOTAL 3+	8.8	1.98	Aspect:	northwest	Drainage:	Keep Cool Cr.
TOTAL	11.0	2.47	Elevation:	5120 ft 1561 m	Photo taken:	7/28/78
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>		Remarks:		By:	W. C. Fischer
<b>G</b>	<b>10</b>		Fire Ecology Group Six			



## DATA SHEET

Stand No. 12A

FOREST COVER TYPE: SAF NO. 210 Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 521 Grand fir/queencup beadlily-queencup beadlily phase  
(ABGR/CLUN-CLUN)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>2.7</u> in <u>6.86</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels:	<u>6.8</u> in <u>17.27</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.1	0.25	Percent rotten, 3+fuels:	<u>83</u> %	Intensity:	<u>medium</u>
1-3	0.4	0.09	Volume of sound 3+fuels:	<u>154</u> ft <sup>3</sup> /ac <u>10.8</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	1.8	0.41	<b>STAND AND SITE DATA</b>		Crowning:	<u>nil</u>
3-6	1.1	0.25	Age of overstory dominants:		Resistance to control:	<u>medium</u>
6-10	6.4	1.43	PIMO	<u>112</u> yrs	Overall Fire Potential	LOW
10-20	3.5	0.78	PSME	<u>107</u> yrs	<b>STAND LOCATION</b>	
20+	0	0	PIPO	<u>80</u> yrs	National Forest:	<u>Kootenai</u>
SUBTOTAL 3+	11.0	2.46	ABGR	<u>80</u> yrs	Ranger District:	<u>Libby</u>
TOTAL	12.8	2.87	Average slope:	<u>10</u> %	Drainage:	<u>Quartz Cr.</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	<u>southwest</u>	Photo taken:	<u>6/27/78</u>
<b>H</b>	<b>8</b>		Elevation:	<u>3100</u> ft <u>945</u> m	By:	<u>W. C. Fischer</u>
			Remarks:	<u>Fire Ecology Group Eleven</u>		





# DATA SHEET

Stand No. 37A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 350, Douglas-fir/kinnikinnick (PSME/ARIJ)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>1.1</u> in <u>2.79</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels:	<u>5.0</u> in <u>12.70</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	1.9	0.43	Percent rotten, 3+fuels:	<u>46</u> %	Intensity:	<u>medium</u>
1-3	2.9	0.65	Volume of sound 3+fuels:	<u>350</u> ft <sup>3</sup> /ac <u>24.5</u> m <sup>3</sup> /ha	Torching:	<u>low</u>
Subtotal 0-3	5.1	1.15	<b>STAND AND SITE DATA</b>		Crowning:	<u>low</u>
3-6	2.3	0.52	Age of overstory dominants:		Resistance to control:	<u>low</u>
6-10	2.5	0.56	PSME	<u>112</u> yrs	<b>STAND LOCATION</b>	
10-20	3.3	0.74	PIPO	<u>68</u> yrs	National Forest:	<u>Lewis &amp; Clark</u>
20+	0	0			Ranger District:	<u>White Sulphur Springs</u>
SUBTOTAL 3+	8.1	1.82			Drainage:	<u>Decker Cr.</u>
TOTAL	13.2	2.97	Average slope:	<u>6</u> %	Photo taken:	<u>8/10/78</u>
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	<u>southeast</u>	By:	<u>W. C. Fischer</u>
H/G	8/10		Elevation:	<u>6130</u> ft <u>1868</u> m		
			Remarks:	<u>Fire Ecology Group Four</u>		



# DATA SHEET

Stand No. 42A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir  
 MONTANA HABITAT TYPE: NO. 323, Douglas-fir/pinegrass-pinegrass phase (PSME/CARU-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>2.1</u> in <u>5.33</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+ fuels: <u>6.3</u> in <u>16.00</u> cm		Rate of Spread: <u>medium</u>	
0.25-1	1.0	0.22	Percent rotten, 3+ fuels: <u>93</u> %		Intensity: <u>medium</u>	
1-3	0.8	0.18	Volume of sound 3+ fuels: <u>67</u> ft <sup>3</sup> /ac <u>4.7</u> m <sup>3</sup> /ha		Torching: <u>low</u>	
Subtotal 0-3	2.3	0.51	<b>STAND AND SITE DATA</b>		Crowning: <u>medium</u>	
3-6	1.7	0.38	Age of overstory dominants: PSME <u>82</u> yrs		Resistance to control: <u>low</u>	
6-10	6.2	1.39			<b>STAND LOCATION</b>	
10-20	3.1	0.69			National Forest: <u>Lewis &amp; Clark</u>	
20+	0	0			Ranger District: <u>White Sulphur Springs</u>	
SUBTOTAL 3+	11.0	2.46			Drainage: <u>Miller Gulch</u>	
TOTAL	13.3	2.97	Average slope: <u>8</u> % Aspect: <u>southeast</u> Elevation: <u>6500</u> ft <u>1981</u> m		Photo taken: <u>8/15/78</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks: _____ <u>Fire Ecology Group Six</u>		By: <u>W. C. Fischer</u>	
<b>H</b>	<b>8</b>					



## DATA SHEET

Stand No. 38A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 323, Douglas-fir/pinegrass-pinegrass phase (PSME/CARU-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING		
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>2.0</u> in <u>5.08</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain		
0-0.25	0.4	0.09	Average diameter, 3+fuels: <u>4.6</u> in <u>11.68</u> cm		Rate of Spread: <u>medium</u>		
0.25-1	2.4	0.54	Percent rotten, 3+fuels: <u>73</u> %		Intensity: <u>medium</u>		
1-3	5.0	1.12	Volume of sound 3+fuels: <u>172</u> ft <sup>3</sup> /ac <u>12.0</u> m <sup>3</sup> /ha		Torching: <u>medium</u>		
Subtotal 0-3					Crowning: <u>low</u>		
3-6	3.4	0.76	<b>STAND AND SITE DATA</b>		Resistance to control: <u>low</u>		
6-10	2.6	0.58	Age of overstory dominants: <u>PSME</u> <u>104 yrs</u>		<b>STAND LOCATION</b>		
10-20	2.0	0.45			National Forest: <u>Lewis &amp; Clark</u>		
20+	0	0			Ranger District: <u>White Sulphur Springs</u>		
SUBTOTAL 3+					Drainage: <u>Decker Cr.</u>		
TOTAL			Average slope: <u>6</u> % Aspect: <u>northwest</u> Elevation: <u>6300</u> ft <u>1920</u> m		Overall Fire Potential <u>MEDIUM</u>		
			Remarks: <u>Fire Ecology Group Six</u>		Photo taken: <u>8/10/78</u>		
<b>NFDRS FUEL MODEL</b>			<b>STYLIZED FUEL MODEL</b>			By: <u>W. C. Fischer</u>	
<b>G</b>			<b>10</b>				



## DATA SHEET

Stand No. 86

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 261, Douglas-fir/ninebark-ninebark phase (PSME/PHMA-PHMA)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>				
0-0.25	0.8	0.18	Average duff depth: <u>2.4</u> in <u>6.10</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0.25-1	1.8	0.40	Average diameter, 3+fuels: <u>7.6</u> in <u>19.30</u> cm			
1-3	3.7	0.83	Percent rotten, 3+fuels: <u>99</u> %		Rate of Spread: <u>medium</u>	
Subtotal 0-3	6.3	1.41	Volume of sound 3+fuels: <u>10</u> ft <sup>3</sup> /ac <u>0.7</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
3-6	0.4	0.09	<b>STAND AND SITE DATA</b>		Torching: <u>medium</u>	
6-10	7.5	1.68			Age of overstory dominants: PSME <u>65</u> yrs	
10-20	2.0	0.45			Resistance to control: <u>medium</u>	
20+	0	0			Average slope: <u>38</u> % Aspect: <u>south</u> Elevation: <u>5310</u> ft <u>1618</u> m	
SUBTOTAL 3+	9.9	2.22			<b>STAND LOCATION</b>	
TOTAL	16.2	3.63			Remarks: <u>Fire Ecology Group Six</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL				Ranger District: <u>Missoula</u>	
<b>G</b>	<b>10</b>				Drainage: <u>Howard Cr.</u>	
					Photo taken: <u>8/22/77</u>	
					By: <u>W. C. Fischer</u>	





## DATA SHEET

Stand No. 43A

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 312, Douglas-fir/snowberry-pinegrass phase (PSME/SYAL-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>2.7</u> in <u>6.86</u> cm		Based on an average bad day: 85-90 ° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average diameter, 3+fuels: <u>4.0</u> in <u>10.16</u> cm		Rate of Spread: <u>medium</u>	
0.25-1	2.7	0.61	Percent rotten, 3+fuels: <u>62</u> %		Intensity: <u>medium</u>	
1-3	8.7	1.95	Volume of <b>sound</b> 3+fuels: <u>162</u> ft <sup>3</sup> /ac <u>11.3</u> m <sup>3</sup> /ha		Torching: <u>high</u>	
Subtotal 0-3					Crowning: <u>medium</u>	
3-6	3.6	0.81	<b>STAND AND SITE DATA</b>		Resistance to control: <u>medium</u>	
6-10	1.8	0.40	Age of overstory dominants: PSME <u>92</u> yrs		<b>STAND LOCATION</b>	
10-20	0	0	PICO <u>84</u> yrs		National Forest: <u>Lewis &amp; Clark</u>	
20+	0	0			Ranger District: <u>White Sulphur Springs</u>	
SUBTOTAL 3+					Drainage: <u>Miller Gulch</u>	
TOTAL					Overall Fire Potential <b>MEDIUM</b>	
			Average slope: <u>6</u> %			
			Aspect: <u>southeast</u>			
			Elevation: <u>6450</u> ft <u>1966</u> m		Photo taken: <u>8/15/78</u>	
			Remarks: _____		By: <u>W. C. Fischer</u>	
			Fire Ecology Group Six			
<b>NFDRS FUEL MODEL</b>		<b>STYLIZED FUEL MODEL</b>				
<b>G</b>		<b>10</b>				



## DATA SHEET

Stand No. 34

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 262, Douglas-fir/ninebark-pinegrass (PSME/PHMA-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth:	<u>0.3</u> in <u>0.76</u> cm	Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.3	0.07	Average diameter, 3+fuels:	<u>4.8</u> in <u>12.19</u> cm	Rate of Spread:	<u>medium</u>
0.25-1	2.3	0.52	Percent rotten, 3+fuels:	<u>3</u> %	Intensity:	<u>medium</u>
1-3	2.5	0.56	Volume of sound 3+fuels:	<u>1146</u> ft <sup>3</sup> /ac <u>80.2</u> m <sup>3</sup> /ha	Torching:	<u>nil</u>
Subtotal 0-3	5.1	1.15	<b>STAND AND SITE DATA</b>		Crowning:	<u>nil</u>
3-6	7.0	1.57	Age of overstory dominants:	Overall Fire Potential <u>LOW</u>		
6-10	7.7	1.73	_____			
10-20	0	0	_____			
20+	0	0	_____			
SUBTOTAL 3+	14.7	3.30	_____			
TOTAL	19.8	4.45	Average slope:	<u>60</u> %	<b>STAND LOCATION</b>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Aspect:	<u>northwest</u>	National Forest:	<u>Lolo</u>
<b>G</b>	<b>10</b>		Elevation:	<u>5530</u> ft <u>1686</u> m	Ranger District:	<u>Missoula</u>
			Remarks:	<u>old burn</u>	Drainage:	<u>W. Fk. Swartz Cr.</u>
				<u>Fire Ecology Group Four</u>	Photo taken:	<u>6/20/77</u>
					By:	<u>W. C. Fischer</u>



## DATA SHEET

Stand No. 40A

FOREST COVER TYPE: SAF NO. 210 Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 350 Douglas-fir/kinnikinnick (PSME/ARUV)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average duff depth: <u>3.0</u> in <u>7.62</u> cm		Rate of Spread: <u>high</u>	
0.25-1	1.9	0.43	Average diameter, 3+fuels: <u>4.8</u> in <u>12.19</u> cm		Intensity: <u>high</u>	
1-3	6.0	1.35	Percent rotten, 3+fuels: <u>63</u> %		Torching: <u>high</u>	
Subtotal 0-3	8.3	1.87	Volume of sound 3+fuels: <u>507</u> ft <sup>3</sup> /ac <u>35.5</u> m <sup>3</sup> /ha		Crowning: <u>medium</u>	
3-6	7.7	1.73	<b>STAND AND SITE DATA</b>		Resistance to control: <u>medium</u>	
6-10	2.6	0.58	Age of overstory dominants: <u>PSME</u> <u>105 yrs</u>		<b>STAND LOCATION</b>	
10-20	7.0	1.57	<u>PICO</u> <u>88 yrs</u>		National Forest: <u>Lewis &amp; Clark</u>	
20+	0	0			Ranger District: <u>White Sulphur Springs</u>	
SUBTOTAL 3+	17.3	3.88	Average slope: <u>11</u> %		Drainage: <u>Whitetail Deer</u>	
TOTAL	25.6	5.75	Aspect: <u>northwest</u>		Photo taken: <u>8/15/78</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Elevation: <u>6320</u> ft <u>1926</u> m		By: <u>W. C. Fischer</u>	
G	10		Remarks: <u>Fire Ecology Group Four</u>			



# DATA SHEET

Stand No. 42

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 691, Subalpine fir/beargrass-blue huckleberry phase  
(ABLA/XETE-VAGL)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>	Average duff depth: <u>1.1</u> in <u>2.79</u> cm		Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.4	0.09	Average diameter, 3+fuels: <u>8.3</u> in <u>21.08</u> cm			
0.25-1	1.9	0.43	Percent rotten, 3+fuels: <u>17</u> %		Rate of Spread: <u>medium</u>	
1-3	2.5	0.56	Volume of sound 3+fuels: <u>1441</u> ft <sup>3</sup> /ac <u>100.8</u> m <sup>3</sup> /ha		Intensity: <u>medium</u>	
Subtotal 0-3	4.8	1.08	<b>STAND AND SITE DATA</b>		Torching: <u>low</u>	
3-6	1.6	0.36			Age of overstory dominants: <u>PSME</u> <u>335 yrs</u> <u>PICO</u> <u>150 yrs</u> <u>ABLA</u> <u>76 yrs</u>	
6-10	2.9	0.65	Average slope: <u>53</u> % Aspect: <u>southeast</u> Elevation: <u>5990</u> ft <u>1826</u> m		Resistance to control: <u>low</u>	
10-20	5.4	1.21			Overall Fire Potential <u>LOW</u>	
20+	11.9	2.67	Remarks: <u>Fire Ecology Group Eight</u>		National Forest: <u>Lolo</u>	
SUBTOTAL 3+	21.8	4.89			Ranger District: <u>Missoula</u>	
TOTAL	26.6	5.97			Photo taken: <u>6/23/77</u>	
<b>NFDRS FUEL MODEL</b>	<b>STYLIZED FUEL MODEL</b>				By: <u>W. C. Fischer</u>	
<b>G</b>	<b>10</b>					





## DATA SHEET

Stand No. 48

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir

MONTANA HABITAT TYPE: NO. 283, Douglas-fir/blue huckleberry-beargrass phase  
(PSME/VAGL-XETE)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.2	0.04	Average duff depth: <u>1.2</u> in <u>3.05</u> cm			
0.25-1	1.1	0.25	Average diameter, 3+fuels: <u>7.4</u> in <u>18.80</u> cm		Rate of Spread: <u>low</u>	
1-3	1.9	0.43	Percent rotten, 3+fuels: <u>90</u> %		Intensity: <u>medium</u>	
Subtotal 0-3	3.2	0.72	Volume of sound 3+fuels: <u>326</u> ft <sup>3</sup> /ac <u>22.8</u> m <sup>3</sup> /ha		Torching: <u>medium</u>	
3-6	3.3	0.74	<b>STAND AND SITE DATA</b>		Crowning: <u>low</u>	
6-10	14.6	3.27	Age of overstory dominants:		Resistance to control: <u>low</u>	
10-20	17.4	3.90	<u>PIPO</u> <u>335 yrs</u>		<b>STAND LOCATION</b>	
20+	3.5	0.78	<u>PSME</u> <u>186 yrs</u>			
SUBTOTAL 3+	38.8	8.69	<u>PICO</u> <u>62 yrs</u>		National Forest: <u>Lolo</u>	
TOTAL	42.0	9.41	Average slope: <u>40</u> % Aspect: <u>northwest</u> Elevation: <u>5870</u> ft <u>1789</u> m		Ranger District: <u>Missoula</u>	
NFDRS FUEL MODEL	STYLIZED FUEL MODEL		Remarks: <u>Fire Ecology Group Six</u>		Drainage: <u>Gilbert Cr.</u>	
<b>G</b>	<b>10</b>				Photo taken: <u>6/24/77</u>	
					By: <u>W. C. Fischer</u>	



# DATA SHEET

Stand No. 95

FOREST COVER TYPE: SAF NO. 210, Interior Douglas-fir  
 MONTANA HABITAT TYPE: NO. 292, Douglas-fir/twinflower-pinegrass phase (PSME/LIBO-CARU)

DOWN & DEAD WOODY FUEL LOADINGS			OTHER FUEL DATA		FIRE POTENTIAL RATING	
Size Class (Inches)	T/ac	Weight Kg/m <sup>2</sup>			Based on an average bad day: 85-90° temp., 15-20% R.H., 10-15 mi/h wind, 4 weeks since rain	
0-0.25	0.5	0.11	Average duff depth: <u>2.2</u> in <u>5.59</u> cm		Rate of Spread: <u>low</u>	
0.25-1	1.8	0.40	Average diameter, 3+ fuels: <u>6.1</u> in <u>15.49</u> cm		Intensity: <u>low</u>	
1-3	5.0	1.12	Percent rotten, 3+ fuels: <u>76</u> %		Torching: <u>low</u>	
Subtotal 0-3	7.3	1.63	Volume of sound 3+ fuels: <u>870</u> ft <sup>3</sup> /ac <u>60.9</u> m <sup>3</sup> /ha		Crowning: <u>low</u>	
3-6	10.3	2.31	<b>STAND AND SITE DATA</b>		Resistance to control: <u>low</u>	
6-10	25.6	5.74	Age of overstory dominants:		<b>STAND LOCATION</b>	
10-20	9.7	2.17	PSME <u>145</u> yrs		National Forest: <u>Lolo</u>	
20+	0	0	PICO <u>118</u> yrs		Ranger District: <u>Missoula</u>	
SUBTOTAL 3+	45.6	10.22			Drainage: <u>Gillispie Cr.</u>	
TOTAL	52.9	11.85	Average slope: <u>10</u> %		Photo taken: <u>6/13/78</u> By: <u>W. C. Fischer</u>	
NFDRS FUEL MODEL		STYLIZED FUEL MODEL	Aspect: <u>northeast</u>			
G	10		Elevation: <u>5550</u> ft <u>1692</u> m			
			Remarks: <u>Fire Ecology Group Six</u>			



Fischer, William C.

1981. Photo guide for appraising downed woody fuels in Montana forests: Interior ponderosa pine, ponderosa pine - larch - Douglas-fir, larch - Douglas-fir, and interior Douglas-fir cover types. USDA For. Serv. Gen. Tech. Rep. INT-97, 133 p. Intermt. For. and Range Exp. Stn., Ogden, Utah 84401.

Four series of color photographs show different levels of downed woody material resulting from natural processes in four forest cover types in Montana. Each photo is supplemented by fuel inventory data and potential fire behavior ratings.

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**KEYWORDS:** forest fuels, fire behavior, fire hazard, fuel appraisal

The Intermountain Station, headquartered in Ogden, Utah, is one of eight regional experiment stations charged with providing scientific knowledge to help resource managers meet human needs and protect forest and range ecosystems.

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