Fine Fuel Moisture (FFM) and Probability of Ignition (PIG)

PIG helps assess hourly and day-to-day changes in expected fire behavior. Estimate FFM first.

1. With table A (page 45), estimate reference fuel moisture.
2. Choose Table B, C, or D from following pages for estimating FM correction based on the month of the year. With selected table, determine FM correction based on local factors (shading as more or less than 50%, aspect and slope, time of day, and elevation difference).
3. Add Ref. Fuel Moisture (1) and Correction Factor (2).
4. Estimate PIG from temp and FFM.

PROBABILITY OF IGNITION TABLE

Shading (Percent): Unshaded < 50%

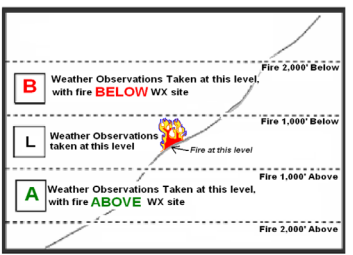
Dry Bulb Temp (F)	FINE DEAD FUEL MOISTURE PERCENT															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
110+	100	100	80	70	60	60	50	40	40	30	30	20	20	20	10	10
100-109	100	90	80	70	60	60	50	40	40	30	30	20	20	10	10	10
90-99	100	90	80	70	60	50	40	40	30	30	30	20	20	10	10	10
80-89	100	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10
70-79	100	80	70	60	60	50	40	40	30	30	20	20	20	10	10	10
60-69	90	80	70	60	50	50	40	30	30	20	20	20	10	10	10	10
50-59	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10	10
40-49	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10	10
30-39	80	70	60	50	50	40	30	30	20	20	20	10	10	10	10	10

Shading (Percent): Shaded > 50%

Dry Bulb Temp (F)	FINE DEAD FUEL MOISTURE PERCENT															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
110+	100	90	80	70	60	50	50	40	40	30	30	20	20	20	10	10
100-109	100	90	80	70	60	50	50	40	40	30	30	20	20	20	10	10
90-99	100	90	80	70	60	50	40	40	30	30	30	20	20	10	10	10
80-89	100	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10
70-79	90	80	70	60	50	50	40	40	30	30	20	20	20	10	10	10
60-69	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10	10
50-59	90	80	70	60	50	40	40	30	30	20	20	20	10	10	10	10
40-49	90	80	60	50	50	40	30	30	30	20	20	20	10	10	10	10
30-39	80	80	60	50	50	40	30	30	20	20	20	10	10	10	10	10

Table A. Reference Fuel Moisture

Dry Bulb Temp (°F)	Relative Humidity (%)																			
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 to 94	95 to 99	100
10-29	1	2	2	3	4	5	5	6	7	8	8	8	9	9	10	11	12	12	13	13	14
30-49	1	2	2	3	4	5	5	6	7	7	7	8	9	9	10	10	11	12	13	13	13
50-69	1	2	2	3	4	5	5	6	6	7	7	8	8	9	9	10	11	12	12	12	13
70-89	1	1	2	2	3	4	5	5	6	7	7	8	8	8	9	10	10	11	12	12	13
90-109	1	1	2	2	3	4	4	5	6	7	7	8	8	8	9	10	10	11	12	12	13
109+	1	1	2	2	3	4	4	5	6	7	7	8	8	8	9	10	10	11	12	12	12



For Nighttime Estimates:

- Use Table A to obtain a Reference Fuel Moisture Value.
- Add 5 to the value that you get in Table A. This is your nighttime fuel moisture.

Table B. 1-hr Fuel Moisture Corrections-May-June-July

Unshaded – Less than 50% shading of surface fuels

Aspect	Slope	0800-0959			1000-1159			1200-1359			1400-1559			1600-1759			1800-1959		
		B	L	A	B	L	A	B	L	A	B	L	A	B	L	A	B	L	A
N	0-30	2	3	4	1	1	1	0	0	1	0	0	1	1	1	1	2	3	4
	31%	3	4	4	1	2	2	1	1	2	1	1	2	1	2	2	3	4	4
E	0-30	2	2	3	1	1	1	0	0	1	0	0	1	1	1	2	3	4	4
	31%	1	2	2	0	0	1	0	0	1	1	1	2	2	3	4	4	5	6
S	0-30	2	3	3	1	1	1	0	0	1	0	0	1	1	1	1	2	3	3
	31%	2	3	3	1	1	2	0	1	1	0	1	1	1	1	2	2	3	3
W	0-30	2	3	4	1	1	2	0	0	1	0	0	1	0	1	1	2	3	3
	31%	4	5	6	2	3	4	1	1	2	0	0	1	0	0	1	1	2	2

Shaded – 50 % or more shading of surface fuels due to canopy and/or cloud cover

N	All	4	5*	5	3	4	5	3	3	4	3	3	4	3	4	5	4	5	5
E	All	4	4*	5	3	4	5	3	3	4	3	4	4	3	4	5	4	5	6
S	All	4	4*	5	3	4	5	3	3	4	3	3	4	3	4	5	4	5	5
W	All	4	5*	6	3	4	5	3	3	4	3	3	4	3	4	5	4	4	5

B = Area of concern is 1,000’ to 2,000’ below the weather site location
L = Area of concern is within 1,000’ of the weather site location
A = Area of concern is 1,000’ to 2,000’ above the weather site location

Table C. 1-hr Fuel Moisture Corrections-Feb-Mar-Apr and Aug-Sep-Oct

Unshaded – Less than 50% shading of surface fuels

Aspect	Slope	0800-0959			1000-1159			1200-1359			1400-1559			1600-1759			1800-1959		
		B	L	A	B	L	A	B	L	A	B	L	A	B	L	A	B	L	A
N	0-30	3	4	5	1	2	3	1	1	2	1	1	2	1	2	3	3	4	5
	31%	3	4	5	3	3	4	2	3	4	2	3	4	3	3	4	3	4	5
E	0-30	3	4	5	1	2	3	1	1	1	1	1	2	1	2	4	3	4	5
	31%	3	3	4	1	1	1	1	1	1	1	2	3	3	4	5	4	5	6
S	0-30	3	4	5	1	2	2	1	1	1	1	1	1	1	2	3	3	4	5
	31%	3	4	5	1	2	2	0	1	1	0	1	1	1	2	2	3	4	5
W	0-30	3	4	5	1	2	3	1	1	1	1	1	1	1	2	3	3	4	5
	31%	4	5	6	3	4	5	1	2	3	1	1	1	1	1	1	3	3	4
Shaded – 50 % or more shading of surface fuels due to canopy and/or cloud cover																			
N	All	4	5*	6	4	5	5	3	4	5	3	4	5	4	5	5	4	5	6
E	All	4	5*	6	3	4	5	3	4	5	3	4	5	4	5	6	4	5	6
S	All	4	5*	6	3	4	5	3	4	5	3	4	5	3	4	5	4	5	6
W	All	4	5*	6	4	5	6	3	4	5	3	4	5	3	4	5	4	5	6

B = Area of concern is 1,000' to 2,000' below the weather site location
L = Area of concern is within 1,000' of the weather site location
A = Area of concern is 1,000' to 2,000' above the weather site location

Table D. 1-hr Fuel Moisture Corrections-Nov-Dec-Jan

Unshaded – Less than 50% shading of surface fuels

Aspect	Slope	0800-0959 (+ night)			1000-1159			1200-1359			1400-1559			1600-1759			1800-1959		
		B	L	A	B	L	A	B	L	A	B	L	A	B	L	A	B	L	A
N	0-30	4	5	6	3	4	5	2	3	4	2	3	4	3	4	5	4	5	6
	31%	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6
E	0-30	4	5	6	3	4	4	2	3	3	2	3	3	3	4	5	4	5	6
	31%	4	5	6	2	3	4	2	2	3	3	4	4	4	5	6	4	5	6
S	0-30	4	5	6	3	4	5	2	3	3	2	2	3	3	4	4	4	5	6
	31%	4	5	6	2	3	3	1	1	2	1	1	2	2	3	3	4	5	6
W	0-30	4	5	6	3	4	5	2	3	3	2	3	3	3	4	4	4	5	6
	31%	4	5	6	4	5	6	3	4	4	2	2	3	2	3	4	4	5	6

Shaded – 50 % or more shading of surface fuels due to canopy and/or cloud cover

N	All	4	5*	6	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6
E	All	4	5*	6	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6
S	All	4	5*	6	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6
W	All	4	5*	6	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6

B = Area of concern is 1,000' to 2,000' below the weather site location
L = Area of concern is within 1,000' of the weather site location
A = Area of concern is 1,000' to 2,000' above the weather site location