Reference Fuel Moisture

Daytime 8:00 am - 7:59 pm

Dry Bulb Temperature	Relative Humidity											
	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 - 89
30 - 49	5	6	7	7	7	8	9	9	10	10	11	12
50 - 69	5	6	6	7	7	8	8	9	9	10	11	12
70 - 89	5	5	6	7	7	8	8	8	9	10	10	11
90 - 109	4	5	6	7	7	8	8	8	9	10	10	11

Night Time 8:00 pm - 7:59 am

Dry Bulb Temperature	Relative Humidity											
	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 - 89
30 - 49	7	8	9	9	11	11	12	13	14	16	18	21
50 - 69	6	8	8	9	10	11	11	12	14	16	17	20
70 - 89	6	7	8	9	10	10	11	12	13	15	17	20
90 - 109	6	7	8	9	9	10	10	11	13	14	16	19

Nov – Dec - Jan						Feb – Mar - April Aug –Sep - Oct						May – June - July						Night Time	
Day Time 8:00 am - 7:59 pm						8:00 am – 7:59 pm						8:00 am – 7:59 pm						8 pm ►	10 pm►
8►	10►	12►	2 ►	4 ►	6 ►	8►	10►	12►	2 ►	4 ►	6 ►	8►	10►	12►	2 ►	4 ►	6►	9	14
Exposed Less Than 50% Shading of Surface Fuels																			
4	3	2	2	3	4	3	1	1	1	1	3	2	1	0	0	1	2		
Shaded Greater Than or Equal to 50% Shading of Surface Fuels																			
4	4	4	4	4	4	4	3	3	3	3	4	4	3	3	3	3	4		

How to Use Tables

Use of this set of tables will provide a close estimate of the fine dead fuel moisture (FDFM) on your burn unit any time a FDFM reading is desired. Using the top table, select the temperature Fahrenheit (dry bulb) obtained and the relative humidity (RH) calculated. Then find the reference fuel moisture as governed by time of day (either between 8:00 am and 7:59 pm or night time). Using this number go to the tables and based on time of day, month of year and whether the area is greater than 50% shaded or less than 50% shaded (cloud cover counts as shade), select the correction factor and add it to the reference fuel moisture to arrive at FDFM. If you are burning until 10 pm at night, any time of year, two figures are provided.

These tables are from "How to Predict the Spread and Intensity of Forest and Range Fires" by Richard Rothermel 1983 (U.S. Forest Service, Gen. Tech. Rep. INT-143)

Example

Its 11:30 am December 16 and you have a RH of 68% and a temperature of 72F in open flatwoods with 30% canopy cover and have a fair sky. Your reference # is 8. Its daytime in December so your correction factor is 3. 8+3=11 – 11 is your FDFM.

Note

A more accurate "approximation" will be derived if you add 2% for table values totaling 10% or more and 1% for those of less than 10%. Therefore, in the above example the FDFM value you would use would be 13%.