

LANDFIRE Modeling Dynamic Fuels with an Index System (MoD-FIS) Fire Behavior Fuel Model 40 Data Dictionary

Attribute	Description	Enumerated Value	Enumerated Value Description
Value	These fire behavior fuel models represent distinct distributions of fuel loadings found among surface fuel components (live and dead), size classes and fuel types. The fuel models are described by the most common fire carrying fuel type (grass, brush, timber litter or slash), loading and surface area-to-volume ratio by size class and component, fuelbed depth and moisture of extinction. Further detail can be found in Scott and Burgan (2005) and Rothermel (1983).	91	NB1
		92	NB2
		93	NB3
		98	NB8
		99	NB9
		101	GR1
		102	GR2
		103	GR3
		104	GR4
		105	GR5
		106	GR6
		107	GR7
		108	GR8
		109	GR9
		121	GS1
		122	GS2
		123	GS3
		124	GS4
		141	SH1
		142	SH2
143	SH3		
144	SH4		
145	SH5		
146	SH6		
147	SH7		
148	SH8		
149	SH9		
161	TU1		
162	TU2		
163	TU3		
164	TU4		
165	TU5		
181	TL1		
182	TL2		
183	TL3		
184	TL4		
185	TL5		
186	TL6		
187	TL7		
188	TL8		
189	TL9		
201	SB1		
202	SB2		
203	SB3		
204	SB4		
Count	number of pixels for the corresponding value		
FBFM13	display attribute, fire behavior 40 fuel model	NB1	Urban
		NB2	Snow/Ice
		NB3	Agriculture
		NB8	Water
		NB9	Barren
		GR1	Short, sparse dry climate grass is short, naturally or heavy grazing, predicted rate of fire spread and flame length low
		GR2	Low load, dry climate grass primarily grass with some small amounts of fine, dead fuel, any shrubs do not affect fire behavior
		GR3	Low load, very coarse, humid climate grass continuous, coarse humid climate grass, any shrubs do not affect fire behavior
		GR4	Moderate load, dry climate grass, continuous, dry climate grass, fuelbed depth about 2 feet
		GR5	Low load, humid climate grass, fuelbed depth is about 1-2 feet
		GR6	Moderate load, continuous humid climate grass, not so coarse as GR5
		GR7	High load, continuous dry climate grass, grass is about 3 feet high
		GR8	High load, very coarse, continuous, humid climate grass, spread rate and flame length may be extreme if grass is fully cured
		GR9	Very high load, dense, tall, humid climate grass, about 6 feet tall, spread rate and flame length can be extreme if grass is fully cured
		GS1	Low load, dry climate grass-shrub shrub about 1 foot high, grass load low, spread rate moderate and flame length low
		GS2	Moderate load, dry climate grass-shrub, shrubs are 1-3 feet high, grass load moderate, spread rate high, and flame length is moderate
		GS3	Moderate load, humid climate grass-shrub, moderate grass/shrub load, grass/shrub depth is less than 2 feet, spread rate is high and flame length is moderate
		GS4	High load, humid climate grass-shrub, heavy grass/shrub load, depth is greater than 2 feet, spread rate is high and flame length very high
		SH1	Low load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, may be some grass, spread rate and flame low
		SH2	Moderate load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, no grass, spread rate and flame low
		SH3	Moderate load, humid climate shrub, woody shrubs and shrub litter, possible pine overstory, fuelbed depth 2-3 feet, spread rate and flame low
		SH4	Low load, humid climate timber shrub, woody shrubs and shrub litter, low to moderate load, possible pine overstory, fuelbed depth about 3 feet, spread rate high and flame moderate
		SH5	High load, humid climate grass-shrub combined, heavy load with depth greater than 2 feet, spread rate and flame very high
		SH6	Low load, humid climate shrub, woody shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 2 feet, spread rate and flame high
		SH7	Very high load, dry climate shrub, woody shrubs and shrub litter, very heavy shrub load, depth 4-6 feet, spread rate somewhat lower than SH6 and flame very high
		SH8	High load, humid climate shrub, woody shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 3 feet, spread rate and flame high
		SH9	Very high load, humid climate shrub, woody shrubs and shrub litter, dense finely branched shrubs with fine dead fuel, 4-6 feet tall, herbaceous may be present, spread rate and flame high
		TU1	Low load dry climate timber grass shrub, low load of grass and/or shrub with litter, spread rate and flame low
		TU2	Moderate load, humid climate timber-shrub, moderate litter load with some shrub, spread rate moderate and flame low
		TU3	Moderate load, humid climate timber grass shrub, moderate forest litter with some grass and shrub, spread rate high and flame moderate
		TU4	Dwarf conifer with understory, short conifer trees with grass or moss understory, spread rate and flame moderate

TU5	Very high load, dry climate shrub, heavy forest litter with shrub or small tree understory, spread rate and flame moderate
TL1	Low load compact conifer litter, compact forest litter, light to moderate load, 1-2 inches deep, may represent a recent burn, spread rate and flame low
TL2	Low load broadleaf litter, broadleaf, hardwood litter, spread rate and flame low
TL3	Moderate load conifer litter, moderate load conifer litter, light load of coarse fuels, spread rate and flame low
TL4	Small downed logs moderate load of fine litter and coarse fuels, small diameter downed logs, spread rate and flame low
TL5	High load conifer litter, light slash or dead fuel, spread rate and flame low
TL6	Moderate load broadleaf litter, spread rate and flame moderate
TL7	Large downed logs, heavy load forest litter, larger diameter downed logs, spread rate and flame low
TL8	Long needle litter, moderate load long needle pine litter, may have small amounts of herbaceous fuel, spread rate moderate and flame low
TL9	Very high load broadleaf litter, may be heavy needle drape, spread rate and flame moderate
SB1	Low load activity fuel, light dead and down activity fuel, fine fuel is 10-20 t/ac, 1-3 inches in diameter, depth < 1 foot, spread rate moderate and flame low
SB2	Moderate load activity fuel or low load blowdown, 7-12 t/ac, 0-3 inch diameter class, depth about 1 foot, blowdown scattered with many still standing, spread rate and flame low
SB3	High load activity fuel or moderate load blowdown, heavy dead down activity fuel or moderate blowdown, 7-12t/ac, 0-.25 inch diameter class, depth > 1 foot, blowdown moderate, spread rate and flame high
SB4	High load blowdown, heavy blowdown fuel, blowdown total, foliage and fine fuel still attached to blowdown, spread rate and flame very high

Red	Red color value/255	0-1	
Green	Green color value/255	0-1	
Blue	Blue color value/255	0-1	
For more information, refer to: http://www.fs.fed.us/rm/pubs/rmrs_gtr153.pdf			