

**LANDFIRE Modeling Dynamic Fuels with a**

| Attribute    | Description   | Enumerated Value | Enumerated Value Description |
|--------------|---|------------------|------------------------------|
| <b>Value</b> | 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   |                  |                              |

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|--------------|--|
| <b>Count</b> | number of pixels for the corresponding value |
|--------------|--|

|               |  |     |  |
|---------------|--|-----|--|
| <b>FBFM13</b> | 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 s                                     |
|               |  | GR2 | Low load, dry climate grass primari                                      |
|               |  | GR3 | Low load, very coarse, humid climat                                      |
|               |  | GR4 | Moderate load, dry climate grass, co                                     |
|               |  | GR5 | Low load, humid climate grass, fuel                                      |
|               |  | GR6 | Moderate load, continuous humid cl                                       |
|               |  | GR7 | High load, continuous dry climate gr                                     |
|               |  | GR8 | High load, very coarse, continuous,                                      |
|               |  | GR9 | Very high load, dense, tall, humid cl                                    |
|               |  | GS1 | Low load, dry climate grass-shrub s                                      |
|               |  | GS2 | Moderate load, dry climate grass-sh moderate                             |
|               |  | GS3 | Moderate load, humid climate grass and flame length is moderate          |
|               |  | GS4 | High load, humid climate grass-shru very high                            |
|               |  | SH1 | Low load dry climate shrub, woody s low                                  |
|               |  | SH2 | Moderate load dry climate shrub, wo                                      |
|               |  | SH3 | Moderate load, humid climate shrub flame low                             |
|               |  | SH4 | Low load, humid climate timber shr about 3 feet, spread rate high and fl |
|               |  | SH5 | High load, humid climate grass-shru                                      |
|               |  | SH6 | Low load, humid climate shrub, wo rate and flame high                    |
|               |  | SH7 | Very high load, dry climate shrub, w than SH6 and flame very high        |
|               |  | SH8 | High load, humid climate shrub, wo spread rate and flame high            |
|               |  | SH9 | Very high load, humid climate shrub herbaceous may be present, spread    |
|               |  | TU1 | Low load dry climate timber grass s                                      |
|               |  | TU2 | Moderate load, humid climate timbe                                       |
|               |  | TU3 | Moderate load, humid climate timbe moderate                              |
|               |  | TU4 | Dwarf conifer with understory, short                                     |
|               |  | TU5 | Very high load, dry climate shrub, h                                     |
|               |  | TL1 | Low load compact conifer litter, cor rate and flame low                  |
|               |  | TL2 | Low load broadleaf litter, broadleaf,                                    |
|               |  | TL3 | Moderate load conifer litter, modera                                     |
|               |  | TL4 | Small downed logs moderate load c  |
|               |  | TL5 | High load conifer litter, light slash or                                 |

|     |  |
|-----|--|
| TL6 | Moderate load broadleaf litter, spread   |
| TL7 | Large downed logs, heavy load forest   |
| TL8 | Long needle litter, moderate load forest<br>flame low                            |
| TL9 | Very high load broadleaf litter, may be  |
| SB1 | Low load activity fuel, light dead and<br>moderate and flame low                 |
| SB2 | Moderate load activity fuel or low load<br>many still standing, spread rate and  |
| SB3 | High load activity fuel or moderate load<br>diameter class, depth > 1 foot, blow |
| SB4 | High load blowdown, heavy blowdown<br>very high                                  |

|            |                     |      |  |
|------------|---------------------|------|--|
| <b>Red</b> | Red color value/255 | 0 -1 |  |
|------------|---------------------|------|--|

|              |                       |     |  |
|--------------|-----------------------|-----|--|
| <b>Green</b> | Green color value/255 | 0-1 |  |
|--------------|-----------------------|-----|--|

|             |                      |     |  |
|-------------|----------------------|-----|--|
| <b>Blue</b> | Blue color value/255 | 0-1 |  |
|-------------|----------------------|-----|--|

**For more information, refer to: [http://www.fs.fed.us/rm/pubs/rmrs\\_gtr153.pdf](http://www.fs.fed.us/rm/pubs/rmrs_gtr153.pdf)**



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| hort, naturally or heavy grazing, predicted rate of fire spread and flame length low                |
| y grass with some small amounts of fine, dead fuel, any shrubs do not affect fire behavior          |
| te grass continuous, coarse humid climate grass, any shrubs do not affect fire behavior             |
| ontinuous, dry climate grass, fuelbed depth about 2 feet  |
| bed depth is about 1-2 feet   |
| imate grass, not so coarse as GR5   |
| ass, grass is about 3 feet high   |
| humid climate grass, spread rate and flame length may be extreme if grass is fully cured            |
| imate grass, about 6 feet tall, spread rate and flame length can be extreme if grass is fully cured |
| hrub about 1 foot high, grass load low, spread rate moderate and flame length low                   |
| rub, shrubs are 1-3 feet high, grass load moderate, spread rate high, and flame length is           |
| i-shrub, moderate grass/shrub load, grass/shrub depth is less than 2 feet, spread rate is high      |
| ub, heavy grass/shrub load, depth is greater than 2 feet, spread rate is high and flame length      |
| shrubs and shrub litter, fuelbed depth about 1 foot, may be some grass, spread rate and flame       |
| ody shrubs and shrub litter, fuelbed depth about 1 foot, no grass, spread rate and flame low        |
| , woody shrubs and shrub litter, possible pine overstory, fuelbed depth 2-3 feet, spread rate and   |
| ub, woody shrubs and shrub litter, low to moderate load, possible pine overstory, fuelbed depth     |
| ame moderate  |
| ub combined, heavy load with depth greater than 2 feet, spread rate and flame very high             |
| dy shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 2 feet, spread  |
| woody shrubs and shrub litter, very heavy shrub load, depth 4-6 feet, spread rate somewhat lower    |
| ody shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 3 feet,        |
| , woody shrubs and shrub litter, dense finely branched shrubs with fine dead fuel, 4-6 feet tall,   |
| d rate and flame high   |
| hrub, low load of grass and/or shrub with litter, spread rate and flame low                         |
| r-shrub, moderate litter load with some shrub, spread rate moderate and flame low                   |
| r grass shrub, moderate forest litter with some grass and shrub, spread rate high and flame         |
| conifer trees with grass or moss understory, spread rate and flame moderate                         |
| eavy forest litter with shrub or small tree understory, spread rate and flame moderate              |
| compact forest litter, light to moderate load, 1-2 inches deep, may represent a recent burn, spread |
| hardwood litter, spread rate and flame low  |
| te load conifer litter, light load of coarse fuels, spread rate and flame low                       |
| f fine litter and coarse fuels, small diameter downed logs, spread rate and flame low               |
| dead fuel, spread rate and flame low  |

