

NWCG Data Standard

National Fire Danger Rating System Fuel Model Code

Standard Data Values

March 17, 2009

Standard data values are provided when a data attribute has a pre-determined set of terms, codes, and/or numbers that must be used in order for the data to be valid. The purpose of standard data values is to ensure consistency and accuracy within a system and across multiple systems.

The following list provides NWCG's standard data values for this data attribute:

Value	Description
A	Western grasslands vegetated by annual grasses and forbs. Brush or trees may be present but are very sparse, occupying less than one-third of the area.
B	Mature, dense fields of brush six feet or more in height. This model is for California mixed chaparral, generally 30 years or older or for the New Jersey pine barrens. One-fourth or more of the aerial fuel is dead.
C	Open conifer or hardwood trees where perennial grasses and forbs are the primary ground fuel but there is enough needle litter and branchwood present to contribute significantly to the fuel loading.
D	Palmetto-gallberry understory-pine association of the southeast coastal plains. Used in the Southeast because of the high moisture of extinction associated with it.
E	Primary fuel is hardwood leaf litter . Fuel Model E best represents the oak-hickory types and is an acceptable choice for northern hardwoods and mixed forests of the Southeast after leaf fall
F	Represents mature closed chamise stands and oak brush fields of Arizona, Utah and Colorado. Applies to young, closed stands and mature, open stands of California mixed chaparral. Also applies to open stands of pinyon-juniper with ground fuels present.
G	Used for dense, sometimes unhealthy, conifer stands where there is a heavy accumulation of litter and downed woody material (much of which is > 3" in diameter) on the forest floor. Duff and litter are deep. Undergrowth is variable.
H	Healthy short needle conifer stands (white pine, spruce, larch and fir) are represented. Sparse undergrowth and thin layer of ground fuels. Fires typically spread slowly except in areas where concentrations of down woody material exist.
I	Clearcut conifer slash where total loading of material less than 6 inches in diameter exceeds 25 tons/acre. After slash settles when needles and twigs fall from branches, Fuel Model I will overrate fire potential.
J	Clearcut conifer slash or heavily thinned conifer stands where total loading of material less than 6 inches in diameter is less than 25 tons/acre.

Value	Description
K	Slash fuels from light thinnings and partial cuts in conifer stands. Typically the slash is scattered about under an overstory. This model also applies to hardwood slash and southern pine clearcuts where all fuels are less than 15 tons/acre.
L	Western perennial grasslands where principal species are courser and the loadings are heavier than in NFDRS Fuel Model A. Shrubs and trees occupy less than one-third of the area. Use NFDRS Fuel Model T for sagebrush, if appropriate.
N	Sawgrass prairies of south Florida. It may be used in other marsh situations where fuels are coarse and reed-like. This model assumes one third of the aerial portion of the plants are dead.
O	Dense, brush like fuels of the Southeast. Fuels are greater than 6 feet tall, almost entirely living (except for litter layer) as opposed to Fuel Model B. Foliage burns readily except during active growing season. Typically pine overstory exists.
P	Closed, thrifty stands of long needled southern pine. A 2 - 4 inch layer of lightly compacted needle litter is the primary fuel. The density of the canopy precludes more than a scattering of shrubs, grass or branchwood.
Q	Dense upland Alaskan black spruce stands with openings. Forest floor is deep layer of moss and lichen with some needle litter. Fire easily climbs into tree crowns. Can also be used for Jack Pine stands in the Lake States.
R	Hardwood areas after canopies leaf out in the spring. This model is provided as an "off fire season" substitute for Fuel Model E. Use in summer in all hardwood and mixed conifer stands where more than half the overstory is deciduous.
S	Alaskan or alpine tundra on relatively well drained sites. Grass and low shrubs are often present, but the principal fuel is a deep layer of lichens or moss. Fires do not spread fast or intensely, but are difficult to extinguish.
T	Sagebrush - grass fuels of the Great Basin and Intermountain West. Shrubs must occupy at least one-third of the site or Fuel Model A or L should be used. Shrubs burn easily and are not dense enough to shade out grass and other herbaceous plants.
U	Closed stands of western long needled pines where ground fuels are primarily litter and small branchwood. Grass and shrubs are absent except in natural openings. Used for ponderosa, Jeffrey, sugar pine, and red pine stands of the Lake States.

Guidelines for changing this list of standardized data values can be found in the Change Procedures for this data standard.