




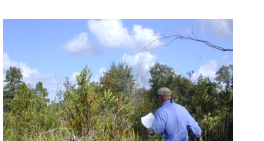


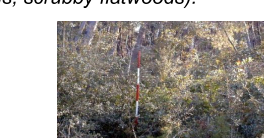
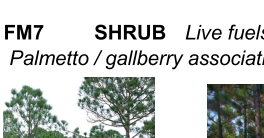
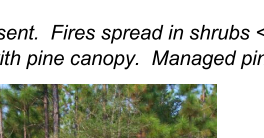
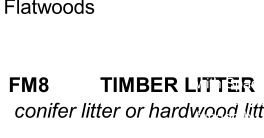
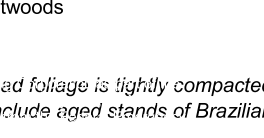


Florida

## SURFACE FUELS Fire Behavior Prediction System

The fuel model descriptions are below:

- FM1 GRASS** Fire spreads in grassy fuels without canopy or where a limited canopy has little effect on the rate of spread. Fire spreads in annual grasses or perennials moss (mostly Florida only) and the fuel bed is < 1" or < 1 foot tall.  
  
South Florida Miami Rockland Prairie
- FM2 GRASS** Fire spreads in perennial grassy fuels (1 foot or less) where live fuel is a part of the system. The density of the overstory or canopy may contribute to a reduced rate of spread and reduce the intensity.  
  
Central Florida
- FM3 GRASS** Fire spreads in grassy fuels without canopy or where a limited canopy has little effect on the rate or intensity. The fuel bed is > 1 foot tall or is cograss.  
  
South Florida Cypress Flats
- FM4 SHRUB** Fire spreads in shrubs > 4 feet in height and/or melaleuca or cograss is present and are likely to contribute to the overall intensity of the shrub growth, which may and often does lead to canopy involvement. Clusters of trees, Pine Plantations, coastal pines, and tall palms, T. T. Pine Plantations and Oak scrub.  
  
Central Florida Marsh
- FM5 SHRUB** Fire spreads in light green shrubby herbaceous vegetation often with substantial overstory. However, shrubs alone rarely lead to or contribute to the ignition of the overstory, wild grape, kudzu, or other vines may be present, but do not provide sufficient age and biomass to contribute as ladder fuels which would lead to canopy involvement. (Young stands, 1-2 year old plantations, scrubby plantations)  
  
South Florida
- FM6 SHRUB** Live fuels are not present. Fire spreads through patchy shrubs (3-6 feet in height) with little or no logging slash and where canopy closure has little or no effect on the rate of spread, but may require sustained moderate winds to export the rate of spread, an example would be areas dominated by Rosemary Scrub.  
  
Central Florida
- FM7 SHRUB** Live fuels present. Fire spread in shrubs < 4 feet in height. Palmetto scrubby association with pine canopy. Managed pine plantations may be represented.  
  
Central Florida
- FM8 TIMBER LITTER** Dead foliage is highly compacted, short needle (2 inches or less) conifer litter or hardwood litter (includes aged stands of Brazilian Pepper and Australian Pine).  
  
Central Florida
- FM9 TIMBER LITTER** Fire spreads in the surface litter of leafy or fine, below fuels. A canopy of long needle pine or deciduous hardwoods contribute to the seasonal accumulation of litter without logging slash. Some closed canopy pine plantations and Turkey Oak R in this class.  
  
Central Florida
- FM10 TIMBER LITTER** Fire spreads in surface fuels consisting of litter and/or dead and down stemwood occasionally produced by weather (storms or hurricanes) or other biological agents such as insect debilitation and mortality. Dry ladder fuels resulting from herbicide application to vine ladder trees communities and light slash associated with incompletely harvested timber operations may also contribute to this fuel type.  
  
Central Florida
- FM11 SLASH** Slash is not continuous. Needle litter or small amounts of grass or shrubs must be present to help carry the fire, but primary carrier is slash. Live fuels are absent or do not play a significant role in fire behavior. The slash depth is about 1 foot.  
  
Central Florida
- FM12 SLASH** Slash generally covers the ground (heavier loadings than Model 11), though there may be some bare soil or areas of light coverage. Average stem depth is about 2 ft. Stem is not excessively compacted. Approximately one-half of the needles may still be on the branches but are not red. Live fuels are absent or are not expected to affect fire behavior.  
  
Central Florida
- FM13 SLASH** Slash is continuous or nearly so (heavier loadings than Model 12). Slash is not excessively compacted and has an average depth of 3 ft. Approximately one-half of the needles may still be on the branches and are not red. On all the needles are on the branches but they are green. Live fuels are not expected to influence fire behavior. No detectable presence in Florida.  
  
Central Florida

This fuel layer was developed from Landsat 5 & 7 data collected from 1999 to 2000.

Reference:  
Anderson, Hal E 1982 Aids to Determining Fuel Models  
For Estimating Fire Behavior. General Technical Report INT-122  
USDA, USDO, NASF

State of Florida  
Charles H. Bronson, Commissioner  
Florida Department of Agriculture and Consumer Services  
Mike Long, Director  
Division of Forestry



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Surface Fuel Types  
of the  
Fire Risk Assessment

Fuel Model 1 Grass

Fuel Model 2 Grass

Fuel Model 3 Grass

Fuel Model 4 Shrub

Fuel Model 5 Shrub

Fuel Model 6 Shrub

Fuel Model 7 Shrub

Fuel Model 8 Timber Litter

Fuel Model 9 Timber Litter

Fuel Model 10 Timber Litter

Fuel Model 11 Slash

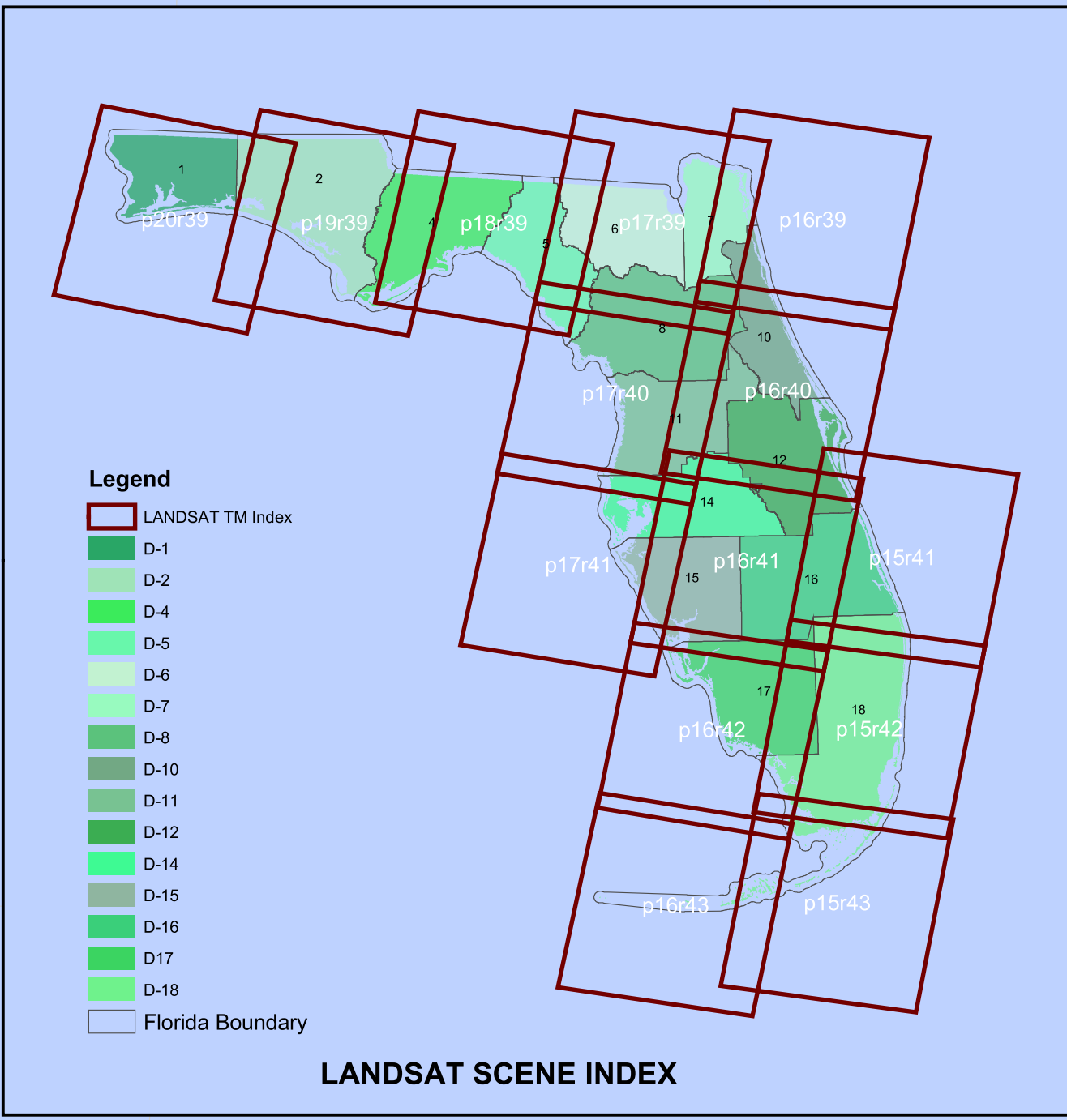
Fuel Model 12 Slash

Agriculture

Urban

Barren

Water



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