

LIVE FUEL MOISTURE SAMPLING

7821

(July 2015)

(See Policy 7822 - National Live Fuel Moisture Database Posting)

(See US Forest Service publication on [Fuel Moisture Collection Methods – A Field Guide](#) 5100—Fire Management 1151 1803—SDTDC, March 2011)

(See [A Synthesis of Fuel Moisture Collection Methods and Equipment – A Desk Guide](#), U.S. Department of Agriculture, Forest Service - National Technology & Development Program, 5100—Fire Management 1151 1806—SDTDC, May 2011)

The role of live fuel moisture is an essential component in determining the effects of fire danger and fire behavior as it is associated with wildland and prescribed fire. Though computer based models have become more effective and accurate in predicting fire danger and fire behavior, it remains necessary to verify computer based fuel moisture calculations with actual measurement of fuel moistures from live vegetation sampling. CAL FIRE Units shall participate in a live fuel moisture sampling system which includes the sampling, calculating, and monitoring of live fuel moisture data. Units shall post measured live-fuel moisture data from representative sampling within the Unit into the National Fuel Moisture Database (NFMD). Live-fuel sampling shall be conducted, at minimum, monthly from March 1 through October 31. It is recommended that live-fuel moisture sampling occurs prior to green-up and continues to dormancy, for the entire growing season. Year round sampling is encouraged where appropriate.

Live fuel moisture sampling techniques can vary by agency and user. The most critical element of live fuel moisture sampling is consistency. It is recommended that Units follow the US Forest Services *Fuel Moisture Collection Methods – A Field Guide* (5100 - U.S. Department of Agriculture, Forest Service National Technology & Development Program Fire Management 1151 1803—SDTDC, March 2011) and *A Synthesis of Fuel Moisture Collection Methods and Equipment – A Desk Guide*, U.S. Department of Agriculture, Forest Service - National Technology & Development Program, 5100—Fire Management 1151 1806—SDTDC, May 2011) for reference.

LIVE FUEL MOISTURE SAMPLING – SITE SELECTION

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Live fuel moisture sampling sites are selected to correlate with Fire Danger Rating Areas as described in the Unit's Fire Danger Operating Plan. A particular site should be representative of the live fuel complex of concern. The site should be relatively undisturbed. The species collected should be the one that carries the fire or the one that is felt to be representative of all the species in a complex. If two species are a concern, they should both be sampled for the first or several years, to determine if the moisture cycle of one represents both. Because moisture cycles of deciduous leaved shrubs are very different from evergreen leaved shrubs, in terms of timing of their seasonal moisture cycles and the actual variation in moisture content, both may need to be collected if well represented on site. The site should be located near a Remote Automated Weather Station (RAWS). Location of the site near a RAWS allows for study of the long-term correlation of fuel moisture cycles to weather.

The collection site should be relatively homogeneous in terms of species composition, canopy cover, aspect, and slope steepness. It should be fairly easy to access, although collection should occur away from roadsides, streams, and ponds.

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[\(see Forms and Form Samples\)](#)