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1952 MIDSUMMER FUEL MOISTURES IN OREGON AND WASHINGTON NATIONAL FORESTS COMPARED WITH OTHER YEARS

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The inflammability of Oregon and Washington national forests during the middle of the 1952 fire season was slightly less than the 12-year record high set in 1951 (table 1). The rating is based on the 25 lowest daily observations of fuel-moisture indicator sticks in the July 16 to August 21 period. Stick readings from 64 key fire-danger stations near the exterior boundaries of the national forests were used in this study. This is the fourth annual report on midsummer fuel moisture.

As described in previous reports, the fuel-moisture indicator stick permits a direct measure of how the weather affects the moisture content and thereby the inflammability of exposed forest fuels. These fuels include such material as dead brush or branch wood and the surface of snags or logs, material that is particularly important in determining the rate at which fires spread in the Pacific Northwest.

Regional ratings of 1952 midsummer fuel moisture agree well with ratings of fire-weather severity.^{1/} In 1952, fuel moisture averaged slightly drier than the 1941-51 mean but not as dry as the record low of 1951. Fire weather for the entire 1952 fire season also was near normal but less severe than in 1951.

^{1/} Cramer, O. P. Fire Weather in Western Oregon and Western Washington in 1952 Compared With Other Years. Pacific Northwest Forest and Range Experiment Station. Research Notes No. 86, July 1953.

Table 1.--Yearly subregion averages of the 25 lowest daily minimum fuel moistures at selected stations on the national forests during the period July 16-August 31

Area	No. of stations (1952)	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1941-51 average	1952
----- Fuel moisture percent ^{1/} -----														
Oregon and Washington	64	7.2	6.6	7.1	7.5	7.0	6.6	8.4	9.6	7.9	6.8	6.1	7.4	7.1
Washington	25	7.4	7.3	7.5	9.0	7.8	7.0	9.2	11.8	9.0	8.0	6.6	8.2	8.0
Western Washington	19	8.1	8.1	8.4	9.6	8.6	7.7	9.9	12.8	9.6	8.4	7.1	8.9	8.7
Cascades	14	7.9	8.3	8.2	9.8	8.2	7.7	9.8	12.3	9.4	7.8	6.8	8.8	8.4
Olympics	5	8.8	7.5	9.0	9.4	9.3	7.5	10.0	13.9	10.4	9.6	7.9	9.4	9.6
Eastern Washington	6	5.7	5.0	4.6	5.9	5.7	5.0	7.2	9.5	7.3	6.9	5.1	6.2	5.8
Oregon	39	7.1	6.2	6.8	6.8	6.5	6.3	8.0	8.6	7.2	6.2	5.9	6.9	6.5
Western Oregon	26	7.2	6.8	7.3	7.3	7.1	6.7	9.0	9.2	8.0	6.3	6.4	7.4	6.8
Cascades	12	7.5	6.9	7.5	7.1	6.8	6.7	8.9	9.3	8.1	6.3	6.2	7.4	6.9
Rogue-Siskiyou	10	6.1	5.7	6.2	5.8	6.2	6.1	7.3	8.0	6.6	5.4	5.5	6.3	6.1
Coast Range	4	8.4	8.2	8.3	9.9	8.9	7.7	11.8	10.8	9.8	7.8	7.9	9.1	8.4
Eastern Oregon	13	6.7	4.9	5.8	5.5	4.8	5.4	5.7	7.3	5.6	5.8	4.7	5.6	5.7
Blue Mts.	9	6.7	5.1	5.9	5.8	4.8	5.4	5.7	7.6	5.5	6.0	4.8	5.8	5.6
Deschutes-Fremont	4	6.8	4.4	5.4	4.8	4.8	5.5	5.8	6.8	5.6	5.6	4.5	5.4	5.9

^{1/} Each figure is a weighted average of all the stations within the particular area.

Exceptions to the general regional trend of below average but higher than 1951 midsummer fuel moisture were very few. As a group, only the low-level stations in western Oregon had fuel moistures as low as 1951. In both the Olympic Mountains in northwest Washington and the Deschutes-Fremont area in south central Oregon, midsummer fuel moistures were above the 1941-51 average.

Although the change from 1951 was generally uniform throughout the two states, the difference was more pronounced at high elevations than at low elevations. This was true of stations in western Washington and in the western Oregon Cascades, but not in other portions of the region.

Reports for Previous Years

Cramer, O. P.

1952. 1951 midsummer fuel moistures on Oregon and Washington national forests compared with other years. Pacific Northwest Forest and Range Experiment Station. Research Notes No. 77, 7 pp. (Processed).

1949. Comparison of 1949 summer forest fuel moisture in Oregon and Washington with other years. Pacific Northwest Forest and Range Experiment Station. Research Notes No. 58, 3 pp. (Processed).

Morris, W. G.

1948. Summer moisture of forest fire fuels in Oregon and Washington in 1948 and previous years. Pacific Northwest Forest and Range Experiment Station. Research Notes No. 47, 2 pp. (Processed).