

Supplementary Material

Evaluation of new methods for drought estimation in the Canadian Forest Fire Danger Rating System

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Table S1. Details on the instrumentation of field plots including the number of soil moisture probes and soil temperature probes installed within each plot and at what depths. Start and end dates of the field data are listed.

| Site | Plot | Soil Moisture Probes | | Soil Temperature Probes | | Start Date | End Date |
|----------|--------------|----------------------|---------------|-------------------------|---------------|------------|-----------|
| | | <i>Depths (cm)</i> | <i>Number</i> | <i>Depth (cm)</i> | <i>Number</i> | | |
| REC | Aspen | 10 & 18 | 6 of each | 18 | 3 | Jun 2017 | Sept 2021 |
| Chapleau | Aspen | 10 & 18 | 6 of each | 6, 15, 30 | 1 at each | Jun 2017 | Oct 2021 |
| | Mixedwood | 10 & 18 | 6 of each | 6, 15, 30 | 1 at each | Jun 2017 | Oct 2021 |
| | Jack pine | 10 & 18 | 6 of each | 6, 15, 30 | 1 at each | Jun 2017 | Oct 2021 |
| | Black spruce | 10 & 18 | 6 of each | 6, 15, 30 | 1 at each | Jun 2017 | Oct 2021 |
| Dryden | Mixedwood | 10, 14, 18 | 4 at each | 10 , 14, 18 | 1 at each | Jun 2019 | Oct 2021 |
| Edson | Mixedwood | 4 (10*), 6, 30 | 4 of each | NA | 0 | Jul 2018 | Oct 2021 |

**does not include 2019*

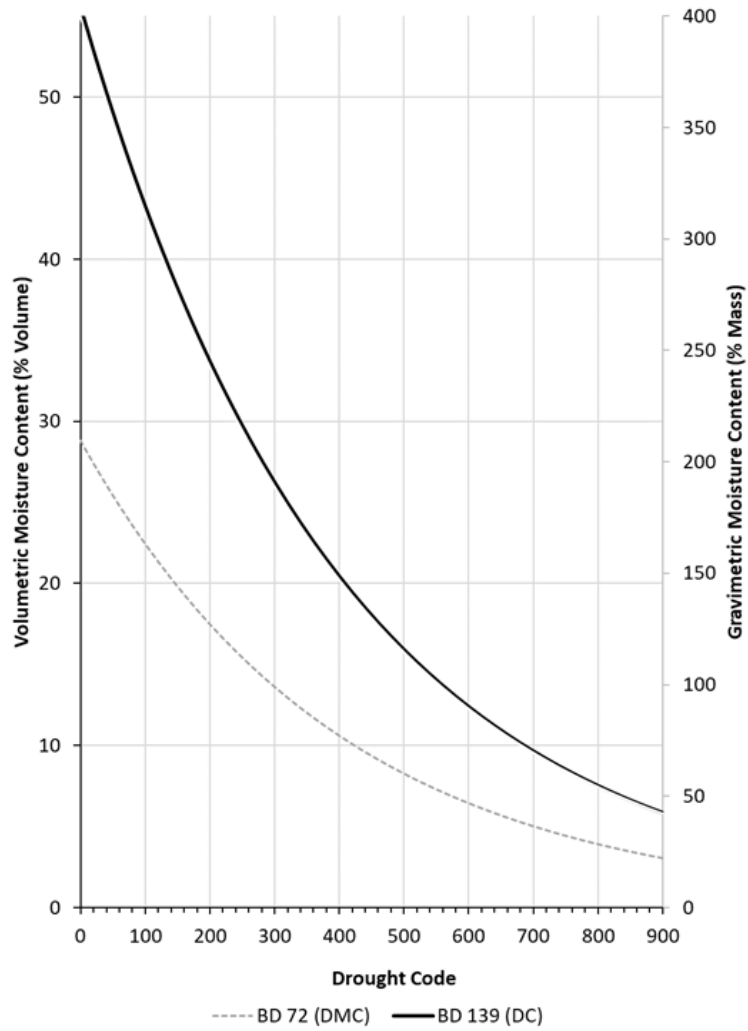


Figure S1. Comparison of the DC (Drought Code) converted to volumetric moisture content and gravimetric moisture content using the standard bulk density of the DC 139 kg/m^3 . A lower bulk density, 72 kg/m^3 (same as the Duff Moisture Code (DMC)), is also included in the figure as a comparison.