

## Prescribed Fire Workshop fine fuel sampling protocol

*The purpose of this document is to describe the steps to effectively characterize the fuel load and moisture of grassland fuels ahead of a prescribed fire. The protocol assumes (1) fuel data are being collected within the nested triangular microplot framework used in the workshop, and (2) data are being recorded on the Workshop's fuels datasheet.*

### Materials checklist

<ul style="list-style-type: none"><li>• Robel pole</li><li>• Clippers</li><li>• Bags—Paper &amp; sealable plastic</li></ul>	<ul style="list-style-type: none"><li>• Quadrat</li><li>• Ceptometer</li><li>• Soil moisture meter</li></ul>
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1. Identify the plot to be sampled on the datasheet, along with the date and burn unit name.
2. Identify which microplot is ready to be sampled (Thermocouple datalogger in place).
3. Record the datalogger number on the case on the datasheet for the appropriate microplot. Ensure any fire protection around the datalogger is put into place.
4. Place a Robel pole approximately 5 m away from TC 1. Locate the cardinal directions, using TC 1 as North.
5. Step back 4 m from the Robel pole and record visual obstruction (i.e., lowest increment that is at least 50% obscured by vegetation). Repeat this for each of the cardinal directions, recording each VOR observation in the appropriate box in the datasheet.
6. From each VOR position, also measure PAR with the ceptometer pointed towards the Robel pole. Place the ceptometer light bar as near to the ground as possible; keep the light bar under lofted and standing litter, but do not push it under matted surface litter. Use the level bubble to ensure it is parallel.
7. Take soil moisture readings from at least 3 points around the Robel pole.
8. Clip at least 3, equally-spaced quadrats from around the Robel pole, keeping within 2-4 m. Place all biomass in paper bags (unless directions are given to sort, then do so accordingly).
9. Repeat steps 2-8 for the other two microplots to complete the plot-level datasheet.
10. Collect at least 3 pure samples each of fine live fuels and fine dead samples. Place these in sealed plastic bags, containers, or fuel moisture cans.
11. *Optional:* Clip a quadrat, "toss" in a bag, and squeeze a handful in the DMM-600 to determine moisture content instantaneously

