

Supplementary Material

Monitoring live fuel moisture in semiarid environments using L-band radar data

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Table S1. Multiple regression analysis of fuels moisture content (FMC), equivalent water thickness (EWT) and soil moisture (SM)

Significance (P -values) of regression coefficients, partial correlation (Partial r) values and model fit (R^2) are presented ($n = 45$). Partial correlation is the correlation between the predictor and the response variable after controlling for other predictors included in the model and can be interpreted as the proportion of unique variance accounted by the predictor relative to the residual variance that cannot be accounted for by the other predictors

	FMC 2m		FMC 5m		FMC avg		EWT 2m		EWT 5m		EWT avg		SM	
	P	Partial r												
HH	0.000	0.53	0.001	0.50	0.000	0.55	0.000	0.66	0.000	0.76	0.000	0.74	0.014	0.38
INC	0.001	0.51	0.000	0.80	0.000	0.70	0.000	0.71	0.000	0.82	0.000	0.80	0.036	0.32
Antenna	0.487	0.11	0.001	0.49	0.050	0.30	0.005	0.43	0.001	0.50	0.001	0.49	0.197	0.20
Model R^2	0.38		0.65		0.53		0.62		0.75		0.72		0.22	
HV	0.001	0.51	0.000	0.54	0.000	0.55	0.003	0.45	0.002	0.46	0.002	0.47	0.903	0.02
INC	0.006	0.42	0.000	0.79	0.000	0.65	0.000	0.57	0.000	0.66	0.000	0.64	0.162	0.22
Antenna	0.316	0.16	0.000	0.53	0.024	0.35	0.003	0.45	0.001	0.48	0.001	0.48	0.079	0.27
Model R^2	0.36		0.67		0.54		0.46		0.53		0.52		0.09	
VV	0.000	0.58	0.005	0.42	0.000	0.55	0.001	0.49	0.000	0.55	0.000	0.54	0.002	0.47
INC	0.076	0.28	0.000	0.72	0.000	0.55	0.001	0.48	0.000	0.59	0.000	0.57	0.434	0.12
Antenna	0.608	-0.08	0.017	0.37	0.400	0.13	0.082	0.27	0.058	0.30	0.057	0.30	0.763	0.05
Model R^2	0.43		0.62		0.53		0.49		0.59		0.57		0.29	
surface	0.013	0.38	0.084	0.27	0.022	0.35	0.002	0.47	0.000	0.61	0.000	0.57	0.000	0.73
INC	0.030	0.34	0.000	0.73	0.000	0.57	0.000	0.53	0.000	0.65	0.000	0.62	0.223	0.19
Antenna	0.128	0.24	0.000	0.54	0.008	0.40	0.000	0.51	0.000	0.59	0.000	0.57	0.012	0.38
Model R^2	0.26		0.57		0.42		0.47		0.63		0.58		0.57	
dihedral	0.005	0.43	0.006	0.42	0.003	0.45	0.000	0.56	0.000	0.58	0.000	0.59	0.387	0.14
INC	0.070	0.28	0.000	0.71	0.000	0.53	0.001	0.49	0.000	0.60	0.000	0.57	0.243	0.18
Antenna	0.341	0.15	0.001	0.50	0.033	0.33	0.003	0.44	0.001	0.48	0.001	0.48	0.106	0.25
Model R^2	0.29		0.62		0.47		0.54		0.61		0.60		0.11	

volume	0.001	0.51	0.000	0.56	0.000	0.56	0.001	0.51	0.000	0.52	0.000	0.53	0.597	0.08
INC	0.567	0.09	0.000	0.61	0.017	0.37	0.043	0.31	0.004	0.43	0.009	0.40	0.332	0.15
Antenna	0.011	0.39	0.000	0.67	0.000	0.55	0.000	0.60	0.000	0.63	0.000	0.64	0.060	0.29
Model R^2	0.36		0.68		0.54		0.50		0.56		0.56		0.10	
RVI	0.364	-0.14	0.897	-0.02	0.535	-0.10	0.015	-0.37	0.006	-0.42	0.007	-0.41	0.000	-0.56
INC	0.017	0.37	0.000	0.73	0.000	0.57	0.000	0.57	0.000	0.66	0.000	0.64	0.049	0.31
Antenna	0.225	0.19	0.000	0.52	0.020	0.36	0.005	0.43	0.002	0.46	0.002	0.46	0.226	0.19
Model R^2	0.15		0.54		0.34		0.42		0.51		0.49		0.37	