



*Supplement of*

## **Plastic film residues on cropland: monitoring soil contamination through optical remote sensing**

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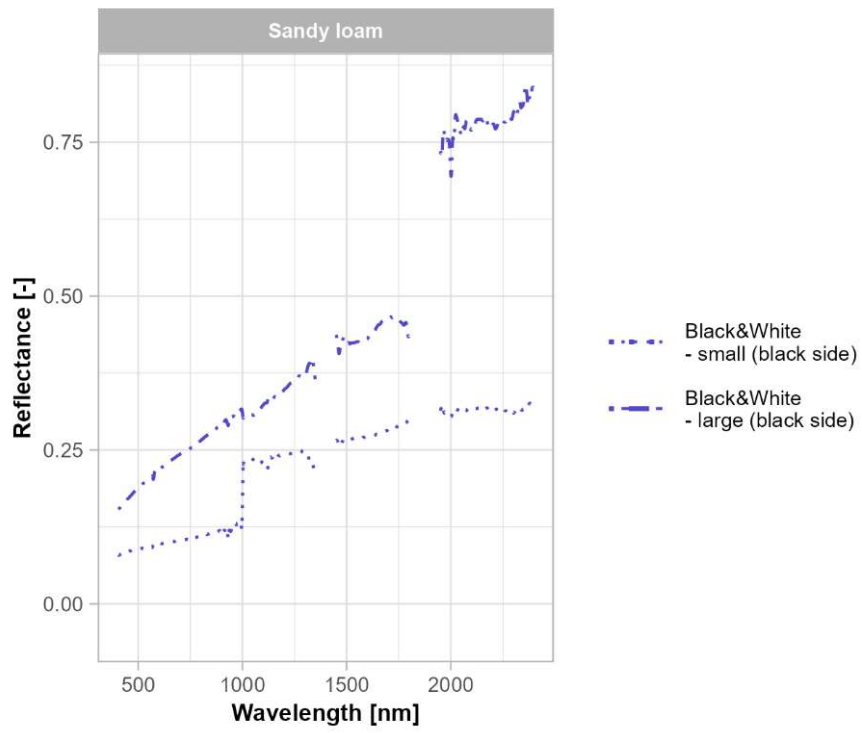


Figure S1 — Spectra of noisy measurements

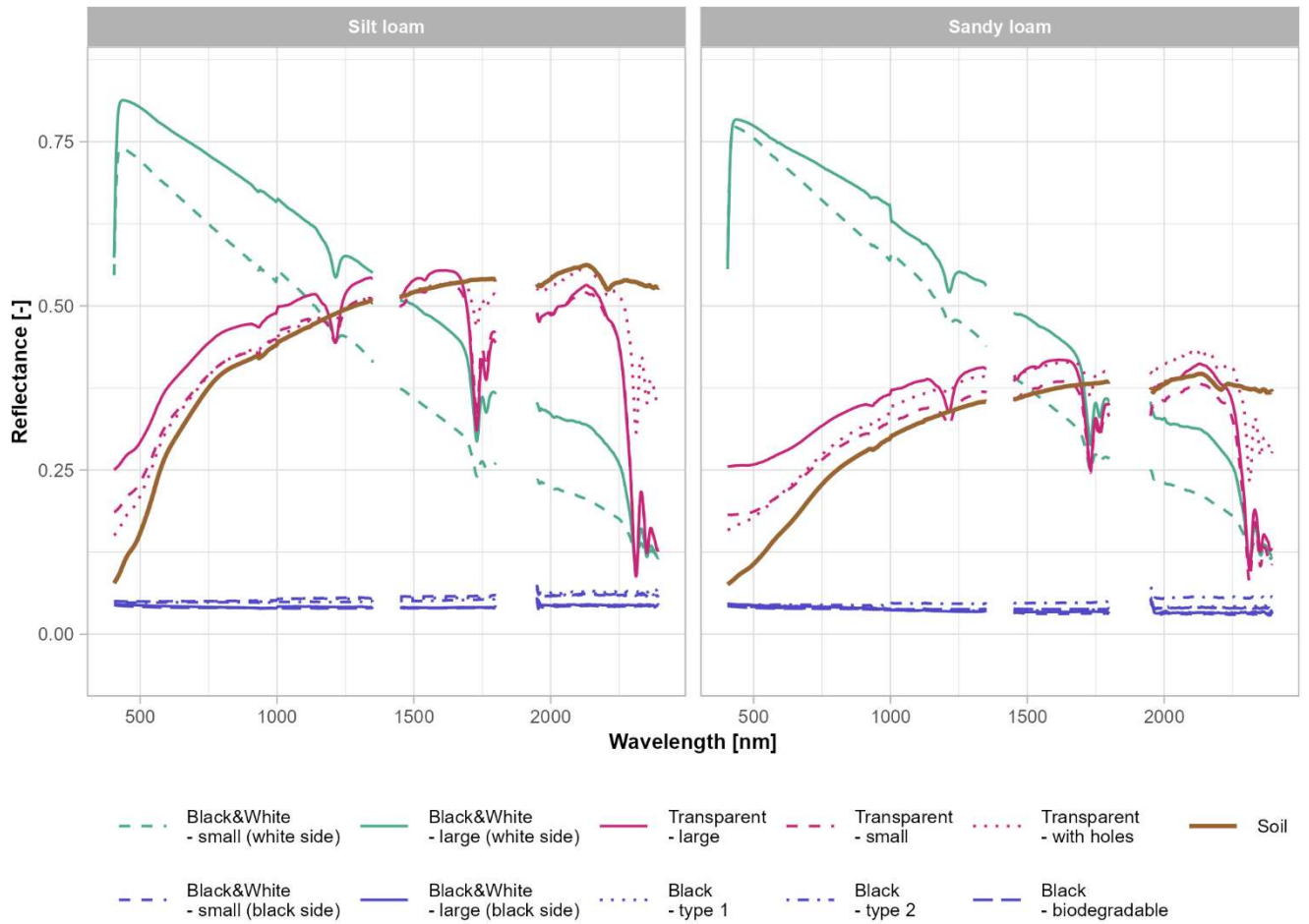


Figure S2 — Spectra of crumpled plastic films and of soils used as background. On the left side, spectra acquired on silt loam; on the right side, spectra acquired on sandy loam. Film colours are represented by different colours, and variation within film colours are represented by line shapes.

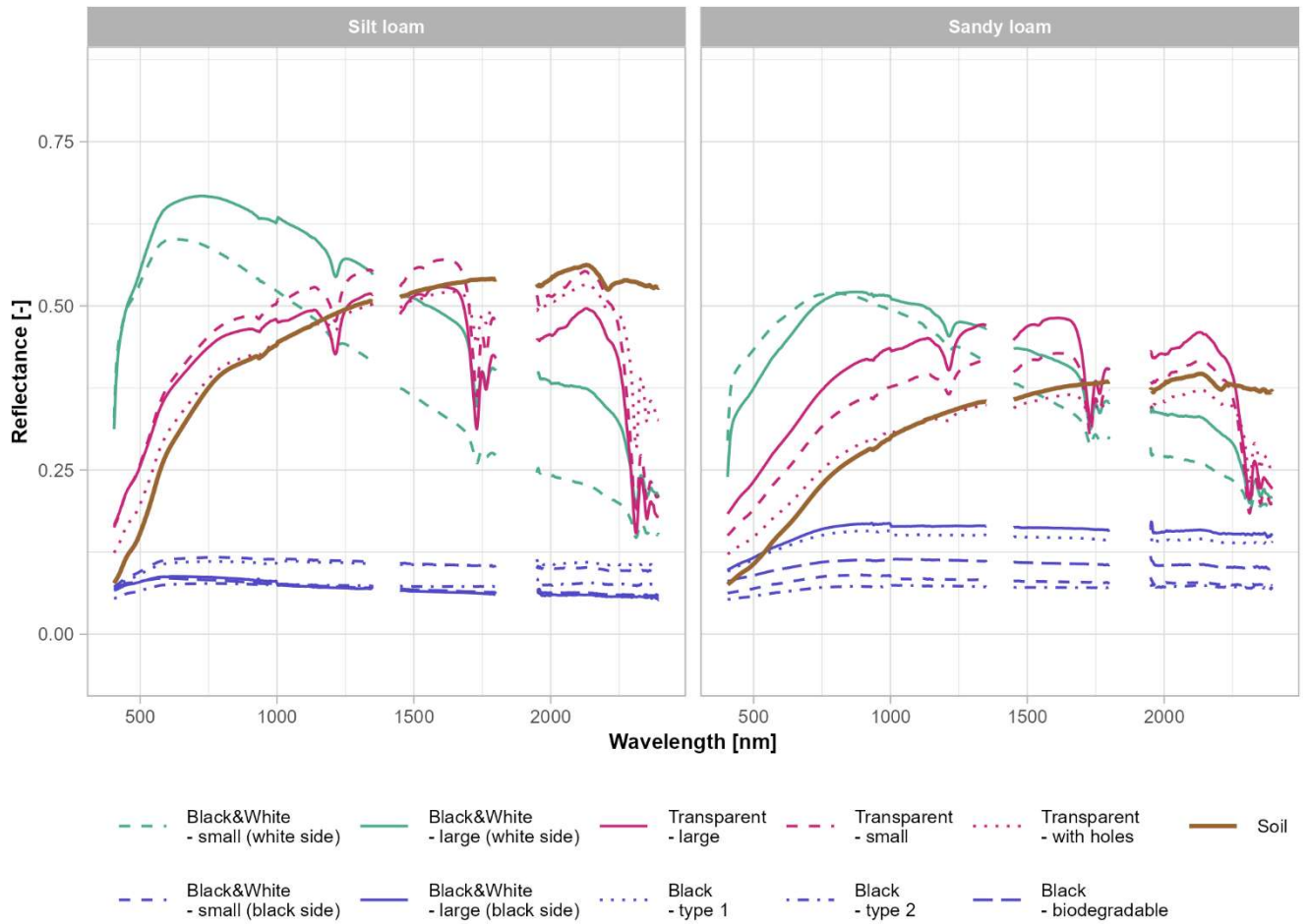


Figure S3 — Spectra of dirty plastic films and of soils used as background. On the left side, spectra acquired on silt loam; on the right side, spectra acquired on sandy loam. Film colours are represented by different colours, and variation within film colours are represented by line shapes.

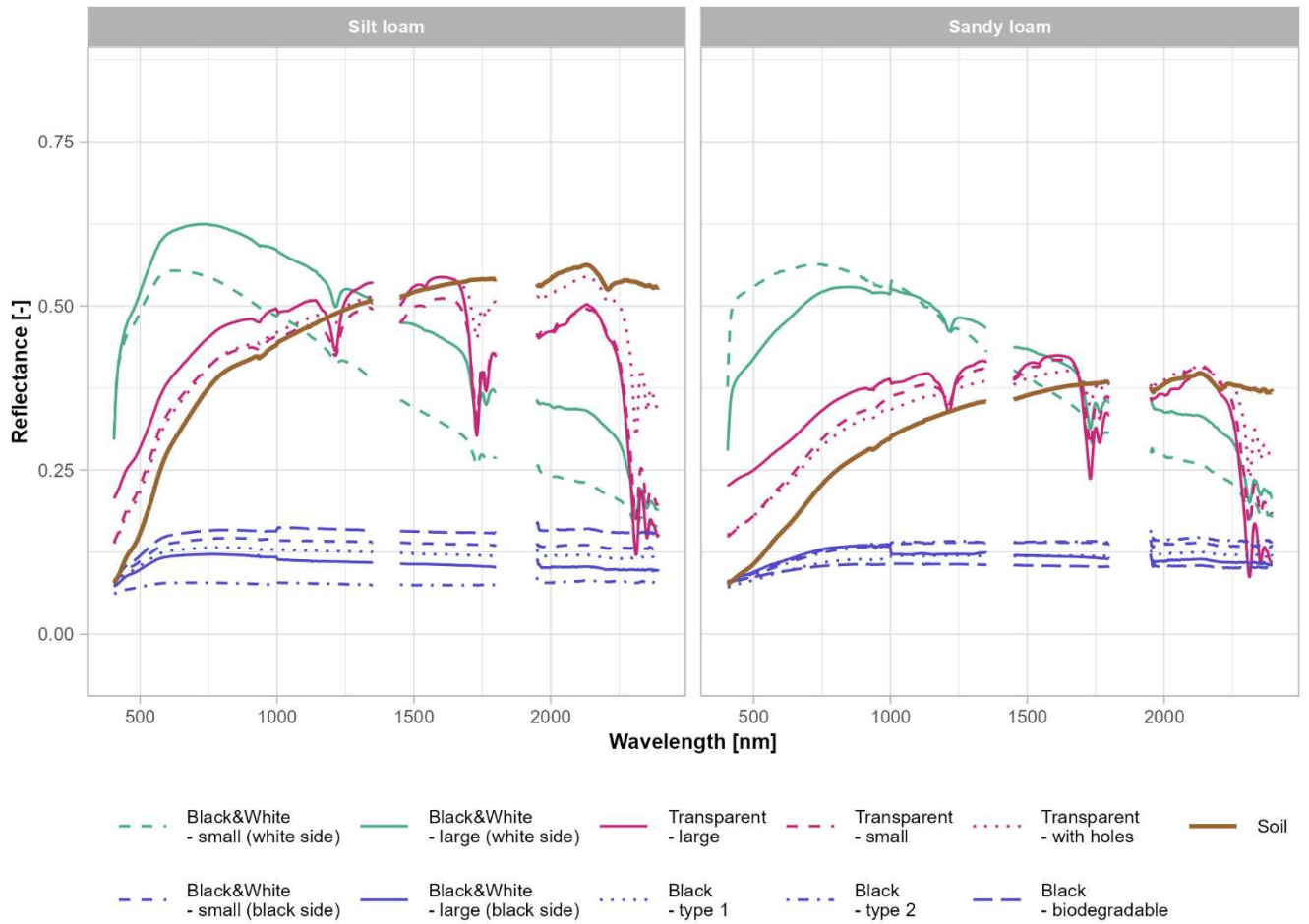


Figure S4 — Spectra of crumpled and dirty plastic films and of soils used as background. On the left side, spectra acquired on silt loam; on the right side, spectra acquired on sandy loam. Film colours are represented by different colours, and variation within film colours are represented by line shapes.

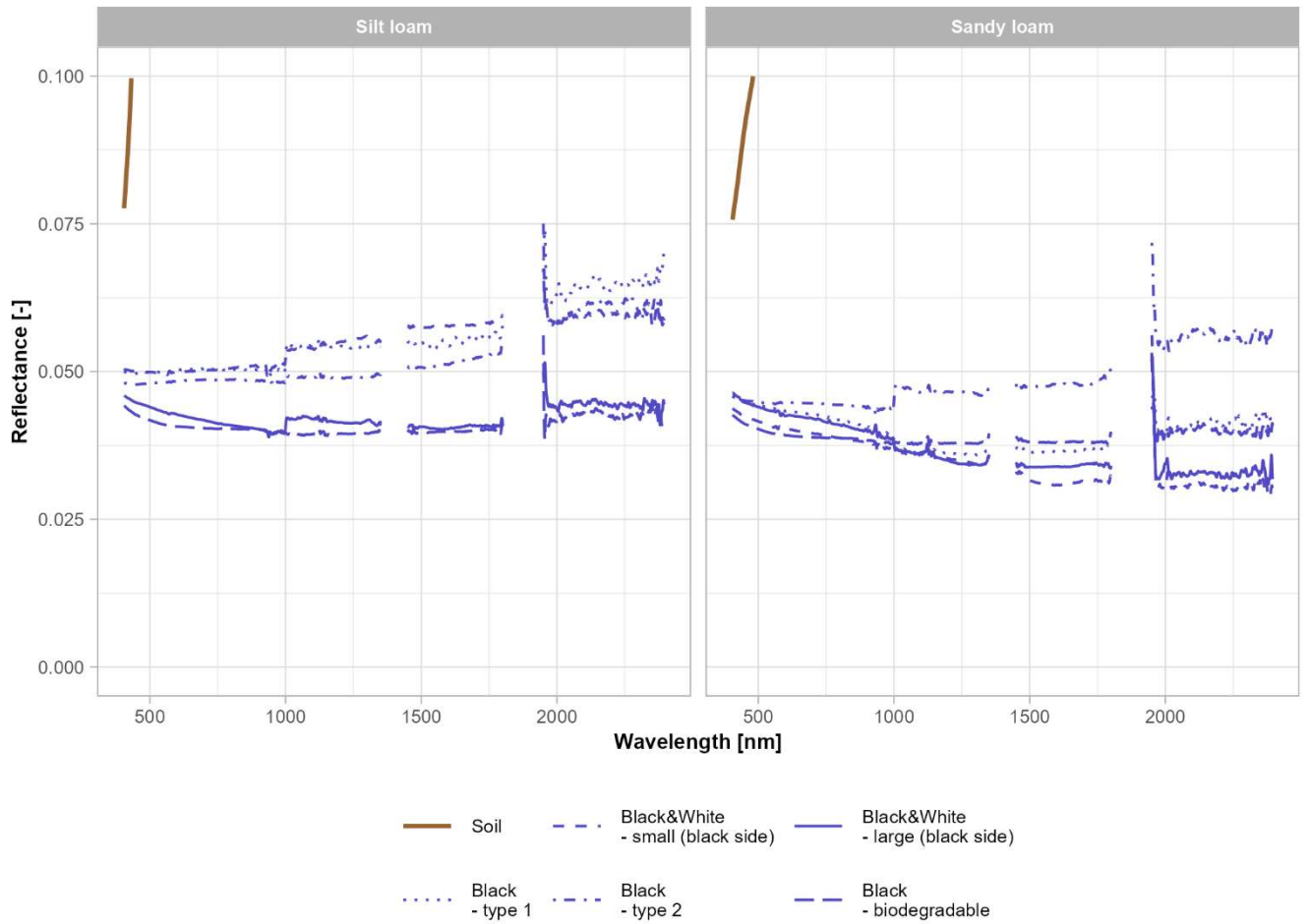


Figure S5 — Spectra of pristine black plastic films. On the left side, spectra acquired on silt loam; on the right side, spectra acquired on sandy loam.

Table S1 — Confusion matrix of the classification algorithm obtained with the multispectral 0.5 cm dataset. Variations in accuracy represent the standard deviation of within the 5-fold cross validation.

		Classification					<b>PA</b>
		Soil	Black	Transparent	White		
Ground observations	Soil	61.6 ±0.8	0.8 ±0.7	0 ±0	0 ±0	98.7 ±1.2%	
	Black	1.2 ±1.2	3 ±0.9	0 ±0	0 ±0	71.4 ±24.8%	
	Transparent	0.6 ±0.8	0 ±0	3.2 ±0.7	0 ±0	84.2 ±20%	
	White	0.2 ±0.4	0 ±0	0 ±0	2.4 ±0.5	92.3 ±13.3%	
<b>UA</b>		<b>96.9 ±2.9%</b>	<b>78.9 ±16.3%</b>	<b>100 ±0%</b>	<b>100 ±0%</b>	<b>96.2 ±2.8%</b>	