

Supplementary Materials: Degradability and Properties of PBAT-Based Biodegradable Mulch Films in Field and Their Effects on Cotton Planting

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Table S1. Basic agricultural application performances of the films for mulching.

Samples	Base material	Thickness (μm)	Light Transmittance (%)	Dislocation rate of Mechanical Perforating (%)
BDM	PBAT ^a	10.2 ± 0.1	90.48 ± 1.34	91.79
BDM1	PBAT ^a	10.3 ± 0.3	88.08 ± 2.41	91.93
BDM2	PBAT ^a	9.9 ± 0.1	76.95 ± 4.72	91.00
PE	Polyethylene	8.9 ± 0.6	93.20 ± 0.87	91.53

^aAbbreviation of Poly(butylene adipate-co-terephthalate).

Table S2. Basic physical and chemical properties of soil in the field-test site.

Items	Soil bulk density (g·cm ⁻³)	Organic matter (g·kg ⁻¹)	Available nitrogen (mg·kg ⁻¹)	Rapidly available phosphorus (mg·kg ⁻¹)	Rapidly available potassium (mg·kg ⁻¹)	pH
Results	1.38 ± 0.05	30.41 ± 7.71	69.33 ± 24.32	26.22 ± 8.68	299.94 ± 36.11	7.87 ± 0.14

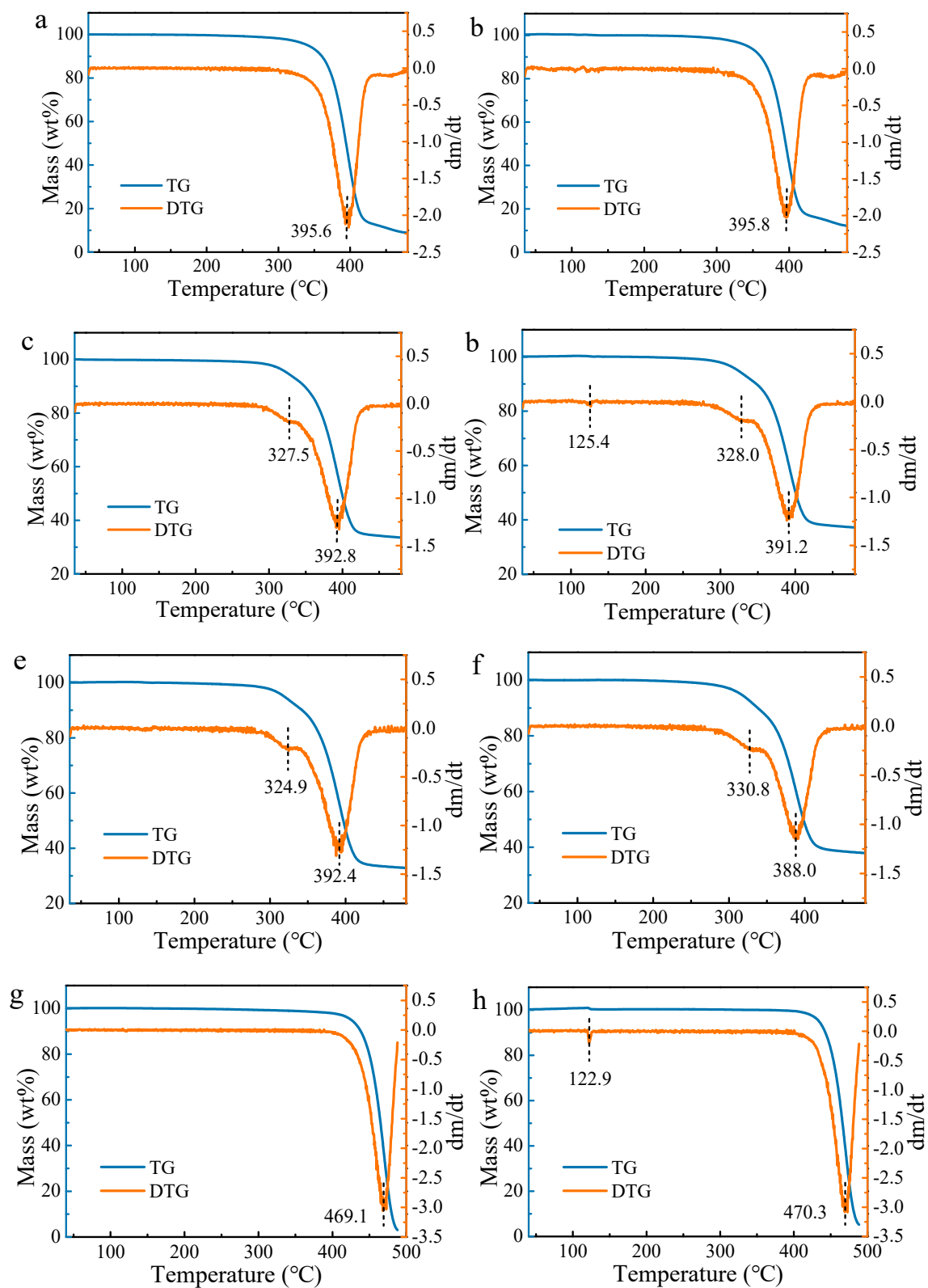


Figure S1. TG and DTG curves of BDM (a), BDM' (b), BDM1 (c), BDM1' (d), BDM2 (e), BDM2'(f), PE (g), and PE'(h).

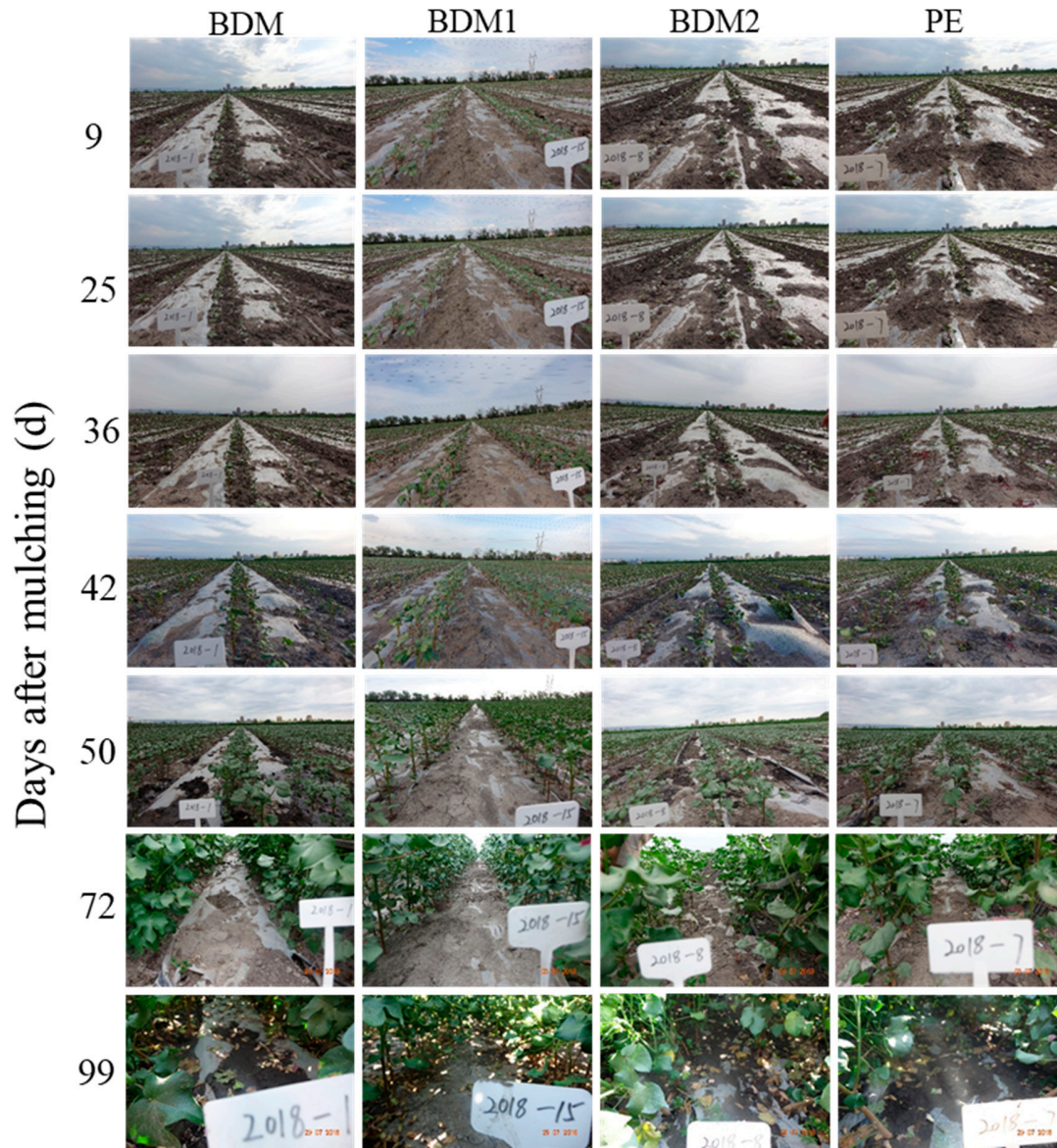


Figure S2. Degradation digital photos along a line of mulched cotton of BDM, BDM1, BDM2 and PE films during mulching period.