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Table S1: Additional functional plant traits that are remotely observable from space.

Trait [typical units]	Trait definition	Trait role	Remote observation
Vcmax [umol CO2-1 m-2 s-1]	Maximum rate of RuBisCO carboxylation at saturating light and carbon dioxide; key parameter in modeling photosynthesis.	1–4	5
Phosphorus [%]	Mass of elemental phosphorus in a leaf or canopy. Important component of energy currency molecules in cells and in genetic material.	1,6–8	9–11
Cellulose [%]	A large and complex organic polysaccharide compound negatively associated with microbial decomposition.	12	13
Total carbon [%]	Mass of elemental carbon in a leaf or canopy.	14	13,15
Water content [%]	The total amount of water in a leaf or canopy relative to its dry mass. Changes in water content can be used to detect drought stress.	16–18	19,20
Live/dead fraction [%]	The ratio of living to dead biological material in a sampling unit, measured in terms of dry mass.		21–23
Phenolics [%]	Organic chemicals characterized by the presence of phenol structural units arising from the shikimate-phenylpropanoid-flavonoid pathways. As secondary metabolites, they can play an important role in plant resistance to fungal pathogens and insect herbivores.	24–26	27,28

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