

**Table S1.** The relationship between GPP and NIRv.

Vegetation Type	Linear Function	R <sup>2</sup>
CRO-C3	$GPP = 55.38 \cdot NIRv - 1.97$	0.65
CRO-C4	$GPP = 99.96 \cdot NIRv - 3.39$	0.79
DBF	$GPP = 64.07 \cdot NIRv - 2.20$	0.67
EBF	$GPP = 44.50 \cdot NIRv + 2.60$	0.45
ENF	$GPP = 64.51 \cdot NIRv - 1.41$	0.65
MF	$GPP = 59.49 \cdot NIRv - 2.93$	0.70
SAV	$GPP = 69.99 \cdot NIRv - 1.52$	0.79
SHR	$GPP = 36.18 \cdot NIRv - 0.87$	0.70
GRA	$GPP = 68.13 \cdot NIRv - 1.62$	0.74
WET	$GPP = 57.66 \cdot NIRv - 1.31$	0.67

Note: CRO, DBF, EBF, ENF, MF, SAV SHR, GRA and WET is crop, deciduous broadleaf forest, evergreen broadleaf forest, evergreen needle forest, mixed forest, savanna, shrub, grass and wet land.