

Figure S1. (a) Flights carried out in the experimental and commercial areas; (b) Phenology according to days post sowing (DPS).

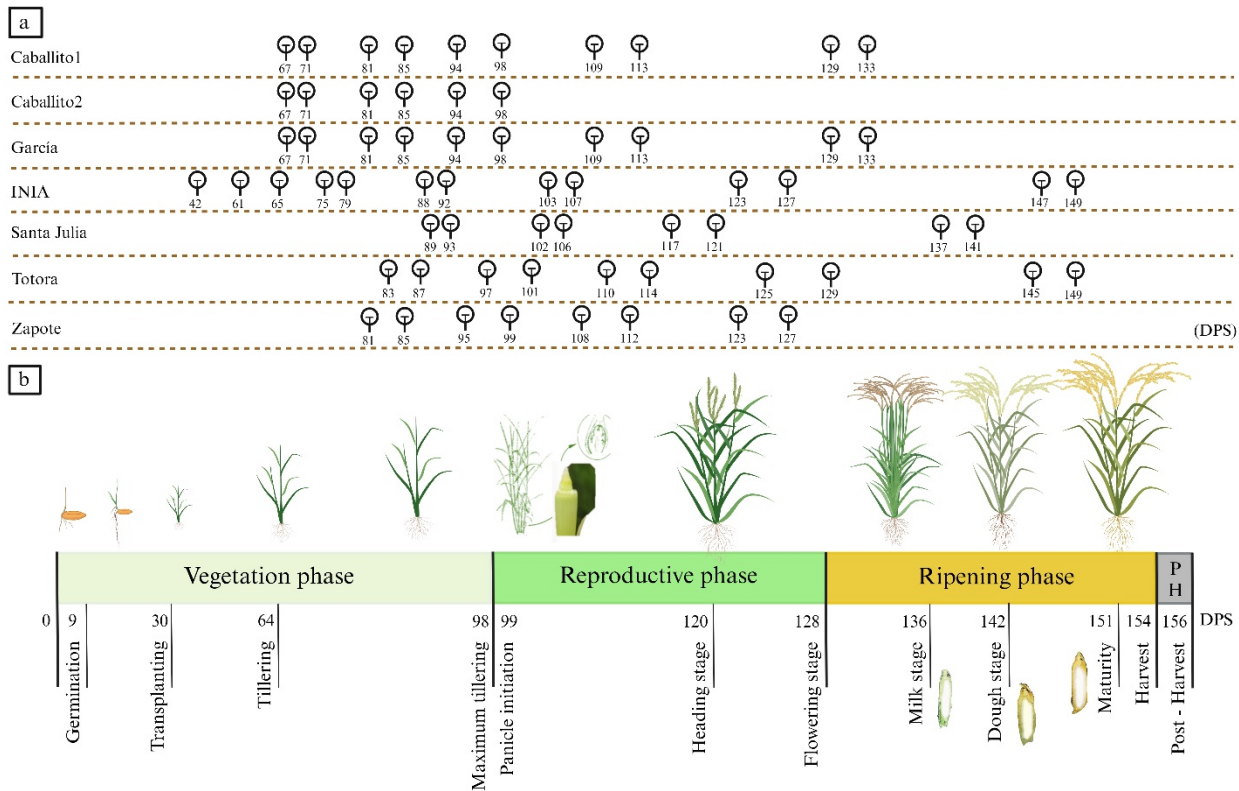


Figure S2. Comparison of R^2 between INIA-Vista Florida and Commercial areas according to combinations by number of coverages used to collect radiometer data. The R^2 was obtained from the comparison between radiometer data and thermal images.

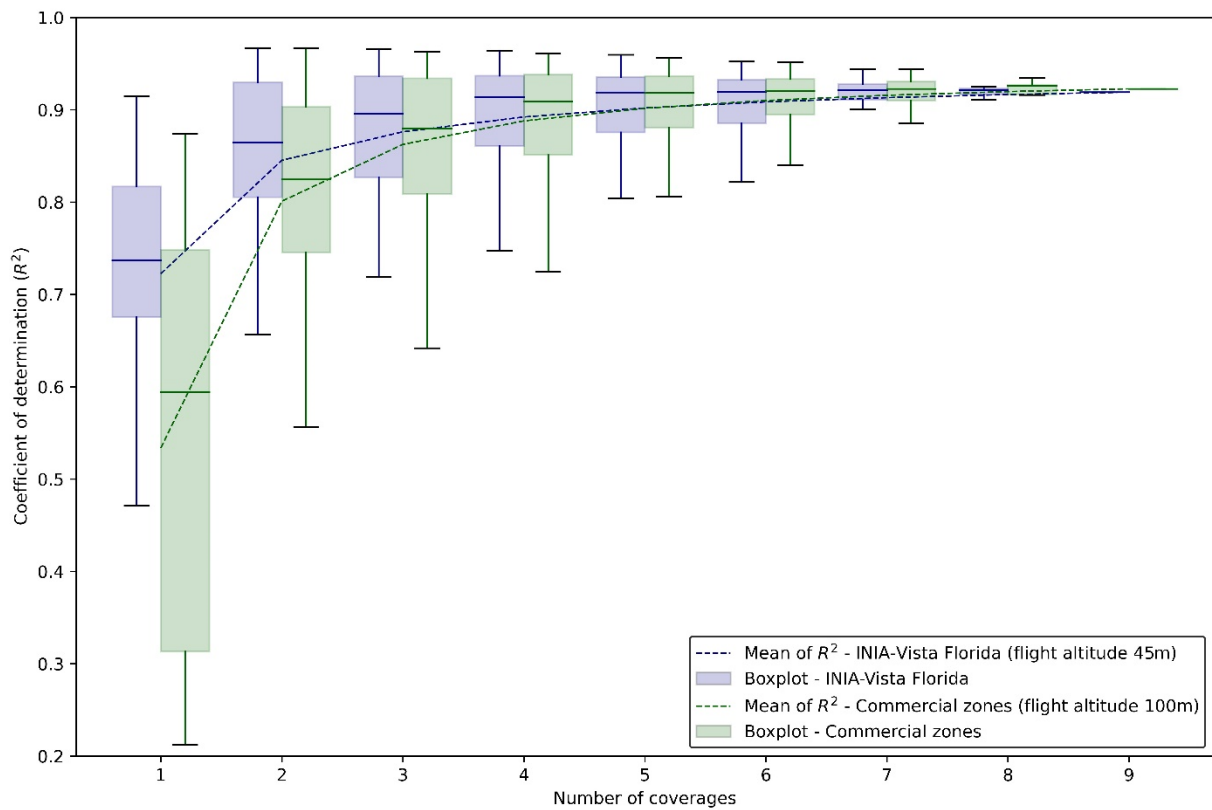


Table S1. Meteorological data from the portable station in INIA-Vista Florida experimental area.

Flight	INIA-Vista Florida			
	Ta (°C)	RH (%)	WS (m s ⁻¹)	RS (W m ⁻²)
1	28.09	61.84	3.53	514.63
2	25.61	79.95	1.68	319.44
3	29.53	65.57	2.23	968.17
4	26.49	86.72	1.27	397.75
5	29.68	65.26	2.04	1045.71
6	28.67	75.99	0.81	784.38
7	26.93	88.40	1.14	487.83
8	27.18	80.66	0.72	413.09
9	26.32	82.10	1.49	529.15
10	27.43	71.38	2.66	655.75
11	27.28	71.19	2.94	797.00
12	27.23	68.08	1.51	697.42
13	27.22	70.96	2.69	368.83

Table S2. Meteorological data from portable station in commercial areas.

Flight	Caballito and Zapote				Garcia				Totora				Santa Julia			
	Ta (°C)	RH (%)	WS (m s ⁻¹)	RS (W m ⁻²)	Ta (°C)	RH (%)	WS (m s ⁻¹)	RS (W m ⁻²)	Ta (°C)	RH (%)	WS (m s ⁻¹)	RS (W m ⁻²)	Ta (°C)	RH (%)	WS (m s ⁻¹)	RS (W m ⁻²)
1	29.3	69.6	2.5	625.2	29.4	67.4	2.4	634.5	29.3	67.0	2.3	615.0	*	*	*	*
2	27	86.0	1.1	277.5	27.1	83.2	1.6	290.8	27.3	81.8	1.8	107.5	*	*	*	*
3	30.2	66.0	3.1	820.0	29.5	73.0	2.8	601.5	29.4	67.2	3.6	492.1	28.9	69.7	2.7	293.4
4	29.3	74.3	0.9	432.9	29.8	73.1	0.8	474.7	29.1	76.1	1.9	357.3	28.0	78.5	2.9	224.9
5	28.2	84.7	1.3	770.0	29.2	80.8	1.2	771.3	29.9	77.6	1.0	872.4	29.5	77.0	1.1	543.4
6	29.6	70.8	0.9	792.5	29.8	72.8	0.9	568.1	29.9	68.6	0.9	561.9	28.0	80.7	2.4	195.7
7	27.7	80.9	1.4	722.2	29.4	75.9	1.0	1045.1	30.2	74.2	0.8	1015.6	29.2	77.8	1.4	323.7
8	29.6	66.9	1.6	805.5	29.9	65.2	2.4	750.5	30.6	60.8	3.2	839.4	30.2	63.0	3.5	699.7
9	29.4	66.2	2.3	804.5	29.1	66.5	2.3	681.7	30.3	60.3	3.0	813.3	29.9	63.5	2.9	691.2

* There were no flights conducted using UAVs.

Figure S3. The levels of water stress in the Caballito 1 and Caballito 2 commercials areas are represented according to the $G_s \text{ mmol m}^{-2} \text{ s}^{-1}$ reference scale. The water stress levels are as follows: (a) 67 DPS; (b) 71 DPS; (c) 81 DPS; (d) 85 DPS; (e) 94 DPS; (f) 98 DPS; (g) 109 DPS; (h) 113 DPS; (i) 129 DPS; y (j) 133 DPS.

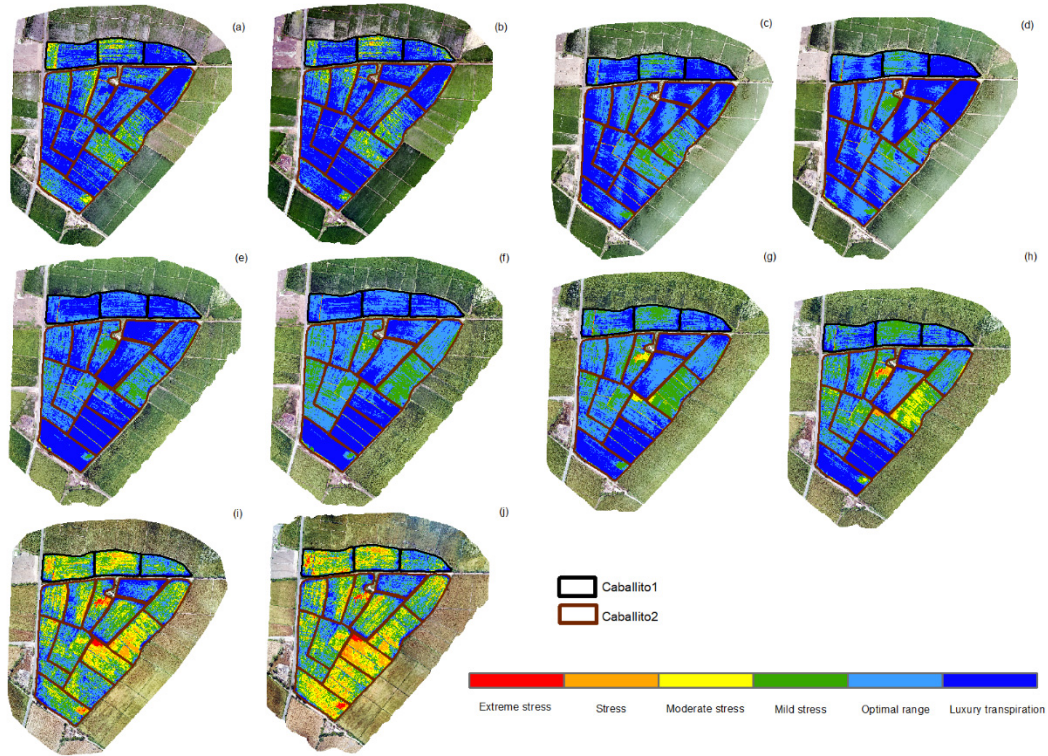


Figure S4. The levels of water stress in the García commercial area are represented according to the $G_s \text{ mmol m}^{-2} \text{ s}^{-1}$ reference scale. The water stress levels are as follows: (a) 67 DPS; (b) 71 DPS; (c) 81 DPS; (d) 85 DPS; (e) 94 DPS; (f) 98 DPS; (g) 109 DPS; (h) 113 DPS; (i) 129 DPS; y (j) 133 DPS.

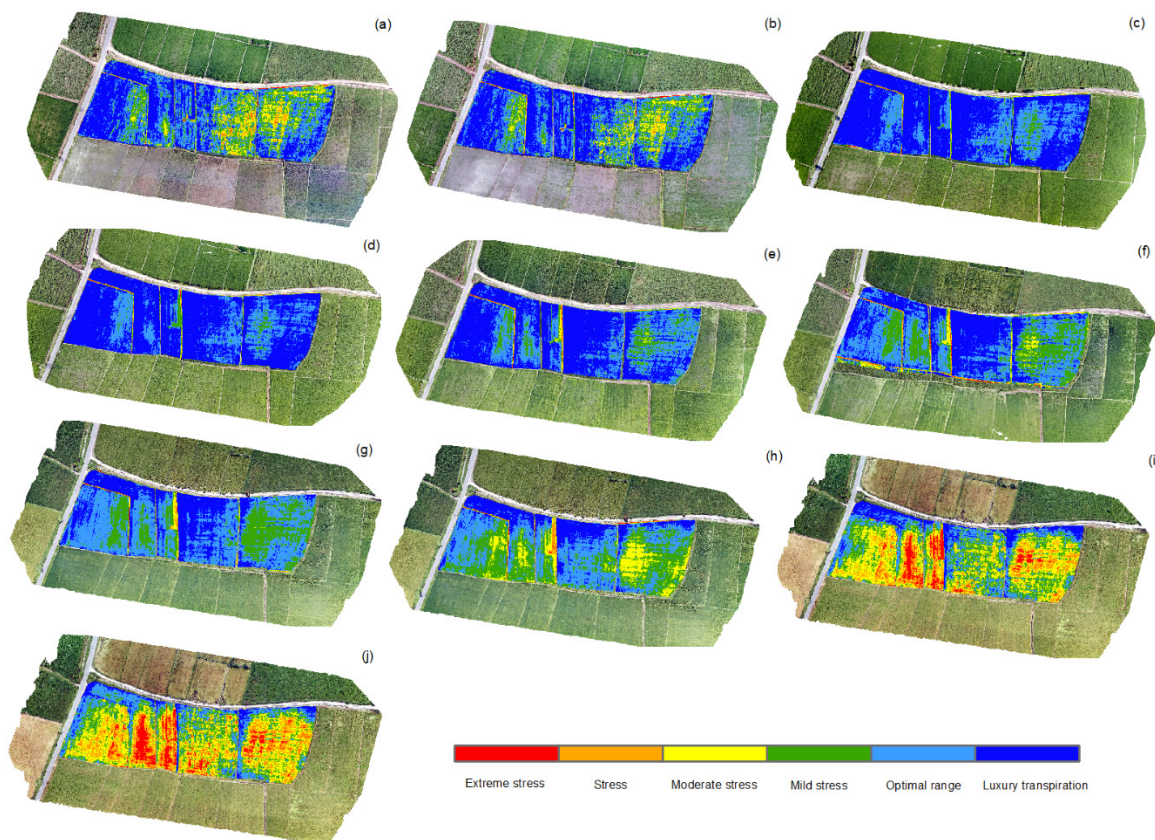


Figure S5. The levels of water stress in the Totora commercial area are represented according to the G_s $\text{mmol m}^{-2}\text{s}^{-1}$ reference scale. The water stress levels are as follows: (a) 83 DPS; (b) 87 DPS; (c) 97 DPS; (d) 101 DPS; (e) 110 DPS; (f) 114 DPS; (g) 125 DPS; (h) 129 DPS; (i) 145 DPS; y (j) 149 DPS.

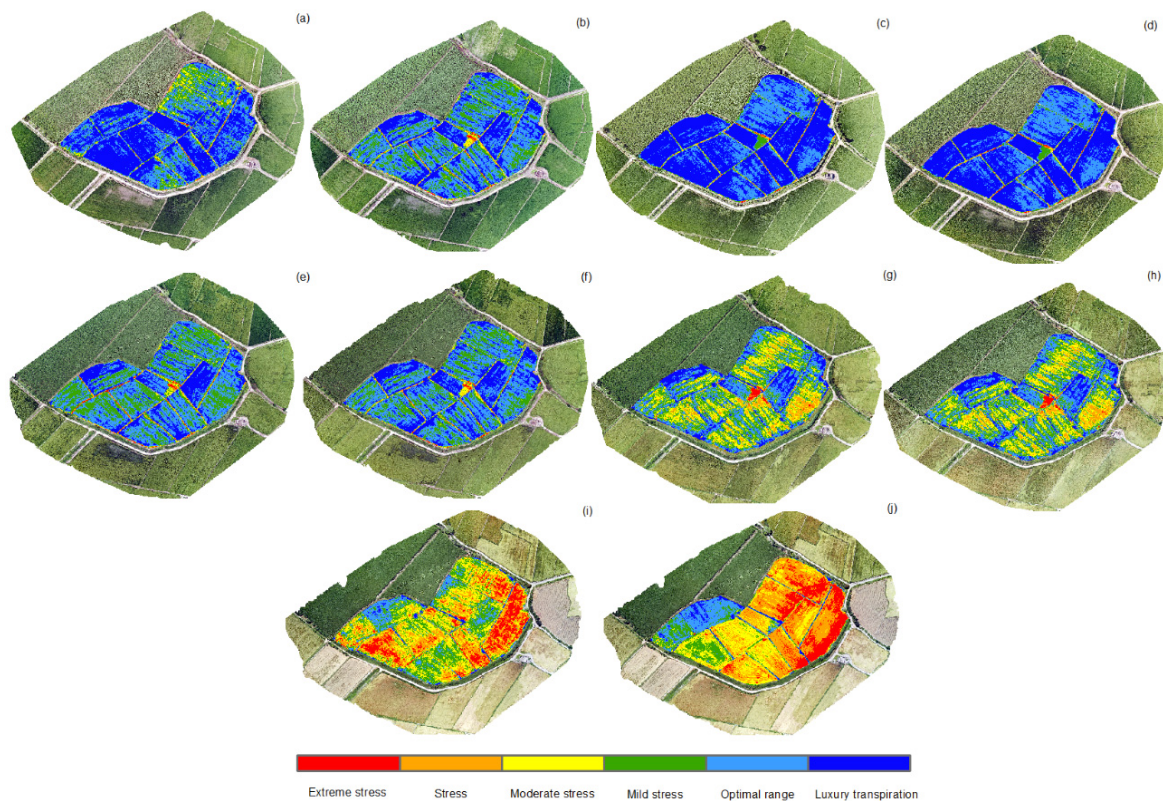


Figure S6. The levels of water stress in the Zapote commercial area are represented according to the $G_s \text{ mmol m}^{-2} \text{ s}^{-1}$ reference scale. The water stress levels are as follows: (a) 81 DPS; (b) 85 DPS; (c) 95 DPS; (d) 99 DPS; (e) 108 DPS; (f) 112 DPS; (g) 123 DPS; y (h) 127 DPS.

