

## Supplementary Information

### Influence of Environmental Factors and Cultural Methods on the Content of *N,N*-Dimethyltryptamine in *Psychotria viridis* (Rubiaceae)

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**Figure S1.** Photo of *P. viridis* plantation (chacronal) located at Minas Gerais, Brazil, in the Atlantic forest ↔ Cerrado biome (Cavalcanti, A. C., February 25, 2017).

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**Table S1.** Regression coefficients of DMT on covariates altitude, latitude and rainfall, and ANOVA to the of levels of the factors vitality, soil correction facility, flowering, pest incidence and irrigation, for each collection date<sup>a</sup>

Collection	Altitude	Latitude	Rainfall	Vitality (12.48) <sup>b</sup>			
	(31.13) <sup>b</sup>	(28.39) <sup>b</sup>	(14.15) <sup>b</sup>	1 <sup>d</sup>	2 <sup>e</sup>	3 <sup>f</sup>	4 <sup>g</sup>
1	-0.0082 <sup>c</sup>	0.3497 <sup>c</sup>	0.0037	25.3867 <sup>cA</sup>	34.7650 <sup>cC</sup>	30.0300 <sup>cB</sup>	31.0586 <sup>cBC</sup>
2	-0.0126 <sup>c</sup>	0.5156 <sup>c</sup>	0.0230 <sup>c</sup>	–	28.5029 <sup>cA</sup>	30.2079 <sup>cAB</sup>	33.2681 <sup>cB</sup>
3	-0.0051 <sup>c</sup>	0.2587 <sup>c</sup>	0.0080	25.7500 <sup>cA</sup>	33.1001 <sup>cB</sup>	34.9870 <sup>cB</sup>	35.4173 <sup>cB</sup>
4	-0.0155 <sup>c</sup>	0.7688 <sup>c</sup>	-0.0184 <sup>c</sup>	22.8433 <sup>cA</sup>	23.1683 <sup>cA</sup>	31.5421 <sup>cB</sup>	29.7333 <sup>cB</sup>

  

Collection	Soil correction and acidity (11.25) <sup>b</sup>		Flowering (8.08) <sup>b</sup>		Pest incidence (3.28) <sup>b</sup>			Irrigation (0.91) <sup>b</sup>	
	Yes	No	Yes	No	Little	Media	Absent	Yes	No
1	36.8477 <sup>cB</sup>	25.7837 <sup>cA</sup>	318.6360	296.5280	28.6097 <sup>cA</sup>	33.0110 <sup>cB</sup>	32.3551 <sup>cB</sup>	322.1450	296.8710
2	34.9001 <sup>cB</sup>	24.9058 <sup>cA</sup>	31.2842 <sup>cB</sup>	28.5039 <sup>cA</sup>	281.6900	289.2950	304.9750	295.4180	311.9710
3	40.1813 <sup>cB</sup>	26.7796 <sup>cA</sup>	35.2504 <sup>cB</sup>	31.4012 <sup>cA</sup>	31.2898 <sup>cA</sup>	–	35.9050 <sup>cB</sup>	343.6010	344.1610
4	33.5072 <sup>cB</sup>	24.4761 <sup>cA</sup>	32.5875 <sup>cB</sup>	28.2071 <sup>cA</sup>	313.0850	–	299.8570	303.7930	305.5400

<sup>a</sup>Least squares means with a common uppercase letter are statistically equal according to *F*-test (two means) or Tukey's test (three or four means), considering a significance level of 0.05; <sup>b</sup>coefficients of determination  $R^2$  (%); <sup>c</sup>considered significant at level of the 0.05 ( $p < 0.05$ ); <sup>d</sup>1: plantations with low vitality and heavily affected by pests, malnutrition or drought and under risk to not resisting to environmental conditions; <sup>e</sup>2: plantations that were in conditions of low growth, affected by adverse environmental conditions, however, without risk of death; <sup>f</sup>3: healthy plants with green leaves and size compatible with the average of the species; <sup>g</sup>4: exuberant plantations, with very healthy specimens, without any prominent effects of pest or drought.

**Table S2.** Rainfall index observed in each UDV nucleus during the 30 days prior to collection of *P. viridis* leaves

UDV Nuclei	Rainfall index / mm			
	Collection 1 April 2013 Autumn	Collection 2 July 2013 Winter	Collection 3 October 2013 Spring	Collection 4 January 2014 Summer
Flor Encantadora	127.9	23.1	32.8	495.0
Flor de Mariri	143.0	21.5	48.1	215.8
Rainha das Águas	318.7	33.9	76.5	173.2
Lagoa da Prata	141.2	34.0	35.2	221.7
Recanto das Flores	228.2	25.3	43.7	389.6
Divino Manto	174.5	143.2	81.3	83.1
Lupunamanta	148.6	152.3	65.6	100.8
Samaúna	174.5	143.2	81.3	83.1
Rei Divino	174.5	143.2	81.3	83.1
Arvoredo	316.9	47.2	45.9	226.9
Florestal	471.7	0	99	249.0
Luz de Maria	228.3	192.7	99.3	110.1
São Joaquim	228.3	192.7	<sup>a</sup>	110.1
Rei Inca	234.9	7.3	32.9	530.5
Canário Verde	190.3	6.2	65.9	353.6
Estrela da Manhã	38.4	308.4	<sup>a</sup>	158.2
Mestre Adamir I and II	258.3	22.9	28.8	51.1
Flor Divina	72.7	217.9	10.5	67.2
Santa Fé do Cariri	319.1	157.3	0	55.1
Cajueiro	98.8	491.4	146	177.3
Jardim das Flores	78.0	100.7	135.3	76.6
Arco-íris	213.2	211.9	292.9	147.5
Mestre Rubens	245.1	45.8	97.6	178.5
Rei Canaã	532.3	150.5	110.4	299.7
Águas Claras	427.4	167.1	312.2	101.3

<sup>a</sup>No available data.

**Table S3.** Nutrient contents in leaf samples of *P. viridis*

Nucleus	Collection 1 (April 2013)									
	N / (dag kg <sup>-1</sup> )	P / (dag kg <sup>-1</sup> )	K / (dag kg <sup>-1</sup> )	Ca / (dag kg <sup>-1</sup> )	Mg / (dag kg <sup>-1</sup> )	S / (mg kg <sup>-1</sup> )	Zn / (mg kg <sup>-1</sup> )	Mn / (mg kg <sup>-1</sup> )	Cu / (mg kg <sup>-1</sup> )	B / (mg kg <sup>-1</sup> )
Flor Encantadora	2.35 ± 0.28	0.12 ± 0.05	1.96 ± 0.13	2.24 ± 0.01	0.43 ± 0.03	0.15 ± 0.01	27.5 ± 0.71	33.5 ± 17.7	12.0 ± 2.83	88.30 ± 0.35
Flor de Mariri	2.25 ± 0.01	0.38 ± 0.01	2.38 ± 0.18	2.19 ± 0.01	0.38 ± 0.04	0.15 ± 0.01	24.5 ± 1.41	21.0 ± 12.7	15.5 ± 0.71	49.35 ± 4.67
Rainha das Águas	2.25 ± 0.07	0.25 ± 0.02	2.31 ± 0.14	1.76 ± 0.33	0.34 ± 0.01	0.17 ± 0.01	29.0 ± 1.41	32.5 ± 2.8	12.5 ± 1.41	71.70 ± 4.88
Lagoa da Prata	2.00 ± 0.14	0.21 ± 0.01	2.00 ± 0.24	1.52 ± 0.08	0.40 ± 0.06	0.12 ± 0.01	19.5 ± 0.71	35.5 ± 6.4	14.0 ± 0.71	67.10 ± 0.64
Recanto das Flores	2.30 ± 0.07	0.33 ± 0.02	1.91 ± 0.29	1.31 ± 0.30	0.38 ± 0.03	0.18 ± 0.04	30.5 ± 0.01	24.5 ± 2.1	14.0 ± 0.01	49.35 ± 2.19
Divino Manto	2.10 ± 0.01	0.42 ± 0.02	2.22 ± 0.04	1.96 ± 0.24	0.35 ± 0.01	0.19 ± 0.01	26.0 ± 0.01	21.5 ± 4.2	18.5 ± 0.71	48.25 ± 2.47
Lupunamanta	1.90 ± 0.07	0.17 ± 0.01	2.31 ± 0.13	2.09 ± 0.40	0.37 ± 0.01	0.16 ± 0.01	45.0 ± 0.71	26.0 ± 0.1	13.5 ± 0.71	61.85 ± 2.76
Samaúna	2.35 ± 0.14	0.30 ± 0.04	1.72 ± 0.08	1.97 ± 0.17	0.35 ± 0.01	0.17 ± 0.01	23.0 ± 0.71	25.0 ± 12.7	12.5 ± 0.01	72.55 ± 1.48
Rei Divino	2.30 ± 0.07	0.20 ± 0.01	1.87 ± 0.07	1.98 ± 0.66	0.42 ± 0.05	0.15 ± 0.01	32.0 ± 0.71	44.0 ± 4.2	11.0 ± 0.71	109.60 ± 1.97
Arvoredo	2.50 ± 0.14	0.20 ± 0.01	1.81 ± 0.07	2.29 ± 0.60	0.36 ± 0.06	0.15 ± 0.01	12.5 ± 0.71	26.5 ± 2.1	6.0 ± 0.71	53.70 ± 1.84
Florestal	2.10 ± 0.07	0.10 ± 0.01	1.89 ± 0.09	1.26 ± 0.16	0.35 ± 0.04	0.12 ± 0.01	18.0 ± 0.71	28.5 ± 0.7	9.0 ± 0.71	61.20 ± 1.84
Luz de Maria	1.95 ± 0.07	0.28 ± 0.01	1.63 ± 0.01	1.63 ± 0.39	0.43 ± 0.06	0.14 ± 0.01	26.0 ± 0.01	31.0 ± 1.4	12.5 ± 1.41	107.35 ± 1.84
São Joaquim	2.35 ± 0.01	0.15 ± 0.01	2.20 ± 0.07	1.92 ± 0.31	0.37 ± 0.02	0.16 ± 0.01	22.5 ± 0.71	33.0 ± 1.4	9.0 ± 1.41	78.45 ± 4.03
Rei Inca	2.15 ± 0.07	0.14 ± 0.01	1.93 ± 0.15	2.16 ± 0.37	0.25 ± 0.01	0.13 ± 0.01	21.5 ± 0.71	26.5 ± 1.4	13.5 ± 1.41	73.20 ± 2.83
Canário Verde	2.05 ± 0.01	0.35 ± 0.01	1.68 ± 0.10	1.31 ± 0.10	0.43 ± 0.06	0.13 ± 0.01	35.0 ± 0.71	34.5 ± 2.1	14.0 ± 0.71	89.20 ± 1.84
Estrela da Manhã	2.10 ± 0.07	0.21 ± 0.01	2.11 ± 0.16	1.10 ± 0.08	0.44 ± 0.05	0.13 ± 0.01	18.5 ± 1.41	31.5 ± 0.7	7.0 ± 0.71	92.70 ± 1.84
Mestre Adimir I	1.85 ± 0.01	0.20 ± 0.01	2.33 ± 0.05	1.17 ± 0.40	0.42 ± 0.04	0.14 ± 0.01	18.0 ± 0.71	18.5 ± 1.4	6.0 ± 0.71	117.45 ± 21.71
Mestre Adimir II	2.10 ± 0.21	0.24 ± 0.01	1.78 ± 0.08	1.48 ± 0.23	0.42 ± 0.04	0.14 ± 0.01	25.0 ± 0.71	18.5 ± 0.1	10.0 ± 0.71	103.85 ± 12.37
Flor Divina	2.00 ± 0.01	0.16 ± 0.01	2.15 ± 0.22	1.30 ± 0.18	0.46 ± 0.11	0.10 ± 0.01	34.0 ± 1.41	22.0 ± 0.1	8.0 ± 0.01	117.25 ± 9.55
Santa Fé do Cariri	2.70 ± 0.07	0.22 ± 0.01	2.44 ± 0.08	1.76 ± 0.62	0.45 ± 0.06	0.17 ± 0.01	32.5 ± 0.71	42.5 ± 1.4	10.0 ± 0.71	60.50 ± 2.83
Cajueiro	2.10 ± 0.01	0.16 ± 0.01	1.79 ± 0.04	1.43 ± 0.33	0.43 ± 0.05	0.15 ± 0.01	23.5 ± 0.71	17.0 ± 0.7	5.0 ± 0.71	93.35 ± 3.39
Jardim das Flores	2.20 ± 0.07	0.21 ± 0.01	1.89 ± 0.08	2.58 ± 0.06	0.37 ± 0.01	0.15 ± 0.04	26.5 ± 1.41	26.0 ± 0.7	13.0 ± 0.71	82.20 ± 0.28
Arco-íris	2.45 ± 0.01	0.22 ± 0.01	2.30 ± 0.06	1.92 ± 0.30	0.37 ± 0.01	0.17 ± 0.01	30.0 ± 1.41	49.5 ± 1.4	11.5 ± 0.01	77.40 ± 2.76
Mestre Rubens	2.10 ± 0.01	0.13 ± 0.01	2.13 ± 0.05	1.53 ± 0.09	0.42 ± 0.02	0.13 ± 0.01	23.5 ± 1.41	46.5 ± 2.1	9.5 ± 0.71	56.80 ± 0.10
Rei Canaã	2.15 ± 0.07	0.22 ± 0.01	1.25 ± 0.09	1.44 ± 0.27	0.46 ± 0.05	0.13 ± 0.01	34.0 ± 0.01	32.5 ± 1.4	8.0 ± 0.01	70.85 ± 0.92
Águas Claras	2.25 ± 0.01	0.16 ± 0.01	0.95 ± 0.10	0.81 ± 0.08	0.47 ± 0.07	0.12 ± 0.01	26.0 ± 1.41	21.0 ± 2.8	5.5 ± 0.01	41.20 ± 3.75

**Table S3.** Nutrient contents in leaf samples of *P. viridis* (cont.)

Nucleus	Collection 2 (July 2013)									
	N/ (dag kg <sup>-1</sup> )	P/ (dag kg <sup>-1</sup> )	K/ (dag kg <sup>-1</sup> )	Ca/ (dag kg <sup>-1</sup> )	Mg/ (dag kg <sup>-1</sup> )	S/ (mg kg <sup>-1</sup> )	Zn/ (mg kg <sup>-1</sup> )	Mn/ (mg kg <sup>-1</sup> )	Cu/ (mg kg <sup>-1</sup> )	B/ (mg kg <sup>-1</sup> )
FlorEncantadora	2.20 ± 0.28	0.17 ± 0.05	1.65 ± 0.13	1.62 ± 0.01	0.44 ± 0.03	0.17 ± 0.01	25.5 ± 0.71	33.5 ± 17.68	10.0 ± 2.83	83.95 ± 0.35
Flor de Mariri	1.90 ± 0.01	0.35 ± 0.01	1.91 ± 0.18	1.79 ± 0.01	0.36 ± 0.04	0.14 ± 0.01	25.0 ± 1.41	29.0 ± 12.73	18.5 ± 0.71	51.50 ± 4.67
Rainha das Águas	2.35 ± 0.07	0.22 ± 0.02	1.97 ± 0.14	1.88 ± 0.33	0.34 ± 0.01	0.16 ± 0.01	24.0 ± 1.41	38.0 ± 2.83	11.0 ± 1.41	89.35 ± 4.88
Lagoa da Prata	2.00 ± 0.14	0.19 ± 0.01	1.87 ± 0.24	1.94 ± 0.08	0.42 ± 0.06	0.13 ± 0.01	20.5 ± 0.71	33.5 ± 6.36	13.5 ± 0.71	71.05 ± 0.64
Recanto das Flores	2.25 ± 0.07	0.26 ± 0.02	1.65 ± 0.29	1.43 ± 0.30	0.35 ± 0.03	0.26 ± 0.04	25.0 ± 0.01	24.5 ± 2.12	14.0 ± 0.01	48.45 ± 2.19
Divino Manto	2.30 ± 0.01	0.28 ± 0.02	2.08 ± 0.04	1.90 ± 0.24	0.31 ± 0.01	0.17 ± 0.01	23.0 ± 0.01	26.0 ± 4.24	10.5 ± 0.71	55.25 ± 2.47
Lupunamanta	2.15 ± 0.07	0.17 ± 0.01	2.18 ± 0.13	1.84 ± 0.40	0.36 ± 0.01	0.13 ± 0.01	28.5 ± 0.71	28.0 ± 0.01	12.5 ± 0.71	73.45 ± 2.76
Samaúna	2.30 ± 0.14	0.31 ± 0.04	1.58 ± 0.08	1.87 ± 0.17	0.33 ± 0.01	0.16 ± 0.01	26.5 ± 0.71	38.0 ± 12.73	12.0 ± 0.01	81.75 ± 1.48
Rei Divino	2.45 ± 0.07	0.18 ± 0.01	1.74 ± 0.07	2.33 ± 0.66	0.42 ± 0.05	0.18 ± 0.01	27.5 ± 0.71	42.0 ± 4.24	8.5 ± 0.71	113.95 ± 1.97
Arvoredo	2.50 ± 0.14	0.21 ± 0.01	1.84 ± 0.07	2.32 ± 0.60	0.41 ± 0.06	0.16 ± 0.01	23.5 ± 0.71	35.5 ± 2.12	5.5 ± 0.71	53.90 ± 1.84
Florestal	2.25 ± 0.07	0.10 ± 0.01	2.27 ± 0.09	1.38 ± 0.16	0.40 ± 0.04	0.14 ± 0.01	21.5 ± 0.71	32.5 ± 0.71	10.5 ± 0.71	72.80 ± 0.01
Luz de Maria	1.95 ± 0.07	0.28 ± 0.01	1.29 ± 0.01	2.01 ± 0.39	0.42 ± 0.06	0.13 ± 0.01	24.0 ± 0.01	35.0 ± 1.41	12.0 ± 1.41	106.90 ± 1.84
São Joaquim	2.60 ± 0.07	0.16 ± 0.01	2.27 ± 0.07	1.82 ± 0.31	0.35 ± 0.02	0.15 ± 0.01	19.5 ± 0.71	33.0 ± 1.41	8.0 ± 1.41	94.45 ± 4.03
Rei Inca	2.45 ± 0.07	0.17 ± 0.01	2.73 ± 0.15	2.26 ± 0.37	0.29 ± 0.01	0.16 ± 0.01	24.5 ± 0.71	33.0 ± 1.41	12.0 ± 1.41	84.80 ± 2.83
Canário Verde	2.00 ± 0.01	0.28 ± 0.01	2.00 ± 0.10	1.38 ± 0.10	0.43 ± 0.06	0.13 ± 0.01	26.5 ± 0.71	38.5 ± 2.12	12.5 ± 0.71	98.20 ± 1.84
Estrela da Manhã	2.25 ± 0.07	0.20 ± 0.01	2.18 ± 0.16	1.03 ± 0.08	0.40 ± 0.05	0.11 ± 0.01	19.0 ± 1.41	24.5 ± 0.71	6.5 ± 0.71	90.30 ± 1.84
Mestre Adamir I	1.90 ± 0.01	0.25 ± 0.01	1.72 ± 0.05	1.98 ± 0.40	0.38 ± 0.04	0.13 ± 0.01	25.5 ± 0.71	24.0 ± 1.41	11.5 ± 0.71	123.55 ± 21.71
Mestre Adamir II	2.15 ± 0.21	0.25 ± 0.01	2.02 ± 0.08	1.33 ± 0.23	0.42 ± 0.04	0.14 ± 0.01	17.5 ± 0.71	18.0 ± 0.01	7.5 ± 0.71	125.35 ± 12.37
Flor Divina	2.00 ± 0.01	0.14 ± 0.01	2.04 ± 0.22	1.49 ± 0.18	0.46 ± 0.11	0.13 ± 0.01	35.0 ± 1.41	24.0 ± 0.01	7.0 ± 0.01	93.15 ± 9.55
Santa Fé do Cariri	2.25 ± 0.07	0.19 ± 0.01	2.01 ± 0.08	2.44 ± 0.62	0.43 ± 0.06	0.15 ± 0.01	26.5 ± 0.71	44.0 ± 1.41	8.5 ± 0.71	75.20 ± 2.83
Cajueiro	2.30 ± 0.01	0.19 ± 0.01	1.79 ± 0.04	1.61 ± 0.33	0.41 ± 0.05	0.15 ± 0.01	28.5 ± 0.71	19.5 ± 0.71	7.5 ± 0.71	82.20 ± 3.39
Jardim das Flores	2.15 ± 0.07	0.22 ± 0.01	1.79 ± 0.08	1.87 ± 0.06	0.37 ± 0.01	0.17 ± 0.04	26.0 ± 1.41	26.5 ± 0.71	13.5 ± 0.71	76.50 ± 0.28
Arco-íris	2.50 ± 0.01	0.19 ± 0.01	1.94 ± 0.06	2.20 ± 0.30	0.37 ± 0.01	0.15 ± 0.01	25.0 ± 1.41	46.0 ± 1.41	11.0 ± 0.01	62.95 ± 2.76
Mestre Rubens	2.50 ± 0.01	0.13 ± 0.01	1.87 ± 0.05	1.64 ± 0.09	0.43 ± 0.02	0.15 ± 0.01	25.0 ± 1.41	43.5 ± 2.12	9.5 ± 0.71	50.00 ± 0.01
Rei Canaã	1.95 ± 0.07	0.21 ± 0.01	1.59 ± 0.09	1.81 ± 0.27	0.46 ± 0.05	0.16 ± 0.01	46.0 ± 0.01	47.0 ± 1.41	8.0 ± 0.01	83.05 ± 0.92
Águas Claras	2.30 ± 0.01	0.16 ± 0.01	0.85 ± 0.10	0.64 ± 0.08	0.47 ± 0.07	0.12 ± 0.01	22.0 ± 1.41	23.0 ± 2.83	6.0 ± 0.01	41.65 ± 3.75

**Table S3.** Nutrient contents in leaf samples of *P. viridis* (cont.)

Collection 3 (October 2013)										
Nucleus <sup>a</sup>	N / (dag kg <sup>-1</sup> )	P / (dag kg <sup>-1</sup> )	K / (dag kg <sup>-1</sup> )	Ca / (dag kg <sup>-1</sup> )	Mg / (dag kg <sup>-1</sup> )	S / (mg kg <sup>-1</sup> )	Zn / (mg kg <sup>-1</sup> )	Mn / (mg kg <sup>-1</sup> )	Cu / (mg kg <sup>-1</sup> )	B / (mg kg <sup>-1</sup> )
Flor Encantadora	2.35 ± 0.07	0.15 ± 0.05	1.72 ± 0.13	2.49 ± 0.03	0.38 ± 0.01	0.14 ± 0.01	22.0 ± 0.01	32.5 ± 6.36	13.5 ± 0.71	96.00 ± 16.69
Flor de Mariri	2.00 ± 0.01	0.35 ± 0.01	1.66 ± 0.18	1.69 ± 0.05	0.36 ± 0.02	0.16 ± 0.02	53.5 ± 0.71	28.5 ± 3.54	15.0 ± 0.01	43.85 ± 0.64
Rainha das Águas	2.50 ± 0.14	0.22 ± 0.01	1.89 ± 0.14	2.65 ± 0.29	0.38 ± 0.02	0.20 ± 0.02	28.5 ± 0.71	33.0 ± 2.83	11.0 ± 0.01	78.70 ± 4.67
Lagoa da Prata	2.10 ± 0.01	0.19 ± 0.01	1.74 ± 0.24	2.47 ± 0.44	0.42 ± 0.01	0.16 ± 0.01	25.0 ± 1.41	34.0 ± 2.83	12.0 ± 1.41	78.95 ± 2.47
Recanto das Flores	2.25 ± 0.07	0.31 ± 0.01	1.93 ± 0.29	1.18 ± 0.12	0.38 ± 0.04	0.14 ± 0.02	33.0 ± 0.01	21.0 ± 2.83	13.5 ± 0.71	42.35 ± 2.19
Divino Manto	2.30 ± 0.01	0.24 ± 0.01	1.78 ± 0.04	1.79 ± 0.40	0.31 ± 0.01	0.14 ± 0.01	22.0 ± 1.41	25.5 ± 2.12	8.5 ± 0.71	54.60 ± 3.96
Lupunamanta	2.15 ± 0.07	0.18 ± 0.01	1.71 ± 0.13	1.42 ± 0.08	0.41 ± 0.03	0.15 ± 0.01	25.5 ± 0.71	20.5 ± 2.12	7.0 ± 0.01	74.75 ± 0.35
Samaúna	2.55 ± 0.07	0.26 ± 0.02	1.58 ± 0.08	2.29 ± 0.42	0.37 ± 0.01	0.18 ± 0.01	30.0 ± 1.41	32.0 ± 2.83	11.5 ± 0.71	75.85 ± 2.47
Rei Divino	2.50 ± 0.01	0.18 ± 0.01	1.51 ± 0.07	2.41 ± 0.13	0.44 ± 0.03	0.20 ± 0.01	47.0 ± 0.01	51.0 ± 4.24	10.5 ± 0.71	131.90 ± 3.11
Arvoredo	2.25 ± 0.07	0.21 ± 0.01	1.52 ± 0.07	2.40 ± 0.23	0.42 ± 0.04	0.14 ± 0.01	26.5 ± 0.71	53.5 ± 4.95	5.5 ± 0.71	63.15 ± 3.75
Florestal	2.40 ± 0.01	0.09 ± 0.01	1.88 ± 0.09	1.22 ± 0.11	0.39 ± 0.04	0.17 ± 0.02	25.0 ± 1.41	31.0 ± 2.83	11.5 ± 0.71	73.45 ± 4.60
Luz de Maria	2.45 ± 0.07	0.14 ± 0.01	1.87 ± 0.01	2.13 ± 0.62	0.37 ± 0.04	0.16 ± 0.01	19.5 ± 0.71	32.5 ± 3.54	9.0 ± 0.01	88.75 ± 4.60
Rei Inca	2.50 ± 0.14	0.15 ± 0.01	1.72 ± 0.07	2.57 ± 0.19	0.34 ± 0.04	0.18 ± 0.01	32.5 ± 0.71	28.0 ± 2.83	14.0 ± 0.01	73.65 ± 1.20
Canário Verde	1.90 ± 0.01	0.32 ± 0.01	1.74 ± 0.15	1.57 ± 0.24	0.48 ± 0.08	0.14 ± 0.01	33.0 ± 0.01	28.0 ± 16.94	15.0 ± 0.01	108.70 ± 1.27
Mestre Adamir I	1.95 ± 0.07	0.20 ± 0.01	1.52 ± 0.10	1.76 ± 0.01	0.34 ± 0.02	0.12 ± 0.01	23.0 ± 2.83	23.0 ± 1.41	10.0 ± 0.01	151.40 ± 7.78
Mestre Adamir II	2.10 ± 0.01	0.22 ± 0.01	2.05 ± 0.16	1.38 ± 0.06	0.39 ± 0.03	0.14 ± 0.01	18.5 ± 2.12	21.5 ± 2.12	7.0 ± 0.01	192.35 ± 3.04
Flor Divina	2.20 ± 0.01	0.18 ± 0.01	2.01 ± 0.05	1.31 ± 0.02	0.40 ± 0.01	0.14 ± 0.01	33.5 ± 2.12	26.5 ± 2.12	11.0 ± 1.41	148.10 ± 11.17
Santa Fé do Cariri	2.35 ± 0.07	0.18 ± 0.01	1.94 ± 0.08	2.28 ± 0.11	0.38 ± 0.03	0.16 ± 0.02	47.5 ± 0.71	46.5 ± 2.12	7.0 ± 1.41	99.70 ± 2.12
Cajueiro	2.50 ± 0.01	0.20 ± 0.01	1.78 ± 0.22	1.79 ± 0.07	0.39 ± 0.01	0.17 ± 0.01	39.0 ± 0.01	23.0 ± 8.49	6.5 ± 0.71	109.35 ± 5.30
Jardim das Flores	2.50 ± 0.01	0.22 ± 0.01	1.59 ± 0.08	2.56 ± 0.20	0.33 ± 0.01	0.16 ± 0.01	29.0 ± 1.41	27.0 ± 1.41	13.5 ± 0.71	90.95 ± 3.46
Arco-íris	2.40 ± 0.01	0.19 ± 0.01	1.97 ± 0.04	2.20 ± 0.44	0.35 ± 0.03	0.14 ± 0.01	23.0 ± 1.41	39.0 ± 2.83	14.0 ± 0.01	111.30 ± 4.95
Mestre Rubens	2.10 ± 0.07	0.13 ± 0.01	1.82 ± 0.08	1.63 ± 0.06	0.39 ± 0.01	0.16 ± 0.01	24.5 ± 0.71	53.0 ± 2.83	11.5 ± 0.71	81.95 ± 3.76
Rei Canaã	2.20 ± 0.01	0.20 ± 0.01	1.19 ± 0.06	1.72 ± 0.20	0.40 ± 0.01	0.11 ± 0.01	36.5 ± 0.71	38.0 ± 2.83	9.5 ± 0.71	113.10 ± 1.84
Águas Claras	2.30 ± 0.14	0.17 ± 0.01	0.85 ± 0.05	0.86 ± 0.17	0.40 ± 0.01	0.14 ± 0.01	33.0 ± 1.41	31.5 ± 2.12	8.0 ± 0.01	39.00 ± 0.01

<sup>a</sup>There is no data available for the nuclei São Joaquim and Estrela da Manhã.

**Table S3.** Nutrient contents in leaf samples of *P. viridis* (cont.)

Nucleus	Collection 4 (January 2014)									
	N/ (dag kg <sup>-1</sup> )	P/ (dag kg <sup>-1</sup> )	K/ (dag kg <sup>-1</sup> )	Ca/ (dag kg <sup>-1</sup> )	Mg/ (dag kg <sup>-1</sup> )	S/ (mg kg <sup>-1</sup> )	Zn/ (mg kg <sup>-1</sup> )	Mn/ (mg kg <sup>-1</sup> )	Cu/ (mg kg <sup>-1</sup> )	B/ (mg kg <sup>-1</sup> )
Flor Encantadora	2.30 ± 0.01	0.16 ± 0.05	1.74 ± 0.09	1.99 ± 0.42	0.34 ± 0.04	0.18 ± 0.06	40.0 ± 11.31	25.5 ± 10.61	10.5 ± 4.95	108.95 ± 13.36
Flor de Mariri	1.90 ± 0.01	0.35 ± 0.01	2.20 ± 0.01	1.99 ± 0.47	0.36 ± 0.01	0.12 ± 0.01	46.0 ± 1.41	29.5 ± 3.54	17.5 ± 0.71	56.45 ± 7.99
Rainha das Águas	2.40 ± 0.01	0.23 ± 0.01	2.18 ± 0.01	2.31 ± 0.23	0.35 ± 0.04	0.17 ± 0.01	44.5 ± 2.12	39.0 ± 0.01	17.5 ± 3.54	105.5 ± 1.56
Lagoa da Prata	1.95 ± 0.07	0.19 ± 0.01	1.81 ± 0.01	2.00 ± 0.26	0.34 ± 0.02	0.13 ± 0.01	36.5 ± 2.12	44.0 ± 0.01	19.0 ± 1.41	109.45 ± 10.39
Recanto das Flores	2.15 ± 0.07	0.33 ± 0.01	1.81 ± 0.04	1.73 ± 0.06	0.35 ± 0.03	0.20 ± 0.03	43.5 ± 2.12	23.5 ± 0.71	14.0 ± 7.07	60.15 ± 2.76
Divino Manto	2.40 ± 0.01	0.23 ± 0.01	2.48 ± 0.06	2.47 ± 0.14	0.36 ± 0.02	0.18 ± 0.01	33.0 ± 1.41	24.0 ± 0.01	13.0 ± 4.24	49.15 ± 5.59
Lupunamanta	2.25 ± 0.07	0.15 ± 0.01	1.81 ± 0.01	2.33 ± 0.44	0.35 ± 0.01	0.18 ± 0.01	33.5 ± 2.12	31.0 ± 1.41	15.0 ± 1.41	108.05 ± 5.16
Samaúna	2.60 ± 0.01	0.23 ± 0.01	1.38 ± 0.01	2.04 ± 0.01	0.35 ± 0.01	0.27 ± 0.01	62.0 ± 0.01	32.0 ± 0.01	13.0 ± 0.01	79.00 ± 0.01
Rei Divino	2.35 ± 0.07	0.16 ± 0.01	1.76 ± 0.05	3.21 ± 0.01	0.30 ± 0.02	0.20 ± 0.01	68.0 ± 1.41	62.5 ± 0.71	11.0 ± 2.83	151.15 ± 0.78
Arvoredo	2.35 ± 0.07	0.23 ± 0.01	1.78 ± 0.30	2.56 ± 0.09	0.29 ± 0.05	0.16 ± 0.01	60.0 ± 2.83	46.5 ± 0.71	12.0 ± 0.83	64.90 ± 6.36
Florestal	2.20 ± 0.01	0.10 ± 0.01	2.04 ± 0.09	1.40 ± 0.11	0.36 ± 0.02	0.19 ± 0.01	38.0 ± 1.41	34.0 ± 0.01	13.5 ± 0.71	69.70 ± 3.54
Luz de Maria	2.10 ± 0.01	0.24 ± 0.01	1.54 ± 0.02	2.29 ± 0.53	0.32 ± 0.01	0.12 ± 0.01	41.0 ± 1.41	41.5 ± 0.71	12.0 ± 2.83	112.55 ± 11.53
São Joaquim	2.70 ± 0.01	0.16 ± 0.01	2.39 ± 0.01	2.38 ± 0.66	0.35 ± 0.01	0.19 ± 0.04	54.5 ± 2.12	39.0 ± 0.01	13.0 ± 2.83	97.60 ± 4.81
Rei Inca	2.15 ± 0.07	0.13 ± 0.01	1.99 ± 0.06	2.33 ± 0.23	0.35 ± 0.02	0.16 ± 0.03	56.0 ± 2.83	27.0 ± 0.01	18.5 ± 0.71	75.60 ± 4.81
Canário Verde	1.90 ± 0.01	0.36 ± 0.01	1.87 ± 0.46	2.23 ± 0.45	0.30 ± 0.03	0.18 ± 0.01	35.0 ± 2.83	39.5 ± 0.71	12.0 ± 8.49	123.5 ± 2.40
Estrela da Manhã	1.85 ± 0.07	0.02 ± 0.01	1.75 ± 0.02	1.21 ± 0.10	0.32 ± 0.01	0.12 ± 0.01	38.5 ± 2.12	22.0 ± 0.01	10.0 ± 5.66	106.65 ± 1.63
Mestre Adamir I	1.90 ± 0.01	0.23 ± 0.01	1.39 ± 0.02	2.35 ± 0.37	0.37 ± 0.02	0.11 ± 0.01	43.5 ± 2.12	22.5 ± 0.71	10.5 ± 6.36	155.95 ± 1.20
Mestre Adamir II	2.10 ± 0.01	0.17 ± 0.01	1.84 ± 0.01	1.38 ± 0.21	0.42 ± 0.01	0.17 ± 0.01	37.5 ± 2.12	16.0 ± 0.01	9.0 ± 2.83	175.95 ± 7.99
Flor Divina	1.90 ± 0.01	0.16 ± 0.01	1.93 ± 0.01	1.42 ± 0.13	0.11 ± 0.02	0.12 ± 0.02	72.5 ± 2.12	26.0 ± 0.01	11.5 ± 0.71	115.35 ± 8.41
Santa Fé do Cariri	2.20 ± 0.01	0.16 ± 0.01	2.17 ± 0.13	2.85 ± 0.12	0.31 ± 0.01	0.15 ± 0.01	30.0 ± 2.83	55.5 ± 0.71	13.5 ± 2.12	142.95 ± 2.76
Cajueiro	2.30 ± 0.01	0.19 ± 0.01	1.68 ± 0.04	2.07 ± 0.30	0.32 ± 0.01	0.22 ± 0.01	49.5 ± 2.12	18.5 ± 0.71	6.0 ± 1.41	130.85 ± 5.59
Jardim das Flores	2.40 ± 0.14	0.22 ± 0.01	1.95 ± 0.04	2.46 ± 0.22	0.37 ± 0.01	0.18 ± 0.01	68.0 ± 2.83	35.5 ± 0.71	15.5 ± 0.71	81.55 ± 7.57
Arco-íris	2.50 ± 0.01	0.18 ± 0.01	2.17 ± 0.05	3.20 ± 0.07	0.37 ± 0.01	0.24 ± 0.01	53.0 ± 2.83	53.0 ± 0.01	11.5 ± 0.71	93.40 ± 0.42
Mestre Rubens	2.25 ± 0.07	0.13 ± 0.01	1.91 ± 0.02	1.58 ± 0.02	0.36 ± 0.01	0.21 ± 0.01	57.5 ± 2.12	46.0 ± 1.41	11.5 ± 0.71	69.70 ± 1.98
Rei Canaã	2.10 ± 0.01	0.23 ± 0.01	1.30 ± 0.06	1.42 ± 0.03	0.23 ± 0.09	0.14 ± 0.01	41.0 ± 4.24	32.5 ± 0.71	22.5 ± 0.71	87.45 ± 0.78
Águas Claras	2.20 ± 0.14	0.15 ± 0.01	0.89 ± 0.02	1.16 ± 0.24	0.20 ± 0.01	0.11 ± 0.01	43.0 ± 2.83	28.5 ± 0.71	8.0 ± 1.41	45.50 ± 9.19

