

**Table S2. Results of Shiraz bud fruitfulness in response to different canopy management treatments for two seasons**

Measurement	Season	Treatments <sup>a</sup>					Significance <sup>b</sup>
		C	BT	LR-B	LR	ST	
IP <sup>c</sup> Number node 1	2016/17	0.84	1.09	1.08	1.25	1.14	ns
	2017/18	1.57	1.64	1.35	1.32	1.43	ns
IP Number node 2	2016/17	1.50	1.12	1.23	1.39	1.25	ns
	2017/18	1.14 a	1.64 b	1.48 ab	1.53 ab	1.87 b	*
IP Number node 3	2016/17	1.16 a	1.17 a	1.64 b	1.31 ab	1.33 ab	*
	2017/18	1.75	1.67	1.81	1.68	1.77	ns
IP Number node 4	2016/17	1.31 abc	0.94 c	1.71 a	1.25 bc	1.63 ab	**
	2017/18	1.68 ab	1.79 ab	1.45 a	1.91 b	2.03 b	*
IP Area Node 1 (mm <sup>2</sup> )	2016/17	0.050	0.047	0.042	0.048	0.052	ns
	2017/18	0.054	0.055	0.056	0.053	0.057	ns
IP Area Node 2 (mm <sup>2</sup> )	2016/17	0.051 a	0.051 a	0.052 a	0.055 ab	0.062 b	*
	2017/18	0.068	0.063	0.066	0.065	0.074	ns
IP Area Node 3 (mm <sup>2</sup> )	2016/17	0.049 a	0.054 ab	0.052 ab	0.053 ab	0.059 b	*
	2017/18	0.067 a	0.066 a	0.062 a	0.066 a	0.077 b	*
IP Area Node 4 (mm <sup>2</sup> )	2016/17	0.047 a	0.057 ab	0.057 ab	0.057 ab	0.076 b	*
	2017/18	0.073	0.073	0.069	0.070	0.079	ns
PBN <sup>d</sup> (%) node 1	2016/17	71.88	54.29	69.44	61.11	61.11	-
	2017/18	46.70	58.80	69.70	73.50	67.70	-
PBN (%) node 2	2016/17	28.13	58.82	48.57	36.11	50.00	-
	2017/18	56.70	32.40	27.30	29.40	19.40	-
PBN (%) node 3	2016/17	59.38	48.57	38.89	57.14	52.78	-
	2017/18	23.30	23.50	27.30	26.50	22.60	-
PBN (%) node 4	2016/17	62.50	65.71	38.89	61.11	45.71	-
	2017/18	20.00	23.50	36.40	14.70	19.40	-

<sup>a</sup>Treatments: C, control; BT, bunch thinning; LR-B, leaf removal at bunch zone; LR, leaf removal; ST, shoot thinning. Means with different letters within rows are significantly different using the LSD test at 5 % level.

<sup>b</sup>\*, \*\*, and \*\*\* indicate significance at  $p \leq 0.05$ , 0.01, and 0.001, respectively; ns: not significant.

<sup>c</sup>IP, inflorescence primordia.

<sup>d</sup>PBN, primary bud necrosis.

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	2017/18	1.57	1.64	1.35	1.32	1.43	ns
IP Number node 2	2016/17	1.50	1.12	1.23	1.39	1.25	ns
	2017/18	1.14 a	1.64 b	1.48 ab	1.53 ab	1.87 b	*
IP Number node 3	2016/17	1.16 a	1.17 a	1.64 b	1.31 ab	1.33 ab	*
	2017/18	1.75	1.67	1.81	1.68	1.77	ns
IP Number node 4	2016/17	1.31 abc	0.94 c	1.71 a	1.25 bc	1.63 ab	**
	2017/18	1.68 ab	1.79 ab	1.45 a	1.91 b	2.03 b	*
IP Area Node 1 (mm <sup>2</sup> )	2016/17	0.050	0.047	0.042	0.048	0.052	ns
	2017/18	0.054	0.055	0.056	0.053	0.057	ns
IP Area Node 2 (mm <sup>2</sup> )	2016/17	0.051 a	0.051 a	0.052 a	0.055 ab	0.062 b	*
	2017/18	0.068	0.063	0.066	0.065	0.074	ns
IP Area Node 3 (mm <sup>2</sup> )	2016/17	0.049 a	0.054 ab	0.052 ab	0.053 ab	0.059 b	*
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IP Area Node 4 (mm <sup>2</sup> )	2016/17	0.047 a	0.057 ab	0.057 ab	0.057 ab	0.076 b	*
	2017/18	0.073	0.073	0.069	0.070	0.079	ns
PBN <sup>d</sup> (%) node 1	2016/17	71.88	54.29	69.44	61.11	61.11	-
	2017/18	46.70	58.80	69.70	73.50	67.70	-
PBN (%) node 2	2016/17	28.13	58.82	48.57	36.11	50.00	-
	2017/18	56.70	32.40	27.30	29.40	19.40	-
PBN (%) node 3	2016/17	59.38	48.57	38.89	57.14	52.78	-
	2017/18	23.30	23.50	27.30	26.50	22.60	-
PBN (%) node 4	2016/17	62.50	65.71	38.89	61.11	45.71	-
	2017/18	20.00	23.50	36.40	14.70	19.40	-

<sup>a</sup>Treatments: C, control; BT, bunch thinning; LR-B, leaf removal at bunch zone; LR, leaf removal; ST, shoot thinning. Means with different letters within rows are significantly different using the LSD test at 5 % level.

<sup>b</sup>\*, \*\*, and \*\*\* indicate significance at  $p \leq 0.05$ ,  $0.01$ , and  $0.001$ , respectively; ns: not significant.

<sup>c</sup>IP, inflorescence primordia.

<sup>d</sup>PBN, primary bud necrosis.

**Table S3. Correlation coefficients between Semillon bud fruitfulness parameters and carbohydrate content in season 2017/18**

Measurements	IP <sup>a</sup> Number average (first 2 nodes)	IP Number average (first 4 nodes)	IP area average (first 2 nodes) (mm <sup>2</sup> )	IP area average (first 4 nodes) (mm <sup>2</sup> )
Bud starch content (% DW <sup>b</sup> )	0.321	0.775	0.968 **	1.974
Bud soluble sugar content (% DW)	-0.404	0.147	0.542	0.616
Bud TNC <sup>c</sup> content (% DW)	0.037	0.583	0.886 *	0.923 *
Cane starch content (% DW)	-0.393	-0.131	0.282	0.339
Cane soluble sugar content (% DW)	-0.385	-0.168	0.102	0.163
Cane TNC content (% DW)	-0.396	-0.137	0.264	0.322

<sup>a</sup>IP, inflorescence primordia.

<sup>b</sup>DW, dry weight.

<sup>c</sup>TNC, total non-structural carbohydrate.

\* and \*\* indicate significance at  $p \leq 0.05$  and  $0.01$ , respectively.