

SUPPLEMENTARY DATA

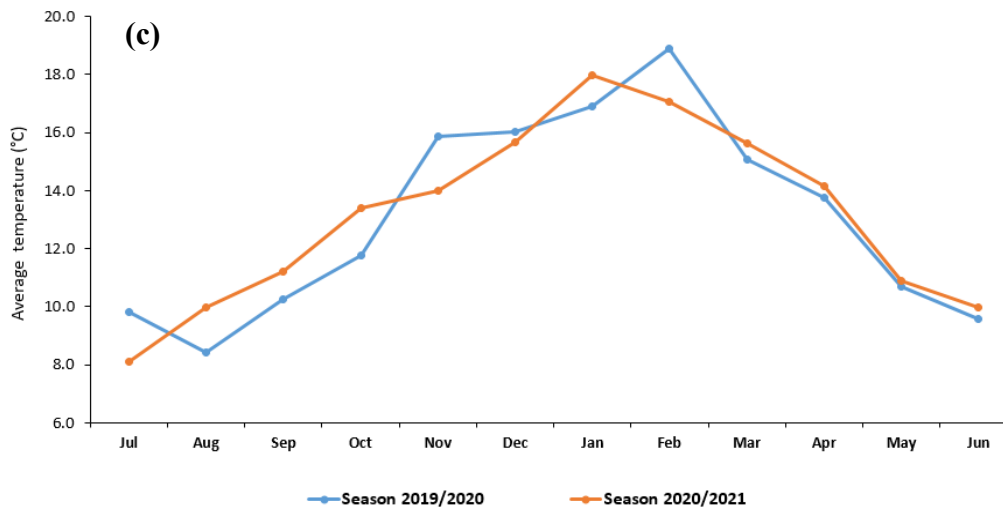
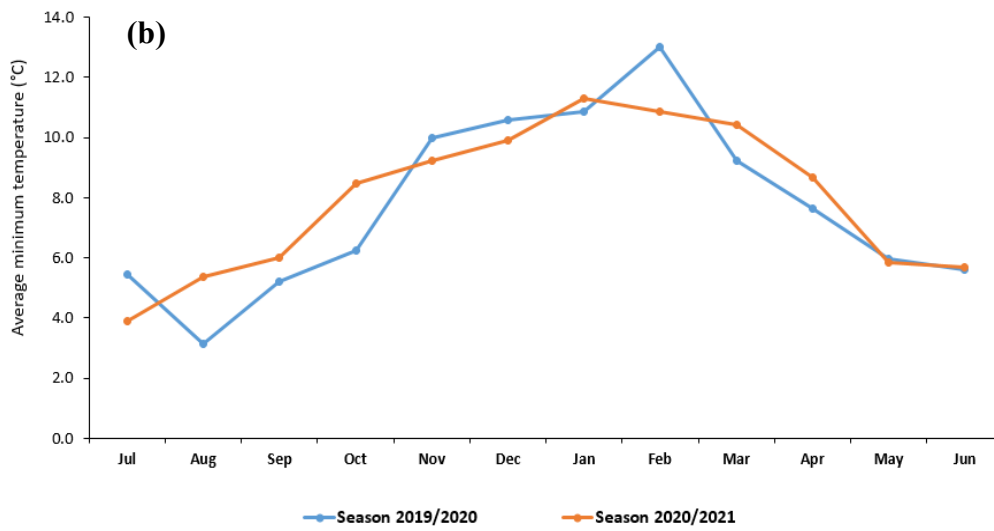
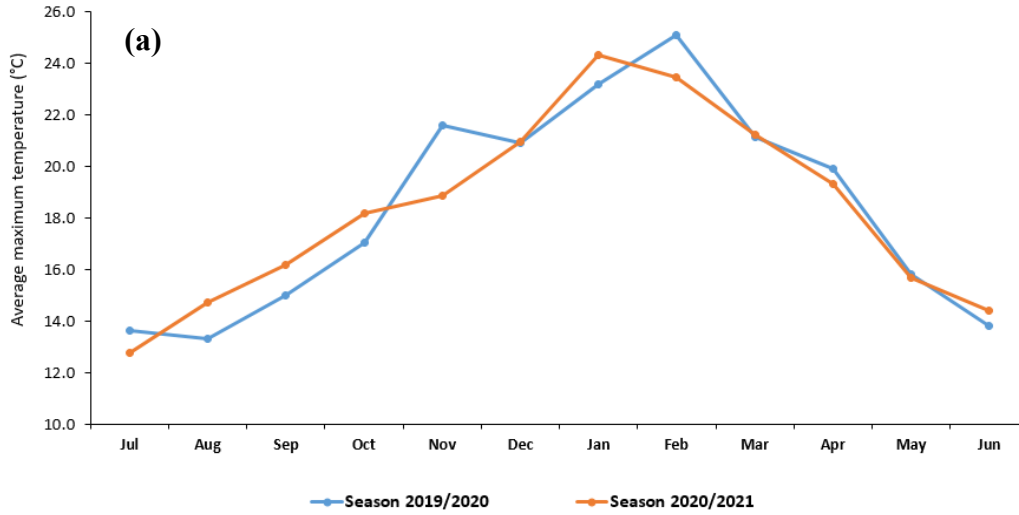
Supp. Table 1. Total vine node load resulting from the factorial design.

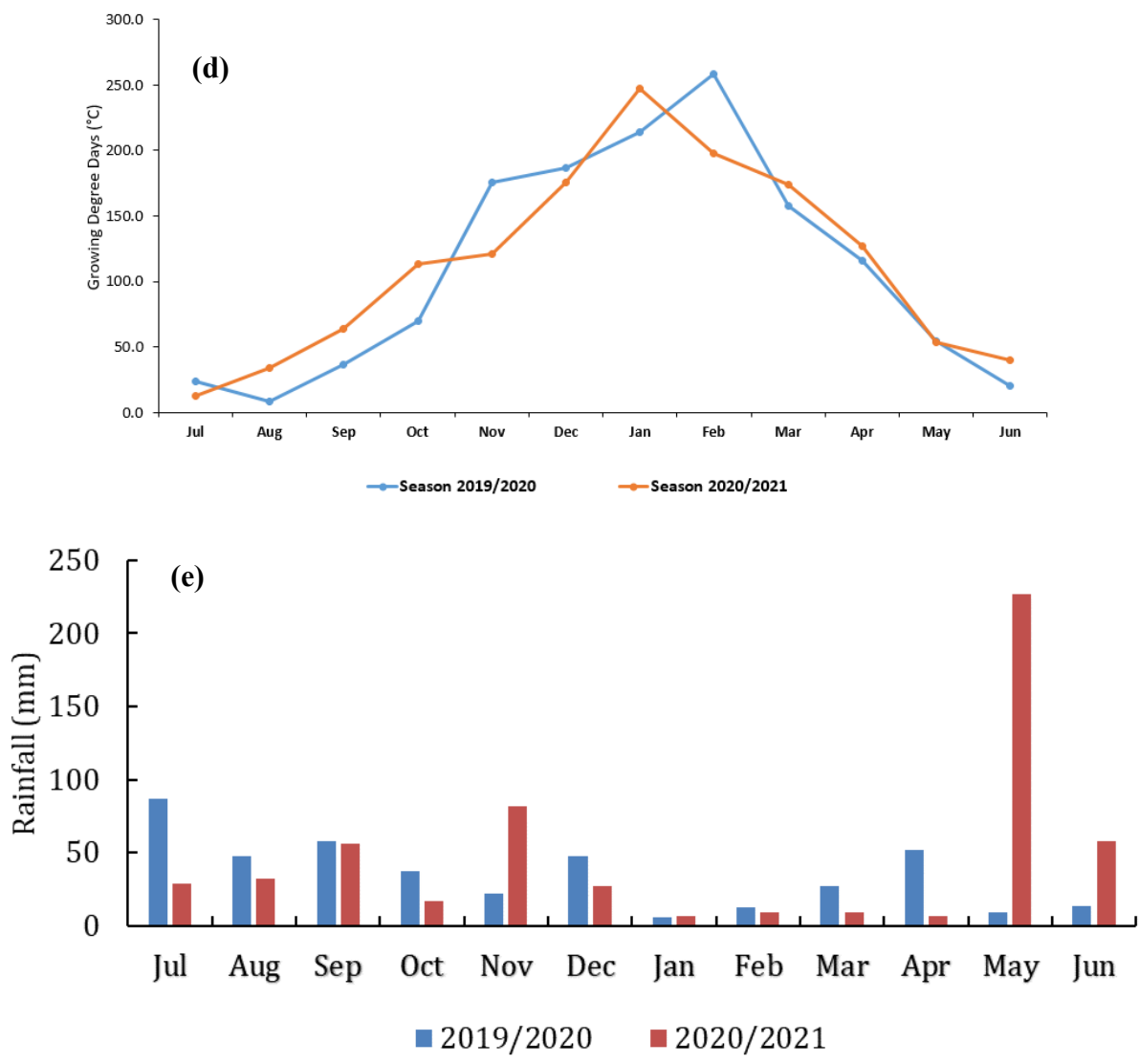
Treatments code	Cane nodes (N)	Spur nodes (S)	Vine nodes (V)
Site 1—Awatere Valley			
N10S1 (V12)	10	1 x 2	12
N10S2 (V14)	10	2 x 2	14
N10S3 (V16)	10	3 x 2	16
N20S1 (V22)	20	1 x 2	22
N20S2 (V24)	20	2 x 2	24
N20S3 (V26)	20	3 x 2	26
N30S1 (V32)	30	1 x 2	32
N30S2 (V34)	30	2 x 2	34
N30S3 (V36)	30	3 x 2	36
N40S1 (V42)	40	1 x 2	42
N40S2 (V44)	40	2 x 2	44
N40S3 (V46)	40	3 x 2	46
N50S1 (V52)	50	1 x 2	52
N50S2 (V54)	50	2 x 2	54
N50S3 (V56)	50	3 x 2	56
Site 2—Awatere Valley and Site 3—Waipara			
N10S2 (V14)	10	2 x 2	14
N10S3 (V16)	10	3 x 2	16
N20S2 (V24)	20	2 x 2	24
N20S3 (V26)	20	3 x 2	26
N30S2 (V34)	30	2 x 2	34
N30S3 (V36)	30	3 x 2	36
N40S2 (V44)	40	2 x 2	44
N40S3 (V46)	40	3 x 2	46
N50S2 (V54)	50	2 x 2	54
N50S3 (V56)	50	3 x 2	56

Supp. Table 2. Temperature and number of cool days around flowering and fruitset at Site 1, 2 and 3 over three years.

	November 2018	November 2019	November 2020	<i>p</i>-value
	Average monthly minimum temperature (°C)			
Site 1 and 2	9.1 a	10.0 a	9.2 a	ns
Site 3	6.6	9.4	7.9	
	Average monthly average temperature (°C)			
Site 1 and 2	14.2 b	15.9 a	14.0 b	<0.05
Site 3	13.1 b	16.6 a	13.7 b	<0.001
	Average monthly maximum temperature (°C)			
Site 1 and 2	19.2 b	21.6 a	18.9 b	<0.05
Site 3	6.6	9.4	7.9	
	Total number of cool days (Temperature < 18 °C)			
Site 1 and 2	27 ab	22 b	29 a	<0.05
Site 3	28	20	26	
	Total number of frosty days (Temperature < 2 °C)			
Site 1 and 2	1	0	0	-
Site 3	4	0	0	-

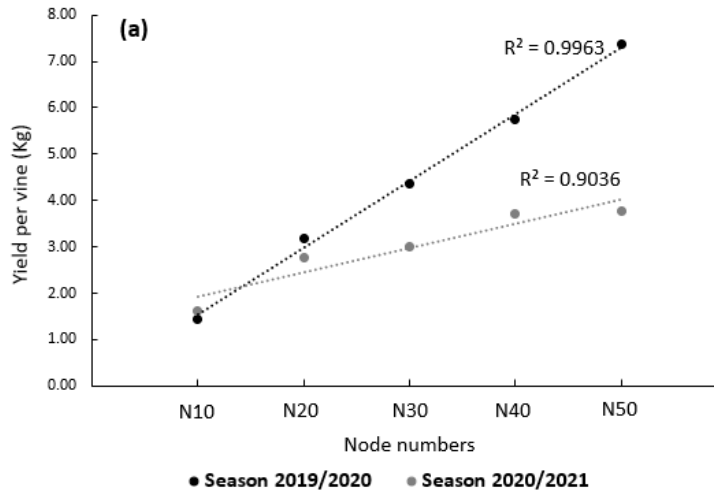
Values are means of 30 days, and values sharing the same letter in a row are not significantly different (Fisher's protected LSD test, $p \leq 0.05$).



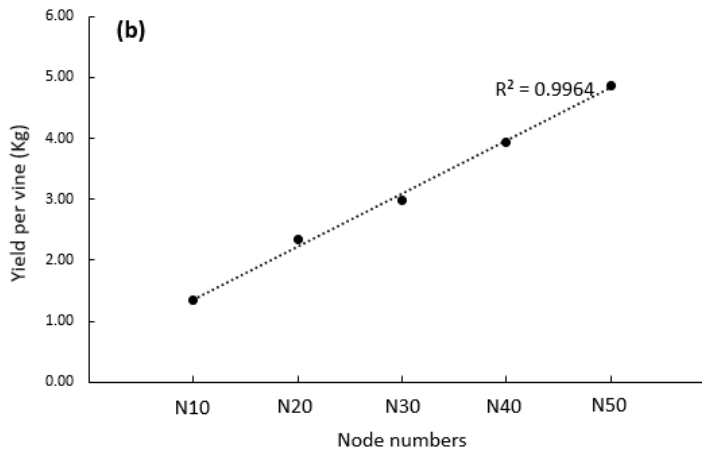


Supp. Fig. 1. Monthly average minimum temperature (a), maximum temperature (b), average monthly temperature (c) and Growing degree days (GDD) (d) in the 2019/2020 and 2020/2021 seasons at Site 1 and Site 2 Awatere Valley. GDD were calculated from a base of 10 °C from July to June.

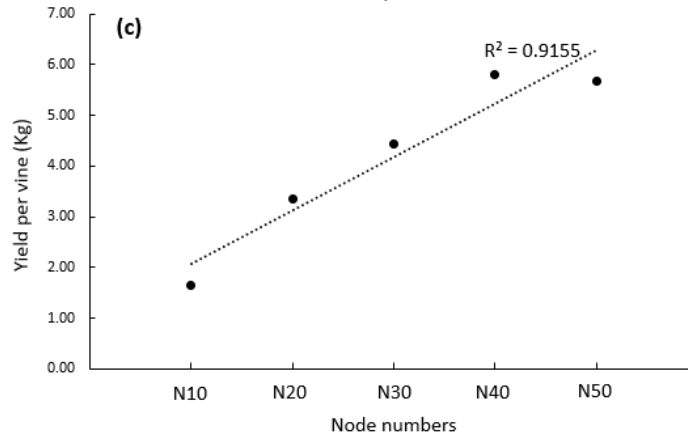
Site 1. Awatere Valley season 2019/2020 and 2020/2021



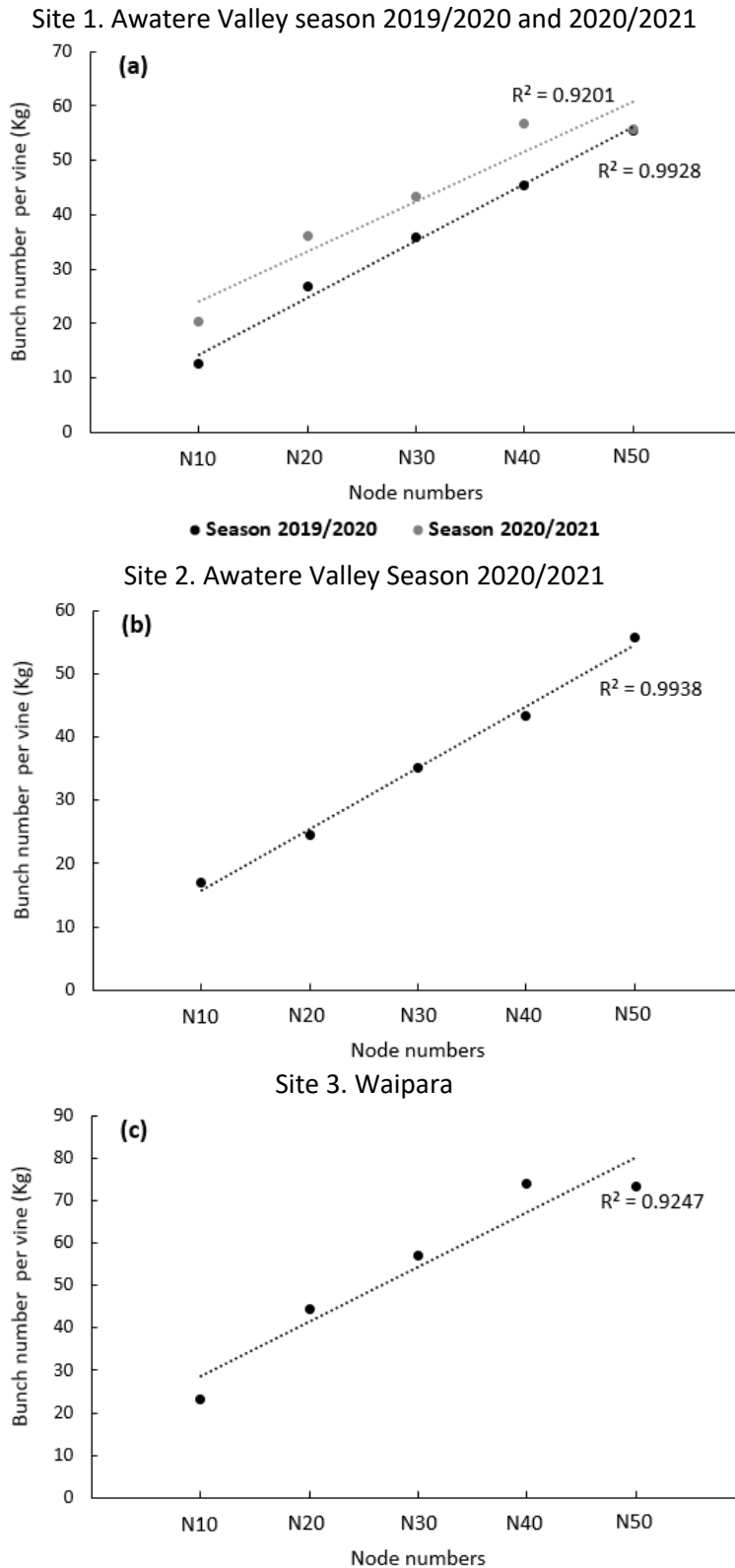
Site 2. Awatere Valley Season 2020/2021



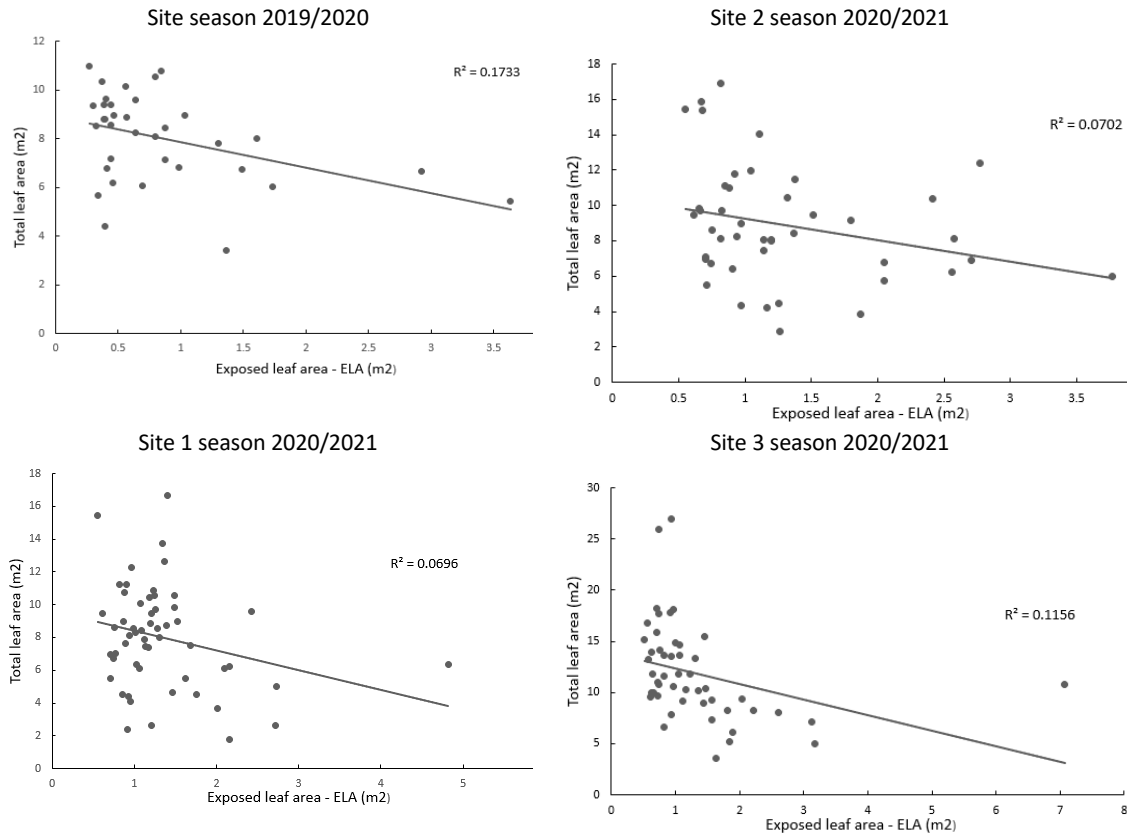
Site 3. Waipara



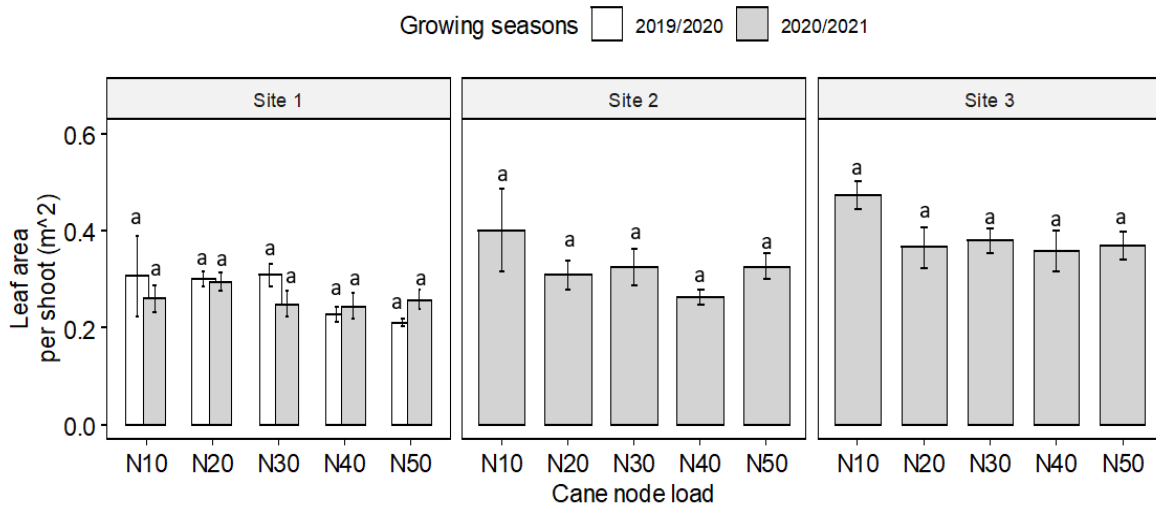
Supp. Fig. 2. Effect of retained node numbers on grape bunch yield per vine at Site 1 in the 2019/2020 and 2020/2021 seasons (a), at Site 2 in the 2020/2021 season (b) and Site 3 in the 2020/2021 season (c).



Supp. Fig. 3. Effect of retained node numbers on grape bunch number per vine at Site 1 in the 2019/2020 and 2020/2021 seasons (a), at Site 2 in the 2020/2021 season (b) and Site 3 in the 2020/2021 season (c).



Supp. Fig. 4. Relationship between vine total leaf area and exposed leaf area at Site 1 in the 2019/2020 and 2020/2021 seasons, Site 2 and Site 3 in the 2020/2021 growing season.



Supp. Fig. 5. Leaf area per shoot (m²) at Site 1 in the 2019/2020 and 2020/2021 seasons, Site 2 and Site 3 in the 2020/2021 growing season.