

Accessory publication

Table 1. The effect of female parentage on second year winter yield, spring plant height, erectness and foliage cover of single crosses of elite lucerne clones grown in rows at Gatton over a 15-month period

Female parent	Origin of clone	Dormancy of parent cultivar	Dormancy of crosses	No. of crosses	Second winter yields (g/plant)		Spring height (cm)		Plant erectness		Foliage cover (m ²)	
					Mean	SE	Mean	SE	Mean	SE	Mean	SE
WA1131	WI643 ^a	4	7.9	5	152.6	20.5	38.2	1.5	1.22	0.04	0.35	0.03
WA1133	WI643	4	7.9	4	127.7	24.4	35.2	1.7	1.12	0.04	0.37	0.03
WA1121	6-4ms ^b x B ₂ ^c	4	7.9	2	149.5	27.9	38.4	2.0	1.24	0.05	0.41	0.04
WA1136	WI643	4	9	2	157.1	31.9	40.9	2.2	1.21	0.05	0.46	0.04
WA1132	WI643	4	9	1	135.0	40.9	39.3	2.7	1.20	0.06	0.41	0.05
WA1107	6-4ms x OP ^d	4	7.9	8	164.5	16.9	35.8	1.2	1.24	0.03	0.37	0.02
WA1134	WI643	4	9	1	214.8	40.1	37.2	2.7	1.19	0.06	0.51	0.05
WA1135	WI643	4	7.9	5	208.7	20.6	40.9	1.5	1.08	0.04	0.37	0.03
WA1124	6-4ms x B ₂	4	7.9	7	138.3	17.0	37.4	1.2	1.14	0.03	0.38	0.03
WA1130	6-4ms x WI6040 ^e	4	7.9	2	134.8	31.3	36.9	2.1	1.11	0.05	0.38	0.04
WA1125	6-4ms x WI6040	4	9	1	200.5	40.7	41.2	2.7	1.11	0.06	0.43	0.05
WA1120	6-4ms x WI6040	4	7.9	3	171.6	27.1	36.1	1.9	1.09	0.05	0.42	0.04
WA1123	6-4ms x OP	4	9	2	158.8	31.9	37.8	2.2	1.25	0.05	0.42	0.04
WA1127	6-4ms x B ₂	4	7.9	4	204.6	22.7	37.4	1.6	1.11	0.04	0.38	0.03
W126	Trifecta	7	7.9	17	245.5	13.1	41.1	0.9	1.10	0.02	0.44	0.02
WA1104	6-4ms x OP	4	7.9	4	173.3	23.0	40.8	1.6	1.08	0.04	0.39	0.03
WA1103	6-4ms x OP	4	7.9	15	232.9	12.9	44.5	0.9	1.11	0.02	0.43	0.02
WA1122	6-4ms x B ₂	4	7	1	169.7	39.6	39.2	2.6	1.13	0.06	0.43	0.05
WA280	UQL-1	7	7.9	5	206.2	17.5	40.1	1.3	1.15	0.03	0.41	0.03
WA1128	6-4ms x B ₂	4	7.9	8	193.0	14.8	34.8	1.1	1.16	0.03	0.42	0.02
WA1119	6-4ms x B ₂	4	7.9	11	172.8	13.9	38.9	1.0	1.14	0.02	0.41	0.02
WA281	UQL-1	7	9	1	195.2	27.4	41.1	2.1	1.08	0.05	0.41	0.04
WA327	Rippa	9	7	1	280.1	31.9	43.0	2.3	1.12	0.05	0.41	0.04
WA268	UQL-1	7	7.9	3	206.3	22.4	39.4	1.6	1.14	0.04	0.39	0.03
WA324	Rippa	9	7.9	5	231.6	19.9	41.3	1.4	1.10	0.04	0.46	0.03
WA322	Rippa	9	9	1	251.6	27.4	42.5	2.1	1.10	0.05	0.42	0.04
WA382	Rippa	9	7.9	15	289.9	13.1	44.1	0.9	1.06	0.02	0.43	0.02
WA272	Aquarius	9	7.9	3	263.0	22.7	41.4	1.6	1.12	0.04	0.45	0.03
WA326	Rippa	9	7.9	9	290.9	16.8	47.6	1.2	1.07	0.03	0.46	0.02
WA329	Rippa	9	7.9	3	307.2	24.8	45.8	1.7	1.07	0.05	0.46	0.03
WA265	Sequel HR	9	7	1	275.7	39.7	45.0	2.6	1.11	0.06	0.48	0.05
WA325	Rippa	9	7.9	8	282.5	15.7	43.1	1.1	1.06	0.03	0.43	0.02
WA321	Rippa	9	7.9	4	265.4	19.2	44.3	1.4	1.04	0.04	0.43	0.03
WA383	Rippa	9	7.9	5	306.0	20.9	46.2	1.5	1.05	0.04	0.44	0.03
WA333	Rippa	9	7.9	3	256.3	22.8	45.0	1.7	1.11	0.04	0.47	0.03
WA335	Rippa	9	7.9	6	306.9	16.4	45.9	1.2	1.08	0.03	0.46	0.02
WA332	Rippa	9	7.9	7	287.5	17.8	45.8	1.3	1.06	0.03	0.43	0.03
W116	Sequel	9	7.9	19	312.8	11.7	43.7	0.8	1.06	0.02	0.51	0.01
WA323	Rippa	9	7	1	275.4	39.7	45.1	2.6	1.08	0.06	0.46	0.05
WA334	Rippa	9	7.9	7	315.0	16.0	44.5	1.2	1.04	0.03	0.49	0.02
D	Demnat	9	7.9	19	292.6	11.7	43.7	0.8	1.08	0.02	0.50	0.01
WA381	Rippa	9	7.9	7	341.8	16.2	47.0	1.2	1.06	0.03	0.51	0.02

^a WI643 is a large seeded line derived from 6 – 4ms, ^b 6 – 4 ms is a male sterile clone from Saranac, ^c B₂ is a male sterility maintainer clone from Blazer, ^d OP is open pollination with North American adapted material, mainly Vernal, ^e WI6040 traces to a polycross of clones from Saranac and Vernal and other north American adapted material

Table 2. The effect of male parentage on second year winter yield, spring plant height, erectness and foliage cover of single crosses of elite lucerne clones grown in rows at Gatton over a 15-month period.

Male parent	Origin of clone	Dormancy of parent cultivar	Dormancy of crosses	No. of crosses	Second winter yield (g/plant)		Spring height (cm)		Plant erectness		Foliage cover (m ²)	
					Mean	SE	Mean	SE	Mean	SE	Mean	SE
W1 ^a	WISFAL	4	4	1	169.3	33.7	34.1	2.5	1.11	0.03	0.40	0.04
WA267	UQL-1	7	4,7,9	14	136.0	13.0	37.2	0.9	1.13	0.02	0.37	0.02
WA225	Wisfal	4	4	2	152.8	33.9	34.3	2.5	1.13	0.02	0.45	0.04
W126	Trifecta	7	4	7	198.9	16.3	38.5	1.2	1.13	0.02	0.44	0.03
WA327	Rippa	9	4,9	5	217.0	19.9	42.8	1.5	1.14	0.02	0.35	0.03
WA263	Sequel HR	9	9	1	196.2	34.0	38.4	2.5	1.11	0.02	0.42	0.04
W1643	6-4ms	4	4	1	196.0	34.0	39.9	2.5	1.12	0.02	0.42	0.04
WA280	UQL-1	7	4,7,9	12	180.7	14.8	36.9	1.0	1.14	0.02	0.43	0.02
WA281	UQL-1	7	4,9	7	202.1	15.9	41.8	1.2	1.12	0.02	0.39	0.02
WA258	UQL-1	7	4,7,9	16	229.7	12.3	39.4	0.9	1.13	0.02	0.43	0.02
WA268	UQL-1	7	4,7,9	16	176.7	13.4	37.1	0.9	1.13	0.02	0.40	0.02
WA324	Rippa	9	4,7,9	11	191.7	14.9	41.7	1.1	1.13	0.02	0.41	0.02
WA262	UQL-1	7	7,9	4	221.8	23.6	40.7	1.7	1.12	0.02	0.46	0.03
WA265	Sequel HR	9	4,7,9	19	246.0	12.2	45.5	0.8	1.10	0.02	0.46	0.02
WA326	Rippa	9	4,7,9	9	252.0	16.9	47.1	1.2	1.10	0.02	0.41	0.02
WA335	Rippa	9	4,7,9	6	247.3	18.6	43.4	1.4	1.10	0.02	0.46	0.03
D	Demnat	9	4	3	235.8	24.1	44.3	1.8	1.10	0.02	0.35	0.03
WA383	Rippa	9	4,7,9	5	257.8	20.1	43.5	1.5	1.12	0.02	0.45	0.03
WA272	Aquarius	9	4,7,9	13	221.1	12.7	41.3	0.9	1.12	0.02	0.42	0.02
WA382	Rippa	9	4,7,9	6	253.2	16.1	41.7	1.2	1.12	0.02	0.41	0.02
W116	Sequel	9	4,9	10	265.8	14.8	42.1	1.1	1.11	0.02	0.47	0.02
WA325	Rippa	9	4,9	12	266.9	15.0	39.5	1.0	1.10	0.02	0.41	0.02
WA321	Rippa	9	4,7,9	11	241.4	14.0	42.6	1.0	1.11	0.02	0.42	0.02
WA333	Rippa	9	4,7,9	6	228.2	16.6	41.4	1.2	1.11	0.02	0.42	0.03
WA322	Rippa	9	4,9	6	237.6	17.5	43.8	1.3	1.12	0.02	0.46	0.03
WA332	Rippa	9	4,7,9	8	268.4	15.4	44.2	1.1	1.10	0.02	0.48	0.02
WA323	Rippa	9	9	1	234.9	25.4	43.6	2.0	1.12	0.02	0.51	0.04
WA1101	Rippa	9	4	1	253.0	34.5	44.5	2.6	1.12	0.02	0.44	0.04
WA334	Rippa	9	4,9	7	286.9	16.2	41.5	1.2	1.11	0.02	0.46	0.02
WA329	Rippa	9	4,7,9	8	293.9	18.0	43.8	1.3	1.11	0.02	0.51	0.03
WA381	Rippa	9	4,7,9	8	286.4	15.2	45.4	1.1	1.10	0.02	0.47	0.02

^a W1 is a clone from *M. sativa* subsp. *falcata* cv. WISFAL (Bingham 1993)

Table 3. Second year winter yield, spring plant height, erectness and foliage cover of elite lucerne synthetic lines or standard cultivars grown in rows at Gatton over a 15 month period

Synthetic ^a	Winter dormancy rating	Second winter yield (g/plant)		Spring height (cm)		Plant erectness		Foliage cover (cm ²)	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hunter River	5	177.7	27.3	35.0	1.73	1.15	0.05	0.41	0.04
UQL-6	5	215.8	27.3	35.9	1.73	1.07	0.05	0.40	0.04
UQL-1	7	265.2	12.5	40.6	0.77	1.08	0.02	0.45	0.02
Sequel	9	344.1	12.3	43.7	0.76	1.06	0.02	0.50	0.02
B	10	302.6	27.3	43.2	1.73	1.09	0.05	0.50	0.04

^a UQL-6 and B are experimental synthetics described in the Materials and Methods. The remaining cultivars are described in Oram (1990) and Irwin et al. (2001).