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## Pasture species investigations

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**Trial:** 87MO48/4534EX

**Title:** Selection of sub. clover cultivars - early mid.

**Aim:** To select in the field subterranean clover cultivars of early to midseason maturity having superior persistence and productivity.

**Location:** I.N. & G.W. Kopke, Koojan

**Details:** 22 lines selected from the NSCIP, 5 clover cultivars, 2 medic cultivars, 1 nil, 4 replicates. Plots 5 m x 2.5 m. Old land, sandy loam, cropped 1985. Sown 6/5/87 (Trikkala 12/5) by hand broadcasting clover 15 kg/ha, medic 12 kg/ha and harrowing. Grazed in common with paddock in 1987/88. Cultivated in 1989.

**Results:** Clover seed reserves, kg/ha, 27/11/89.

**Comment:**

1. Growth has been poor due to seasonal conditions and some overgrazing in establishment year.
2. Dalkeith has good seed reserves, most lines less than 100 kg/ha.

Table 4. 87M048 seed yield, kg/ha, 27-11-89

Line	Clover seed 11/89	Medic seed 11-89
Daliak	140	1
Dalkeith	336	0
Seaton-Park	100	3
Junee	54	1
Trikkala	78	2
65322B	62	0
65328A	62	0
65328F	44	1
65328G	59	1
89838G	89	0
89840A	45	0
89846B	136	1
89848D	82	1
89881E	58	0
69S37-1	130	2
69S37-3	82	1
69S49-1	57	0
74S21-2	105	1
74S21-6	153	0
74S21-8	188	0
75S11-7	92	0
75S13-12	78	0
76S40-6	42	1
76S40-7	70	0
76S41-1	77	0
76S41-2	41	0
89841E	53	0
Santiago	30	26
Zodiac	86	2
Nil	32	0
	89	2

Trial: 87A25/4534EX

Title: Selection of sub. clover cultivars - early mid.

Aim: To select in the field subterranean clover cultivars of, early to mid-season maturity having superior persistence and productivity.

Location: Avondale Research Station Paddock 9D

Details: 22 lines selected from the NSCIP, 5 clover cultivars, 2 medic cultivars, 1 nil, 4 replicates. Plots 5 m x 2.5 m. Old land, loamy sand, cropped 1985-86. Sown 6/5/87 (Trikkala 12/5) by hand broadcasting clover 15 kg/ha, medic 12 kg/ha and harrowing. Grazed in common with paddock 1987, 1988. Cropped in 1989.

Results: Legume regeneration, No./sqm, 14/6/89.  
Seed reserves (clover and medic) kg/ha, 5/12/89.

Comments:

1. Excellent regeneration in 1989 of 89840A, 65322B and 89848D. Trikkala poor following delayed sowing in year of sowing.
2. Three lines had seed reserves of more than 100 kg/ha after cropping - 74S21-8, Dalkeith and 89846B.

Table 5. 87A25 production measurements - 1989

Line	Clover density 6-89	Other density 6-89	Clover seed 12-89	Other seed 12-89
Daliak	2,387	37	25	1
Dalkeith	2,766	0	127	0
Seaton-Park	2,979	0	45	0
Junee	3,238	0	19	0
Trikkala	194	0	7	0
65322B	6,429	0	37	0
65328A	2,794	9	56	0
65328F	1,591	0	6	0
65328G	2,710	0	82	0
89838G	3,210	0	33	0
89840A	8,649	0	85	0
89846B	3,635	0	123	0
89848D	4,514	0	57	0
89881E	2,590	0	22	1
69S37-1	1,973	0	2	0
69S37-3	2,729	0	33	0
69S49-1	1,970	0	28	0
74S21-2	3,876	0	61	0
74S21-6	3,432	0	92	0
74S21-8	2,470	0	148	0
75S11-7	3,756	0	51	2
75S13-12	1,961	0	27	0
76S40-6	1,563	0	12	0
76S40-7	749	0	5	0
76S41-1	2,914	0	29	0
76S41-2	2,766	0	10	0
89841E	3,127	0	26	0
Santiago	352	990	1	69
Zodiac	139	481	13	13
Nil	851	0	56	0
	2,734	51	44	3

**Trial:** 87E33/4534EX

**Title:** Selection of sub. clover cultivars - early midseason maturity.

**Aim:** To select in the field subterranean clover cultivars of early to midseason maturity having superior persistence and productivity.

**Location:** Esperance Downs Research Station, Paddock CW1

**Details:** 22 lines selected from the NSCIP, 5 clover cultivars, 2 medic cultivars, 1 nil, 4 replicates. Plots 5 m x 2.5 m. Old land, Fleming gravelly sand, cropped 1984-86. Sown 12/5 by hand broadcasting clover 15 kg/ha, medic 12 kg/ha and harrowing. Grazed in common with paddock 1987/88.

**Results:** Legume regeneration, No./sqm, 7/6/89.  
Seed reserves (clover and medic) kg/ha, 11/12/89.

**Comments:**

1. Good regeneration of clover in 1989.
2. Highest seed reserves on Dalkeith, 74S21-6, 74S21-8 and Daliak.

Table 6. 87E33 production estimates 1989

Line	Clover dens. 6-89	Medic dens. 6-89	Clover seed 12-89	Medic seed 12-89
Daliak	3,432	0	309	0
Dalkeith	2,886	0	447	0
Seaton-Park	2,664	0	154	0
Junee	1,952	0	83	0
Trikkala	1,360	0	87	0
65322B	2,424	0	242	0
65328A	2,544	0	207	0
65328F	1,693	0	170	0
65328G	2,701	0	220	0
89838G	1,489	28	137	0
89840A	2,183	0	152	0
89846B	3,580	0	271	0
89848D	3,025	0	250	0
89881E	1,915	0	114	0
69S37-1	1,684	0	119	0
69S37-3	2,914	0	87	0
69S49-1	1,869	0	179	0
74S21-2	2,118	0	249	0
74S21-6	1,943	0	383	0
74S21-8	1,850	0	326	0
75S11-7	3,006	0	239	0
75S13-12	1,896	0	136	0
76S40-6	2,054	0	59	0
76S40-7	2,081	0	76	0
76S41-1	3,053	0	178	0
76S41-2	3,404	0	186	0
89841E	2,396	0	154	0
Santiago	1,434	759	114	38
Zodiac	953	176	131	0
Nil	1,906	0	218	0
	2,284	32	191	1

Trial: 87KA40/4534EX

Title: Selection of subclover cultivars - early mid.

Aim: To select in the field subterranean clover cultivars of early to midseason maturity having superior persistence and productivity.

Location: W. Ladyman, Ryan's Brook

Details: 22 lines selected from the NSCIP, 5 clover cultivars, 2 medic cultivars, 1 nil, 4 replicates. Plots 5 m x 2.5 m. New land, gravelly loamy sand. Sown 28/4 (Trikkala 20/5) using inoculated, pelleted seed hand broadcast at clover 15 kg/ha, medic 12 kg/ha and harrowing.  
Grazed through 1988. Some grazing in 1989 but not cropped as had been planned.

Results: Legume regeneration, No./sqm, 86/89.  
Seed reserves (clover, medic) kg/ha, 12/88, 14/12/89.

Comments:

1. High seed reserves have built up in a favourable environment.
2. High regeneration together with adequate seed reserves for lines 89846B, 76S41-2, 75S11-7, 76S41-1 and 89848D.



Table 7. 87KA40 production measurements - 1988/90

Line	Clover seed 12-88	Other seed 12-88	Clover dens. 6-89	Other dens. 6-89	Clover seed 12-89	Other seed 12-89
Daliak	1,205	1	2,553	0	1,649	1
Dalkeith	861	0	1,730	0	1,325	0
Seaton-Park	477	0	1,906	0	808	1
Junee	518	0	3,423	0	1,178	0
Trikkala	513	0	1,702	19	1,012	0
65322B	486	0	2,257	9	936	1
65328A	531	0	1,924	0	998	2
65328F	499	0	2,322	0	900	0
65328G	543	0	1,582	0	736	2
89838G	522	0	2,646	0	1,360	0
89840A	682	0	3,867	0	1,096	0
89846B	674	0	5,106	0	1,332	0
89848D	738	0	4,172	0	1,183	0
89881E	339	0	3,117	0	1,309	0
69S37-1	667	6	3,108	0	1,375	0
69S37-3	536	0	2,803	0	1,584	0
69S49-1	341	1	1,286	0	820	22
74S21-2	791	0	2,590	0	1,320	0
74S21-6	1,109	1	1,970	0	1,641	12
74S21-8	877	1	1,684	0	1,435	1
75S11-7	755	0	4,560	0	1,137	1
75S13-12	520	0	3,737	0	1,079	0
76S40-6	403	0	1,804	0	889	0
76S40-7	426	0	1,896	9	987	4
76S41-1	845	0	4,209	0	1,602	1
76S41-2	958	0	4,736	0	1,393	0
89841E	507	0	2,997	0	1,408	0
Santiago	13	533	65	1,536	85	741
Zodiac	21	124	46	444	59	135
Nil	46	0	444	0	531	4
	575	22	2,519	67	1,098	31