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Demonstration of pasture cultivars on various soil types in the Geraldton District.

Brad Nutt

Department of Agriculture Western Australia

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TITLE: Demonstration of pasture cultivars on various soil types
in the Geraldton District.

PERSONNEL: B.J. Nutt, B.R. Sullivan, D. Tanner, D. Lisle.

DATE: 1990

TRIAL NUMBER: 90GE13, 90GE14, 90GE15, 90GE16.

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TRIAL No.: 90GE13

TITLE: Demonstration of pasture cultivars on a Chapman Valley red/brown sandy loam.

LOCATION: Northern Gulley, R. Appleyard.

SOIL TYPE: Red/brown sandy loam pH 5.4 (water)

SOWING DETAILS: Sown with cone seeder on 11/6/90 at 15 kg/ha.

FERTILIZER: 80 kg/ha superphosphate.

RESULTS:

Seed yield of pasture cultivars on red/brown sandy loam at Northern Gully, 1990.

CULTIVAR	SEED YIELD (kg/ha)	SEED WT (mg)	SEEDS/BURR
Santiago	166	2.87	3.2
Serena	146	2.75	2.8
Nungarin	70	5.49	2.5
Dalkeith	58	5.62	2.4
Daliak	57	4.33	2.5
Northam	45	5.08	2.5
Parabinga	32	2.91	4.1
lsd (p<0.05)	57		

COMMENTS:

Site was grazed in common with the farm paddock six weeks after germination until senescence at approximately 3 sheep/ha. Le-mat was applied at 50 ml/ha on 26/6 to control Red-legged earth mite. Dry spring conditions combined with the late sowing resulted in very low seed yields.

TRIAL No.: 90GE14

TITLE: Demonstration of pasture cultivars on a gravelly grey sand at Allanooka.

LOCATION: Allanooka, R. Vince.

SOIL TYPE: Gravelly grey sand, pH 5.8 (water)

SOWING DETAILS: Dry sown with cone seeder on 15/5/90 at 15 kg/ha.

FERTILIZER: 80 kg/ha superphosphate.

RESULTS:

Seed yield of pasture cultivars on gravelly grey sand at Allanooka, 1990.

CULTIVAR	SEED YIELD (kg/ha)	SEED WT (mg)	SEEDS/BURR
Dalkeith	64	7.71	3.6
Northam	47	5.96	2.9
Nungarin	46	6.27	2.4
Santiago	31	2.93	2.2
Geraldton	28	5.56	2.7
Paros	27	2.42	-
Tauro	6	1.36	-
lsd (p<0.05)	17		

COMMENTS:

The site was grazed in common with the farm paddock from germination to senescence at approximately 2.5 sheep/ha. Tribunil was applied at 800 g/ha on 8/9/90 to control doublegee.

TRIAL No.: 90GE15

TITLE: Demonstration of pasture cultivars on an Eradu sandplain soil.

LOCATION: Ogilvie, J. Allen.

SOIL TYPE: Deep yellow loamy sand, pH 6.0 (water)

SOWING DETAILS: Dry sown with cone seeder on 9/5/90 at 15kg/ha.

FERTILIZER: 80 kg/ha superphosphate.

RESULTS:

Seed yield of pasture cultivars on deep yellow loamy sand at Ogilvie, 1990.

CULTIVAR	SEED YIELD (kg/ha)	SEED WT (mg)	SEEDS/BURR
SA 4066 (<u>M. tornata</u>)	324	5.32	1.2
Swani	282	4.64	1.4
Santiago	172	3.38	4.1
Parabinga	149	3.79	7.4
Paros	113	2.14	-
Dalkeith	49	5.57	2.8
Harbinger	28	2.05	3.1
lsd (p<0.05)	91		

COMMENTS:

The site was left ungrazed through the growing season and lightly grazed after senescence for six weeks. As well as having a greater seed yield than the other treatments, the disc medics SA 4066 and Swani were also visually more impressive during the growing season. The poor performance of Harbinger was a result of poor nodulation through the ineffectiveness of the current Group A inoculant (Rhizobium meliloti strain WSM540) on strand medic.

TRIAL No.: 90GE16

TITLE: Demonstration of pasture cultivars on a low rainfall maasive red earth at Mullewa.

LOCATION: Mullewa, J. Keefe.

SOIL TYPE: Red sandy clay loam pH 6.2 (water)

SOWING DETAILS: Dry sown with cone seeder on 8/5/90 at 15 kg/ha.

FERTILIZER: 80 kg/ha superphosphate.

RESULTS:

Seed yield of pasture cultivars on red clay loam at Mullewa, 1990.

CULTIVAR	SEED YIELD (kg/ha)	SEED WT (mg)	SEEDS/BURR
Serena	127	2.58	3.0
Parabinga	110	3.35	7.2
Santiago	76	2.62	3.5
Nungarin	37	4.96	2.2
Dalkeith	35	4.73	2.0
Harbinger	35	1.90	3.0
Cyprus	18	2.85	4.2
lsd (p<0.05)	57		

COMMENTS:

The site was left ungrazed during the growing season and grazed in common with the farm paddock at aproximately 3 sheep/ha after senesence for approximately 6 weeks. Tribunil was applied at 800 g/ha on the 9/8/90 to control doublegee and capeweed. The poor performance of Cyprus may have been due to high Blue-green aphid numbers in spring.