




1990

Selection and evaluation of medic lines with resistance to aphids and improved agronomic characteristics.

P. Evans

Follow this and additional works at: <https://library.dpird.wa.gov.au/rqmsplant>

 Part of the [Agronomy and Crop Sciences Commons](#), [Inorganic Chemistry Commons](#), and the [Organic Chemistry Commons](#)

Recommended Citation

Evans, P. (1990), *Selection and evaluation of medic lines with resistance to aphids and improved agronomic characteristics.*. Department of Primary Industries and Regional Development, Western Australia, Perth. Article.

This article is brought to you for free and open access by the Agriculture at Digital Library. It has been accepted for inclusion in Experimental Summaries - Plant Research by an authorized administrator of Digital Library. For more information, please contact library@dpird.wa.gov.au.

**PEDRO EVANS
RESEARCH OFFICER**

**GREAT SOUTHERN AGRICULTURAL RESEARCH INSTITUTE
KATANNING**

TRIAL NUMBER: 89AB12; 89AB11

TITLE: Selection and evaluation of medic lines with resistance to aphids and improved agronomic characteristics.

PERSONNEL: P. Evans, W. Collins

Ten commercial cultivars and twenty breeding lines were evaluated in 1990. To assess the effect of insect attack throughout the season, two treatments were imposed; sprayed throughout the season and unsprayed.

Significant differences in seed production were found between treatments, absence of insecticide reducing seed yield by an average of 200 kg/ha. There were also significant differences in seed production between lines, however, although some lines appear unaffected by the absence of insect control, it is not possible to state statistically that there are differences between them in tolerance to insect attack.

Good red legged earth mite infestations occurred, especially in spring, but only low number of aphids were observed.

There were no differences between treatments in spring dry matter production. Santiago was superior to all other lines and cultivars tested, in terms of seed production, irrespective of spray treatment, with an average seed yield of 1192 kg/ha (Table 1).

New material is to be tested in 1991 and measures are being taken to make the statistical analysis more precise.

TABLE 1: Times to flower, legume percentages and seed yields of sprayed and unsprayed treatments and percentage seed yield of unsprayed treatment in relation to the control for medic lines and commercial cultivars.

		Legume Percentage		Seed Yield kg/ha		% Seed Yield in relation to sprayed treatment
	DTF	Sprayed	Unsprayed	Sprayed	Unsprayed	
Santiago	85	89	67	1437	946	66
C. Valley	85	81	69	967	774	80
Cyprus	90	78	62	521	257	49
Dalkeith	97	78	76	56	42	75
Harbinger	101	40	50	33	11	34
Jemalong	113	65	67	265	175	66
Junee	117	82	76	18	10	54
Parabinga	100	75	74	553	358	65
Paraggio	104	76	73	652	499	77
Serena	81	89	62	1269	637	50
SA23087	91	51	50	105	39	38
SA4188	85	69	63	683	691	101
SA8944	102	67	63	277	253	91
Z115	97	70	79	431	542	126
Z451	101	89	75	598	476	80
Z454	100	94	77	723	271	37
Z497	86	83	65	921	490	53
Z498	87	59	67	593	457	77
Z499	87	81	62	1211	969	80
Z500	87	86	73	936	920	98
Z503	88	65	62	677	291	43
Z504	88	75	72	800	601	75
Z505	93	80	69	1055	694	66
Z506	91	80	69	931	763	82
Z507	112	69	65	875	344	39
Z508	83	78	71	918	768	84
Z509	80	71	56	870	651	75
Z601	90	69	70	468	541	116
Z602	90	77	64	572	426	74
Mean	93	75	67	678	479	71

LSD $P < 0.05$ for seed yields 103 kg between spray treatments.
226 kg between lines.