



Department of
Agriculture and Food



Research Library

Experimental Summaries - Plant Research

1976

1976 Field crop experiment

M. W. Perry

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



Part of the [Agronomy and Crop Sciences Commons](#), [Climate Commons](#), and the [Soil Science Commons](#)

Recommended Citation

Perry, M W. (1976), *1976 Field crop experiment*. Department of Agriculture and Food, Western Australia, Perth. Report.

This report is brought to you for free and open access by Research Library. It has been accepted for inclusion in Experimental Summaries - Plant Research by an authorized administrator of Research Library. For more information, please contact jennifer.heathcote@agric.wa.gov.au, sandra.papenfus@agric.wa.gov.au.

IMPORTANT DISCLAIMER

This document has been obtained from DAFWA's research library website (researchlibrary.agric.wa.gov.au) which hosts DAFWA's archival research publications. Although reasonable care was taken to make the information in the document accurate at the time it was first published, DAFWA does not make any representations or warranties about its accuracy, reliability, currency, completeness or suitability for any particular purpose. It may be out of date, inaccurate or misleading or conflict with current laws, policies or practices. DAFWA has not reviewed or revised the information before making the document available from its research library website. Before using the information, you should carefully evaluate its accuracy, currency, completeness and relevance for your purposes. We recommend you also search for more recent information on DAFWA's research library website, DAFWA's main website (<https://www.agric.wa.gov.au>) and other appropriate websites and sources.

Information in, or referred to in, documents on DAFWA's research library website is not tailored to the circumstances of individual farms, people or businesses, and does not constitute legal, business, scientific, agricultural or farm management advice. We recommend before making any significant decisions, you obtain advice from appropriate professionals who have taken into account your individual circumstances and objectives.

The Chief Executive Officer of the Department of Agriculture and Food and the State of Western Australia and their employees and agents (collectively and individually referred to below as DAFWA) accept no liability whatsoever, by reason of negligence or otherwise, arising from any use or release of information in, or referred to in, this document, or any error, inaccuracy or omission in the information.

EXPERIMENTAL SUMMARY
FIELD CROP EXPERIMENTS 1976

M. W. PERRY

PERFORMANCE OF AUGUST SOWN CEREALS
76M050

OBJECT: To investigate the performance of late sown cereals for summer forage or grain in the eastern wheatbelt,
 Locality: Merredin Research Station (Heavy and Light land sites).
 Variety: Gamanya wheat, Clipper barley.
 Sown: 20 August 1976, following 26 mm of rain on August 14 - 16.
 Harvested: 13 December, 1976
 Results: Grain yield (kg/ha), total dry matter,

Seeding Rate kg/ha	HEAVY LAND		LIGHT LAND	
	Grain Yield	Total D M	Grain Yield	Total D M
Wheat 20	646	1640	219	642
40	709	1703	325	772
80	700	1654	341	893
120	747	1591	328	863
160	728	1679	299	947
Barley 20	674	1803	144	507
40	725	1584	195	555
80	671	1786	179	615
120	671	1726	152	587
160	684	1869	155	656
L.S.D P 0.05	NS	NS	97.2	239.0
P 0.01			133.1	327.5

- Comment:
1. There was no significant difference between either grain yields or total dry matter of wheat and barley grown on heavy land.
 2. Light land yields were much lower and wheat significantly out yielded barley.
 3. There was no significant effect of seeding rate from 20 - 160 kg/ha on either site or with either cultivar.
 4. Rainfall from planting to the end of November totalled 93.8 mm - 145% of the average 64.5 mm for this period. Stored soil moisture was measured at sowing. The superior growth on heavy land was probably due to greater stored soil moisture, but this will be tested by a water balance.

General comment: This trial was designed to test the idea that even in a drought year, very late sowing of cereals might provide a low grain yield or at least a substantial quantity of summer feed.

LUPINS - FOLIAR FEEDING WITH K-POLYPHOSPHATE

Object: To evaluate Urea/K₂SO₄/K-polyphosphate for the foliar nutrition of lupins.
Locality: Pinjar Research Station, Wanneroo.
Variety: Uniharvest, sown 15 May, 1976.
Treatments: Four post-flowering sprays applied at four strengths at approximately 10 day intervals.
Results: Seed yield g/plot

SPRAY STRENGTH				
Control(o)	x 0.25	x 0.5	x 1.0	LSD P<0.01
691	727	628	486	141.4

- Comment:
1. Foliar spraying with urea/polyphosphate solutions has given large yield increases in soybeans - the polyphosphate aiding the foliar absorption of urea.
 2. Our full strength solution (half the concentration used on soybeans) caused leaf burning and significantly decreased yield. (P < 0.01).
 3. Yields were highest from the 0.25 x strength spray but not sufficient for statistical significance.