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# 1971 Nitrogenous fertilisers for cereal grain (wheat, barley) and oil (linseed, rape) crops

M G. Mason

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## Recommended Citation

Mason, M G. (1971), *1971 Nitrogenous fertilisers for cereal grain (wheat, barley) and oil (linseed, rape) crops*. Department of Agriculture and Food, Western Australia, Perth. Report.

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Nitrogenous Fertilisers for Cereal Grain and Oil Crops

Results from 1971 Trials with Wheat, Barley, Linseed and Rape

These results are tabulated for 3 Zones, A, B and C, which are delineated on a map in Bulletin No.3798  
 "Nitrogenous Fertilisers and Cereals" by M.G. Mason - (Journal of Agriculture of W.A. - April 1971).

Compiled by M.G. Mason, Research Officer

All yields are in kilograms/hectare.

ZONE A

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)						MEAN	EXPT NO.	REMARKS	
			Nil	12.9	25.8	38.6	51.5	64.4				77.3
Circle Valley - D. Piercey	Circle Valley Sand -4" fine sand over yellow grey clay.	WHEAT	384							384	66ES8	Nil Nitrogen Urea topdressed I.A.S. " " 2½ W.A.S. " " 5 " " " 7½ " " " 10 " Fourth successive crop on old land after non- legume pasture. Gamut wheat. Sown 6/5/71. Urea hand topdressed. Much Wimmera rye grass in plots. Super 150 lb/ac to all plots. Stubble of previous crop burnt.
				512	512	608	737			592		
				512	608	769	769			664		
				448	384	512	608			488		
				544	608	640	737			632		
				384	576	640	576			544		
		<u>MEAN</u>	384	480	538	634	685					
Circle Valley - D. Piercey	Circle Valley sand -4" fine sand over yellow-grey clay.	WHEAT	365							365	66ES8	Nil Nitrogen. Urea topdressed I.A.S. " " 2½ W.A.S. " " 5 " " " 7½ " " " 10 " Fifth successive crop on old land after non legume pasture. Gamut wheat. Sown 6/5/71. Urea hand topdressed. Much Wimmera ryegrass in plots. Super 150 lb/ac to all plots. Stubble of previous crop burnt.
				416	480	480	544			480		
				448	544	576	640			552		
				352	352	320	448			368		
				384	416	512	576			472		
				352	416	448	416			408		
		<u>MEAN</u>	365	390	442	467	525					

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	64.4	77.3			
Circle Valley - D. Piercey	Circle Valley Sand -4" fine sand over yellow-grey clay.	WHEAT	288							288	66ES8	Nil nitrogen Urea topdressed I.A.S. " " 2½ W.A.S. " " 5 W.A.S. " " 7½ W.A.S. " " 10 W.A.S. Sixth successive crop on old land after non legume pasture. Gamut wheat. Sown 6/5/71. Urea hand topdressed. Much wimmera rye grass in plots. Super 150 lb/ac to all plots. Stubble of previous crop burnt.
			416	416	448	544			481			
			416	512	416	544			472			
			288	320	352	384			336			
			288	384	448	608			432			
			320	384	416	512			408			
		<u>MEAN</u>	288	346	403	416	518					
Merredin Research Station	Grey Gravelly sand	WHEAT	796						796	61M11	Nil Nitrogen Calcium Ammonium Nitrate Sulphate of Ammonia Urea Eleventh successive crop on old land after non legume pas- ture. Stubble of previous crop burnt. Super 150 lb/ac to all plots. Gamenya wheat. Sown 16/6/71. Much wimmera rye grass in plots.	
			907	918	1164	1238		1452	1136			
			897	726	993	1121		897	927			
			833	875	1046	1217		1334	1061			
		<u>MEAN</u>	796	879	840	1068	1192		1228			
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Merredin Research Station	Grey-yellow loamy sand with mottling at 9 inches over clay.	WHEAT	1922	2338	2562	2434	2594	2776	2562	2455	71M2	Gamenya wheat Arlo Rape Second successive crop on old clover land. Stubble of previous crop burnt. Copper Zinc, Molybdenum Super 170 lb/ ac topdressed prior to seeding on all plots. Sown 2/6/71.
			614	646	742	774	694	689	747	701		
		<u>MEAN</u>	1268	1492	1652	1604	1644	1732	1654			

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	64.4	77.3			
Merredin Research Station	Grey-yellow loamy sand with mottling at 9 inches, over clay.	WHEAT	2092		2413		2551		2359	2092	71M1	Nil Nitrogen. Urea T.D. I.A.S. " " after seeding. " " 3 W.A.S. Ammonium Nitrate TD I.B.S. " " T.D. I.A.S. " " " 3 W.A.S. Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 170 lb/ac to all plots, topdressed prior to seeding. Gamenya wheat. Sown 8/6/71.
		<u>MEAN</u>	2092		2274		2434		2295	2441		
Perenjori - D. Mason	Yellow loamy sand over sandy gravel.	WHEAT	889	1049	1153	1217	1137		1201		71TS3	First crop after clover. Superphosphate 150 lb/ac to all plots. Gamenya wheat. Sown 21/6/71. Urea used. Some septoria.
Pindar - G. Barnettson	Yellow sandy loam	WHEAT	2330	2314	2226	2186	2338		2242		71GE1	First crop after four years of Geraldton subclover pasture. Superphosphate 200 lb/ac to all plots. Gamenya wheat. Sown 3/6/71. Urea used.
Tenindewa - J. Brenkley	Deep yellow sand	WHEAT	777	809	833	881	929		841		71GE1	First crop after eight years of Harbinger medic. Superphosphate 160 lb/ac to all plots. Gamenya wheat. Sown 21/6/71. Ammonium nitrate used.
Walgoolan - L.E. Barnett & Sons	3 inches brown loamy sand over yellow loamy sand.	WHEAT	1169	1233	1249	1249	1213		1325		71ME1	First crop after 3 years Geraldton subclover. Superphosphate 150 lb/ac to all plots. Gamenya wheat. Sown 18/6/71. Urea used.

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	64.4	77.3			
Wongoondy - R. Stagg	Deep yellow sand	WHEAT	1297	1609	1665	1961	1890		2106		71GEL	First crop after 4 years Geraldton subclover. Superphosphate 160 lb/ac to all plots. Gamenya wheat. Sown 14/6/71. Ammonium Nitrate used.
Yuna - R. Teakle	Deep yellow sand	WHEAT	576	889	937	1033	1153		1137		71GEL	First crop after 6 years Harbinger medic. Superphosphate 160 lb/ac to all plots. Gamenya wheat. Sown 17/6/71. Ammonium nitrate used.



SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS	
			Nil	12.9	25.8	38.6	51.5	77.3	154.6				
Dundaragan - I. Wilson	Grey sand over gravel. White Gum.	WHEAT	2418	2525	2914	2706	2770	2653	2695	2669	71M02	Gamenya Wheat. Kameniza Linseed. First crop after subterranean clover pasture. Copper- zinc superphosphate 156 lb/ac to all plots. Sown 10/6/71. Urea topdressed immediately before seeding.	
		LINSEED	1382	1206	1212	1505	1425	1441	1308				1354
		<u>MEAN</u>	1900	1866	2063	2106	2098	2047	2002				
Eneabba - M. Correy	Sand over gravel at about 18 inches.	WHEAT	2615	2733	2776	2744	2712	2813	2781	2739	71TS1	Gamenya Wheat. Arlo Rape. First crop after clover on old land. Copper-zinc super- phosphate 156 lb/ac to all plots. Sown 28/6/71. Ammo- nium nitrate topdressed I.B.S. Rape establishment reduced by nitrogen fertiliser.	
		RAPE	566	571	496	470	560	379	208				464
		<u>MEAN</u>	1590	1652	1636	1607	1636	1596	1494				
			Nil	12.9	25.8	38.6	51.5	77.3	129.0				
Eradu - A. Pate	Deep earthy yellow sand	WHEAT	1868	2146	2348	2594	2626	2680	2637	2414	71GE2	Gamenya wheat. Arlo Rape. First crop after 4 years Geraldton subclover -Harbinger medic pasture. Superphosphate 160 lb/ac to all plots. Sown 18/6/71. Ammonium nitrate topdressed immediately before seeding.	
		RAPE	235	331	320	331	384	374	416				342
		<u>MEAN</u>	1052	1238	1334	1462	1505	1527	1526				
			Nil	12.9	25.8	38.6	51.5	77.3	132.0				
Goomalling - B. Morris	Yellow loamy sand.	WHEAT	1900	1964	2050	1825	1793	1633	1344		71N02	First crop after clover on old land. Superphosphate 135 lb/ac to all Gamenya wheat. Sown 25/6/71. Urea topdressed immediately before seeding.	





SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	19.0	24.8	30.8	36.2	47.6			
Newdegate Research Station	Grey sand over gravel	WHEAT	705	857	937	817	881	969	849	884	69N1	} Stubble burnt } Stubble ploughed. } Fourth successive crop on old clover land. Superphosphate 155 lb/ac to all plots. Gamenya wheat. Sown 16/6/71. Ammonium nitrate topdressed immediately before seeding.
						<u>59.0 kg</u> 873	<u>70.4 kg</u> 1009	<u>82.9 kg</u> 945				
			705	817	897	897	969	897	937			
						<u>59.0 kg</u> 913	<u>70.4 kg</u> 977	<u>82.9 kg</u> 1041		905		
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Newdegate Research Station	Grey-brown sand over gravel	WHEAT	1600							1600	71N3	Nil nitrogen. Urea T.D. immediately before seeding. " " " after " " " 3 weeks " " Ammonium Nitrate T.D. I.B.S. " " " I.A.S. " " " 3 W.A.S. Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 155 lb/ac to all plots. Gamenya wheat. Sown 14/6/71.
					1772		1777	1772		1774		
					1868		1788	1954		1870		
					1831		1815	1986		1877		
					1809		1906	1852		1856		
					1831		1676	1793		1767		
					1772		1687	1735		1731		
		(MEAN)	1600		1814		1775	1849				
Newdegate Research Station	Grey brown sand over gravel	WHEAT	1713	1713	2002	1769	2018	1561	1833	1801	71N4	Gamenya wheat. Target Rape. Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 150 lb/ac to all plots. Sown 9/6/71. Ammonium nitrate topdressed just before seeding. Much wimmera rye grass in the plots.
		RAPE	697	841	881	953	961	849	1073	895		
		MEAN	1205	1277	1442	1361	1490	1205	1453			

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Three Springs - G. Broad	Red-brown clay loam	WHEAT	1278	1603	1814	1888	2075	2389	2497	1935	71TS2	Gamenya wheat. Arlo Rape. Fourth successive crop on old Cyprus barrel medic pasture. Stubble of previous crop grazed and ploughed. Super- phosphate 120 lb/ac to all plots. Sown 12/6/71. Urea topdressed immediately before seeding.
		RAPE	285	393	403	521	536	678	973	541		
		<u>MEAN</u>	782	998	1108	1204	1306	1534	1735			
Wongan Hills Research Station	Wongan yellow loamy sand	WHEAT	1756	1862	2270	2235	2075	2430		1756	61WH2	Nil Nitrogen Calcium Ammonium Nitrate Sulphate of Ammonia Urea Eleventh successive crop on old clover land. Stubble of previous crop burnt. Gamenya wheat. Sown 16/6/71. Superphosphate 60 lb/ac to all plots. Nitrogen fer- tilisers topdressed by hand. A fair number of weeds in the crop.
				1844	2252	2288	2359	1578		2174		
		<u>MEAN</u>	1756	1880	2306	2341	2093	2501		2224		
Wongan Hills Research Station	Wongan yellow loamy sand	RAPE									71WH1	Second successive crop on old clover land. Stubble of previous crop burnt. Super- phosphate 120 lb/ac to all plots. Arlo Rape. Sown 16/6/ 71. Ammonium nitrate hand T.D. Nil Nitrogen. A.N. topdressed I.A.S. " " 2 W.A.S. " " 4 W.A.S. " " 6 W.A.S. " " 8 W.A.S. " " 12 W.A.S.
			360							360		
		<u>MEAN</u>	360	456			608	649	761	618		
				512		608	649	697	616			
				472		673	753	690	647			
				480		624	689	674	617			
				544		689	705	673	653			
				512		608	665	633	604			
		<u>MEAN</u>	360	496		635	685	688				

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Wongan Hills Research Station	Wongan yellow loamy sand	RAPE	486	619	710	710	795	870	859	721 631	71WH2	Arlo Rape. Target Rape Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 120 lb/ac to all plots. Sown 15/6/71. Urea topdressed just before seeding. A fair number of weeds in the plots.
			608	550	587	614	657	795	603			
		MEAN	547	584	648	662	726	832	731			
Wongan Hills Research Station	Gravelly sand over gravel	RAPE	288		438		400	352	53	306 353 384 424	71WH3	Arlo Rape 4 lb/ac " " 6 " " " 8 " " " 10 " Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 120 lb/ac to all plots. Sown 15/6/71. Urea mixed with seed in drill hoses. Very marked reduction in rape emergence where Urea rates applied.
			246		427		534	427	133			
			352		486		502	454	128			
			331		454		507	534	294			
			304		451		486	442	152			
		MEAN										
Yerecoin - C. Duggan	Grey loamy sand over clay.	WHEAT	1169	1593	1673	1649	1537	1521	1449		71M01	First crop after Geraldton - Dwalganup subclover pasture. Superphosphate 94 lb/ac to all plots. Gamenya wheat. Sown 15/6/71. Ammonium nitrate topdressed immediately before seeding.

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Beverley - Avondale Research Station	Red-brown sandy clay loam	WHEAT	1959							1959	61A2	Nil Nitrogen Calcium Ammonium Nitrate Urea Eleventh successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 60 lb/ac to all plots. Gamanya wheat. Sown 14/6/71. Nitrogen fertilisers top- dressed by hand.
				2220	2284	2434	2359	2349	2329			
		<u>MEAN</u>	1959	2162	2292	2382	2465	2374	2340			
Beverley - Avondale Research Station	Grey loamy sand with quartz	LINSEED			712		765	676	605	690	71A1	Ammonium Nitrate T.D. I.A.S. " " " 2 W.A.S. " " " 4 W.A.S. " " " 6 W.A.S. " " " 8 W.A.S. Nil Nitrogen Second successive crop on old clover land. Stubble of previous crop burnt. Super- phosphate 100 lb/ac to all plots. Gibson linseed. Sown 14/6/71.
				730		747	658	569	676			
				747		747	694	676	716			
				712		712	694	765	721			
				854		676	640	694	716			
				818					818			
		<u>MEAN</u>	818	751		729	672	662				
Beverley - Avondale Research Station	Red-brown sandy clay loam	WHEAT	2562	2167	2466	2092	2487	2402	1847	2290	71A2	Gamanya wheat. Arlo Rape Target Rape Second successive crop on old clover land. Stubble of previous crop burnt. Superphosphate 120 lb/ac to all plots. Sown 12/6/71. Ammonium nitrate topdressed immediately before seeding. A fair number of weeds in the plots.
		RAPE	1228	1345	1377	1228	1420	1409	1452	1351		
		RAPE	598	662	662	566	705	725	619	649		
		<u>MEAN</u>	1463	1391	1502	1295	1537	1512	1306			

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Duranillin - D. O'Connell	Brown sandy loam over yellow sandy loam at 12 inches with yellow sandy gravel at 30 inches.	WHEAT	2349	2893	3187	3283	3197	3203	2679	2970	71BR1	Darkan wheat Dampier barley Arlo Rape First crop after good sub- clover pasture for 4 years. Superphosphate 180 lb/ac to all plots. Sown 9/6/71. Ammonium nitrate topdressed 3 weeks after seeding.
		BARLEY	1975	2381	2413	2535	2471	2631	2445	2407		
		RAPE	1126	1233	1398	1516	1740	1756	1820	1511		
		<u>MEAN</u>	1817	2169	2333	2445	2469	2530	2315			
Frankland - R. Hall	18 inches of Gravelly loam over clay. Jarrah and some white gum.	WHEAT	673	982	1078	1100	1441	1505	1420	1171	71AL2	Bokal wheat Arlo Rape Second successive crop on subclover land. Linseed in 1970. Stubble of linseed crop burnt. Superphosphate 178 lb/ac to all plots. Sown 12/5/71. Ammonium nitrate topdressed 4 weeks after seeding. Some weeds and some Manganese deficiency.
		RAPE	504	820	936	1050	1308	1321	2090	1147		
		<u>MEAN</u>	588	901	1007	1075	1374	1413	1755			
Gairdner River - B.H. Griffiths & Coy	Gravelly sand over gravelly clay	WHEAT	1598	2025	2003	2060	2046	2057	1918	1958	71JE2	Gamenya wheat Arlo Rape First crop after subclover pasture. Superphosphate 150 lb/ac to all plots. Sown 26/5/71. Ammonium nitrate topdressed immediately before seeding. Some Wimmera Rye Grass in plots. Some hail damage.
		RAPE	648	641	655	690	690	626	697	664		
		<u>MEAN</u>	1123	1333	1329	1375	1368	1342	1308			

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	15.2	30.5	45.7	60.9	76.2	154.6			
Gairdner River T.H. & A. Barrett - Leonard	Gravelly sand over gravelly clay	WHEAT	1964	2035	1840	2085	2003	1964		1982	71JE20	Eagle wheat Arlo Rape, Masoweiki Rape. First crop after 3 years clover pasture. Superphosphate 180 lb per acre to all plots. Sown 3/6/71. Ammonium nitrate topdressed before seeding. Density of Masoweiki was lower than Arlo. Some hail damage.
		RAPE	786	850	808	790	722	754		785		
		RAPE	1075	1021	1153	1153	1231	1352		1164		
		<u>MEAN</u>	1275	1302	1267	1343	1319	1357				
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Jacup - J.E. & D.J. Treeby	White-grey sand over clay at 18 inches to 2 feet.	WHEAT	2790	2956	3136	3107	3103	3088	2812	2999	71JEL	Gamenya wheat Arlo Rape First crop after four years clover pasture. Superphos- phate 150 lb/ac to all plots. Sown 25/5/71. Ammonium nitrate topdressed immediately before seeding. Density of rape plants down with higher nitro- gen rates. Some hail damage.
		RAPE	637	633	670	670	751	622	541	646		
		<u>MEAN</u>	1714	1794	1903	1888	1927	1855	1676			
Katanning - D. Lynton-Brown	0-5 inches grey-brown fine loamy sand over gravel and clay.	WHEAT	2290	2188	1628	1612	1607	1228	881	1633	71KA1	Darkan wheat Arlo Rape First crop after clover on old land. Superphosphate 96 lb/ac to all plots. Sown 24/5/71. Urea topdressed immediately before seeding.
		RAPE	1804	1633	1751	1569	1607	1559	1740	1638		
		<u>MEAN</u>	2047	1910	1690	1590	1607	1394	1310			
Mount Barker Research Station	Brown loamy sand with gravel	WHEAT	1495	1740	1697	1623	1441	1665	1655	1617	71MT2	Darkan wheat Arlo Rape Kameniza Linseed Second successive crop on old clover land. Stubble of pre- vious crop burnt. Sown 29/5/71. Superphosphate 150 lb/ac to all plots. Urea T.D. I.B.S. Linseed badly lodged.
		RAPE	1046	1185	1228	1153	1292	1094	1196	1171		
		LINSEED	1366	1441	1345	1484	1505	1185	1046	1339		
		<u>MEAN</u>	1302	1455	1423	1420	1413	1315	1299			

SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Mount Barker Research Station	Very gravelly sand	RAPE	320		464		673	432	576	320	71MT1	Nil Nitrogen
					641		496	689	753	536		Ammonium Nitrate T.D. I.A.S.
					576		625	641	544	645		" " " 2 W.A.S.
					528		641	721	657	596		" " " 4 W.A.S.
					560		528	544	592	637		" " " 6 W.A.S.
					416		368	544	464	556		" " " 8 W.A.S.
							531	555	595	448		" " " 12 W.A.S.
		<u>MEAN</u>	320									
Mount Barker Research Station	Brown loamy sand over gravel.	RAPE	939		964			915		939	71MT3	Nil Nitrogen. Nil machinery.
			939		952			903		939		T.D. by drill I.B.S.
			854		915			952		903		" " " I.A.S.
			988		915			939		952		" " " 2 W.A.S.
			927		952			854		927		" " " 4 W.A.S.
			830		915			793		879		" " " 6 W.A.S.
			793		896			893		834		" " " 8 W.A.S.
		<u>MEAN</u>	896									
Narrogin - B. Boxsell	Gravelly loamy sand grading into areas without gravel.	WHEAT	1414	1756	1825	1959	2018	2397	2252	1946	71NA3	Gamenya wheat
		RAPE	785	971	907	1025	1105	1110	1201	1015		Arlo Rape
		<u>MEAN</u>	1100	1364	1366	1492	1562	1754	1726			Second successive crop on old clover land. Stubble of the previous crop burnt. Copper, Zinc, Molybdenum super 124 lb/ac to all plots. Sown 8/6/71. Urea topdressed immediately before seeding. Quite a few weeds.



SITE	SOIL TYPE	CROP	NITROGEN RATE (kg N/ha)							MEAN	EXPT NO.	REMARKS
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
West York - D. Hill	Grey-brown loamy sand over gravel	WHEAT	2082	2434	2274	2541	3021	3480	3245	2725	71N01	Gamenya wheat Arlo Rape First crop after subclover pasture on old land. Super- phosphate 120 lb/ac to all plots. Sown 11/6/71. Ammo- nium nitrate topdressed immediately before seeding. Wild radish in plots.
		RAPE	854	758	982	1217	1089	1302	1260	1066		
		<u>MEAN</u>	1468	1596	1628	1879	2055	2391	2252			
Williams - D. Noske	Grey sand over clay	WHEAT	4121	3993	4516	4452	4398	3928	3074	4069	71NA1	Darkan wheat Arlo Rape First crop after subclover pas- ture on old land. Copper, Zinc, Molybdenum super 124 lb/ac to all plots. Sown 1/6/71. Urea topdressed one month after sowing. Part of plots attacked by insects. Wheat lodged.
		RAPE	566	721	726	619	833	913	1068	778		
		<u>MEAN</u>	2342	2357	2621	2356	2616	2420	2071			
			Nil	12.9	25.8	38.6	51.5	77.3	144.0			
Yealering - Beatty Bros.	Red-brown sandy loam with some gravel - Morrell, York Gum, Yate.	WHEAT	1180	1265	1308	1324	1382	1329	1249	1291	71NA2	Gamenya wheat Arlo Rape Second successive crop on old clover land. Stubble of pre- vious crop burnt. Copper, Zinc, Molybdenum super 124 lb/ac to all plots. Sown 10/6/71. Ammonium nitrate topdressed immediately before seeding.
		RAPE	358	363	411	395	427	411	384	393		
		<u>MEAN</u>	769	814	860	860	904	870	816			
			Nil	12.9	25.8	38.6	51.5	77.3	154.6			
Tambellup - R. O'Keefe	Sand over clay at 10 inches	WHEAT	598	571	566	603	544	534	470	555	71KA2	Gamenya wheat Arlo Rape First crop after subclover pasture. Superphosphate 90 lb. ac to all plots. Sown 9/6/71. Ammonium nitrate T.D. 2 weeks before seeding. Much Wimmera rye grass in plots.
		RAPE	1254	1329	1473	1473	1532	1468	1633	1452		
		<u>MEAN</u>	926	950	1020	1038	1038	1001	1052			

8.3.72. T.D. = Topdressed. I.B.S. = Immediately before seeding. I.A.S. = Immediately after seeding. W.A.S. = Weeks after seed-  
MGM:EC ing.