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Trial Results 1971

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TRIAL RESULTS - 1971

M.L. Poole, Research Officer, Plant Research Division
(March 1971)

This report summarizes data for the following trials :-

- TRIAL 1 Rape Varieties x Time of Seeding - Mt. Barker R.S.
- TRIAL 2 Rape Varieties x Time of Seeding - Gibson
- TRIAL 3 Rape Varieties x Time of Seeding - Badgingarra R.S.
- TRIAL 4 Rape Harvesting Trial-Moisture Content- Mt. Barker R.S.
- TRIAL 5 Time of Seeding x Rates of Seeding Safflower
- TRIAL 6 Time of Seeding x Rates of Seeding Sunflower
- TRIAL 7 Depth Control Drill Trial on Rape
- TRIAL 8 Method of Seeding Trial on Rape
- TRIAL 9 Sandblast Trial - EDRS - FAILED
- TRIAL 10 Rape Varieties x Time of Seeding - WHRS - FAILED

Other Trials : Cooperative trials with M. Mason - results given by M. Mason in his report, except 7 and 8 above.

TRIAL 1

71 MT 24/2855EX

Rape Varieties x Times of Seeding

Locality : Mt. Barker R.S.
 Soil Type : Gravelly loam
 History : Old clover land, clover 1970
 Fertiliser : 100 lbs 24:24 compound T.D. across plots
 prior to planting. Seed sown at 6 lb/ac
 mixed with 20 lb/ac 24:24 compound through
 grain box.

(1) Yields - lbs/ac.

Date Sown

Variety	6-5-71	5-7-71	30-8-71
Arlo	1316	1327	1562
Echo	1116	1423	1487
Polar	-	1123	1348
Target	867	1616	2044
Turret	599	1659	2022
Masoweiki	1359	1979	<u>2172</u>
Oro	<u>1637</u>	<u>2054</u>	2140

Comment

- (1) 1st time of planting weedy, mainly capeweed, some grass. Other times almost weed free.
- (2) Wet spring gave best results from late 3rd time of planting.

TRIAL 2

71E23/2855EX

Rape Varieties x Time of Seeding

Locality : H. Browning, Gibson

Soil Type : Sand over clay at 12"

History : Old clover land, clover 1970

Fertiliser: 120 lb/ac 24:24 compound T.D. across plots
prior to seeding. Seed sown at 6 lb/ac
mixed with 150 lb/ac superphosphate.

(1) Yields - lbs/ac

Variety	Date Sown		
	10-5-71	16-7-71	30-8-71
Arlo	246	599	663
Echo	471	556	471
Polar	<u>813</u>	524	546
Target	685	1605	1380
Turret	706	<u>1680</u>	<u>1434</u>
Masoweiki	599	1059	760
Oro	-	1434	1188

Comment (1) 1st time of planting very weedy and patchy
mainly WRG - treat results with caution.
2nd and 3rd times O.K.

(2) Note B. napus much better than B campestris

TRIAL 3

71 BA13/2855 EX

Rape Varieties x Times of Planting

Locality : Badgingarra R.S.
 Soil Type : Gravelly sand
 History : Old clover land, clover 1970
 Fertiliser : 120 lb/ac 24:24 compound topdressed across plots prior to planting. Varieties sown at 6 lb/ac with superphosphate 150 lb/ac

(1) Yields lbs/ac

Variety	Date Sown		
	10-5-71	15-6-71	17-8-71
Arlo	F	449	685
Echo	A	663	674
Polar	1	567	653
Target	L	749	909
Turret	E	<u>920</u>	<u>942</u>
Masoweiki	D	621	471
Oro		653	749

Comment :

- (1) 1st Time of Planting lost because of WRG, Spray treatment of WRG killed the rape. Other times of planting almost free of weeds.

TRIAL 4Rape Harvesting Trial - Moisture Content

Locality : Mt. Barker R.S.
 Method : A rape crop was harvested hourly for 24 hours. Moisture content of grain and relative humidity were measured.
 Weather : Day - warm and clear. Night cool and windy, but calm and clear after 3.a.m. At 4-30 a.m. very close to dew point.

Results

Time	Moisture Content (%)	R.H. (%)
1-30 p.m.	5-12	NA
2-30	5-08	NA
3-30	4-76	NA
4-30	4-96	NA
5-30	5-20	65
6-30	NA	NA
7-30	5-32	75
8-30	6-00	77
9-30	6-16	77
10-30	6-52	77
11-30	6-84	83
12-30	7-52	83
1-30	7-94	90 *
2-30	NA	90 *
3-30	8-20	90 *
4-30	NA	90*
5-30	8-60	82
6-30	8-60	78
7-30	8-12	73
8-30	7-40	61
9-30	7-04	60
10-30	6-60	56
11-30	5-52	48
12-30	5-50	48

Comment:

TRIAL 5

71GE34/ 2855EX

Time of Seeding x Rates of Seeding Safflower

Locality : Ogilvie, K. Chick
 Soil Type : Yellow loamy sand
 History : Geraldton subclover sown 1968. Cleared
 15 years, 1000 lbs superphosphate.

Fertiliser : 180 lb/ac 24:24 compound

Yields : lbs/ac Variety : Peredovik

Time of Planting

Seeding Rate	13-5-71	16-6-71	2-8-71
20	Failed (Weeds)	240	310
40		108	350
60		242	325
80		299	451

Comment :

- (1) Poor crop
 (11) No recommendation, except weed free seed bed, possible.

TRIAL 671 GE33/2855EXTime of Seeding x Rates of Seeding Sunflower

Locality : Ogilvie, K. Chick
 Soil Type: Yellow loamy sand
 History : Geraldton subclover planted 1968. Cleared
 15 years, 1000 lbs superphosphate.
 Fertiliser: 180 lb/ac 24:24 compound fertiliser
 Yields : Variety : Peredovik

Time of Sowing

Seeding Rate	16-6-71	2-8-71	3-9-71
6	failed (weeds)	374	617
12		311	560
18		311	569
24		298	546

Comment :

- (1) Later planting much better. Remember wet spring !
- (11) Slight negative response to higher seeding rates.
- (111) Yields are encouraging - almost commercial for late planting

TRIAL 7

71WH38/2855EX

Depth Control Drill Trial on Rape
(with M. Mason)

Locality : WHRS
 Soil Type : Yaling Sand (Pod 3 EC)
 History : Old Clover land
 Fertilisers : See below

Sown : 13-7-71 Weather : fine and cool - 15 pts of rain
 immediately after planting

(1) PLANT DENSITY (August)

Rate of 24 : 24 Fert.	Method of Planting	Tr No	DENSITY			TOTAL	MEAN
			Rep 1	Rep 2	Rep 3		
Nil	Seed thro' S.S.B., $\frac{1}{2}$ " points Fert thro' F.B. $\frac{1}{2}$ " points. Fert Band $3\frac{1}{2}$ " from Seed band	1	4	$4\frac{1}{2}$	2	10.5	3.4
Nil	As for Tr.1	2	3	2	4	9	3.0
50 lb/ac	Thro' S.S.B. $\frac{1}{2}$ " points. Fert broadcast before sowing	3	$3\frac{1}{2}$	4	3	10.5	3.4
50 "	Thro' S.S.B. $\frac{1}{2}$ " points, Fert broadcast after sowing	4	4	4	$3\frac{1}{2}$	11.5	3.8
50 "	Seed mixed with Fert, thro' F.B., $\frac{1}{2}$ " front points	5	5	$4\frac{1}{2}$	5	14.5	4.8
50 "	As for Tr.1	6	4	$2\frac{1}{2}$	$2\frac{1}{2}$	9.0	3.0
50 "	Seed thro' S.S.B., $\frac{1}{2}$ " points. Fert thro' F.B. 2" point.	7	$4\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	10.5	3.4
50 "	Fert band $3\frac{1}{2}$ " from Seed band						
50 "	Seed thro' S.S.B., $\frac{1}{2}$ " points, Fert. thro' F.B. 2" points	8	$4\frac{1}{2}$	4	$4\frac{1}{2}$	13.0	4.3
200 "	As for Tr.1	9	3	$3\frac{1}{2}$	$3\frac{1}{2}$	10.0	3.3
200 "	Thro' S.S.B., $\frac{1}{2}$ " points, Fert broadcast after sowing	10	4	4	3	11.0	3.7
200 "	Seed mixed with fert., thro' F.B., $\frac{1}{2}$ " front points	11	1	$\frac{1}{2}$	1	2.5	0.8
200 "	As for Tr.1	12	$4\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$	10.5	3.4
200 "	Seed thro' S.S.B., $\frac{1}{2}$ " points Fert thro' F.B. 2" points. Fert thro' Band $3\frac{1}{2}$ " from seed band	13	$3\frac{1}{2}$	$3\frac{1}{2}$	3	10.0	3.3
200 "	As for Tr 8	14	Dis- car- ded	$2\frac{1}{2}$	$2\frac{1}{2}$	5.0	2.5

(11) PLANT GROWTH (August)

Rate of 24 :24 Fert.	Method of Planting	Tr Plant Condition				TOTAL MEAN	
		No	Rep 1	Rep 2	Rep 3		
N11	Seed thro' small S.B., $\frac{1}{2}$ " points. Fert thro' F.B. $\frac{1}{2}$ " points. Fert band $3\frac{1}{2}$ " from seed band	1	3	$2\frac{1}{2}$	3	8.5	2.8
N11	As for Treatment 1	2	2	$2\frac{1}{2}$	3	7.5	2.4
50 lb/ac	Thro' S.S.B., $\frac{1}{2}$ " points, Fert broadcast before sowing	3	$3\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	9.5	3.1
50 lb/ac	Thro' S.S.B., $\frac{1}{2}$ " points, Fert broadcast after sowing	4	$3\frac{1}{2}$	$3\frac{1}{2}$	3	10.0	3.3
50 lb/ac	Seed mixed with fert, thro' F.B., $\frac{1}{2}$ " front joints	5	3	$2\frac{1}{2}$	3	8.5	2.8
50 lb/ac	As for Treatment 1	6	3	3	3	9.0	3.0
50 lb/ac	Seed thro' S.S.B., $\frac{1}{2}$ " points, Fert thro' F.B. 2" point. Fert band $3\frac{1}{2}$ " from seed band	7	$3\frac{1}{2}$	$2\frac{1}{2}$	3	9.0	3.0
50 lb/ac	Seed thro' S.S.B., $\frac{1}{2}$ " points. Fert thro' F.B. 2" points. Fert below seed.	8	$2\frac{1}{2}$	3	$3\frac{1}{2}$	9.0	3.0
200 lb/ac	As for Treatment 3	9	$3\frac{1}{2}$	4	4	11.5	3.8
200 "	As for Treatment 4	10	4	$3\frac{1}{2}$	4	11.5	3.8
200 "	As for Treatment 5	11	2	$2\frac{1}{2}$	3	7.5	2.4
200 "	As for Treatment 1	12	4	4	$3\frac{1}{2}$	11.5	3.8
200 "	As for Treatment 7	13	3	$3\frac{1}{2}$	4	10.5	3.4
200 "	As for Treatment 8	14	Dis- car- ded	4	3	7.0	3.5

Comment :

- (1) Grain yields discarded because of variability.
- (11) All treatments satisfactory except where fertiliser is sown in contact with seed. High rate of fertiliser worse than low in this situation.

TRIAL 8

71 WH39/

Method of Seeding Trial on Rape

(with M.. Mason)

Locality : WHRS

Soil Type : Yaling sand (Pod 3 EC)

History : Old clover land

Fertiliser: See below

Sown : 13-7-71 Weather : fine and cool 15 pts rain
immediately after sowing

(1) PLANT DENSITY (Ratings)

Sowing Method	Replication			Mean
	1	2	3	
1. Combine - drilled without harrows	1.9	0.75	1.75	1.47
2. " " with " R.W.U.	2.65	2.25	2.25	2.38
3. " " " " U.S.D.	3.65	1.1	1.85	2.20
4. " dropped on surface, no harrows	1.85	2.0	1.5	1.72
5. " " " " ,harrows R.W.U.	3.25	2.25	3.0	2.83
6. " " " " " U.S.D.	3.35	3.1	4.1	3.52
7. Disc Drill -drilled without harrows	3.6	2.9	1.4	2.63
8. " " " with " R.W.U.	2.5	2.0	1.5	2.00
9. " " " " " U.S.D.	3.0	0.85	0.5	1.45
10. " " -dropped on surface, no harrows	2.0	1.4	2.0	1.80
11. " " " " " ,harrows R.W.U.	4.0	3.4	3.0	3.47
12. " " " " " , " U.S.D.	4.0	3.65	3.6	3.75
13. D.C.S.-Seed $\frac{1}{2}$ " deep (S.S.B), fertiliser $3\frac{1}{2}$ " to side	1.0	1.4	1.75	1.38
14. D.C.S.- " 2" " (S.S.B), " $\frac{1}{2}$ " deep & $3\frac{1}{2}$ offset	2.0	1.6	2.35	1.98

R.W.U. = Right way up

(11) PLANT & GROWTH - (Ratings)				
Sowing Method	Replication			Mean
	1	2	3	
1. Combine - drilled without harrows	2.0	1.25	0.75	1.33
2. " " with " R.W.U.	2.0	2.5	1.25	1.92
3. " " " " U.S.D.	2.5	1.25	1.5	1.75
4. " dropped on surface, no harrows	1.5	1.0	1.25	1.25
5. " " " " ,harrows R.W.U.	3.25	2.25	2.0	2.50
6. " " " " " U.S.D.	3.75	2.25	3.25	3.08
7. Disc Drill -drilled without harrows	3.25	1.5	0.75	1.83
8. " " " with " R.W.U.	2.0	1.75	0.5	1.42
9. " " " " " U.S.D.	2.5	0.75	0	1.08
10. " " -dropped on surface, no harrows	2.0	1.0	1.5	1.50
11. " " " " " ,harrows R.W.U.	2.75	2.25	1.75	2.25
12. " " " " " " U.S.D.	4.0	2.75	3.5	3.42
13. D.C.S.-Seed $\frac{1}{2}$ " deep (S.S.B), fertiliser $3\frac{1}{2}$ " to side	0.75	0.25	0.5	0.50
14. D.C.S.- " 2" " (S.S.B), " $\frac{1}{2}$ " deep & $3\frac{1}{2}$ " offset	1.25	1.5	0.75	1.17

Comments :

- (1) Yields discarded because of variability
- (2) Depth control drill did not show any advantage over present methods. Dropping on surface either from combine or disc drill and covering with upside down harrows best methods here.