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# 1972 Rape variety trials - Summary of 1972 field experiments with advisors

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WESTERN AUSTRALIAN  
DEPARTMENT OF AGRICULTURE

SUMMARY OF 1972 FIELD EXPERIMENTS  
WITH ADVISERS

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1. RAPE VARIETY TRIALS - 1972 (Yields in kilograms per hectare)  
(a)

Trial No.	Location	1. ARLO	2. ECHO	3. POLAR	4. SPAN	Mean 1 - 4	5. TARGET	6. TURRET	7. MASO	8. ZEPHYR	9. ORO	Mean 5 - 9	Wheat Gamenya
72A5 (1)	Avondale R.S.	225	183	169	268	211	135	141	141	126	126	133	1247
72A5 (2)	Avondale R.S.	282	225	268	352	282	184	211	261	162	204	204	1422
72AL5 (1)	Green Range	596	455	213	483	437	560	540	476	547	504	525	-
72AL5 (2)	Green Range	568	568	532	553	555	660	717	724	653	604	672	-
72AL6	Wellstead	262	277	198	185	231	198	198	198	220	220	207	1242
72AL7	Cranbrook	170	139	88	139	134	54	160	118	103	106	108	504
72BA5 (1)	Badgingarra R.S.	489	447	455	468	465	334	376	348	334	305	339	-
72BA5 (2)	Badgingarra R.S.	121	156	156	128	140	-	-	-	-	-	-	-
72BR10	Boyup Brook	405	370	399	320	374	170	235	206	149	221	196	-
72E3 (1)	Esperance D.R.S.	754	683	704	760	725	754	860	661	726	739	748	1764
72E3 (2)	Esperance D.R.S.	363	327	391	370	363	242	270	149	127	191	196	1536
72GE5	Mingenew	497	512	512	554	519	100	157	85	142	128	122	2162
72JE6	Gairdner South	206	170	227	156	190	340	249	249	305	283	285	1610
72JE7	Jerramungup	362	236	315	332	311	205	253	174	205	189	205	1386
72KA4	Katanning W.	128	134	85	113	115	71	142	57	57	99	85	1308
72LG5	Kukerin	340	185	283	347	289	-	-	-	-	-	-	1021
72LG6	Lake Grace	270	227	249	283	257	213	206	105	121	198	169	361
72M2 (a)	Merredin R.S.	338	239	263	312	288	106	157	64	96	82	101	1558
72M2 (b)	Merredin R.S.	334	231	256	348	292	175	157	181	178	170	172	1429
72ME3	Bruce Rock	441	376	420	502	435	343	153	225	206	170	219	1501
72MT9 (1)	Mt. Barker R.S.	881	938	911	726	864	726	711	796	839	911	797	1038
72MT9 (2)	Mt. Barker R.S.	427	327	312	327	348	227	342	327	284	284	293	1023
72NA6	Williams	476	391	348	461	419	-	-	-	-	-	-	1377
72NA7	Narrogin	372	330	245	384	330	-	-	-	-	-	-	1034
72NAB	Wickepin	272	291	327	398	322	178	170	164	164	192	174	1819
72N02	Goomalling	795	653	795	866	777	368	404	419	347	298	367	1419
72N03	Clackline	1093	1093	1000	1043	1057	447	642	541	489	525	529	1327
72N04	Toodyay	988	902	951	1036	969	-	-	-	-	-	-	-
72TS7	Eneabba	199	157	199	199	189	142	64	43	85	93	85	1323
72WH4 (1)	Wongan Hills R.S.	274	356	410	373	353	91	94	78	57	57	75	1686
72WH4 (2)	Wongan Hills R.S.	171	158	149	177	164	58	113	44	84	22	64	1543
MEAN		423	379	382	418	401	272	297	263	262	266	272	

Where applicable (1) June planting - (2) August planting - (a) Light soil - (b) Heavy soil

(b) Yield Ranking

	ARLO	ECHO	POLAR	SPAN	TARGET	TURRET	MASO	ORO	ZEPHYR
No. of times Variety - best or equal best overall	10	5	3	11	1	2	1	0	0
No. of times Variety - best or equal best within B. campestris	11	4	5	12					
No. of times Variety - best or equal best within B. napus					5	14	5	3	1

(c) Flowering Times

Observations of plant development were taken on a number of trials. The following emerged:-

1. Amongst the B. Campestris varieties, Arlo commenced flowering about 2 days before Span and Polar and four days before Echo.  
  
There were no obvious differences amongst B. napus varieties. However, in most trials Turret could be picked as having more flowers and more vigorous growth. In a few trials this was striking.
2. With June-July planting, B. campestris varieties flowered 64 - 70 days after planting. B. napus varieties flowered about 24 days later (90 days after planting).
3. B. napus varieties matured three weeks after B. campestris.

COMMENTS

Yields

(a) Low erucic versus high erucic varieties

Of the greatest importance in these trials is the performance of Span (B. campestris) and Zephyr (B. napus), the low erucic acid varieties, which will be the only varieties accepted by the Seed Board in 1973.

Span yield equalled that of Arlo and growers will lose little in the changeover. Oil and protein contents are yet to be determined, but growers are not paid for oil content at present and this is of secondary importance.

Zephyr did not perform as well as Turret. These results confirm the 1971 experience that Turret is a superior variety. It is likely that Zephyr will yield 10 per cent less than Turret. The cost of the changeover is therefore high and in a 1 tonne per hectare crop would be about \$8.00 per hectare. There was little difference between Zephyr and Oro, the two B. napus low erucic varieties. Quality determinations may show differences.

(b) B. campestris versus B. napus varieties

The B. campestris varieties overall performed much better than the B. napus. This is in sharp contrast to 1971 when B. napus was best overall. Not surprisingly B. napus was better or nearly as good as B. campestris in the south coast high rainfall areas. In the drier areas B. napus was not harvested in five trials.

The large differences in flowering and maturity times of the two species (3 weeks) means that weather conditions at the end of the season can have profound effects on yields and large reversals must be expected. Obviously B. campestris is the safest species to grow in all areas, but on the south coast will probably yield less than B. napus in most years. In lower rainfall areas B. campestris is the only species to grow.

(c) Time of Planting

Six results were obtained from Time of Planting trials.

- 72A5 - Avondale Research Station : Higher yield from 2nd T.O.P. due to better weed control.
- 72AL5 - Green Range : 1st T.O.P. attacked by blackleg. 2nd T.O.P. almost free, gave higher yield.
- 72BA5 - Badgingarra Research Station : 1st T.O.P. best. 2nd T.O.P. severe moisture stress. B. napus not worth harvesting.
- 72E3 - Esperance Downs R. S. : 1st T.O.P. best. 2nd T.O.P. lower due to moisture stress.
- 72MT9 - Mt. Barker Research Station : As for 72E3
- 72WH4 - Wongan Hills R. S. : As for 72E3

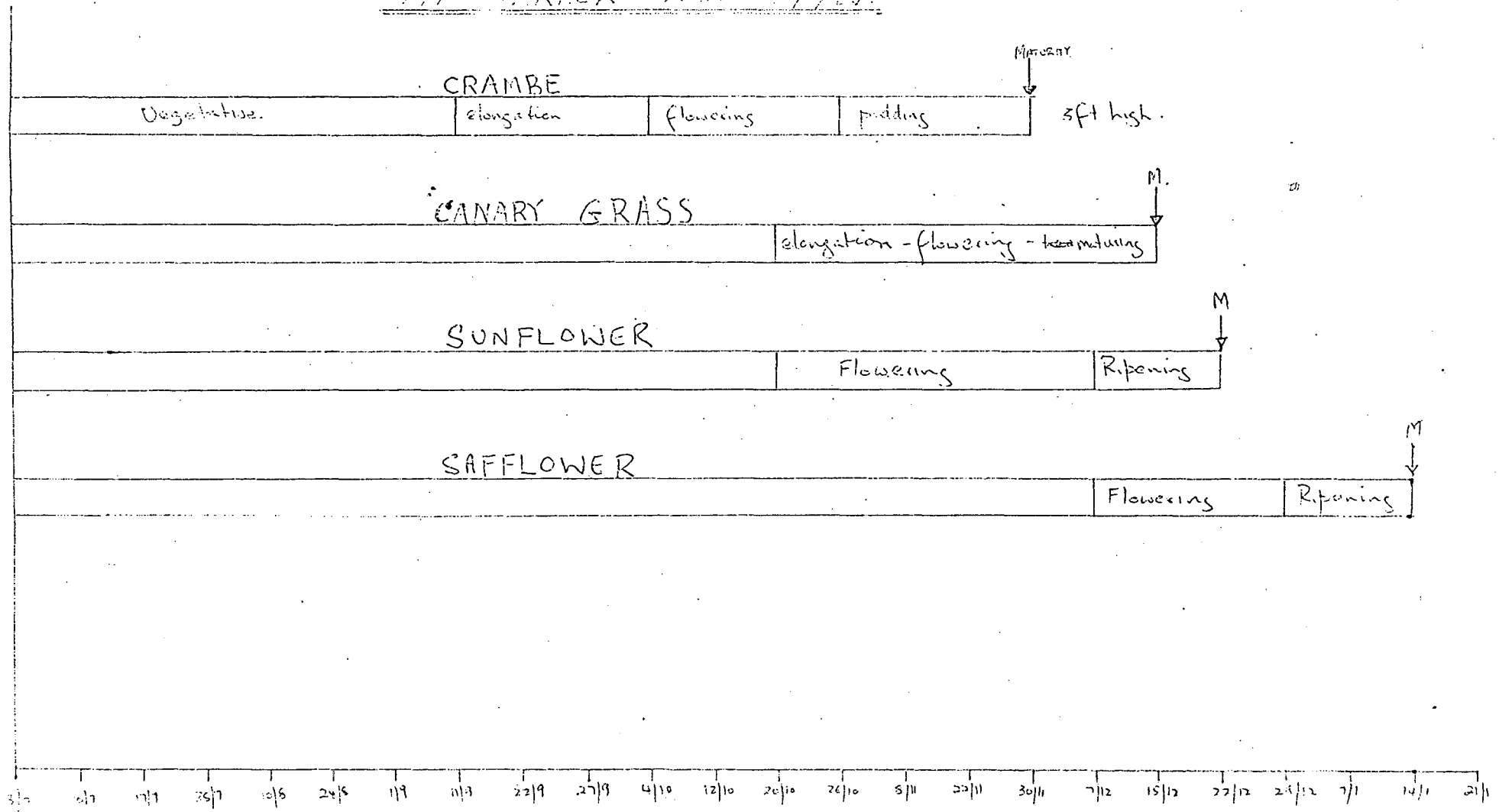
Miscellaneous Crop Trials

These were planted at Mt. Barker and Badgingarra. The Badgingarra trial was very patchy and weedy and was discarded. Lancelin was not harvested but some observations are available. Results for Mt. Barker trial were:-

<u>Yields</u>	<u>kg/ha</u>
Canary seed	- 325
Peredovik sunflower	- Low. Not worth harvesting
Gila safflower	- Not threshed, but will be low
Crambe abyssinica	- 2464
Tokyo buckwheat	- Failed - frost.

\* The very high Crambe yield is worth following up.

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Trials Lost

The following is a list of trials lost or discarded because data was unusable.

Rape variety/time of planting trials.

- 72BR8 - Boyup Brook. Destroyed by Kangaroos and Emus.
- 72BR9 - West Kojonup. Destroyed by Emus and Kangaroos.
- 72KA5 - Tambellup. B. campestris only worth harvesting, but uneven site distorted results.
- 72KA6 - Katanning West. Rape too thin to harvest. Wheat eaten by sheep.
- 72JE8 - Not worth harvesting. Drought.
- 72ES3(2) - Blackleg attacked and destroyed both times of planting.
- 72ES4 - Early blackleg wipeout.
- 72ES5 - Early blackleg wipeout.
- 72M04 )  
72M05 ) - Not worth harvesting.
- 72M06 - Wannamal. Constant harvesting error on hilly site rendered results unusable.
- 72TS6 - Eneabba. Not worth harvesting due to thin stand from poor germination.
- 72GE4 - Mingenew. Overrun by wild radish.
- 72PE1 - Lancelin. Blackleg destroyed both times of planting.
- 72C - Chapman Research Station. Overrun by wild radish.
- 72N - Newdegate Research Station. Yield too low to harvest. Drought.
- 72JE6 - Bremer North. Windblast, blackleg. (1st T.O.P.)
- 72JE7 - Jerramungup. Blackleg, poor growth (2nd T.O.P.)

Other trials

- 72GE44 - Safflower trial )
- 72GE45 - Sunflower trial ) Not worth harvesting.

April 18, 1973  
WM