



**GRDC**

GRAINS RESEARCH  
& DEVELOPMENT  
CORPORATION

# 2021 QUARANTINE REPORT



**WESTERN AUSTRALIA**



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## Important Information for Quarantined (Harvested but not released) Trials

To ensure the results of NVT remain robust, relevant and of the highest quality, it is agreed policy to exclude quarantined trial data from the published reports. Frost, wind and hail damage and drought events are random, uncontrollable, unpredictable and extremely variable in both timing and severity of the damage caused. Variety tolerances to frost and many other random climatic events cannot be measured or gauged in field based NVT.

### **\*\*WARNING\*\***

Data presented within this report provides growers with a transparent account of NVT trials that were severely compromised by various factors rendering them unsuitable for general publication. These trials were harvested but the data was not released as it was deemed of no value for the purposes of head to head variety comparison and should not be used for any variety selection decisions.

Replication of this data is strictly prohibited, and it **MUST NOT** be used by ANY parties for producing variety brochures and marketing material, sowing guides, grower notes or ANY OTHER publication or communication activities.

**Table 1: 2021 WA Unreleased Trials**

Site Description	Crop Name	Trial Code	Sowing Date	Harvest Date	Site Mean Yield	CV Value	P Value	F Value
Merredin	Barley	BMaA21MERR6	12-May-21	08-Nov-21	2.52	7.54	<0.001	4.006
Salmon Gums	Barley	BMaA21SALM6	25-May-21	13-Nov-21	3.26	3.56	<0.001	74.39
Bencubbin	Barley	BMaA21BENC6	14-May-21	16-Nov-21	3.50	4.75	<0.001	13.81
Merredin	Wheat	WMaA21MERR6	12-May-21	08-Nov-21	2.22	12.62	<0.001	7.32
Salmon Gums	Wheat	WMaA21SALM6	25-May-21	13-Nov-21	3.01	2.69	<0.001	53.47
Bencubbin	Wheat	WEaA21BENC6	22-Apr-21	16-Nov-21	1.46	11.32	<0.001	38.91
Bencubbin	Wheat	WMaA21BENC6	14-May-21	16-Nov-21	2.04	6.09	<0.001	51.64
Mukinbudin	Wheat	WMaA21MUKI6	14-May-21	15-Nov-21	3.53	9.03	0.002	2.571
Trayning	Wheat	WMaA21TRAY6	15-May-21	16-Nov-21	2.89	4.68	<0.001	10.52
Wyalkatchem	Wheat	WMaA21WYAL6	25-May-21	17-Nov-21	3.25	4.45	<0.001	8.294
Buntine	Wheat	WMaA21BUNT6	10-May-21	22-Nov-21	2.92	6.97	<0.001	32.97
Moorine Rock	Wheat	WMaA21MORK6	13-May-21	02-Dec-21	2.87	7.09	<0.001	37.06
Yealering	Canola	CEGA21YEAL6	28-Apr-21	09-Nov-21	1.65	6.74	<0.001	14.14
Yealering	Canola	CETA21YEAL6	28-Apr-21	09-Nov-21	1.59	6.92	<0.001	23.81
Bolgart	Canola	CMGA21BOLG6	04-May-21	13-Nov-21	3.15	9.53	<0.001	10.12
Bolgart	Canola	CMTA21BOLG6	04-May-21	13-Nov-21	3.02	9.93	<0.001	7.02
Stirlings South	Canola	CMGA21ST.S6	22-Apr-21	01-Dec-21	2.49	9.48	<0.001	14.32
Stirlings South	Canola	CMTA21ST.S6	22-Apr-21	01-Dec-21	3.19	7.23	<0.001	8.389
Kununurra	Chickpea	DMKA21KUNR6	04-May-21	16-Sep-21	2.26	13.50	0.447	0.990

## 2021 Quarantine Report WA Wheat.

Table 2: Early Break Wheat Trial Yield Data		
Region	Agzone 4	
Locality	Bencubbin	
Trial ID	WEaA21BENC6	
Variety Name	tonnes/ha	% Site Mean
Catapult	1.33	91
Coota	0.93	64
Cutlass	2.41	165
Denison	1.48	101
EG Jet	0.79	54
Illabo	2.15	148
Kinsei	0.32	22
Longsword	2.00	137
LRPB Nighthawk	2.31	158
LRPB Trojan	1.14	78
Magenta	1.11	76
RockStar	0.94	64
Sheriff CL Plus	0.67	46
Tungsten	1.26	86
Valiant CL Plus	1.68	115
Yitpi	1.39	95
Site Mean (t/ha)	1.46	100.00
CV (%)	11.32	
Probability	<0.001	
LSD (t/ha)	0.27	
Sowing Date	22-Apr-2021	

## Trial Comments

WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.

Table 3: Main Season Wheat Trial Yield Data

Region	Agzone4		Agzone2		Agzone4		Agzone4		Agzone4		Agzone5		Agzone4	
Locality	Bencubbin		Buntine		Merredin		Moorine Rock		Mukinbudin		Salmon Gums		Trayning	
Trial ID	WMaA21BENC6		WMaA21BUNT6		WMaA21MERR6		WMaA21MORK6		WMaA21MUKI6		WMaA21SALM6		WMaA21TRAY6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
Ballista	2.23	109	2.76	95	1.70	76	3.03	106	3.73	106	3.43	114	3.11	108
Boree	2.57	126	3.39	116	2.46	111	3.63	127	3.80	108	3.23	107	3.10	107
Calibre	2.38	117	3.34	114	1.95	88	2.73	95	3.67	104	3.75	124	2.93	102
Catapult	2.88	141	3.99	137	2.58	116	3.66	128	3.59	102	3.18	106	3.14	109
Chief CL Plus	2.07	102	2.58	88	2.50	113	2.63	92	3.41	96	2.58	86	3.20	111
Cutlass	2.35	115	3.66	125	2.60	117	3.13	109	3.35	95	2.81	93	2.81	97
Denison	2.63	129	4.21	144	2.87	129	3.76	131	3.88	110	3.20	106	3.05	106
Devil	2.36	116	3.04	104	2.13	96	3.44	120	3.83	109	3.25	108	2.93	101
Emu Rock	0.69	34	1.67	57	1.41	64	1.24	43	3.18	90	3.14	104	2.16	75
Hammer CL Plus	2.11	103	2.69	92	2.05	92	2.76	96	3.48	99	2.78	92	3.14	109
Kinsei	2.56	126	4.27	146	2.72	123	3.78	132	3.68	104	2.97	99	3.13	108
LRPB Cobra	1.77	87	3.00	103	2.12	95	2.45	85	3.60	102	2.26	75	2.71	94
LRPB Havoc	1.62	80	2.99	102	1.74	78	2.29	80	3.87	110	2.84	94	3.13	109
LRPB Nyala	-	-	1.72	59	-	-	-	-	-	-	-	-	-	-
LRPB Oryx	-	-	2.27	78	-	-	-	-	-	-	-	-	-	-
LRPB Trojan	2.11	104	2.09	71	2.10	94	2.27	79	3.66	104	2.71	90	2.73	94

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Table 3: Main Season Wheat Trial Yield Data

Region	Agzone4		Agzone2		Agzone4		Agzone4		Agzone4		Agzone5		Agzone4	
Locality	Bencubbin		Buntine		Merredin		Moorine Rock		Mukinbudin		Salmon Gums		Trayning	
Trial ID	WMaA21BENC6		WMaA21BUNT6		WMaA21MERR6		WMaA21MORK6		WMaA21MUKI6		WMaA21SALM6		WMaA21TRAY6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
Mace	2.04	100	2.71	93	2.32	104	2.95	103	3.75	106	2.89	96	3.09	107
Magenta	2.34	115	3.25	111	2.15	97	3.14	110	3.46	98	-	-	2.49	86
Ninja	2.33	114	3.12	107	2.91	131	3.49	122	4.17	118	3.40	113	2.94	102
Razor CL Plus	1.19	58	2.62	90	1.29	58	2.33	81	3.21	91	3.08	102	2.92	101
RockStar	2.78	137	3.92	134	2.54	114	3.75	131	3.98	113	3.14	104	2.95	102
Scepter	2.00	98	2.65	91	2.65	119	3.35	117	4.28	121	2.90	96	3.09	107
Sheriff CL Plus	2.14	105	2.82	96	2.46	111	3.17	111	3.77	107	2.92	97	3.08	107
Sting	1.38	68	2.54	87	1.70	77	2.03	71	3.05	86	3.52	117	3.13	108
Supreme	1.36	67	1.35	46	1.74	78	1.59	56	3.01	85	2.96	98	2.69	93
Tungsten	2.41	118	3.09	106	2.21	100	3.09	108	3.32	94	-	-	2.43	84
Valiant CL Plus	2.47	121	3.71	127	2.19	98	3.48	121	3.36	95	3.09	102	2.76	96
Vixen	1.85	91	2.87	98	1.57	71	2.10	73	3.64	103	3.73	124	2.89	100
Wedin	2.13	105	3.36	115	2.46	111	3.11	109	3.23	91	-	-	2.71	94
Yitpi	2.01	99	3.26	112	2.24	101	3.02	105	2.97	84	2.53	84	2.47	86
Zen	2.14	105	3.15	108	2.45	111	3.36	117	3.55	100	2.82	94	3.17	110

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Table 3: Main Season Wheat Trial Yield Data

Region	Agzone4		Agzone2		Agzone4		Agzone4		Agzone4		Agzone5		Agzone4	
Locality	Bencubbin		Buntine		Merredin		Moorine Rock		Mukinbudin		Salmon Gums		Trayning	
Trial ID	WMAA21BENC6		WMAA21BUNT6		WMAA21MERR6		WMAA21MORK6		WMAA21MUKI6		WMAA21SALM6		WMAA21TRAY6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
Site Mean (t/ha)	2.04	100	2.92	100	2.22	100	2.87	100	3.53	100	3.01	100	2.89	100
CV (%)	6.09		6.97		12.62		7.09		9.03		2.69		4.68	
Probability	<0.001		<0.001		<0.001		<0.001		0.00		<0.001		<0.001	
LSD (t/ha)	0.22		0.33		0.46		0.33		0.55		0.14		0.23	

Sowing Date	14-May-2021	10-May-2021	12-May-2021	13-May-2021	14-May-2021	25-May-2021	15-May-2021
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Trial Comments	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. This trial results should not be used to make variety selection decisions.
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## 2021 Quarantine Report WA Barley.

Table 4: Main Barley Trial Yield Data

Region	Agzone4		Agzone4		Agzone5	
Locality	Bencubbin		Merredin		Salmon Gums	
Trial ID	BMaA21BENC6		BMaA21MERR6		BMaA21SALM6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
Alestar	3.30	94	2.22	88	2.21	68
Bass	3.20	91	2.05	82	2.68	82
Beast	3.60	103	2.87	114	3.82	117
Bottler	-	-	-	-	2.53	78
Buff	3.78	108	2.78	110	2.83	87
Commodus CL	3.41	97	2.42	96	3.68	113
Compass	3.65	104	2.67	106	3.78	116
Cyclops	3.82	109	2.60	103	3.73	114
Fathom	3.83	109	2.65	105	3.25	100
La Trobe	3.20	91	2.17	86	3.37	103
Laperouse	3.56	102	2.60	103	3.09	95
Leabrook	4.09	117	2.67	106	3.84	118
Litmus	3.05	87	2.36	94	-	-
Maximus CL	3.22	92	2.73	109	3.35	103
Minotaur	3.49	100	2.56	102	3.32	102
RGT Planet	3.59	103	2.34	93	2.61	80
Rosalind	3.01	86	2.46	98	3.60	110
Scope CL	3.39	97	2.58	103	-	-
Spartacus CL	2.83	81	2.15	85	3.47	106
Site Mean (t/ha)	3.50		2.52		3.26	
CV (%)	4.75		7.54		3.56	
Probability	<0.001		<0.001		<0.001	
LSD (t/ha)	0.30		0.31		0.20	

AnalysisDate	18-Nov-2021	12-Nov-2021	17-Nov-2021
Sowing Date	14-May-2021	12-May-2021	25-May-2021

Trial Comments	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. These trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. These trial results should not be used to make variety selection decisions.	WARNING: THIS TRIAL WAS SEVERELY AFFECTED BY FROST. Frost will affect varieties differently and trial results will be unreliable and not a true reflection of variety performance or ranking. These trial results should not be used to make variety selection decisions.
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## 2021 Quarantine Report WA Canola.

Table 5: Glyphosate Tolerant Canola Trial Yield Data

Region	Agzone2		Agzone2		Agzone6	
Locality	Yealering		Bolgart		Stirlings South	
Trial ID	CEGA21YEAL6		CMGA21BOLG6		CMGA21ST.S6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
DG Bindo TF	1.32	80	1.97	63	2.74	110
DG Lofty TF	1.04	63	1.85	59	-	-
Hyola 410XX	1.29	78	3.03	96	-	-
Hyola Battalion XC	1.65	100	3.13	99	0.94	38
Hyola Garrison XC	-	-	2.26	72	1.41	57
InVigor R 3520	1.81	110	-	-	-	-
InVigor R 4022P	1.69	102	3.31	105	2.18	87
InVigor R 4520P	1.76	106	3.82	121	2.51	101
InVigor R 5520P	-	-	3.15	100	2.30	92
Nuseed Condor TF	-	-	2.59	82	2.59	104
Nuseed Emu TF	1.39	84	-	-	-	-
Nuseed Raptor TF	1.83	111	3.10	98	2.09	84
Pioneer 44Y27 (RR)	1.82	110	2.79	88	-	-
Pioneer 44Y30 RR	1.70	103	3.83	121	2.11	85
Pioneer 45Y28 RR	-	-	3.75	119	3.20	129
VICTORY V55-04TF	-	-	-	-	2.63	106
Site Mean (t/ha)	1.65	100	3.15	100	2.49	100
CV (%)	6.74		9.53		9.48	
Probability	<0.001		<0.001		<0.001	
LSD (t/ha)	0.19		0.50		0.46	

## Germination Rain Date

28-Apr-2021

04-May-2021

22-Apr-2021

## Trial Comments

This trial was severely waterlogged all year and compromised the performance of all varieties. These trial results should not be used to make variety selection decisions.

This trial was adversely affected by late lodging causing difficulties with harvest across a wide range of lines, harvest results are NOT a true representation of all lines. These trial results should not be used to make variety selection decisions.

Trial not to be released due to unacceptable within plot and trial variability. These trial results should not be used to make variety selection decisions.

Table 6: Triazine Tolerant Canola Trial Yield Data

Region	Agzone2		Agzone2		Agzone6	
Locality	Bolgart		Yealering		Stirlings South	
Trial ID	CMTA21BOLG6		CETA21YEAL6		CMTA21ST.S6	
Variety Name	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean	tonnes/ha	% Site Mean
AFP Cutubury	2.74	91	1.19	74	-	-
ATR Bluefin	2.41	80	1.07	67	-	-
ATR Bonito	2.58	85	1.19	75	-	-
DG BIDGEE TT	3.29	109	-	-	3.14	98
DG MURRAY TT	-	-	-	-	3.06	96
Hyola Blazer TT	3.67	121	-	-	3.16	99
Hyola Enforcer CT	2.82	93	-	-	2.37	74
HyTTec Trident	2.01	67	2.16	136	-	-
HyTTec Trifecta	-	-	-	-	3.63	114
HyTTec Trophy	3.48	115	-	-	3.08	96
InVigor LT 4530P	3.18	105	1.98	124	2.76	87
InVigor T 4510	3.03	100	1.86	117	3.05	96
InVigor T 6010	3.30	109	-	-	3.27	102
RGT Capacity TT	2.95	97	1.56	98	2.98	93
SF Dynatron TT	3.23	107	1.87	117	3.35	105
SF Ignite TT	-	-	-	-	3.71	116
SF Spark TT	2.99	99	1.81	114	-	-
SF Turbine TT	3.49	116	-	-	-	-
Site Mean (t/ha)	3.02	100	1.59	100	3.19	100
CV (%)	9.93		6.92		7.23	
Probability	<0.001		<0.001		<0.001	
LSD (t/ha)	0.49		0.19		0.43	
Date Seed In Ground	03-May-2021		-		-	
Germination Rain Date	04-May-2021		28-Apr-2021		22-Apr-2021	

## Trial Comments

This trial was adversely affected by late lodging causing difficulties with harvest across a wide range of lines, harvest results are NOT a true representation of all lines. These trial results should not be used to make variety selection decisions.

This trial was severely waterlogged all year and compromised the performance of all varieties. These trial results should not be used to make variety selection decisions.

Trial not to be released due to unacceptable within plot and trial variability. These trial results should not be used to make variety selection decisions.



## 2021 Quarantine Report WA Chickpea

Table 7: Desi Chickpea Trials Trial Yield Data

Region	Ord	
Locality	Kununurra	
Trial ID	DMKA21KUNR6	
Variety Name	tonnes/ha	% Site Mean
Almaz	2.31	103
Genesis 090	2.48	110
Genesis Kalkee	2.11	94
Kimberley Large	2.05	91
PBA Magnus	2.31	103
PBA Monarch	2.10	93
PBA Royal	2.42	107
Site Mean (t/ha)	2.26	100
CV (%)	13.50	
Probability	0.45	
LSD (t/ha)	0.48	
Sowing Date	04-May-2021	
Trial Comments	This trial was not released due to high P Value making determination of varietal difference difficult. These trial results should not be used to make variety selection decision	