

Winter 2024 ART Variety Trial Technical Report – Released Varieties

1 Introduction

Choosing the right crop variety is one of the most fundamental and important agronomic considerations in crop production. It can significantly impact characteristics including plant vigour, pest and disease damage, drought tolerance, grain quality, and ultimately, yield. The choice of cultivar subsequently has a great effect on the bottom line of the producer. Seed houses and producers alike must therefore carefully consider a range of conditions in selecting the right cultivar. These include agro-ecological zone, soil type and pH, fertilisation capacity, pest and disease control capacity, harvest time requirements, irrigation capacity, and intended use. Selecting the right cultivar is a difficult procedure. The use of scientific research is a highly important tool for producers and seed houses alike in order to make a reliable choice or recommendation. Further, when releasing new varieties to the market, Seed houses may independently test the experimental cultivars against a series of industry standard commercial cultivars or ‘Checks’. This is to ensure from a scientific and unbiased perspective that the experimental cultivar provides additional value to the market. In addition, it protects producers from misinformation about cultivar performance. The objective of the ART Variety trials is to compare the performance of commercial and experimental grain crop cultivars in Winter and Summer seasons.

2 Methodology

2.1 Design

11 Sites were planted during the Winter 2024 season. Sites comprised farms and research stations at the following locations: Arcturus; ART; Banket; Chakari; Kadoma; Kwekwe; Marondera North; Marondera South; Norton; Rattray-Arnold Research Station (RARS). There was one Check cultivar, namely SC Select. The trial was a complete-block randomised design with three replications. Treatments were randomised separately for each site. The gross plot was 10 rows wide at 0.2m row spacing, and 6m long, resulting in a gross plot area of 12m². Net plot was 6 rows wide and 5.5m long, a total of 6.6m² taken from the center of the gross plot.

2.2 Management

All sites were tilled to a level where there was less than 10% residue on the soil surface. Basal fertilisation rates are detailed in table 2.1. The ratio of each cereal blend was variable, but differed only by a maximum of 2% for each nutrient. Top dressing was done by hand at various rates depending on farmer management. Trials were kept weed-free throughout using a combination of herbicide and hand weeding. Irrigation relied on the management of the host farm, and consequently the total amount and distribution varied greatly with farmer preference, soil hydrological characteristics, water supply, and most crucially electricity supply.

Table 2.1: List of Sites and General crop management

site	Effective Planting	Total Irrigation (mm)	Basal fertiliser (Cereal blend; Kg/ha)	Top Dressing (Kg N /ha)
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	Date (Std. Cal.)			
ARCTURUS	17	412	360.5	172.42
ART	9	374	400.0	150.00
BANKET	8	255	437.0	187.50
CHAKARI	0	483	400.0	150.00
KADOMA	7	186	385.5	150.00
KWEKWE	17	360	450.0	150.00
MARONDERAN	7	701	485.5	168.75
MARONDERAS	-10	620	417.0	186.00
NORTON	8	596	450.0	186.00
RARS	10	450	400.0	150.00

2.3 Data capture

Days to flowering, Days to maturity, and disease records were taken only at 3 sites, namely ART, RARS, and KRS. Days to flowering and days to maturity were captured using the ART Standard calendar for the Winter season (Annex 1), sites ART, RARS, and KRS. Powdery Mildew (*Blumeria graminis f. sp. tritici*), Leaf rust (*Puccinia triticina*), Stem Rust (*Puccinia graminis f. sp. tritici*), and Yellow Rust (*Puccinia striiformis f. sp. tritici*) scores were all assessed using a 0-5 scale of severity. All remaining variables were captured at all sites.

2.4 Data analysis

Randomisation and field plans were computed using the CropStat statistical software package. Data analysis was performed using the RStudio statistical software package. To determine significant differences, a factorial Analysis of Variance (ANOVA) statistical test was used for each response variable, with the factors being Site and Cultivar (Site x Cultivar). The Tukeys HSD post-hoc test was used for pairwise comparisons and creation of compact letter displays. All tests of significance were subject to 95% confidence intervals ($p < 0.05$).

3 Results and Discussion

The results of the factorial ANOVA are shown in table 3.1. The interaction effects of disease variables on cultivar:site were not computed due to a lack of data at enough sites this season, and so they were analysed on a per-site basis. The Chegutu site data was written off due to sheep damage, and is therefore not included in the results. Table 3.1 shows that there were significant ($p < 0.05$) differences between the interaction of site and cultivar, for bird damage, lodging, test density, 1000 seed count, days to flowering (dflw), days to maturity (dmat), and yield. This means that cultivars do not perform consistently across sites and therefore must be analysed on a per-site basis. Only plant height (pht) was consistently significant across sites. This means that cultivar differences can be analysed as a mean of all sites grouped.

Table 3.1: Results of the Factorial ANOVA (Cultivar x Site)

Response	term	statistic	p.value	Significance (P < 0.05)
bird_damage	variety_code	2.007	0.004	*
bird_damage	site	28.025	0.000	*

bird_damage	variety_code:site	2.191	0.000	*
pht	variety_code	51.230	0.000	*
pht	site	153.093	0.000	*
pht	variety_code:site	1.178	0.083	
lodging	variety_code	3.371	0.000	*
lodging	site	11.562	0.000	*
lodging	variety_code:site	1.639	0.000	*
testdensity	variety_code	10.918	0.000	*
testdensity	site	53.896	0.000	*
testdensity	variety_code:site	1.990	0.000	*
kseedweight	variety_code	26.349	0.000	*
kseedweight	site	72.018	0.000	*
kseedweight	variety_code:site	1.486	0.000	*
dflw	variety_code	24.457	0.000	*
dflw	site	8195.321	0.000	*
dflw	variety_code:site	2.000	0.001	*
dmat	variety_code	9.960	0.000	*
dmat	site	2123.382	0.000	*
dmat	variety_code:site	2.188	0.000	*
yield	variety_code	15.305	0.000	*
yield	site	101.706	0.000	*
yield	variety_code:site	6.226	0.000	*

3.1 Plant Height

Plant heights were consistently variable with cultivar across all sites.

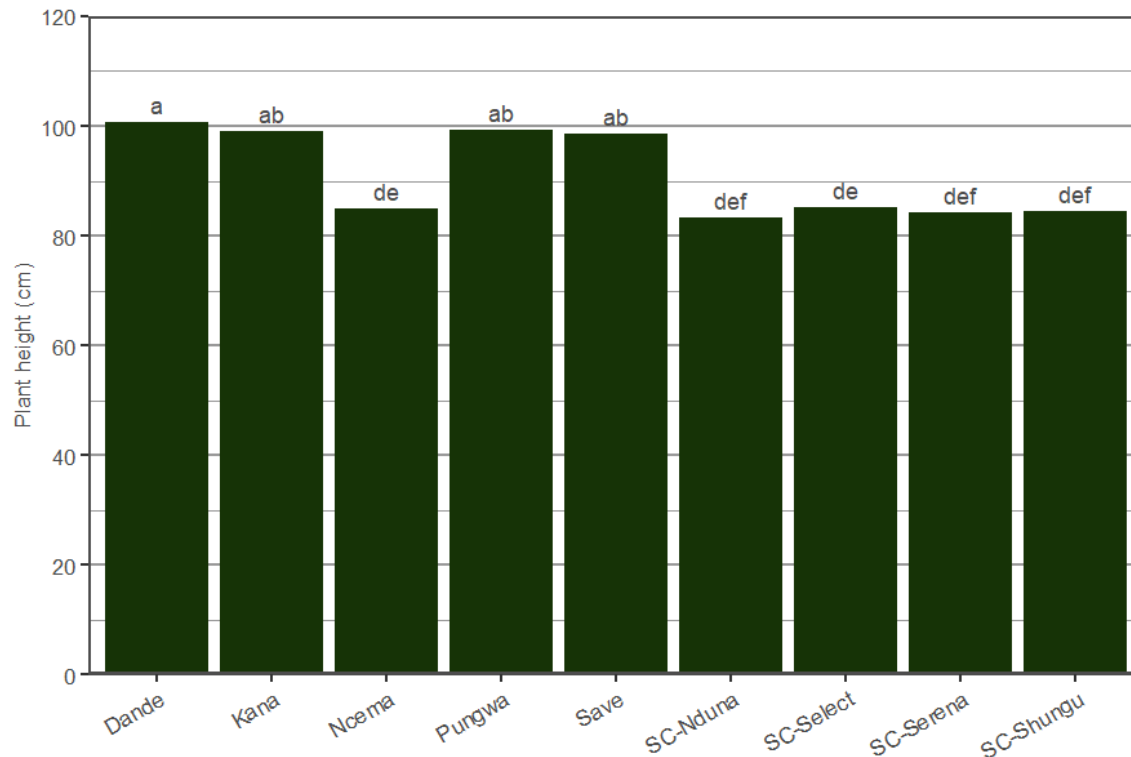


Figure 3.1: Plant height across sites. Different letters above columns represent significant differences ($p < 0.05$)

3.2 Powdery Mildew

Powdery Mildew was not significant under the ANOVA test on a sitewise basis because all scores were same for all varieties. All cultivars scored zero, so ANOVA test of significance was unable to be computed.

3.3 Leaf Rust

Leaf Rust was not significant under the sitewise ANOVA test. All varieties scored 1.00 except for Dande, Ncema, and 24-W555, which scored 1.33 at RARS only.

3.4 Stem Rust

Stem Rust was not significant under the sitewise ANOVA test because the score was 1 for all varieties at each site, therefore ANOVA the of significance was unable to be computed.

3.5 Yellow rust

Yellow Rust damage was high at both ART and RARS, but the results were not consistent across varieties at the two sites where data was collected.

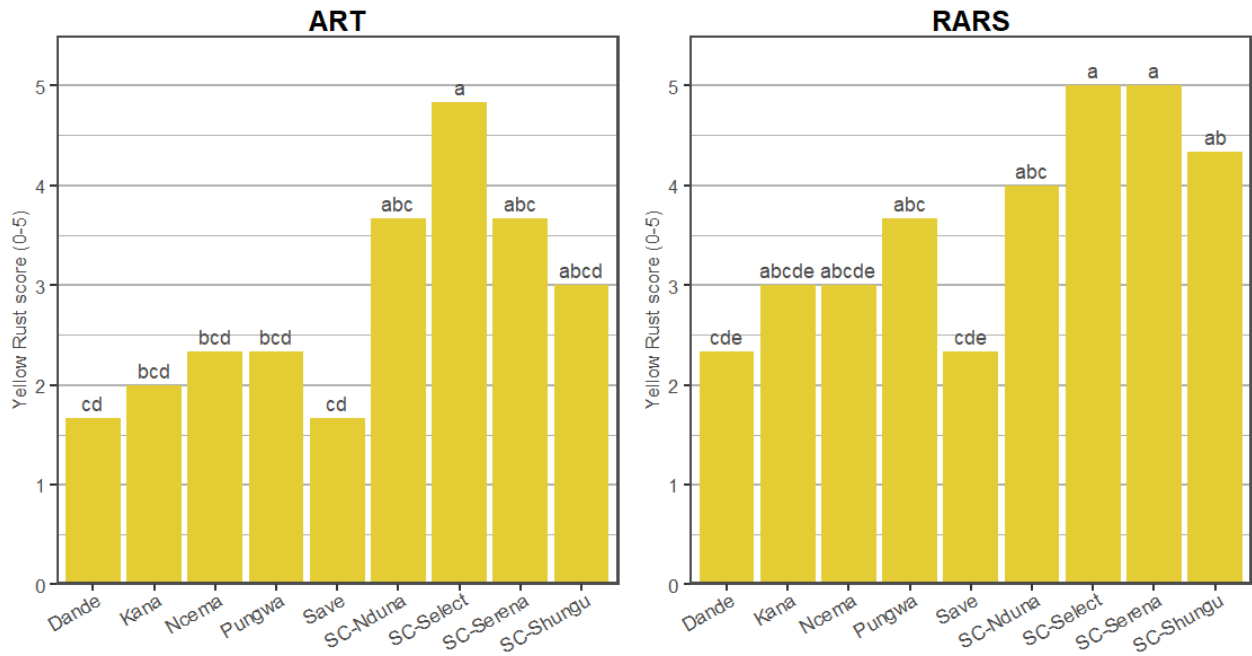


Figure 3.2: Yellow rust score at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different.

3.6 Days to flowering

Days to flowering was not consistent across sites for the cultivars. There were however significant differences between varieties at each site, likely due to environmental conditions and crop management.

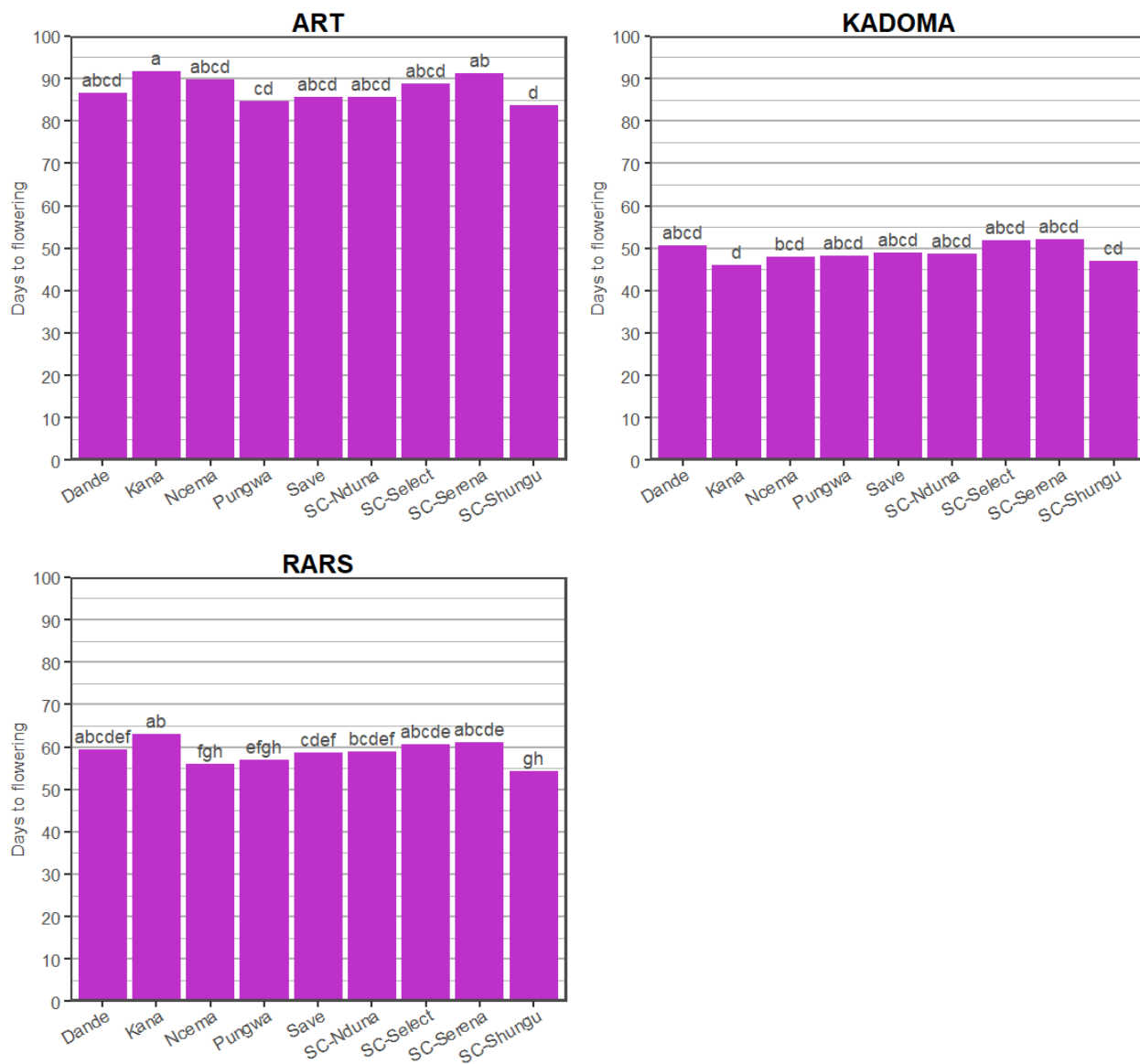


Figure 3.3: Days to flowering at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different.

3.7 Days to maturity

Days to maturity was not consistent across sites for the cultivars. There were however significant differences between varieties at each site, likely due to environmental conditions and crop management.

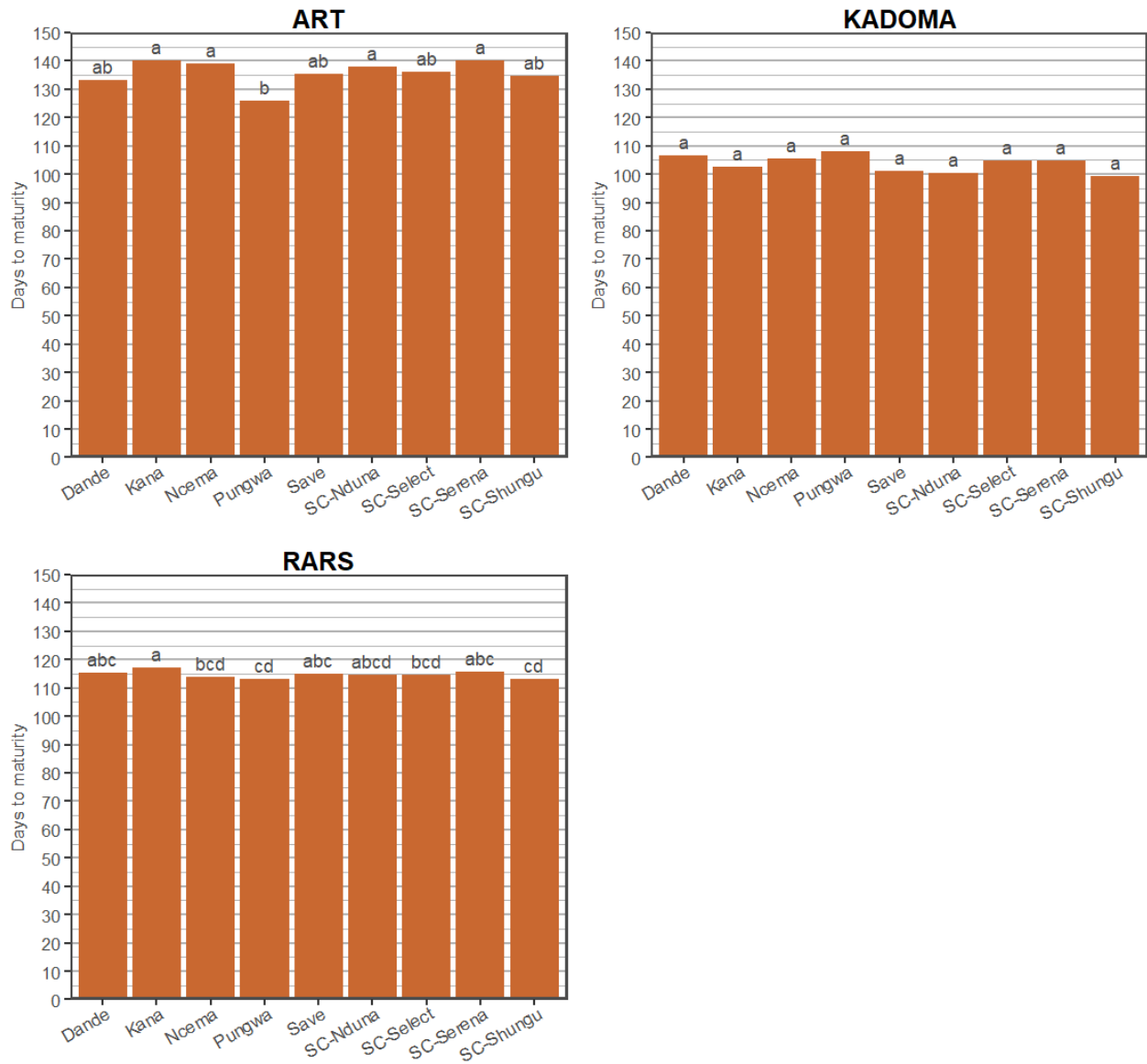


Figure 3.4: Days to maturity at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different.

3.8 Lodging

Lodging was also not consistent for varieties across sites, suggesting that site differences had an effect on which varieties lodged more over others. In general, some varieties lodged more than others at both sites.

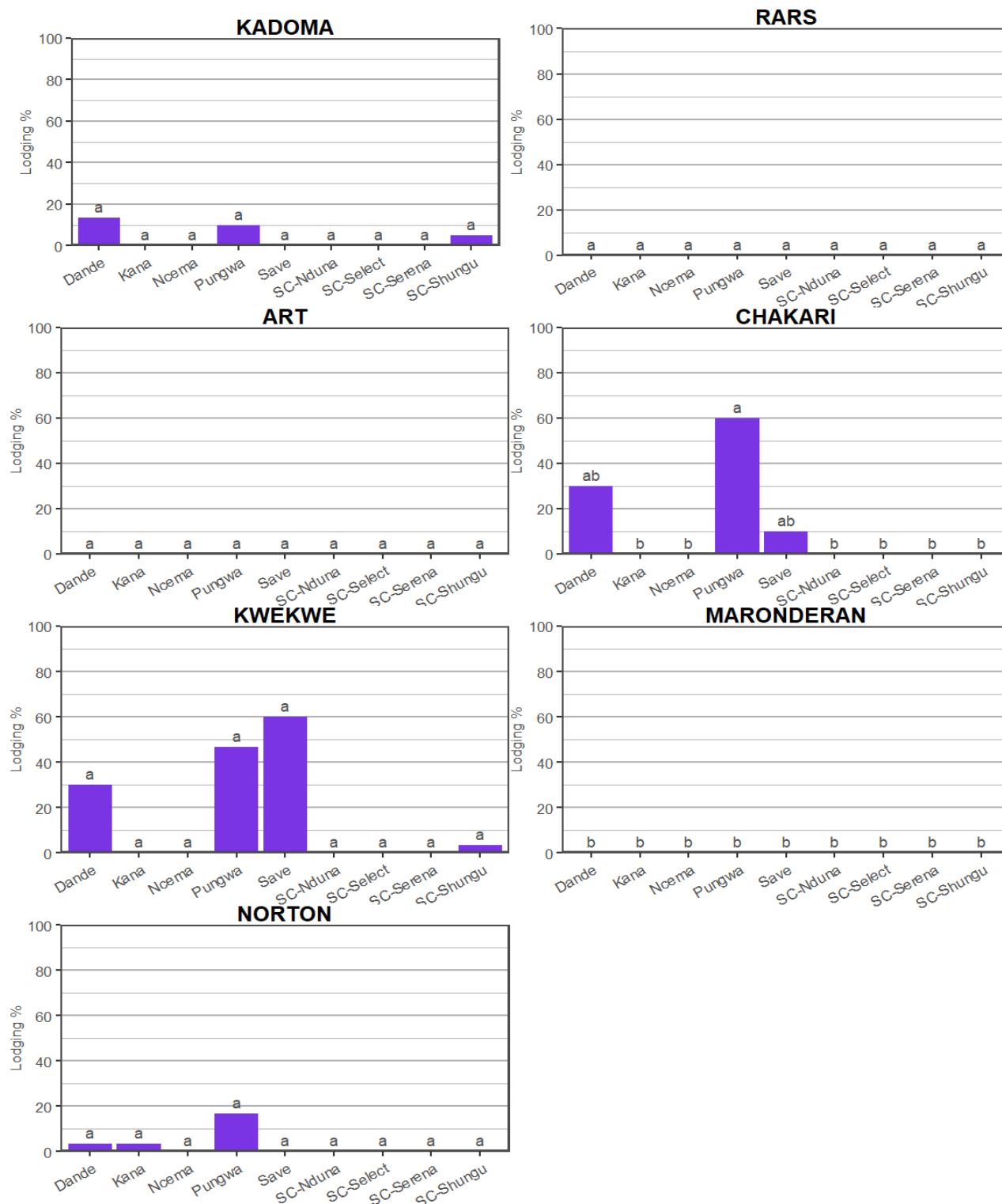


Figure 3.5: Lodging percentage. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different. Sites not displayed were not computed in the ANOVA due to having 0% lodging for each cultivar.

3.9 1000 seed weight

1000 Seed weight was also not consistent for varieties across sites.

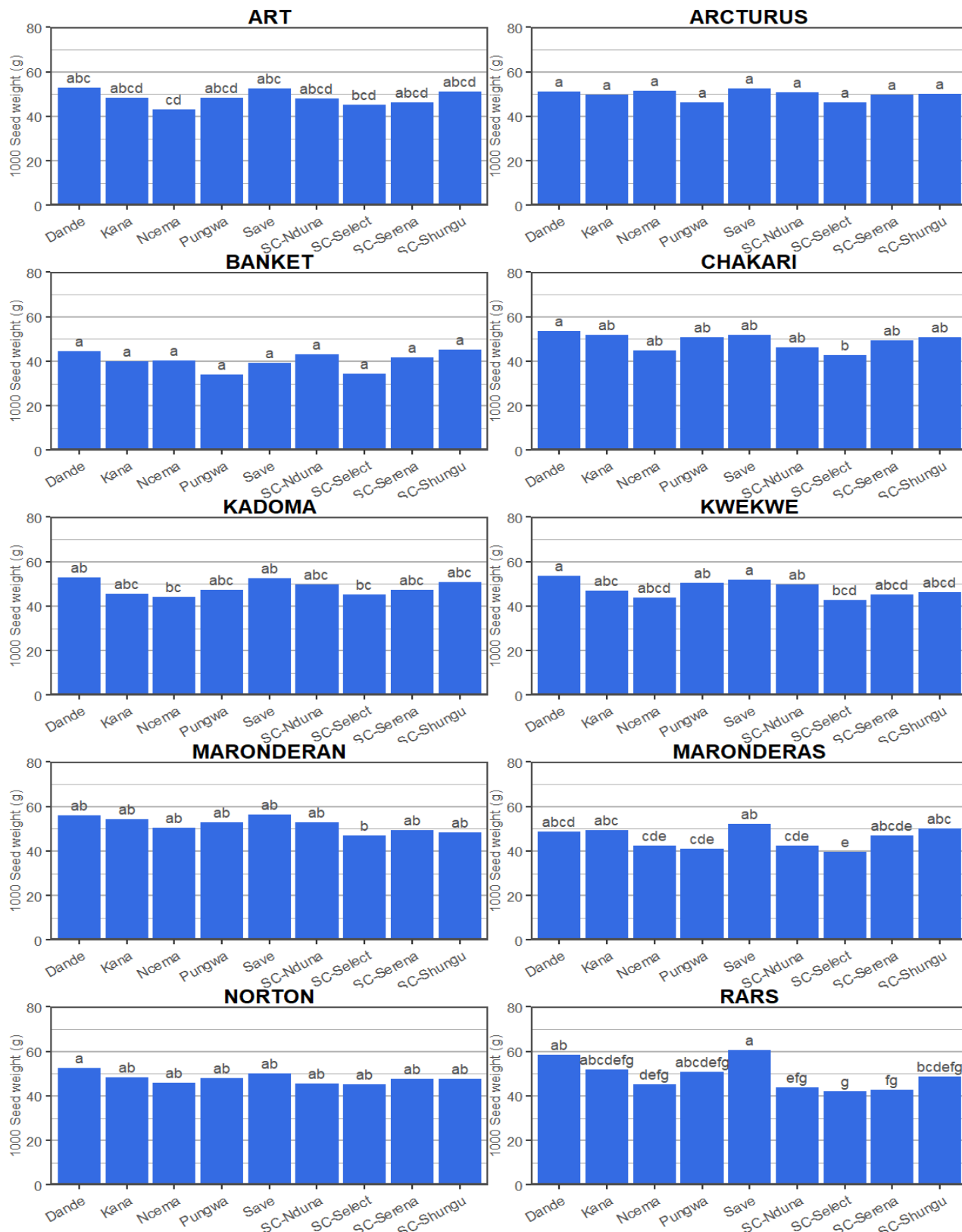


Figure 3.6: 1000 seed weight at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different.

3.10 Test Density

Test Density was also not consistent for varieties across sites.

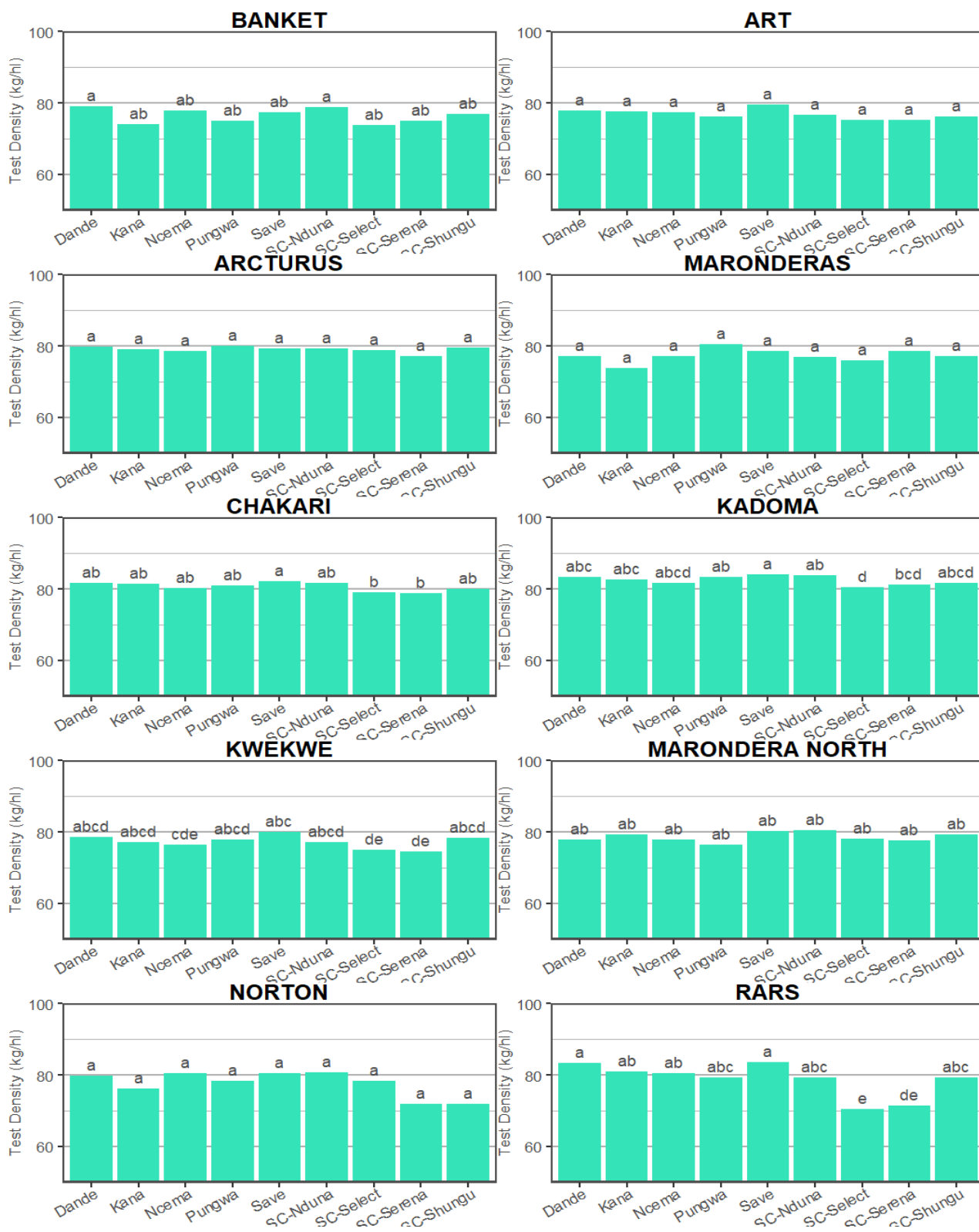


Figure 3.7: Test density at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different.

3.11 Yield

Yield was not consistent for varieties across sites. The below figure shows the yields obtained at each site that were shown to have significant differences in the sitewise ANOVA test. ART Farm was the only site which did not produce significant differences in yield, potentially due to high soil fertility levels resulting in crops attaining yields closer to the yield potential, and thus resulting in a lower variance between cultivars.

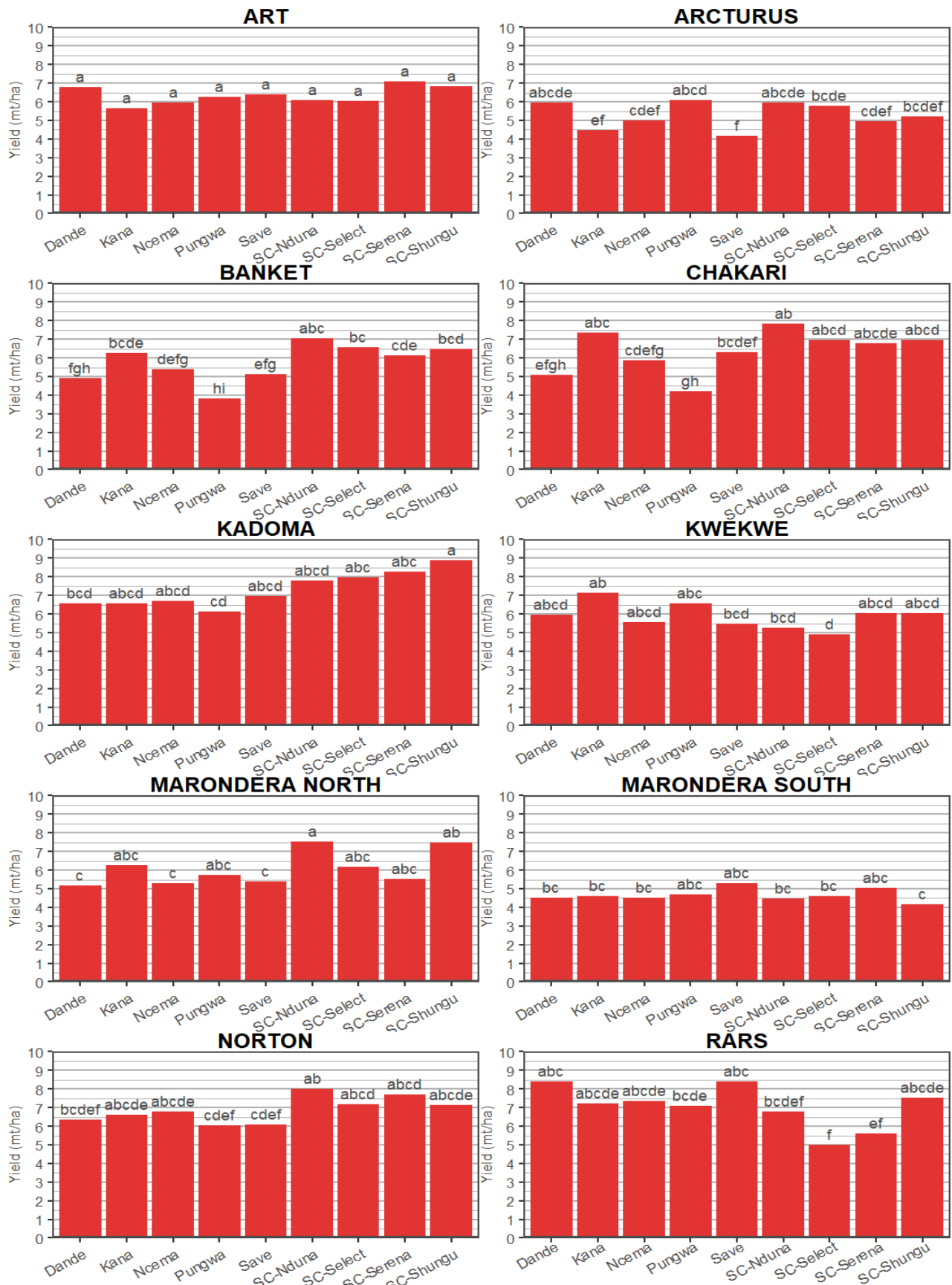


Figure 3.8: Yield at each site. Letters above columns represent significance groups. If any of the letters are the same for cultivars, they are not significantly different ($p < 0.05$).

4 Conclusion

This trial was conducted to assess the performance of commercial and experimental wheat varieties. It included cultivars from multiple clients and one check cultivar (SC-Select). Only the check cultivars, released cultivars, and the cultivars entered by Released are shown here. The results show that only one response variable from those assessed, plant height, was consistent for varieties across all sites. All other variables assessed in this analysis, comprising disease scores, days to flowering, days to maturity, 1000 seed weight, test density, lodging, and yield, did not perform consistently for variety across sites. This means that site environments and management is affecting the varieties in different ways. Therefore, reliable conclusions about the varieties for all sites tested cannot be drawn, including analysis of grand means across sites. Instead, each variety must be analysed by each site. Released is encouraged to analyse the management of the sites to further understand the observed differences between sites, and raw data is provided separately for such purposes.

5 Acknowledgements

ART wishes to express their sincere gratitude to Seed Co Ltd for the use of facilities at Rattray-Arnold Research Station and Kadoma Research Station, including data capturing. In addition, special thanks is extended to the farmers at each of the off-station sites where the trail was hosted. Finally, to each of the clients who provide the financial support to make this work possible.

6 Annex 1: ART Standard Calendar file

Table 6.1: ART Standard Calendar for Summer

Day of Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	1	32	62	93	124	152	183	213
2	2	33	63	94	125	153	184	214
3	3	34	64	95	126	154	185	215
4	4	35	65	96	127	155	186	216
5	5	36	66	97	128	156	187	217
6	6	37	67	98	129	157	188	218
7	7	38	68	99	130	158	189	219
8	8	39	69	100	131	159	190	220
9	9	40	70	101	132	160	191	221
10	10	41	71	102	133	161	192	222
11	11	42	72	103	134	162	193	223
12	12	43	73	104	135	163	194	224
13	13	44	74	105	136	164	195	225
14	14	45	75	106	137	165	196	226
15	15	46	76	107	138	166	197	227
16	16	47	77	108	139	167	198	228
17	17	48	78	109	140	168	199	229
18	18	49	79	110	141	169	200	230
19	19	50	80	111	142	170	201	231
20	20	51	81	112	143	171	202	232
21	21	52	82	113	144	172	203	233
22	22	53	83	114	145	173	204	234
23	23	54	84	115	146	174	205	235
24	24	55	85	116	147	175	206	236
25	25	56	86	117	148	176	207	237
26	26	57	87	118	149	177	208	238
27	27	58	88	119	150	178	209	239
28	28	59	89	120	151	179	210	240
29	29	60	90	121		180	211	241
30	30	61	91	122		181	212	242
31	31		92	123		182		243
-	-	-	-	-	-	-	-	-

Table 6.2: ART Standard Calendar for Winter

Day of Month	May	June	July	August	Sep	Oct	Nov
1	1	32	62	93	124	154	185
2	2	33	63	94	125	155	186
3	3	34	64	95	126	156	187
4	4	35	65	96	127	157	188
5	5	36	66	97	128	158	189
6	6	37	67	98	129	159	190
7	7	38	68	99	130	160	191
8	8	39	69	100	131	161	192
9	9	40	70	101	132	162	193
10	10	41	71	102	133	163	194
11	11	42	72	103	134	164	195
12	12	43	73	104	135	165	196
13	13	44	74	105	136	166	197
14	14	45	75	106	137	167	198
15	15	46	76	107	138	168	199
16	16	47	77	108	139	169	200
17	17	48	78	109	140	170	201
18	18	49	79	110	141	171	202
19	19	50	80	111	142	172	203
20	20	51	81	112	143	173	204
21	21	52	82	113	144	174	205
22	22	53	83	114	145	175	206
23	23	54	84	115	146	176	207
24	24	55	85	116	147	177	208
25	25	56	86	117	148	178	209
26	26	57	87	118	149	179	210
27	27	58	88	119	150	180	211
28	28	59	89	120	151	181	212
29	29	60	90	121	152	182	213
30	30	61	91	122	153	183	214
31	31		92	123		184	
-	-	-	-	-	-	-	-

7 Annex 2: Tabular Data Summary - Released

Table 7.1: Data summary

site	variety_code	bird_damage	pht	lodging	testdensity	kseedweight	flwd	matd	pmil	lrus	srus	yrus	protein	yield	dflw	dmat
ARCTURUS	Dande	0.00	107.67	0.00	79.78	51.00	NA	NA	NA	NA	NA	NA	NA	5.94	NA	NA
ARCTURUS	Kana	0.00	109.00	0.00	79.15	49.67	NA	NA	NA	NA	NA	NA	NA	4.48	NA	NA
ARCTURUS	Ncema	0.00	89.33	0.00	78.61	51.67	NA	NA	NA	NA	NA	NA	NA	5.01	NA	NA
ARCTURUS	Pungwa	0.00	104.33	0.00	80.08	46.33	NA	NA	NA	NA	NA	NA	NA	6.11	NA	NA
ARCTURUS	SC-Nduna	0.00	89.33	0.00	79.43	50.67	NA	NA	NA	NA	NA	NA	NA	5.97	NA	NA
ARCTURUS	SC-Select	0.00	86.33	0.00	78.79	46.33	NA	NA	NA	NA	NA	NA	NA	5.80	NA	NA
ARCTURUS	SC-Serena	0.00	84.67	0.00	77.08	49.67	NA	NA	NA	NA	NA	NA	NA	4.97	NA	NA
ARCTURUS	SC-Shungu	0.00	88.00	0.00	79.53	50.00	NA	NA	NA	NA	NA	NA	NA	5.23	NA	NA
ARCTURUS	Save	0.00	110.00	0.00	79.24	52.67	NA	NA	NA	NA	NA	NA	NA	4.15	NA	NA
ART	Dande	0.00	104.33	0.00	77.81	53.00	95.67	142.33	0	1.00	NA	1.67	NA	6.80	86.67	133.33
ART	Kana	0.00	95.67	0.00	77.55	48.33	100.67	149.00	0	1.00	NA	2.00	NA	5.64	91.67	140.00
ART	Ncema	0.00	89.00	0.00	77.35	43.00	98.67	148.00	0	1.00	NA	2.33	NA	5.96	89.67	139.00
ART	Pungwa	0.00	102.67	0.00	76.13	48.33	93.67	135.00	0	1.00	NA	2.33	NA	6.27	84.67	126.00
ART	SC-Nduna	0.00	86.00	0.00	76.79	48.00	94.67	147.00	0	1.00	NA	3.67	NA	6.10	85.67	138.00
ART	SC-Select	0.00	89.33	0.00	75.35	45.17	97.83	145.00	0	1.00	NA	4.83	NA	6.06	88.83	136.00
ART	SC-Serena	0.00	85.67	0.00	75.28	46.33	100.33	149.00	0	1.00	NA	3.67	NA	7.11	91.33	140.00
ART	SC-Shungu	0.00	84.67	0.00	76.32	51.00	92.67	143.67	0	1.00	NA	3.00	NA	6.83	83.67	134.67
ART	Save	0.00	97.33	0.00	79.61	52.67	94.67	144.33	0	1.00	NA	1.67	NA	6.38	85.67	135.33
BANKET	Dande	0.00	95.33	0.00	79.11	44.67	NA	NA	NA	NA	NA	NA	NA	4.91	NA	NA
BANKET	Kana	0.00	84.67	0.00	74.16	40.00	NA	NA	NA	NA	NA	NA	NA	6.28	NA	NA
BANKET	Ncema	0.00	73.33	0.00	77.84	40.33	NA	NA	NA	NA	NA	NA	NA	5.38	NA	NA
BANKET	Pungwa	0.00	84.33	0.00	75.05	34.00	NA	NA	NA	NA	NA	NA	NA	3.80	NA	NA
BANKET	SC-Nduna	0.00	64.33	0.00	78.79	43.00	NA	NA	NA	NA	NA	NA	NA	7.05	NA	NA
BANKET	SC-Select	0.00	71.17	0.00	73.73	34.50	NA	NA	NA	NA	NA	NA	NA	6.58	NA	NA
BANKET	SC-Serena	0.00	69.67	0.00	75.10	41.67	NA	NA	NA	NA	NA	NA	NA	6.12	NA	NA
BANKET	SC-Shungu	0.00	72.00	0.00	76.93	45.33	NA	NA	NA	NA	NA	NA	NA	6.47	NA	NA
BANKET	Save	0.00	85.67	0.00	77.38	39.33	NA	NA	NA	NA	NA	NA	NA	5.14	NA	NA

CHAKARI	Dande	0.00	108.33	30.00	81.66	53.67	NA	NA	NA	NA	NA	NA	NA	5.10	NA	NA
CHAKARI	Kana	0.00	106.00	0.00	81.39	52.00	NA	NA	NA	NA	NA	NA	NA	7.35	NA	NA
CHAKARI	Ncema	0.00	82.67	0.00	80.29	45.00	NA	NA	NA	NA	NA	NA	NA	5.89	NA	NA
CHAKARI	Pungwa	0.00	108.33	60.00	81.07	50.67	NA	NA	NA	NA	NA	NA	NA	4.23	NA	NA
CHAKARI	SC-Nduna	0.00	85.67	0.00	81.63	46.33	NA	NA	NA	NA	NA	NA	NA	7.83	NA	NA
CHAKARI	SC-Select	0.00	89.67	0.00	79.14	42.89	NA	NA	NA	NA	NA	NA	NA	6.96	NA	NA
CHAKARI	SC-Serena	0.00	88.33	0.00	78.88	49.33	NA	NA	NA	NA	NA	NA	NA	6.79	NA	NA
CHAKARI	SC-Shungu	0.00	89.67	0.00	80.17	50.67	NA	NA	NA	NA	NA	NA	NA	6.98	NA	NA
CHAKARI	Save	0.00	107.00	10.00	82.26	52.00	NA	NA	NA	NA	NA	NA	NA	6.29	NA	NA
KADOMA	Dande	0.00	93.33	13.33	83.33	53.00	50.67	106.67	NA	1.00	1	NA	14.67	6.56	50.67	106.67
KADOMA	Kana	0.00	98.33	0.00	82.57	45.67	46.00	102.67	NA	1.00	1	NA	15.40	6.59	46.00	102.67
KADOMA	Ncema	0.00	73.33	0.00	81.67	44.33	48.00	105.33	NA	1.00	1	NA	15.70	6.70	48.00	105.33
KADOMA	Pungwa	0.00	95.00	10.00	83.40	47.33	48.33	108.00	NA	1.00	1	NA	15.47	6.11	48.33	108.00
KADOMA	SC-Nduna	0.00	78.33	0.00	83.77	49.67	48.67	100.33	NA	1.00	1	NA	14.77	7.81	48.67	100.33
KADOMA	SC-Select	0.00	82.22	0.00	80.49	45.22	51.89	104.67	NA	1.00	1	NA	16.52	7.95	51.89	104.67
KADOMA	SC-Serena	0.00	83.33	0.00	81.33	47.33	52.00	104.67	NA	1.00	1	NA	14.43	8.28	52.00	104.67
KADOMA	SC-Shungu	0.00	81.67	5.00	81.67	50.67	47.00	99.33	NA	1.00	1	NA	14.57	8.90	47.00	99.33
KADOMA	Save	0.00	91.67	0.00	84.17	52.67	49.00	101.00	NA	1.00	1	NA	15.07	6.98	49.00	101.00
KWEKWE	Dande	0.00	110.67	30.00	78.54	53.67	NA	NA	NA	NA	NA	NA	NA	5.95	NA	NA
KWEKWE	Kana	0.00	105.33	0.00	77.13	47.00	NA	NA	NA	NA	NA	NA	NA	7.12	NA	NA
KWEKWE	Ncema	0.00	88.67	0.00	76.44	43.67	NA	NA	NA	NA	NA	NA	NA	5.55	NA	NA
KWEKWE	Pungwa	0.00	105.33	46.67	77.97	50.33	NA	NA	NA	NA	NA	NA	NA	6.57	NA	NA
KWEKWE	SC-Nduna	0.00	93.00	0.00	77.25	49.67	NA	NA	NA	NA	NA	NA	NA	5.24	NA	NA
KWEKWE	SC-Select	0.00	90.44	0.00	75.08	42.89	NA	NA	NA	NA	NA	NA	NA	4.89	NA	NA
KWEKWE	SC-Serena	0.00	91.33	0.00	74.51	45.33	NA	NA	NA	NA	NA	NA	NA	6.06	NA	NA
KWEKWE	SC-Shungu	0.00	91.67	3.33	78.41	46.33	NA	NA	NA	NA	NA	NA	NA	6.04	NA	NA
KWEKWE	Save	0.00	105.67	60.00	79.96	52.00	NA	NA	NA	NA	NA	NA	NA	5.47	NA	NA
MARONDERAN	Dande	0.00	100.33	0.00	78.02	56.00	NA	NA	NA	NA	NA	NA	NA	5.18	NA	NA
MARONDERAN	Kana	0.00	106.00	0.00	79.25	54.33	NA	NA	NA	NA	NA	NA	NA	6.27	NA	NA
MARONDERAN	Ncema	0.00	93.00	0.00	77.79	50.33	NA	NA	NA	NA	NA	NA	NA	5.32	NA	NA
MARONDERAN	Pungwa	0.00	108.00	0.00	76.58	53.00	NA	NA	NA	NA	NA	NA	NA	5.72	NA	NA
MARONDERAN	SC-Nduna	0.00	90.00	0.00	80.50	53.00	NA	NA	NA	NA	NA	NA	NA	7.53	NA	NA
MARONDERAN	SC-Select	0.00	93.89	0.00	78.05	46.89	NA	NA	NA	NA	NA	NA	NA	6.17	NA	NA

MARONDERAN	SC-Serena	0.00	94.67	0.00	77.57	49.33	NA	NA	NA	NA	NA	NA	NA	5.52	NA	NA
MARONDERAN	SC-Shungu	0.00	93.33	0.00	79.23	48.33	NA	NA	NA	NA	NA	NA	NA	7.48	NA	NA
MARONDERAN	Save	0.00	103.67	0.00	80.31	56.33	NA	NA	NA	NA	NA	NA	NA	5.39	NA	NA
MARONDERAS	Dande	0.00	80.00	0.00	77.14	48.67	NA	NA	NA	NA	NA	NA	NA	4.52	NA	NA
MARONDERAS	Kana	0.00	80.00	0.00	73.86	49.33	NA	NA	NA	NA	NA	NA	NA	4.62	NA	NA
MARONDERAS	Ncema	0.00	73.33	0.00	77.27	42.33	NA	NA	NA	NA	NA	NA	NA	4.52	NA	NA
MARONDERAS	Pungwa	0.00	79.00	0.00	80.45	41.00	NA	NA	NA	NA	NA	NA	NA	4.70	NA	NA
MARONDERAS	SC-Nduna	0.00	72.67	0.00	76.83	42.33	NA	NA	NA	NA	NA	NA	NA	4.47	NA	NA
MARONDERAS	SC-Select	0.00	67.33	0.00	76.02	39.50	NA	NA	NA	NA	NA	NA	NA	4.62	NA	NA
MARONDERAS	SC-Serena	0.00	67.00	0.00	78.61	47.00	NA	NA	NA	NA	NA	NA	NA	5.03	NA	NA
MARONDERAS	SC-Shungu	0.00	68.00	0.00	77.16	50.00	NA	NA	NA	NA	NA	NA	NA	4.19	NA	NA
MARONDERAS	Save	0.00	78.00	0.00	78.62	52.33	NA	NA	NA	NA	NA	NA	NA	5.32	NA	NA
NORTON	Dande	1.67	108.67	3.33	79.86	52.67	NA	NA	NA	NA	NA	NA	NA	6.34	NA	NA
NORTON	Kana	6.67	108.33	3.33	76.30	48.33	NA	NA	NA	NA	NA	NA	NA	6.61	NA	NA
NORTON	Ncema	0.00	102.00	0.00	80.63	46.00	NA	NA	NA	NA	NA	NA	NA	6.79	NA	NA
NORTON	Pungwa	3.33	110.00	16.67	78.35	48.00	NA	NA	NA	NA	NA	NA	NA	6.05	NA	NA
NORTON	SC-Nduna	0.00	93.67	0.00	80.74	45.67	NA	NA	NA	NA	NA	NA	NA	8.01	NA	NA
NORTON	SC-Select	1.67	93.56	0.00	78.33	45.22	NA	NA	NA	NA	NA	NA	NA	7.17	NA	NA
NORTON	SC-Serena	1.67	93.67	0.00	71.99	47.67	NA	NA	NA	NA	NA	NA	NA	7.70	NA	NA
NORTON	SC-Shungu	0.00	91.33	0.00	71.85	47.67	NA	NA	NA	NA	NA	NA	NA	7.14	NA	NA
NORTON	Save	3.33	108.00	0.00	80.65	50.00	NA	NA	NA	NA	NA	NA	NA	6.09	NA	NA
RARS	Dande	0.00	98.33	0.00	83.33	58.67	59.33	115.33	NA	1.33	NA	2.33	12.43	8.39	59.33	115.33
RARS	Kana	0.00	96.67	0.00	80.90	52.00	63.00	117.33	NA	1.00	NA	3.00	13.23	7.21	63.00	117.33
RARS	Ncema	0.00	85.00	0.00	80.57	45.33	56.00	114.00	NA	1.33	NA	3.00	12.87	7.34	56.00	114.00
RARS	Pungwa	0.00	95.00	0.00	79.40	50.67	57.00	113.33	NA	1.00	NA	3.67	13.23	7.10	57.00	113.33
RARS	SC-Nduna	0.00	80.00	0.00	79.23	43.67	59.00	114.67	NA	1.00	NA	4.00	12.60	6.81	59.00	114.67
RARS	SC-Select	0.00	76.67	0.00	70.38	42.17	60.50	114.50	NA	1.00	NA	5.00	14.20	5.01	60.50	114.50
RARS	SC-Serena	0.00	85.00	0.00	71.37	42.67	61.00	115.67	NA	1.00	NA	5.00	12.43	5.60	61.00	115.67
RARS	SC-Shungu	0.00	85.00	0.00	79.40	48.67	54.33	113.33	NA	1.00	NA	4.33	12.47	7.53	54.33	113.33
RARS	Save	0.00	100.00	0.00	83.60	60.67	58.67	115.00	NA	1.00	NA	2.33	12.83	8.42	58.67	115.00