

2023 Cotton Agronomic Update

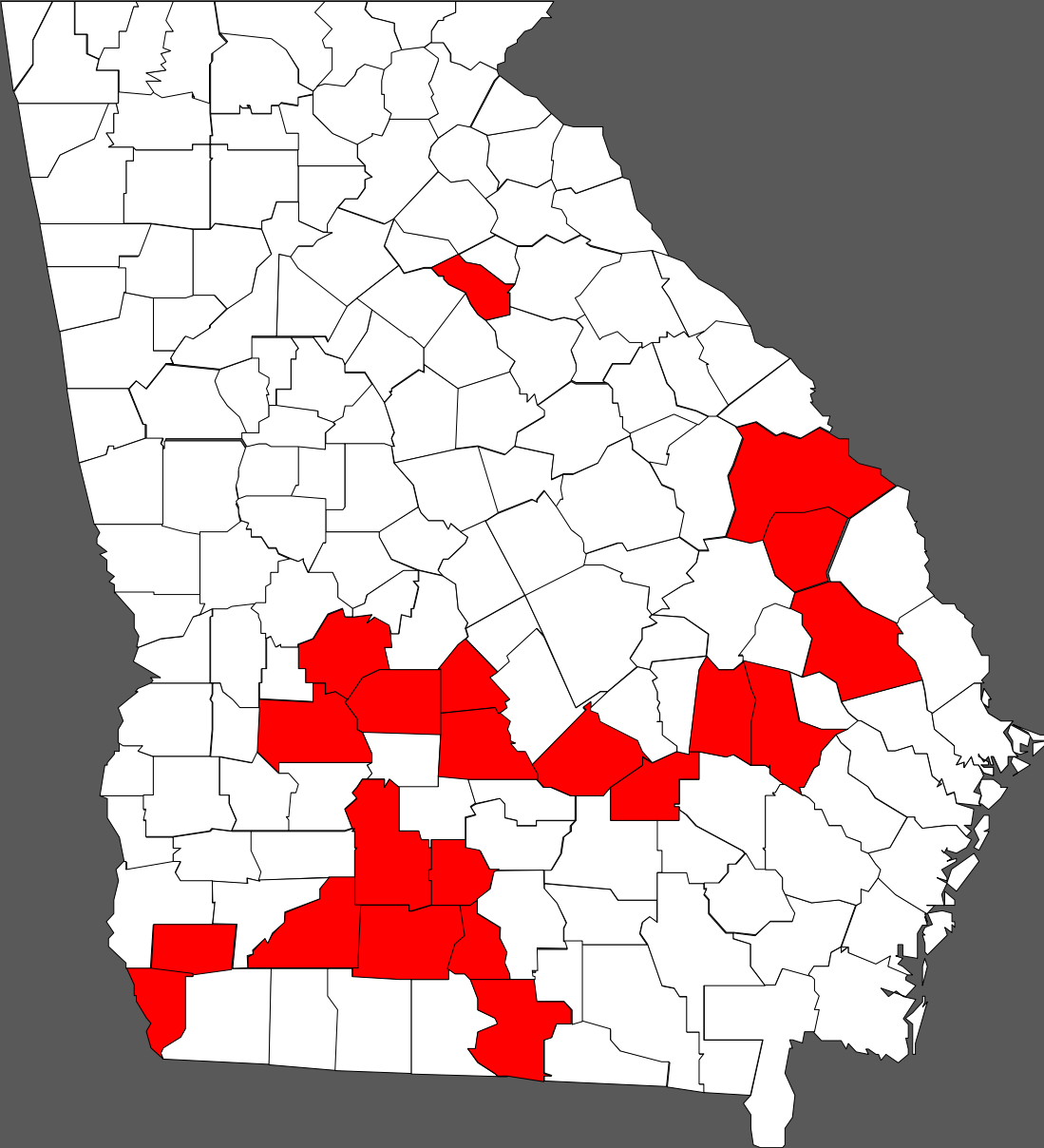
Camp Hand



UNIVERSITY OF GEORGIA
EXTENSION



2022 On-Farm Variety Evaluation Program



1. Oconee
- 2 & 3. Burke (Dryland and Irrigated)
4. Bulloch
5. Telfair
6. Dooly
7. Tattnall
8. Pulaski
9. Toombs
10. Jeff Davis
11. Wilcox
12. Macon
13. Sumter
14. Worth
15. Cook
16. Tift
17. Colquitt
18. Mitchell
19. Lowndes
20. Miller
21. Seminole
22. Jenkins

2022 On-Farm Variety Evaluation Program

- Varieties included:
 - DP 1646 B2XF
 - DP 2038 B3XF
 - DP 2127 B3XF
 - ST 4595 B3XF
 - ST 5091 B3XF
 - PHY 400 W3FE
 - PHY 545 W3FE
 - NG 3195 B3XF
 - NG 4190 B3XF
 - DG 3799 B3XF
 - AR 9371 B3XF
 - AR 9831 B3XF
- Managed using grower practices, with assistance from the participating county agent
- Replicated in large plots in grower fields
- Seed cotton samples ginned at the UGA Microgin and fiber sent for quality info in Memphis, TN

2022 On-Farm Variety Trial Results

Variety	All Location Avg. Yield	LSD (P=0.1)	% Above Trial Avg.
DG 3799 B3XF	1314	a	86
DP 2038 B3XF	1262	b	73
ST 5091 B3XF	1260	bc	68
AR 9831 B3XF	1258	bc	64
DP 2127 B3XF	1255	bc	59
DP 1646 B2XF	1253	bc	55
NG 3195 B3XF	1234	bcd	41
ST 4595 B3XF	1215	cde	45
AR 9371 B3XF	1204	de	41
NG 4190 B3XF	1170	ef	27
PHY 400 W3FE	1151	f	9
PHY 545 W3FE	1133	f	18

2022 On-Farm Variety Trial Results

	County (Lint yield per acre)																								
Variety	Macon DRY	Wilcox DRY	Tift DRY	Oconee DRY	Telfair IRR	Toombs IRR	Lowndes DRY	Sumter IRR	Cook IRR	Miller IRR	Mitchell IRR	Jeff Davis IRR	Tattnall DRY	Worth IRR	Seminole IRR	Burke DRY	Bulloch IRR	Dooly IRR	Pulaski IRR	Burke IRR	Colquitt IRR	Jenkins IRR	All Loc. Avg.	LSD (P=0.1)	Above Trial Avg.
DG 3799 B3XF	625	826	1174	767	1147	1040	1151	1275	1196	1363	1201	1355	1313	1351	1620	1508	1694	1633	1460	1671	1581	1949	1314	a	86
DP 2038 B3XF	652	886	814	1114	1072	1037	1082	1109	1090	1259	1312	1299	1311	1416	1554	1406	1435	1486	1478	1473	1572	1897	1262	b	73
ST 5091 B3XF	631	661	890	1021	1220	1189	1192	1192	1171	1333	1318	1232	1272	1201	1400	1409	1465	1580	1610	1458	1426	1848	1260	bc	68
AR 9831 B3XF	606	683	1090	1050	1007	1127	1182	1203	1118	1163	1197	1377	1338	1269	1467	1470	1435	1303	1463	1526	1768	1839	1258	bc	64
DP 2127 B3XF	605	903	635	1327	1023	1221	1154	1132	1003	1297	1323	1227	1370	1340	1356	1389	1461	1597	1553	1499	1427	1778	1255	bc	59
DP 1646 B2XF	508	833	847	1000	1220	1057	1140	1142	1375	1295	1443	1155	1123	1581	1476	1423	1462	1377	1527	1449	1456	1673	1253	bc	55
NG 3195 B3XF	620	860	1107	1219	1061	1170	1163	1125	1228	1213	1223	1225	1282	1260	1309	1373	1308	1367	1457	1527	1428	1618	1234	bcd	41
ST 4595 B3XF	656	838	617	1039	1056	1190	1028	1061	1130	1279	1313	1137	1297	1284	1289	1417	1375	1419	1541	1494	1461	1803	1215	cde	45
AR 9371 B3XF	655	790	1001	1066	909	1122	1047	1155	1140	1187	1123	1198	1202	1228	1261	1370	1457	1411	1425	1487	1536	1706	1204	de	41
NG 4190 B3XF	646	747	956	1031	1105	998	1006	1135	1063	1055	1116	1163	1278	1189	1206	1358	1373	1384	1395	1364	1518	1650	1170	ef	27
PHY 400 W3FE	593	853	825	1021	1004	1023	1049	1063	1030	1182	1266	1220	1156	1178	1303	1340	1285	1298	1386	1338	1265	1641	1151	f	9
PHY 545 W3FE	601	686	968	825	1065	1141	1137	1024	1118	1035	1049	1332	1219	1134	1179	1296	1191	1324	1215	1324	1457	1596	1133	f	18
	617	797	910	1040	1074	1110	1111	1135	1139	1222	1240	1243	1263	1286	1368	1397	1412	1432	1459	1468	1491	1750			

Available at ugacotton.com
 Trial average – 1,226 lbs/acre

2022 On-Farm Variety Trial Results – Below AVG Locations

	County (Lint yield per acre)												
Variety	Macon DRY	Wilcox DRY	Tift DRY	Oconee DRY	Telfair IRR	Toombs IRR	Lowndes DRY	Sumter IRR	Cook IRR	Miller IRR	All Loc. Avg.	LSD (P=0.1)	% Above Trial Avg.
NG 3195 B3XF	620	860	1107	1219	1061	1170	1163	1125	1228	1213	1077	a	70
DG 3799 B3XF	625	826	1174	767	1147	1040	1151	1275	1196	1363	1056	ab	80
ST 5091 B3XF	631	661	890	1021	1220	1189	1192	1192	1171	1333	1050	ab	70
DP 1646 B2XF	508	833	847	1000	1220	1057	1140	1142	1375	1295	1042	abc	60
DP 2127 B3XF	605	903	635	1327	1023	1221	1154	1132	1003	1297	1030	abcd	50
AR 9831 B3XF	606	683	1090	1050	1007	1127	1182	1203	1118	1163	1023	abcd	50
DP 2038 B3XF	652	886	814	1114	1072	1037	1082	1109	1090	1259	1012	abcd	40
AR 9371 B3XF	655	790	1001	1066	909	1122	1047	1155	1140	1187	1007	abcd	60
ST 4595 B3XF	656	838	617	1039	1056	1190	1028	1061	1130	1279	989	bcd	40
NG 4190 B3XF	646	747	956	1031	1105	998	1006	1135	1063	1055	974	cd	40
PHY 400 W3FE	593	853	825	1021	1004	1023	1049	1063	1030	1182	964	d	10
PHY 545 W3FE	601	686	968	825	1065	1141	1137	1024	1118	1035	960	d	30
	617	797	910	1040	1074	1110	1111	1135	1139	1222			

Available at ugacotton.com

Trial average – 1,226 lbs/acre

2022 On-Farm Variety Trial Results – Above AVG Locations

			County (Lint yield per acre)												
Variety	Mitchell IRR	Jeff Davis IRR	Tattnall DRY	Worth IRR	Seminole IRR	Burke DRY	Bulloch IRR	Dooly IRR	Pulaski IRR	Burke IRR	Colquitt IRR	Jenkins IRR	All Loc. Avg.	LSD (P=0.1)	% Above Trial Avg.
DG 3799 B3XF	1201	1355	1313	1351	1620	1508	1694	1633	1460	1671	1581	1949	1528	a	92
DP 2038 B3XF	1312	1299	1311	1416	1554	1406	1435	1486	1478	1473	1572	1897	1470	b	100
AR 9831 B3XF	1197	1377	1338	1269	1467	1470	1435	1303	1463	1526	1768	1839	1454	bc	75
DP 2127 B3XF	1323	1227	1370	1340	1356	1389	1461	1597	1553	1499	1427	1778	1443	bc	67
ST 5091 B3XF	1318	1232	1272	1201	1400	1409	1465	1580	1610	1458	1426	1848	1435	bc	67
DP 1646 B2XF	1443	1155	1123	1581	1476	1423	1462	1377	1527	1449	1456	1673	1429	bc	50
ST 4595 B3XF	1313	1137	1297	1284	1289	1417	1375	1419	1541	1494	1461	1803	1403	cd	50
AR 9371 B3XF	1123	1198	1202	1228	1261	1370	1457	1411	1425	1487	1536	1706	1367	de	25
NG 3195 B3XF	1223	1225	1282	1260	1309	1373	1308	1367	1457	1527	1428	1618	1365	de	17
NG 4190 B3XF	1116	1163	1278	1189	1206	1358	1373	1384	1395	1364	1518	1650	1333	ef	17
PHY 400 W3FE	1266	1220	1156	1178	1303	1340	1285	1298	1386	1338	1265	1641	1306	fg	8
PHY 545 W3FE	1049	1332	1219	1134	1179	1296	1191	1324	1215	1324	1457	1596	1276	g	8
	1240	1243	1263	1286	1368	1397	1412	1432	1459	1468	1491	1750			

Available at ugacotton.com

Trial average – 1,226 lbs/acre

2021 & 2022 On-Farm Variety Trial Results

Variety	Two Year Avg. Yield	LSD (P=0.1)	% Above Trial Avg.
DG 3799 B3XF	1320	a	85%
ST 5091 B3XF	1264	b	66%
DP 2038 B3XF	1260	b	72%
DP 1646 B2XF	1248	b	51%
AR 9831 B3XF	1239	b	55%
NG 3195 B3XF	1226	b	47%
PHY 400 W3FE	1159	c	12%
PHY 545 W3FE	1152	c	21%

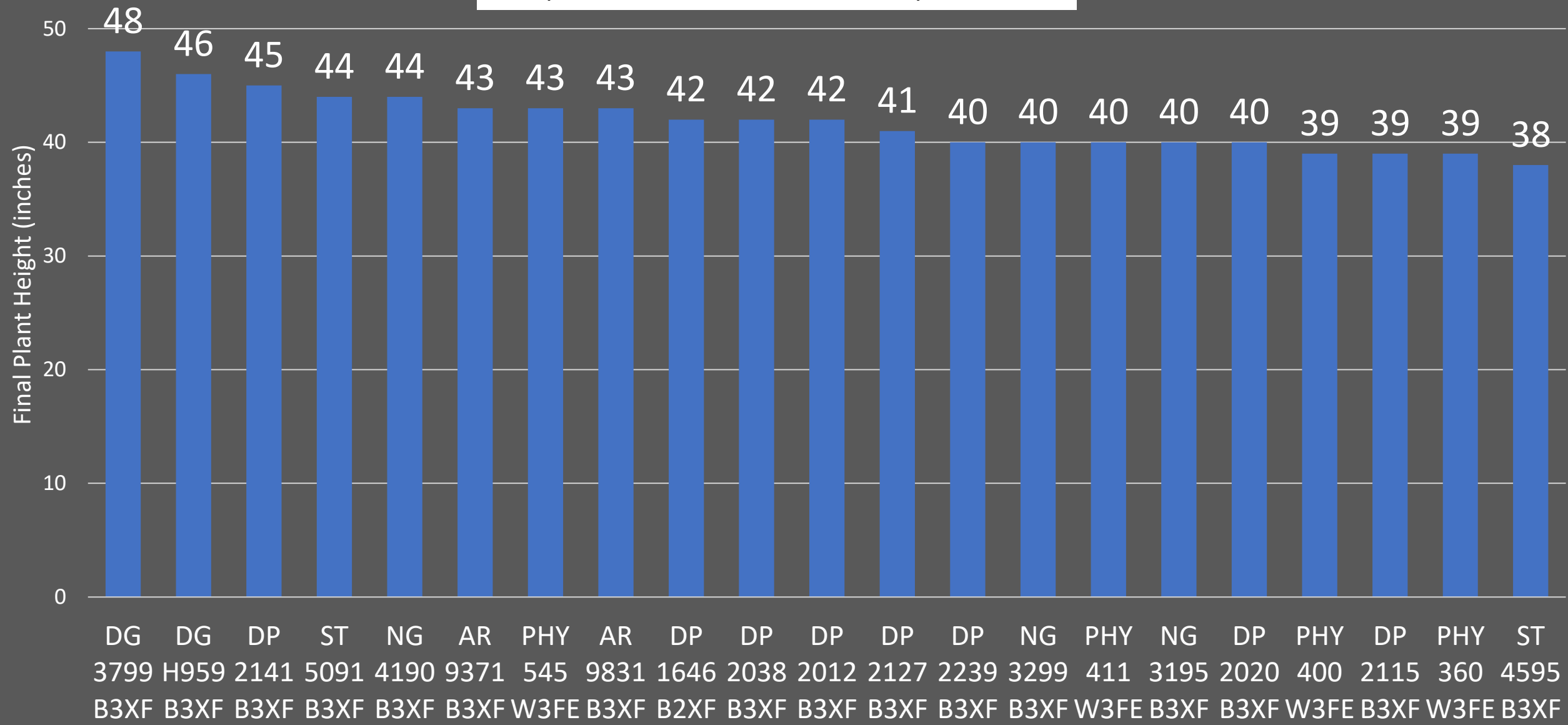


Cotton Growth Management

- Know what you're getting into with a variety!!!
- Some easier to manage and fit your management style... others are less forgiving...
- Factors influencing PGR Management: Fertility, Field History, Planting Date (i.e. earliness), Irrigation Availability, and VARIETY!!!

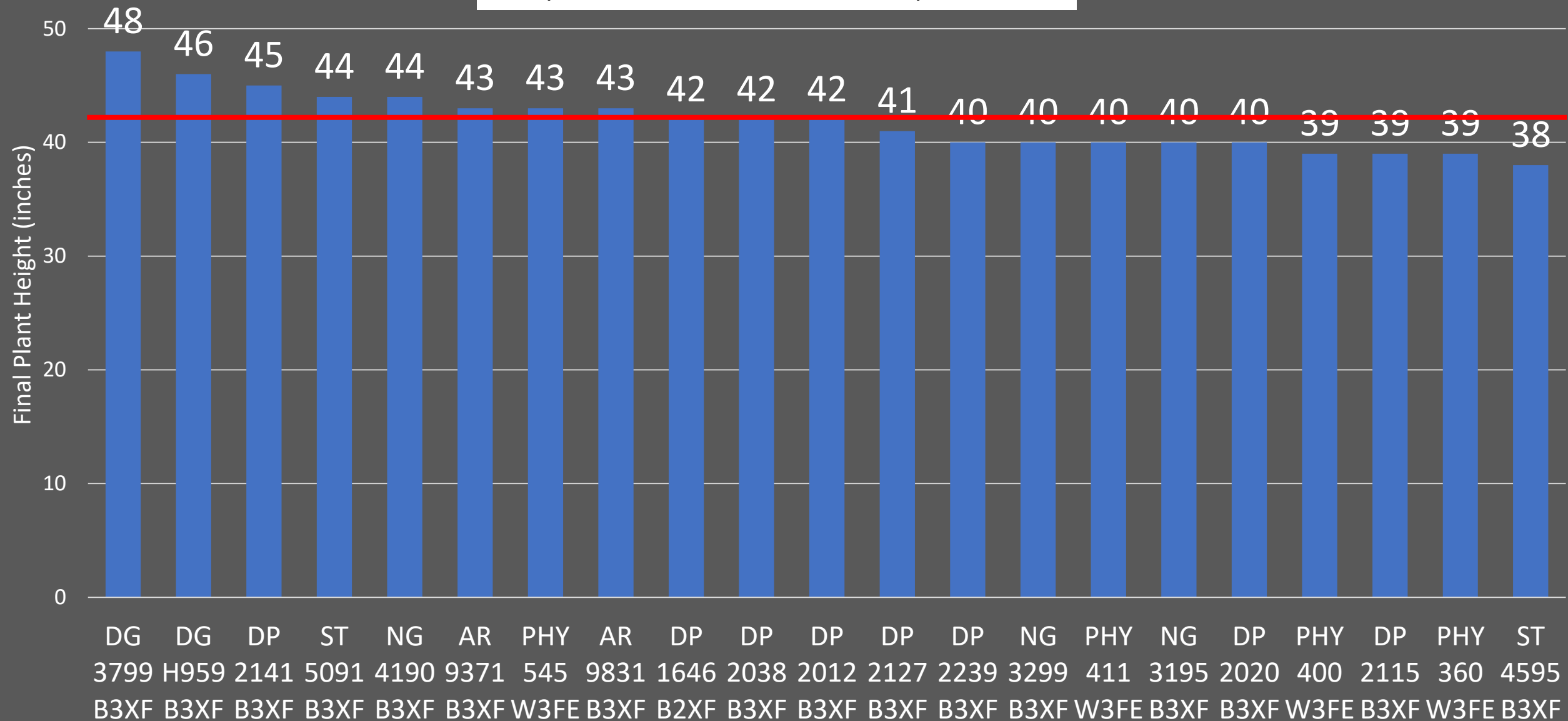
Variety PGR Response - 2022

8 oz prebloom, 12 oz bloom, 16 oz peak bloom

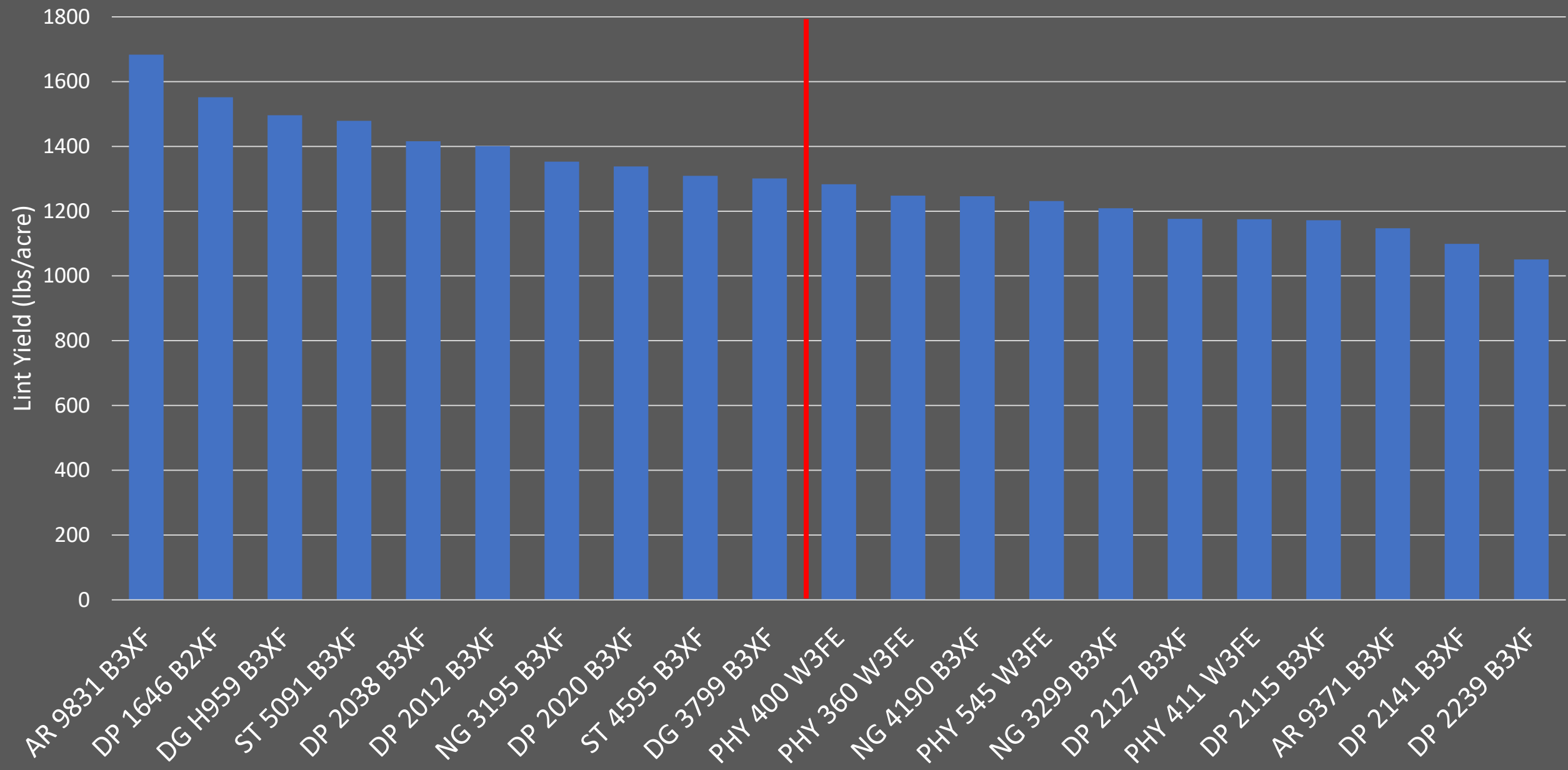


Variety PGR Response - 2022

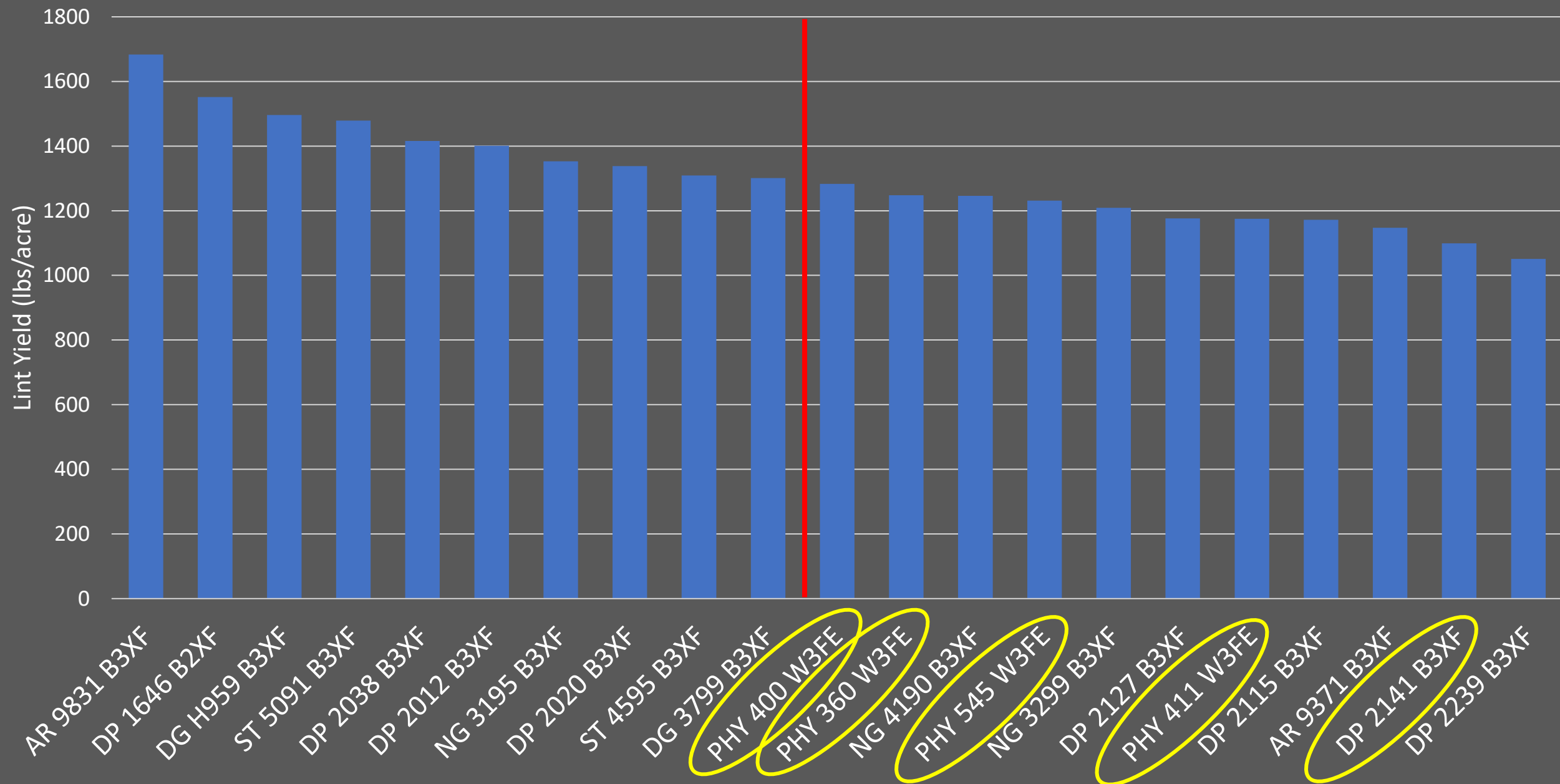
8 oz prebloom, 12 oz bloom, 16 oz peak bloom



Variety*PGR Yield Tifton - 2022



Variety*PGR Yield Tifton - 2022



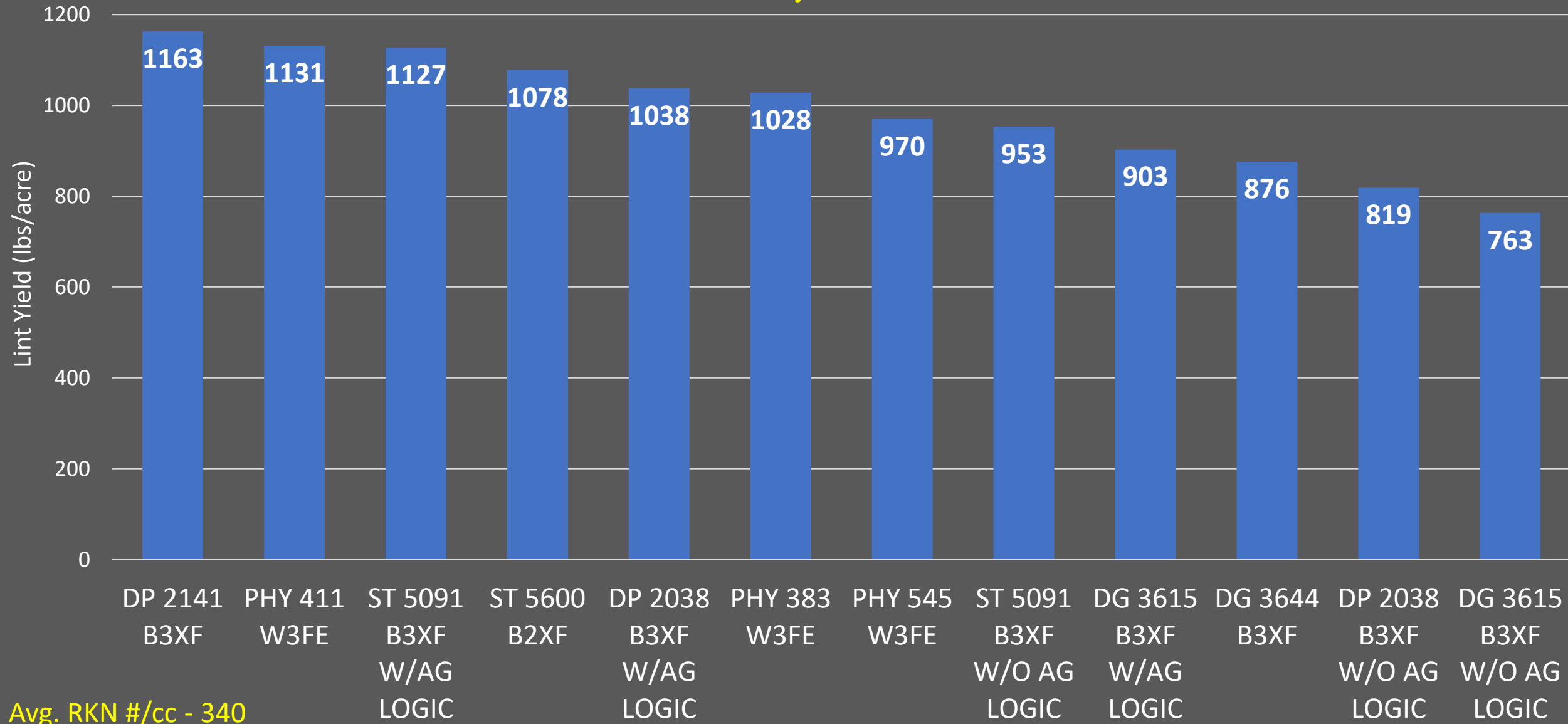
Nematode Resistant Varieties

- Breeding Efforts:
 - Single and dual-gene for RKN resistance
 - Resistance to RKN and Reniform
- Phytogen (ALL BB RESISTANT):
 - PHY 360 W3FE (RKN only)
 - PHY 400 W3FE (RKN only)
 - PHY 411 W3FE (RKN & Reniform)
 - PHY 545 W3FE (RKN only)
- Stoneville:
 - ST 5600 B2XF (RKN only)
 - More coming soon
- Deltapine:
 - DP 2141 B3XF (RKN & Reniform)
 - DP 2349 B3XF (RKN only, BB Resistant)
- Dynagro:
 - DG 3644 B3XF (RKN & Reniform)

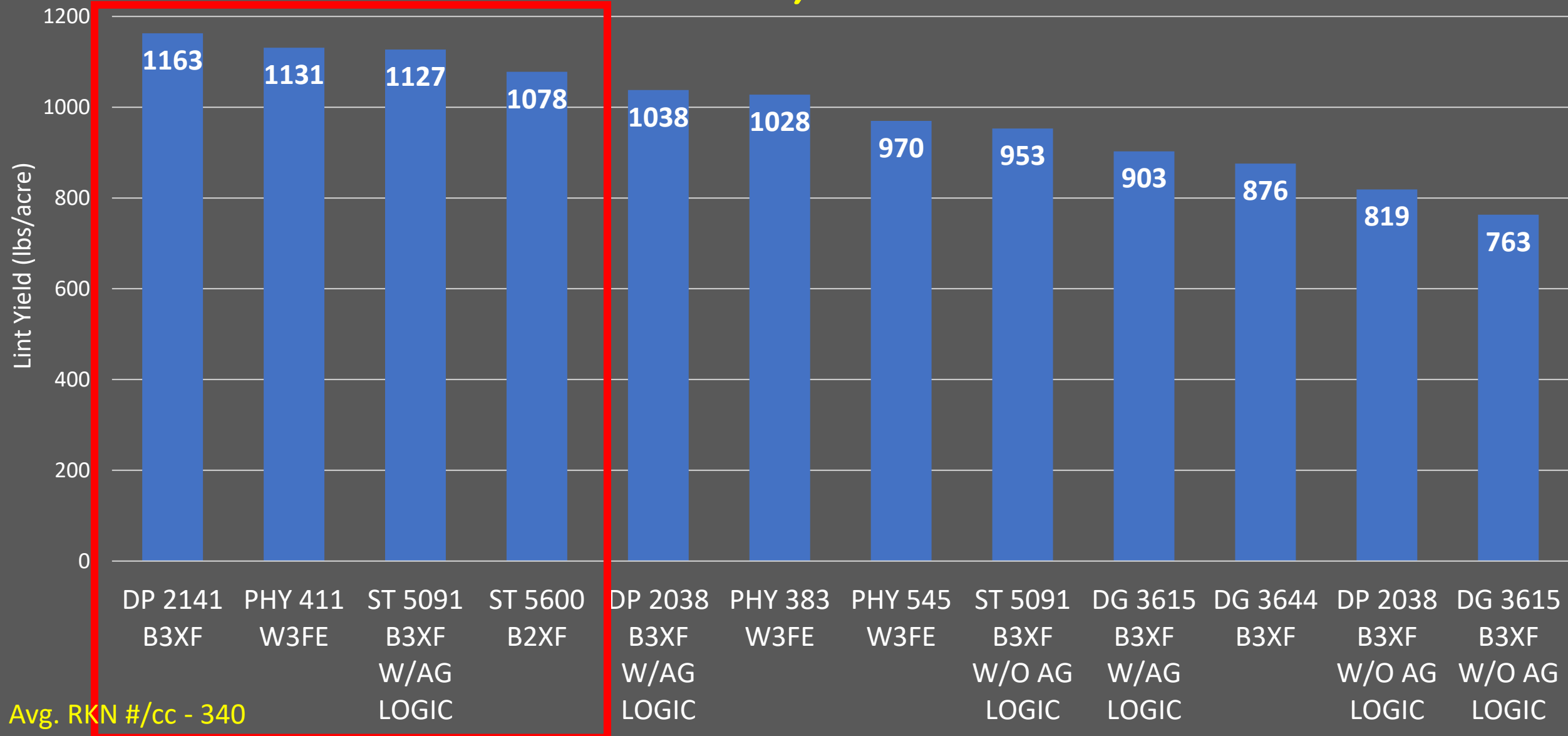
Nematode Resistant Varieties

- Breeding Efforts:
 - Single and dual gene for RKN
 - Stoneville:
 - ST 5600 B3XF (RKN only)
- Ph
 - **Don't see them at the top of variety trial data much... So what do we do with them???**
 - PHY 400 W3FE (RKN only) BB Resistant)
 - PHY 411 W3FE (RKN & Reniform)
 - PHY 545 W3FE (RKN only)
 - Dynagro:
 - DG 3644 B3XF (RKN & Reniform)

Nematode Resistant Varieties – Heavy RKN Pressure Screven Co., GA - 2022

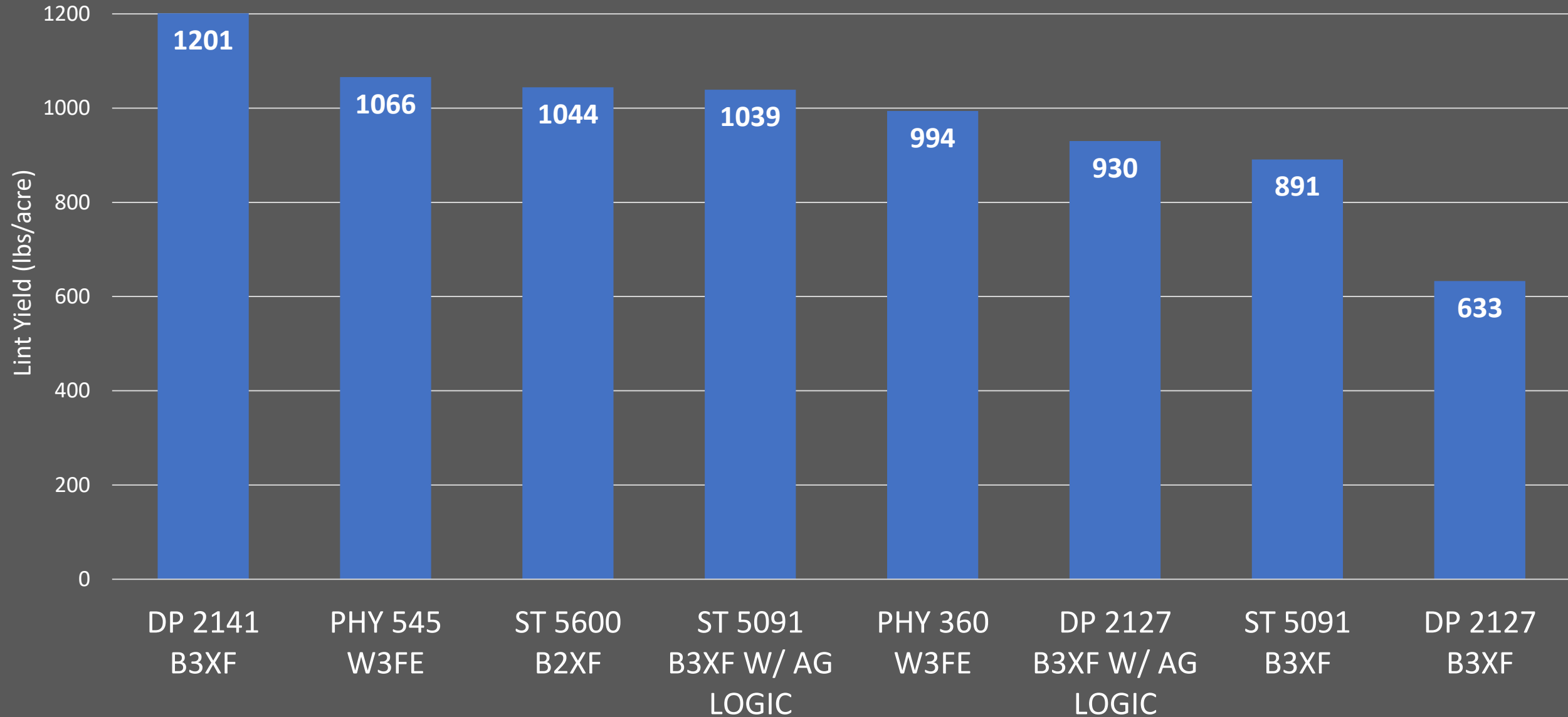


Nematode Resistant Varieties – Heavy RKN Pressure Screven Co., GA - 2022



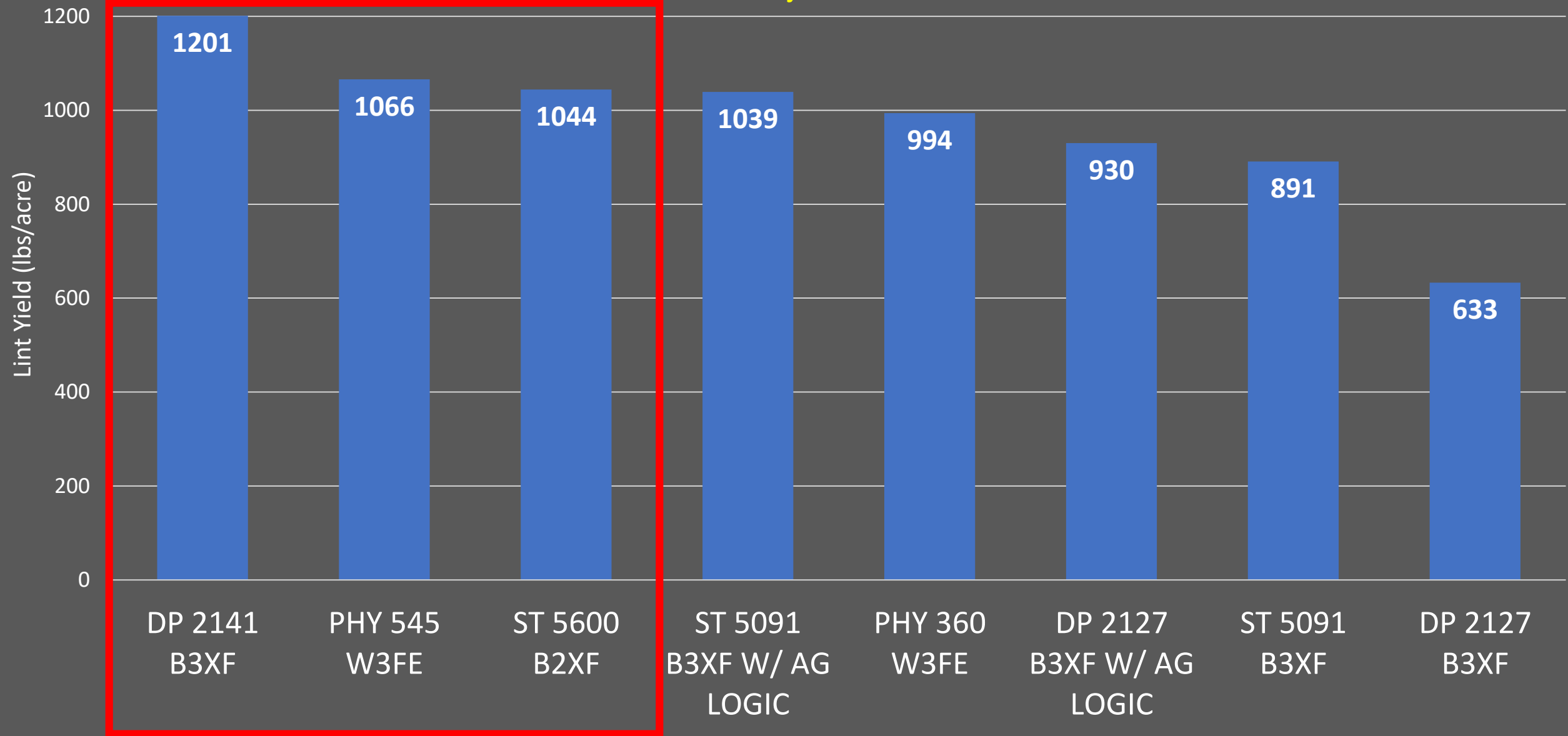
Nematode Resistant Varieties – Heavy RKN Pressure

Bulloch Co., GA - 2022



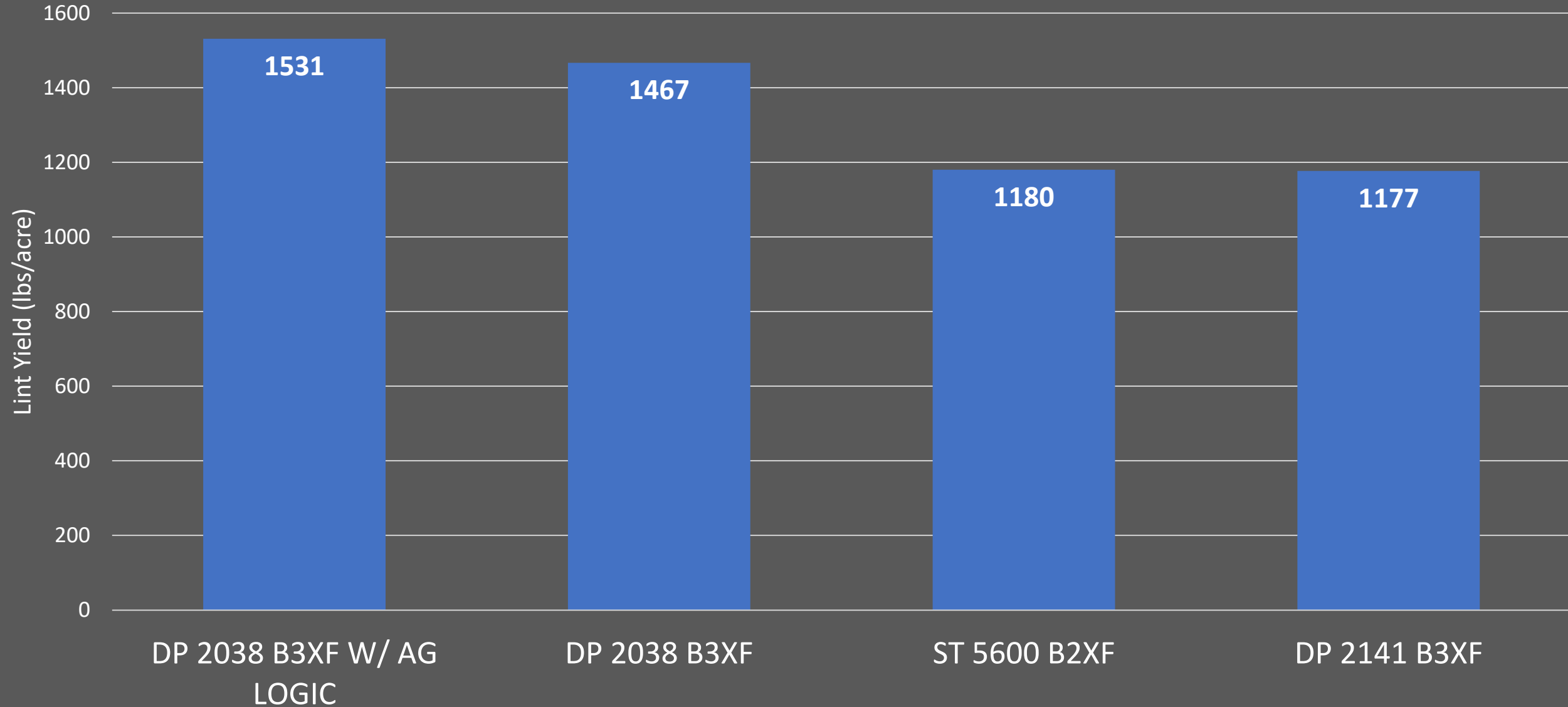
Nematode Resistant Varieties – Heavy RKN Pressure

Bulloch Co., GA - 2022



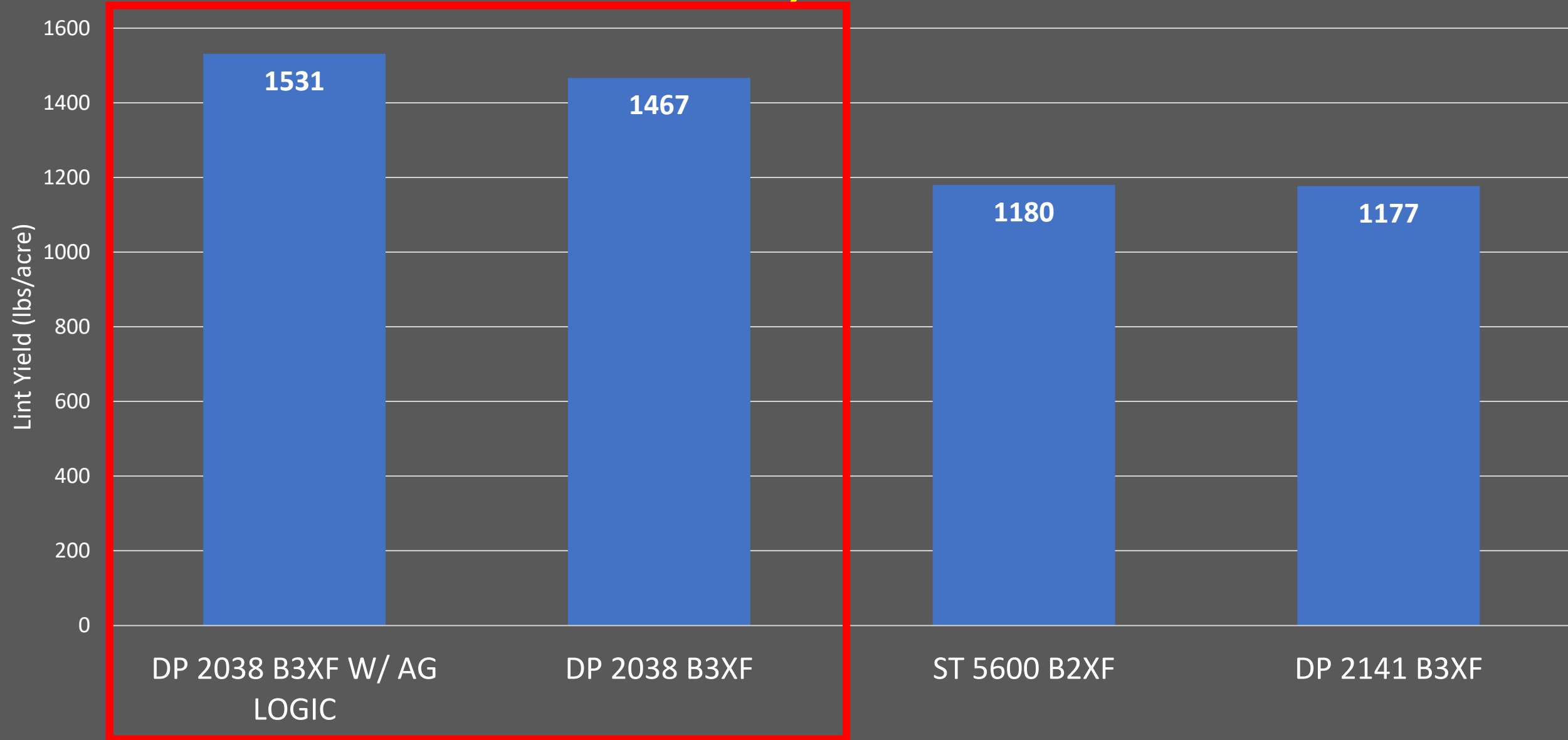
Nematode Resistant Varieties – Light RKN Pressure

Bulloch Co., GA - 2022



Nematode Resistant Varieties – Light RKN Pressure

Bulloch Co., GA - 2022



Nematode Resistant Varieties – Take Home

- Nematode resistant varieties provide value on nematode fields.
- Best way to know you have a problem... TAKE SAMPLES!!!
 - Sample at the end of the season in the root zone to get an accurate sample.
- Nematode varieties and nematicides provide “insurance” if you aren’t sure whether you have a problem or not.
- Other inputs (fertility, irrigation, weed control, etc.) go to waste if a nematode problem is left unchecked.

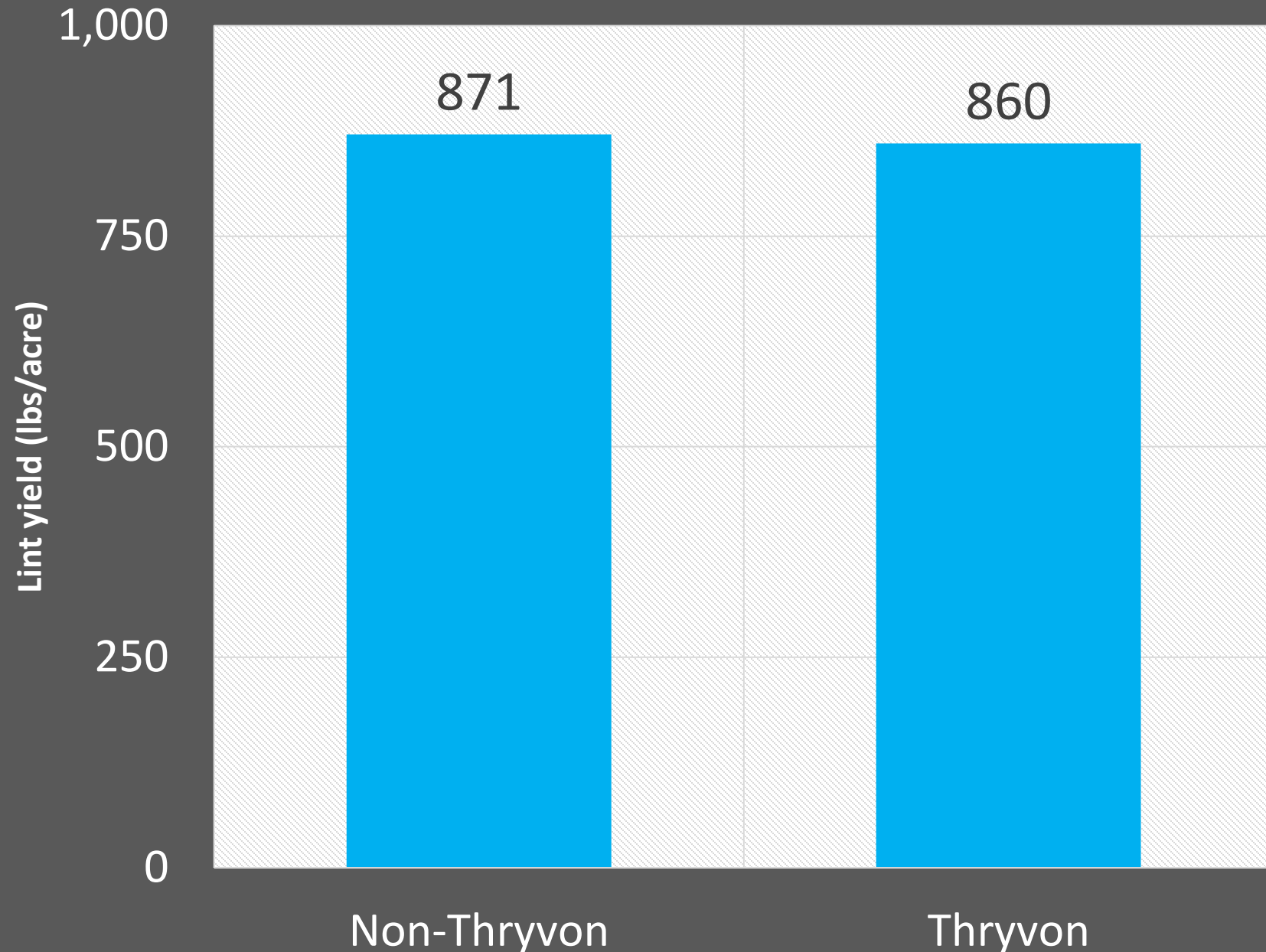
2022 Thryvon Variety Evaluation

- B2XF/B3XF Varieties:

- DP 1646
- DP 2038
- DP 2127
- DP 2333 (NEW)

- B3TXF Varieties:

- DP 2131
- DP 2211
- DP 2317 (NEW)
- DP 2328 (NEW)



High Thrips Injury Potential

Planted April 1, 2022 (Tift County GA)



No Foliar



Orthene 1-Leaf

Gaucha Seed Treatment

Threshold: 2-3 thrips per plant and
immatures present.



No Foliar



Orthene 1-Leaf

ThryvOn+ Gaucha Seed Treatment

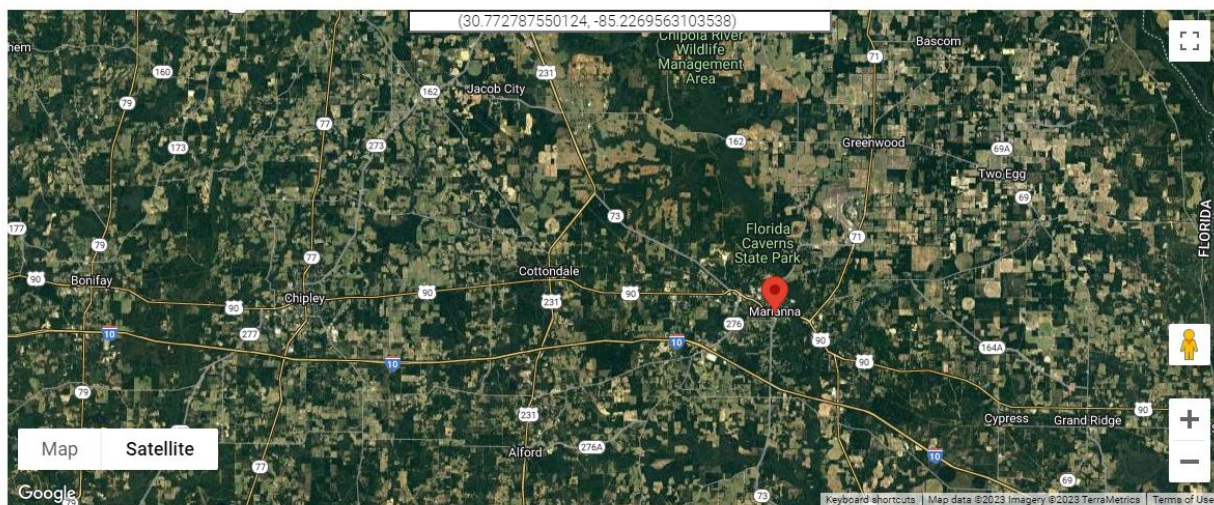
Supplemental foliar sprays based on
plant injury ,NOT thrips counts

Thrips Pressure – Marianna, FL

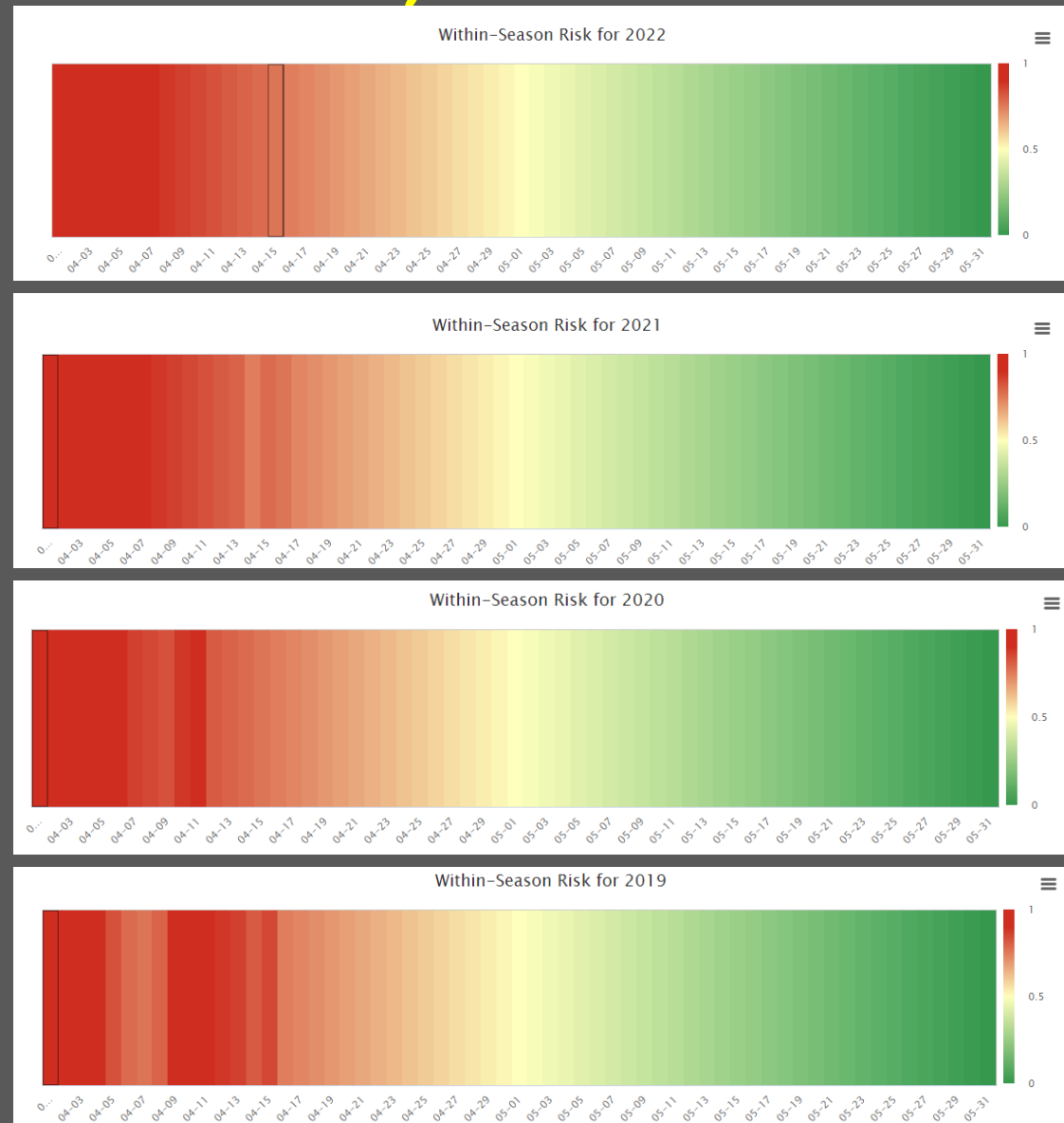
Thrips Infestation Predictor for Cotton

The Thrips Infestation Predictor for Cotton uses weather data to make predictions of (1) **thrips dispersal** timing, (2) Cotton growth affecting **seedling susceptibility**, and (3) **injury risk** that results from thrips dispersal and seedling susceptibility occurring at the same time. Running this tool requires users to enter a planting date (defaults to the current date) and a location using the map below. Additionally, users can adjust how many days to run and display model output.

Plant Date: 
Run models for dates days before and after planting date.



SUBMIT



NC State Thrips Infestation Predictor

- products.climate.ncsu.edu/ag/cottontip/

Thryvon Take Home Message

- Not in every variety... yet...
 - Some from Deltapine, Nexgen, Dynagro, and Armor
- Technology will not be free, so placement is key to get the most “bang for your buck”
- Without question, greatest return will be due to protection from thrips in Lower Southeast (so plant it early!!!)
- Unsure about tarnished plant bug benefit in Lower Southeast

Thank you!!

- Ethan Carter and IFAS Extension
- Georgia Cotton Commission
- Cotton Incorporated
- UGA Extension
- County Agents
- Grower Cooperators
- Industry Partners



Questions??

