

Selecting Cotton Varieties for Production in Louisiana

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Variety Trials



Testing locations

LSU AgCenter Experiment Stations

Dean Lee (Alexandria)

Non-irrigated

- Silt loam
- Clay

Red River (Bossier City)

Irrigated

- Silt loam
- Clay

Northeastern (St. Joseph)

Non-irrigated

- Silt loam

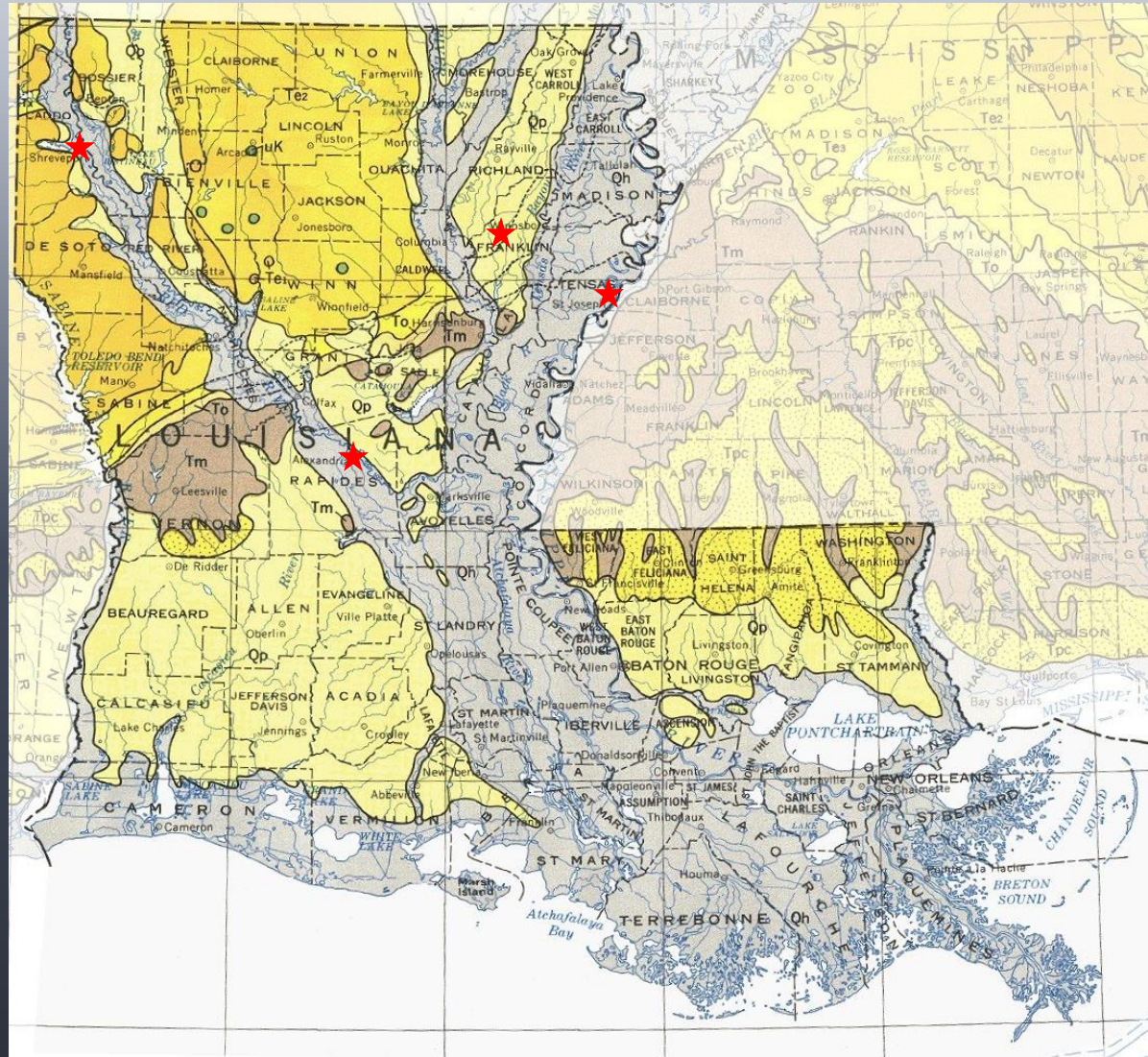
Irrigated

- Clay

Macon Ridge (Winnsboro)

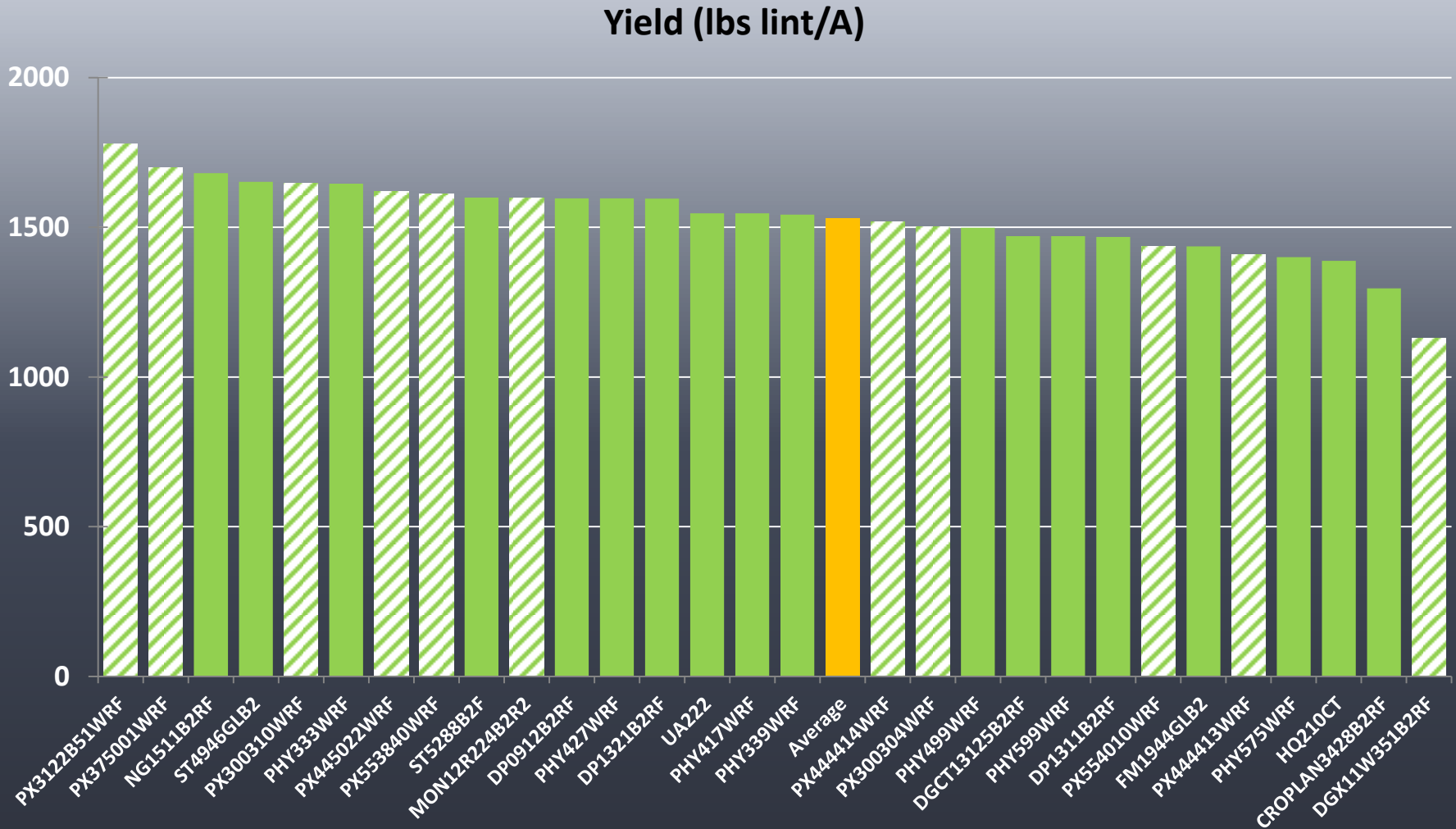
Irrigated

- Silt loam



Early Maturing Varieties

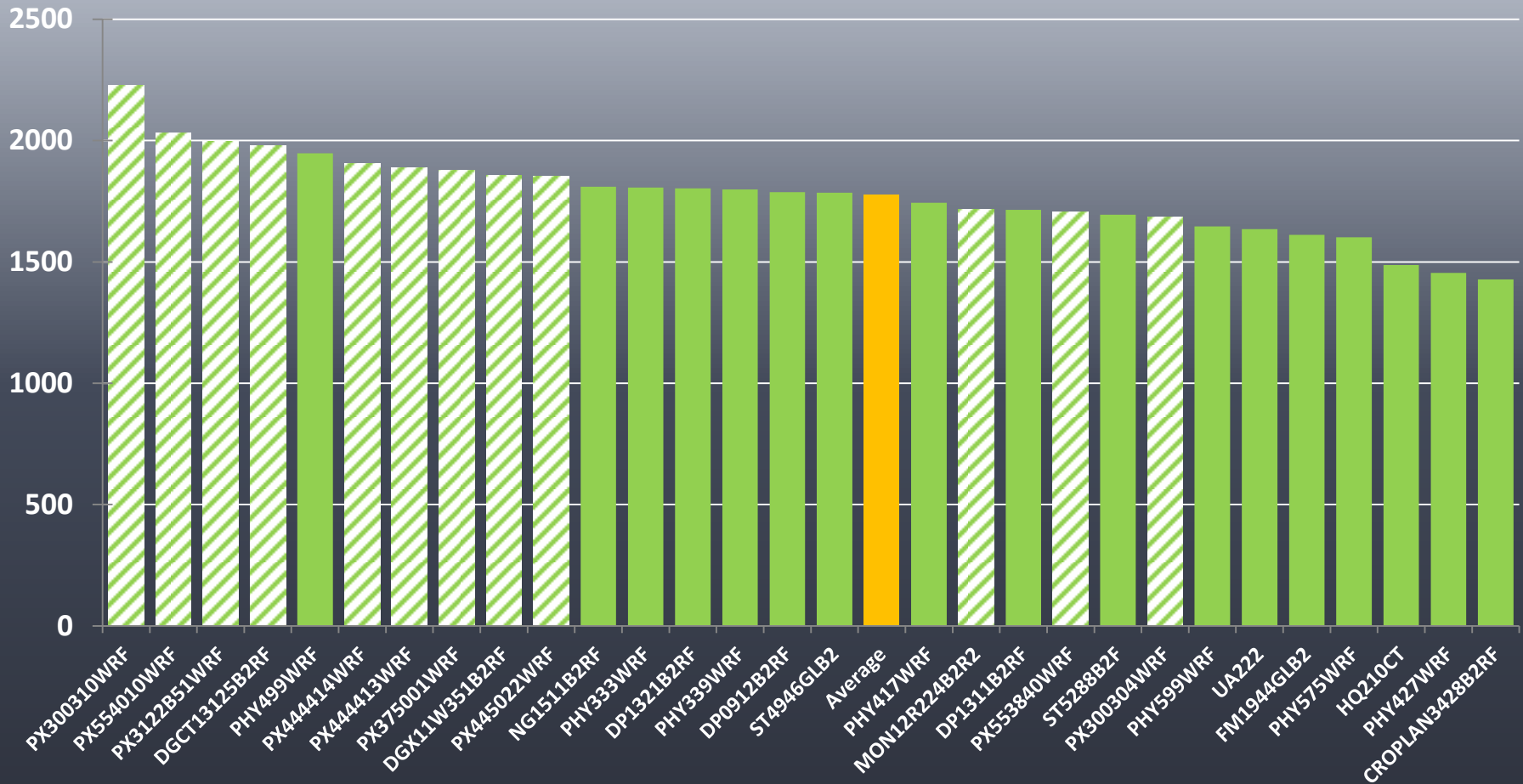
Nonirrigated



Early Maturing Varieties

Irrigated

Yield (lbs lint/A)



Medium Maturing Varieties

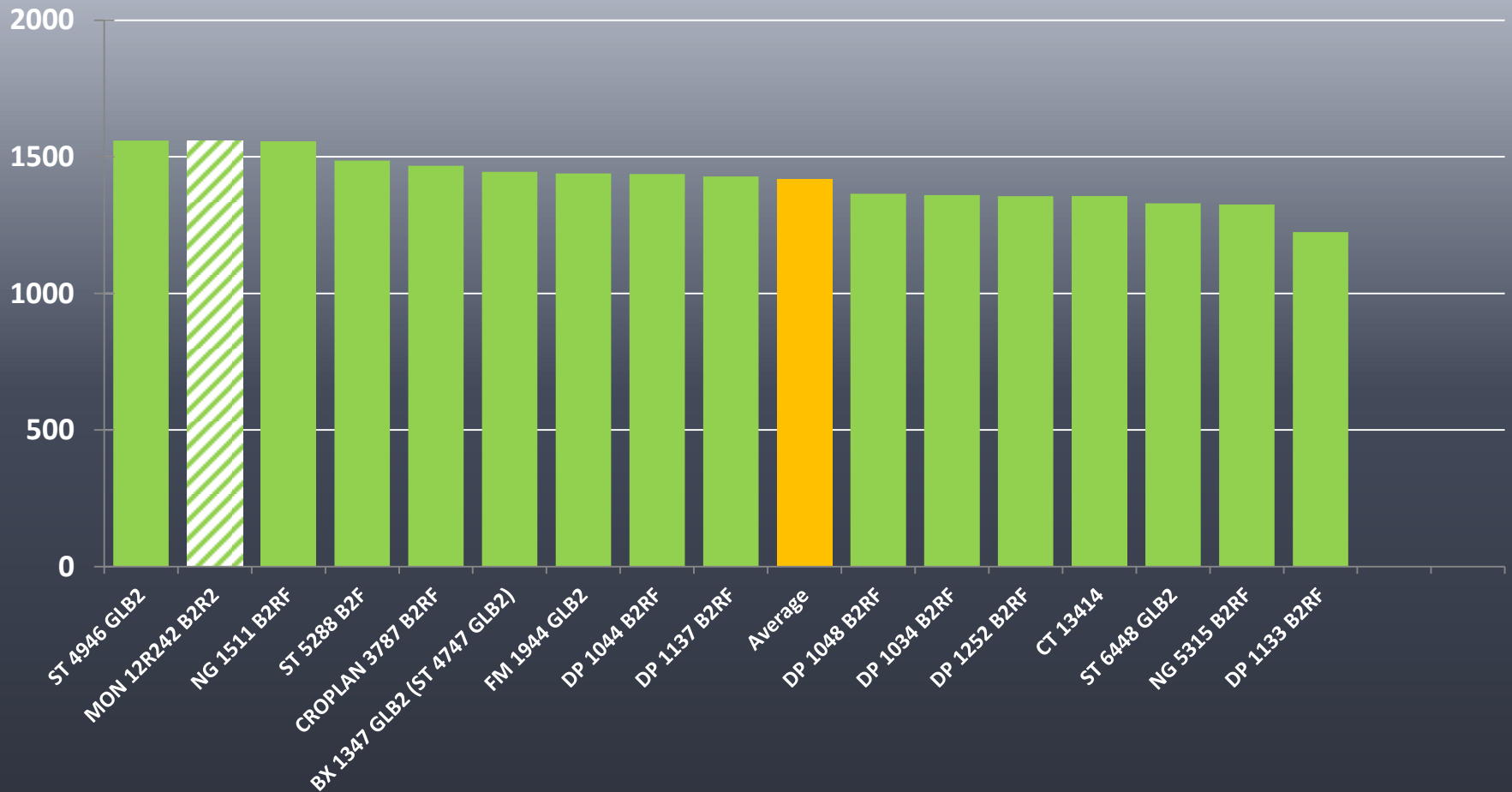
Nonirrigated



Medium Maturing Varieties

Irrigated

Yield (lbs lint/A)



Early Maturing Varieties	Variety	Lint Percent	Length (in)	Strength (g/tex)	Micronaire	Uniformity
	CROPLAN3428B2R F	0.4351	1.22	31.9	4.3	83.8
	DGCT13125B2RF	0.4425	1.21	32.2	4.4	84.0
	DGX11W351B2RF	0.4263	1.24	34.4	4.5	84.0
	DP0912B2RF	0.4242	1.13	32.2	4.9	83.3
Non- irrigated	DP1311B2RF	0.4547	1.15	32.0	4.6	83.0
	DP1321B2RF	0.4420	1.17	33.4	4.7	84.1
	FM1944GLB2	0.4153	1.21	31.5	4.5	83.7
	HQ210CT	0.4213	1.16	33.8	4.7	83.6
	MON12R224B2R2	0.4388	1.19	31.9	4.2	84.2
	NG1511B2RF	0.4542	1.17	33.2	4.6	83.6
	PHY333WRF	0.4483	1.20	31.2	4.4	84.2
	PHY339WRF	0.4413	1.20	32.8	4.4	83.9
	PHY417WRF	0.4563	1.15	32.8	4.2	83.0
	PHY427WRF	0.4339	1.17	33.3	4.5	83.8
	PHY499WRF	0.4473	1.16	34.3	4.5	84.6
	PHY575WRF	0.4242	1.21	31.9	4.2	83.8
	PHY599WRF	0.4644	1.18	33.5	4.4	83.6
	PX300304WRF	0.4167	1.19	33.6	4.6	84.1
	PX300310WRF	0.4650	1.17	32.3	4.4	83.3
	PX3122B51WRF	0.4458	1.21	32.3	4.4	84.4
	PX375001WRF	0.4590	1.17	32.9	4.5	83.3
	PX444413WRF	0.4563	1.27	32.6	3.7	84.9
	PX444414WRF	0.4414	1.19	32.3	4.2	83.9
	PX445022WRF	0.4319	1.19	34.7	4.5	84.0
	PX553840WRF	0.4340	1.20	33.4	4.3	84.4
	PX554010WRF	0.4913	1.21	32.7	3.7	84.2
	ST4946GLB2	0.4291	1.17	34.3	4.7	83.9
	ST5288B2F	0.4365	1.15	31.0	4.7	82.8
	UA222	0.4218	1.22	33.7	4.6	84.3

Early Maturing Varieties

Irrigated

Variety	Lint Percent	Length (in)	Strength (g/tex)	Micronaire	Uniformity
CROPLAN3428B2R F	0.4052	1.18	30.4	4.6	83.5
DGCT13125B2RF	0.4313	1.19	31.6	4.7	84.7
DGX11W351B2RF	0.4325	1.19	32.0	4.8	83.9
DP0912B2RF	0.3985	1.11	30.5	4.9	83.2
DP1311B2RF	0.4247	1.14	30.0	4.4	82.9
DP1321B2RF	0.4129	1.15	32.9	4.7	84.0
FM1944GLB2	0.3846	1.19	30.3	4.5	83.4
HQ210CT	0.3843	1.13	31.9	4.9	82.8
MON12R224B2R2	0.3973	1.16	29.6	4.3	83.9
NG1511B2RF	0.4315	1.13	32.5	4.6	83.2
PHY333WRF	0.4278	1.17	29.8	4.4	83.6
PHY339WRF	0.4103	1.17	31.8	4.3	83.5
PHY417WRF	0.4249	1.13	31.1	4.1	83.1
PHY427WRF	0.3969	1.14	31.3	4.2	83.2
PHY499WRF	0.4226	1.15	33.3	4.6	83.8
PHY575WRF	0.3810	1.20	30.6	4.3	83.7
PHY599WRF	0.4176	1.17	31.5	4.4	83.4
PX300304WRF	0.3848	1.16	31.9	4.3	83.6
PX300310WRF	0.4463	1.12	31.0	5.1	82.9
PX3122B51WRF	0.4239	1.18	31.1	4.5	84.2
PX375001WRF	0.4236	1.17	32.0	4.5	83.2
PX444413WRF	0.4450	1.17	31.9	4.7	84.2
PX444414WRF	0.4278	1.17	31.8	4.3	83.6
PX445022WRF	0.4132	1.18	32.7	4.5	83.7
PX553840WRF	0.4073	1.16	31.5	4.3	84.2
PX554010WRF	0.4425	1.19	33.1	4.8	84.4
ST4946GLB2	0.4057	1.15	32.4	4.4	83.5
ST5288B2F	0.4123	1.15	29.5	4.5	82.6
UA222	0.3949	1.21	32.0	4.4	83.4

Medium Maturing Varieties

Nonirrigated

Variety	Lint Percent	Length (in)	Strength (g/tex)	Micronaire	Uniformity
BX 1347 GLB2 (ST 4747 GLB2)	0.4361	1.20	29.1	4.8	83.1
CROPLAN 3787 B2RF	0.4550	1.18	31.5	4.9	83.8
CT 13414	0.4714	1.16	31.3	5.1	83.5
DP 1034 B2RF	0.4472	1.17	31.7	4.8	83.9
DP 1044 B2RF	0.4208	1.15	32.2	4.9	83.0
DP 1048 B2RF	0.4562	1.18	31.4	4.8	83.4
DP 1133 B2RF	0.4575	1.18	33.9	4.9	83.8
DP 1137 B2RF	0.4534	1.16	31.3	4.9	83.5
DP 1252 B2RF	0.4697	1.17	31.7	4.9	83.6
FM 1944 GLB2	0.4191	1.21	31.2	4.8	83.4
MON 12R242 B2R2	0.4547	1.16	31.7	5.1	83.5
NG 1511 B2RF	0.4505	1.15	33.4	5.0	83.1
NG 5315 B2RF	0.4567	1.17	31.9	4.7	84.0
ST 4946 GLB2	0.4330	1.15	33.6	4.9	83.9
ST 5288 B2F	0.4376	1.15	30.9	5.2	82.8
ST 6448 GLB2	0.4286	1.20	30.3	4.9	82.8
Grand Total	0.4467	1.17	31.7	4.9	83.4

Medium Maturing Varieties

Irrigated

Variety	Lint Percent	Length (in)	Strength (g/tex)	Micronaire	Uniformity
BX 1347 GLB2 (ST 4747 GLB2)	0.4232	1.17	27.9	4.5	82.5
CROPLAN 3787 B2RF	0.4350	1.16	31.2	4.8	83.6
CT 13414	0.4449	1.13	31.6	4.6	83.4
DP 1034 B2RF	0.4355	1.15	30.9	4.7	83.3
DP 1044 B2RF	0.4075	1.13	31.7	4.4	82.7
DP 1048 B2RF	0.4373	1.16	30.7	4.7	83.7
DP 1133 B2RF	0.4355	1.16	33.1	4.8	83.7
DP 1137 B2RF	0.4328	1.15	30.8	4.7	83.6
DP 1252 B2RF	0.4537	1.15	31.2	4.8	83.2
FM 1944 GLB2	0.4009	1.19	30.3	4.5	83.2
MON 12R242 B2R2	0.4350	1.15	31.5	4.8	83.2
MON 13R341 B2R2	0.3981	1.17	33.6	3.8	82.3
MON 13R347 B2R2	0.4302	1.12	31.5	4.0	82.8
NG 1511 B2RF	0.4470	1.14	32.8	4.8	83.3
NG 5315 B2RF	0.4366	1.15	31.2	4.7	83.7
ST 4946 GLB2	0.4103	1.15	33.2	4.5	83.5
ST 5288 B2F	0.4235	1.15	29.8	4.6	82.6
ST 6448 GLB2	0.4118	1.19	29.0	4.4	83.1
Grand Total	0.4277	1.16	31.2	4.6	83.2

Early Maturing Varieties Stability

Variety	AVG YIELD	Ranks								Cultivar Superiority Measure
		ALEX loam	ALEX clay	BCITY loam	BCITY clay	SJOE loam	SJOE clay	WINN loam	SUM RANKS	
PX3122B51WRF	1903	1	3	10	8	2	1	1	26	20082
PX375001WRF	1801	2	1	3	11	12	6	2	37	44609
PHY 499 WRF	1755	21	11	2	2	15	5	10	66	42941
NG 1511 B2RF	1755	4	10	1	6	4	15	15	55	54130
PX445022WRF	1754	11	4	4	3	10	17	9	58	45063
PX444414WRF	1741	19	6	6	1	16	7	18	73	55506
PHY 333 WRF	1738	8	5	7	10	5	14	5	54	54041
ST 4946 GLB2	1728	6	2	14	16	6	11	3	58	60078
DP 1321 B2RF	1714	9	23	5	14	1	4	12	68	69004
DP 0912 B2RF	1706	10	8	9	20	9	2	8	66	73248
PHY 339 WRF	1691	7	18	8	9	13	12	13	80	61816
MON12R224B2R2	1665	5	7	18	17	11	13	6	77	79432
PHY 417 WRF	1659	17	14	20	15	8	3	4	81	79372
ST 5288 B2RF	1654	20	15	19	7	3	9	16	89	79218
DP 1311 B2RF	1609	16	19	17	5	18	16	14	105	87294
PX300304WRF	1606	13	20	23	13	14	10	7	100	98462
UA 222	1597	3	16	22	19	17	8	11	96	111917
PHY 599 WRF	1571	14	12	13	4	20	18	23	104	127026
FM 1944 GLB2	1536	15	21	16	18	19	20	17	126	125354
PHY 427 WRF	1516	12	9	21	22	7	21	19	111	159232
PHY 575 WRF	1515	18	17	11	12	22	19	22	121	150259
HQ 210 CT	1445	23	13	12	21	21	22	21	133	194366
CROPLAN 3428 B2RF	1371	22	22	15	23	23	23	20	148	240452

Net return (\$/A)

(Picking, module & ginning costs only)

Maturity	Irrigated		Average
	NO	YES	
EARLY	\$ 854.38	\$ 978.86	\$ 916.62
MEDIUM	\$ 781.13	\$ 980.78	\$ 886.82
Average	\$ 828.33	\$ 979.60	\$ 905.61

Base Price in Cents per Lint Pound:	\$ 0.52
Cotton Seed Value (\$/ton) :	\$ 300.00
Picking/Stripping & Moduling Cost per Cwt of Seed Cotton:	\$ 3.20
Ginning Cost Per Pound of Cotton Lint:	\$ 0.12
Pounds of Seed Per Pound of Cotton Lint:	\$ 1.41

2012 Cotton On-Farm Core Block Demonstrations



Louisiana acreage & variety trends

Company	Variety	Acres			
		2010	2011	2012	2013
		255,000	288,000	224,000	125,000
Deltapine	DP 0949 B2RF	18	0	0	0
Deltapine	DP 555 BG/RR	17	0	0	0
Deltapine	DP 1133 B2RF	<1	8	14	22
Deltapine	DP 1048 B2RF	6	5	4	1
Deltapine	DP 0924 B2RF	3	0	0	0
Deltapine	DP 515 BG/RR	1	0	0	0
Deltapine	DP 0912 B2RF	<1	4	4	7
Deltapine	DP 1311 B2RF				<1
FiberMax	FM 1944 GLB2				0
NexGen (Americot)	NG 1511 B2RF				0
NexGen (Americot)	NG 5315 B2RF				0
Phytogen	PHY 565 WRF	7	6	0	0
Phytogen	PHY 375 WRF	6	6	1	1
Phytogen	PHY 485 WRF	6	1	0	0
Phytogen	PHY 499 WRF	0	<1	20	32
Phytogen	PHY 339 WRF				0
Stoneville	ST 5288 B2F	25	62	51	33
Stoneville	ST 4554 B2RF	3	0	0	0
Stoneville	ST 5458 B2RF	<1	2	<1	<1
Stoneville	ST 4946 GLB2				1
Stoneville	ST 6448 GLB2				<1

2013
Core
block
entry

Louisiana Core block

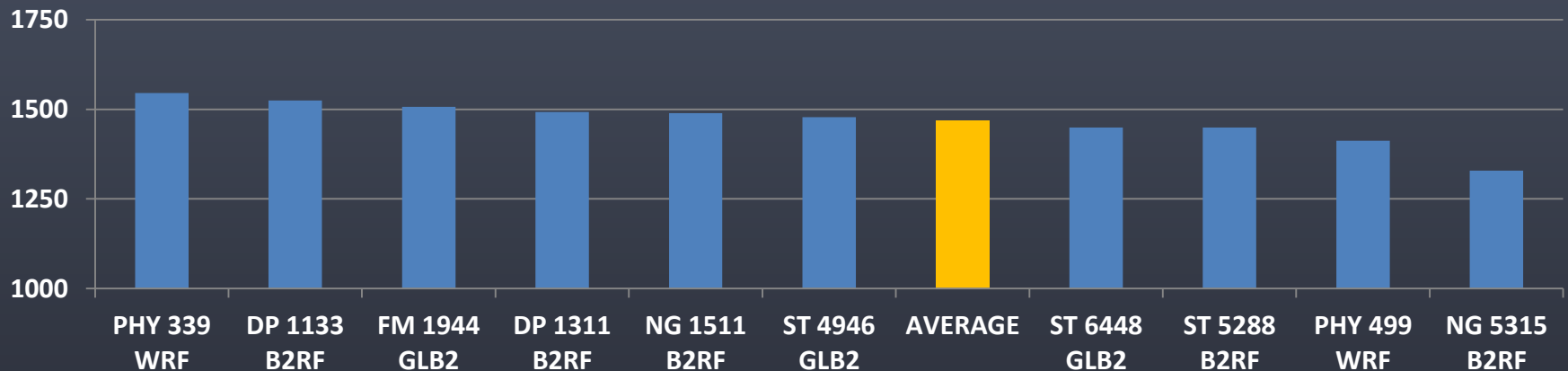
2012/2013 comparisons

Variety	Lint yield (lb/A)	
	2012	2013
PHY 339 WRF		1545
DP 1133 B2RF	1142	1525
FM 1944 GLB2	1058	1507
DP 1311 B2RF		1493
NG 1511 B2RF	1112	1489
ST 4946 GLB2		1478
ST 6448 GLB2		1449
ST 5288 B2RF	1154	1449
PHY 499 WRF	1194	1412
NG 5315 B2RF		1329
AVERAGE	1132	1468

2013 Core Block

Yield across locations

Variety	Locations									AVERAGE
	Rapides 1	Rapides 2	Caddo	Tensas	Pointe Coupee	MRRS	NERS	RRRS	DLRS	
PHY 339 WRF	1730	1010	1799	1904	1455	1529	1616	1318	1545	1545
DP 1133 B2RF	1827	1311	1589	1908	1336	1549	1386	1136	1681	1525
FM 1944 GLB2	1850	1013	1691	1909	1475	1431	1623	1177	1395	1507
DP 1311 B2RF	1579	1083	1754	1756	1726	1381	1259	1324	1571	1493
NG 1511 B2RF	1996	1186	1532	1848	1393	1369	1428	1178	1471	1489
ST 4946 GLB2	1738	988	1746	1826	1672	1330	1492	1037	1475	1478
ST 6448 GLB2	1795	1035	1456	1727	1660	1435	1331	1275	1332	1449
ST 5288 B2RF	1576	1002	1488	1958	1434	1502	1277	1197	1610	1449
PHY 499 WRF	1604	1003	1691	1761	1447	1598	1238	1214	1151	1412
NG 5315 B2RF	1689	914	1386	1478	1433	1194	985	1373	1510	1329
AVERAGE	1738	1055	1613	1807	1503	1432	1363	1223	1474	



2013 Core Block

Yield rank across locations

Variety	Average Yield	Rapides 1	Rapides 2	Caddo	Tensas	Pointe Coupee	MRRS	NERS	RRRS	DLRS	Rank Total
PHY 339 WRF	1545	6	6	1	4	5	3	2	3	4	34
DP 1133 B2RF	1525	3	1	6	3	10	2	5	9	1	40
FM 1944 GLB2	1507	2	5	4	2	4	6	1	8	8	40
DP 1311 B2RF	1493	9	3	2	8	1	7	8	2	3	43
NG 1511 B2RF	1489	1	2	7	5	9	8	4	7	7	50
ST 4946 GLB2	1478	5	9	3	6	2	9	3	10	6	53
ST 6448 GLB2	1449	4	4	9	9	3	5	6	4	9	53
ST 5288 B2RF	1449	10	8	8	1	7	4	7	6	2	53
PHY 499 WRF	1412	8	7	5	7	6	1	9	5	10	58
NG 5315 B2RF	1329	7	10	10	10	8	10	10	1	5	71

2013 Core Block

Fiber data

Variety	Lint % (%)	Length (in.)	Uniformity (%)	Strength (g/tex)	Elongation	Micronaire	Short fiber index
DP 1133 B2RF	43	1.18	84.24	33.32	6.82	4.79	7.20
DP 1311 B2RF	43	1.14	82.77	30.89	7.16	4.43	8.12
FM 1944 GLB2	42	1.20	83.94	31.24	5.80	4.59	7.51
NG 1511 B2RF	42	1.15	83.73	32.98	7.56	4.69	7.03
NG 5315 B2RF	41	1.18	83.88	31.67	7.46	4.57	7.14
PHY 339 WRF	42	1.18	83.46	31.70	6.94	4.44	7.28
PHY 499 WRF	41	1.15	84.40	33.73	7.28	4.67	7.06
ST 4946 GLB2	41	1.17	83.89	33.51	6.56	4.50	7.19
ST 5288 B2RF	41	1.15	83.01	30.76	6.60	4.69	7.72
ST 6448 GLB2	41	1.20	83.09	29.67	5.68	4.57	7.83

