Selecting Cotton Varieties for Louisiana

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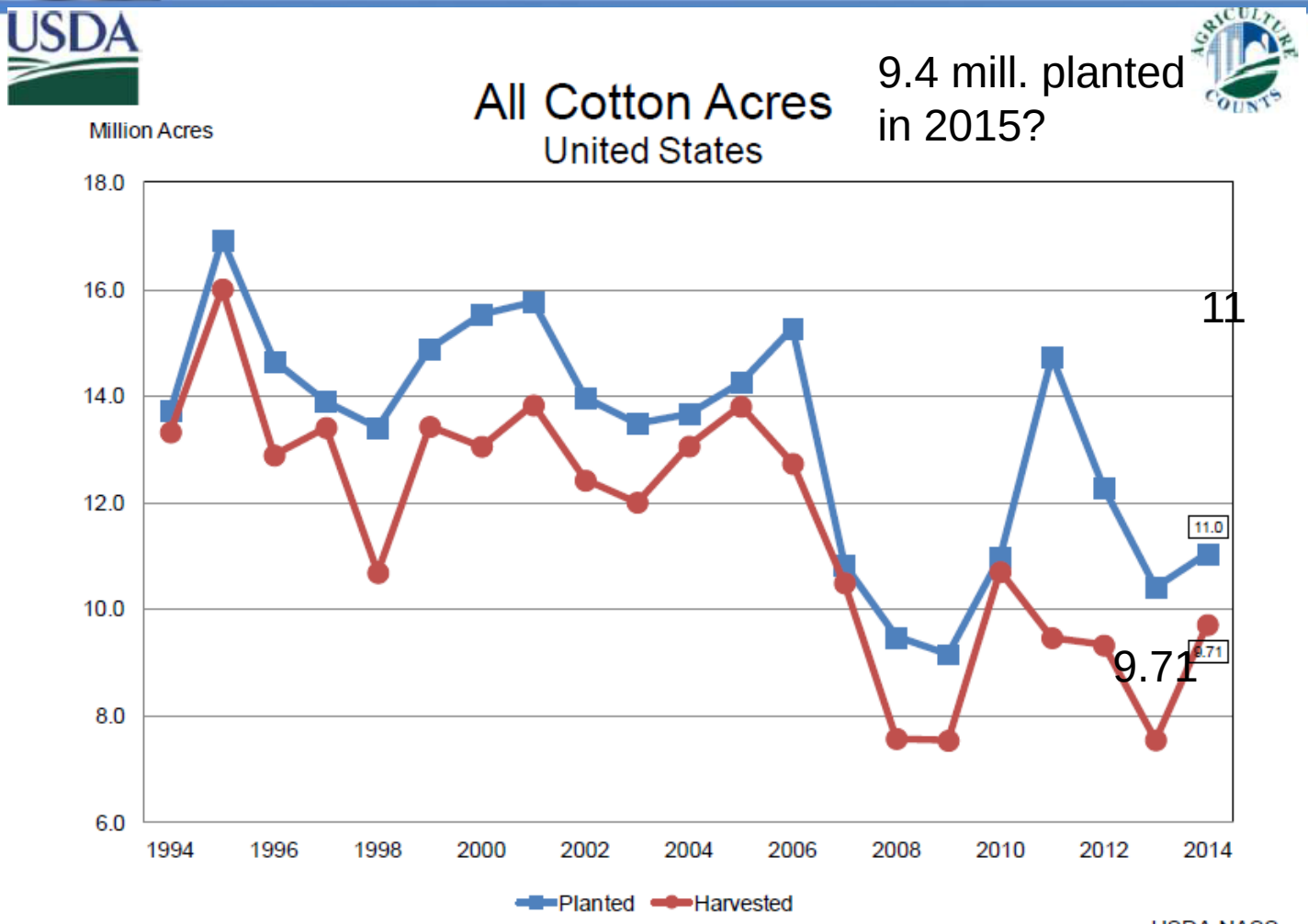
Cotton Acres



9.4 mill. planted in 2015?

11

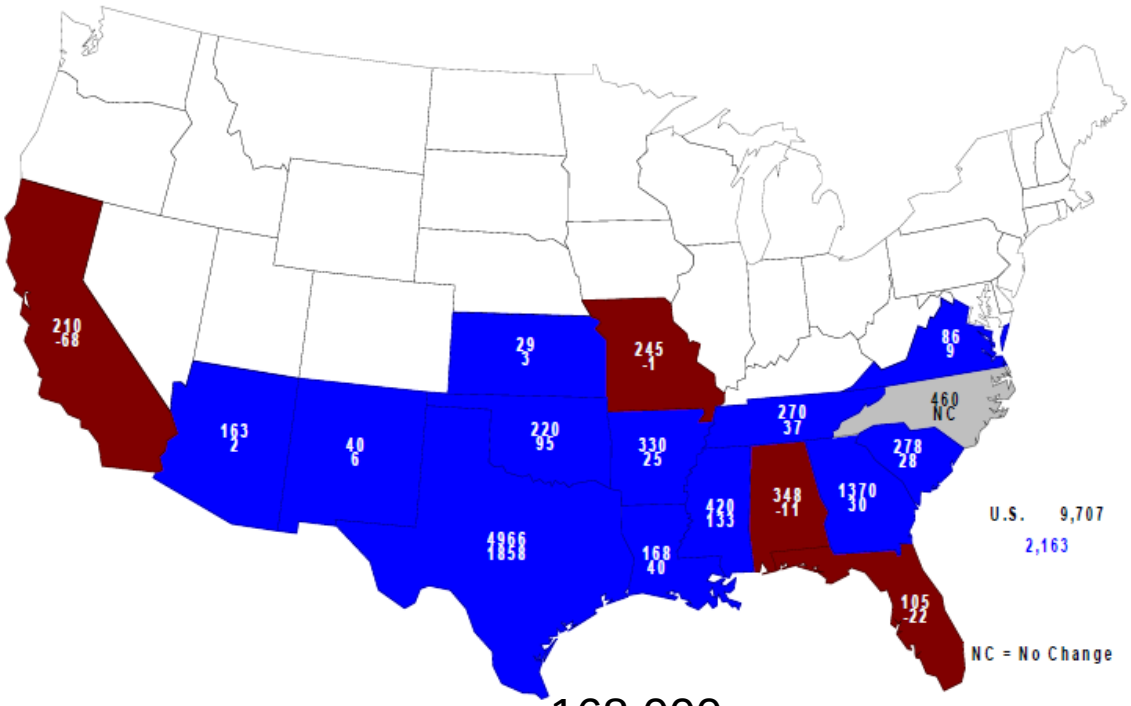
9.71

USDA-NASS
1-12-15

2014 Cotton Harvested Acres

2014 All Cotton Harvested Area

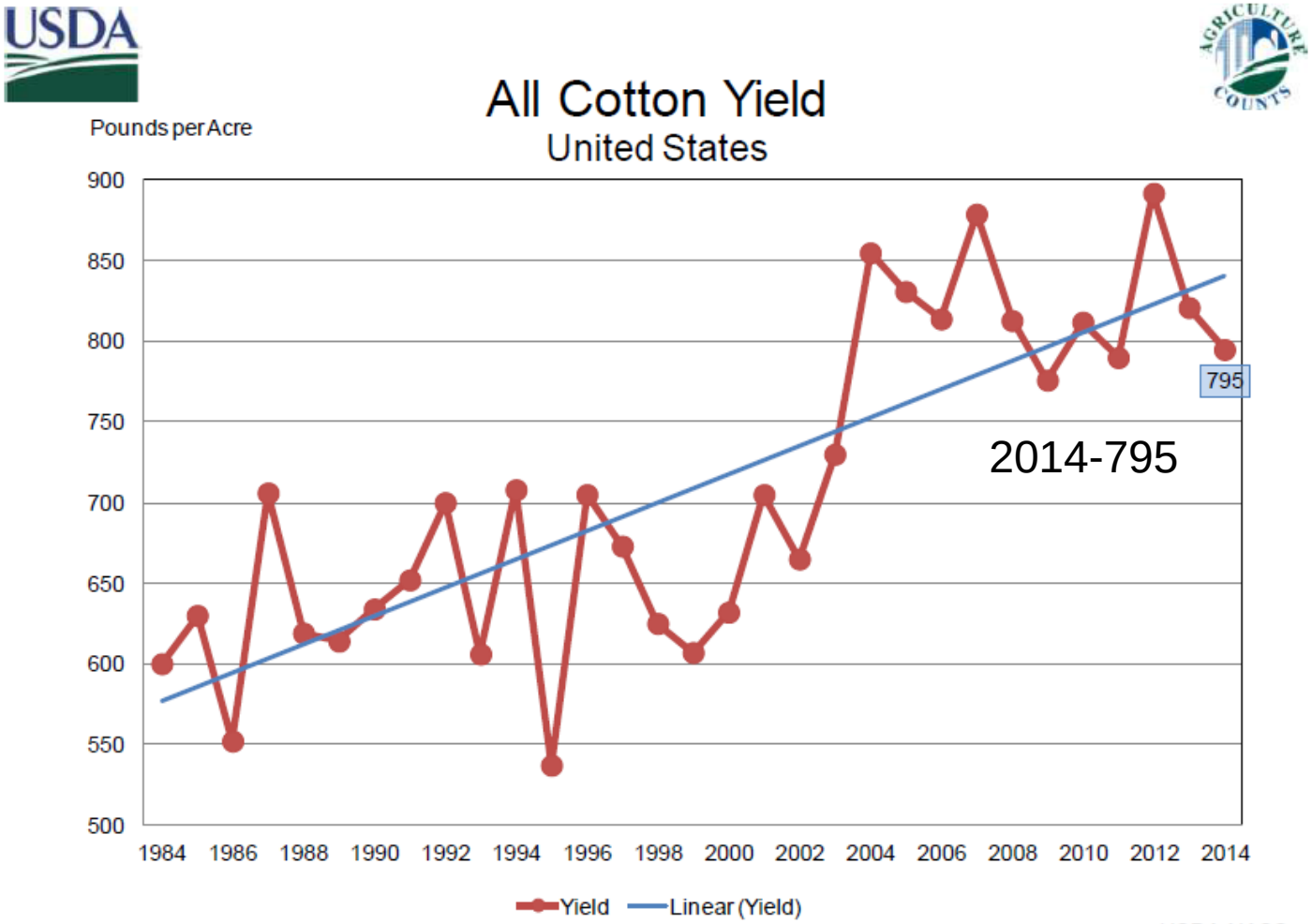
Acres (000) and Change From Previous Year



168,000
+40,000

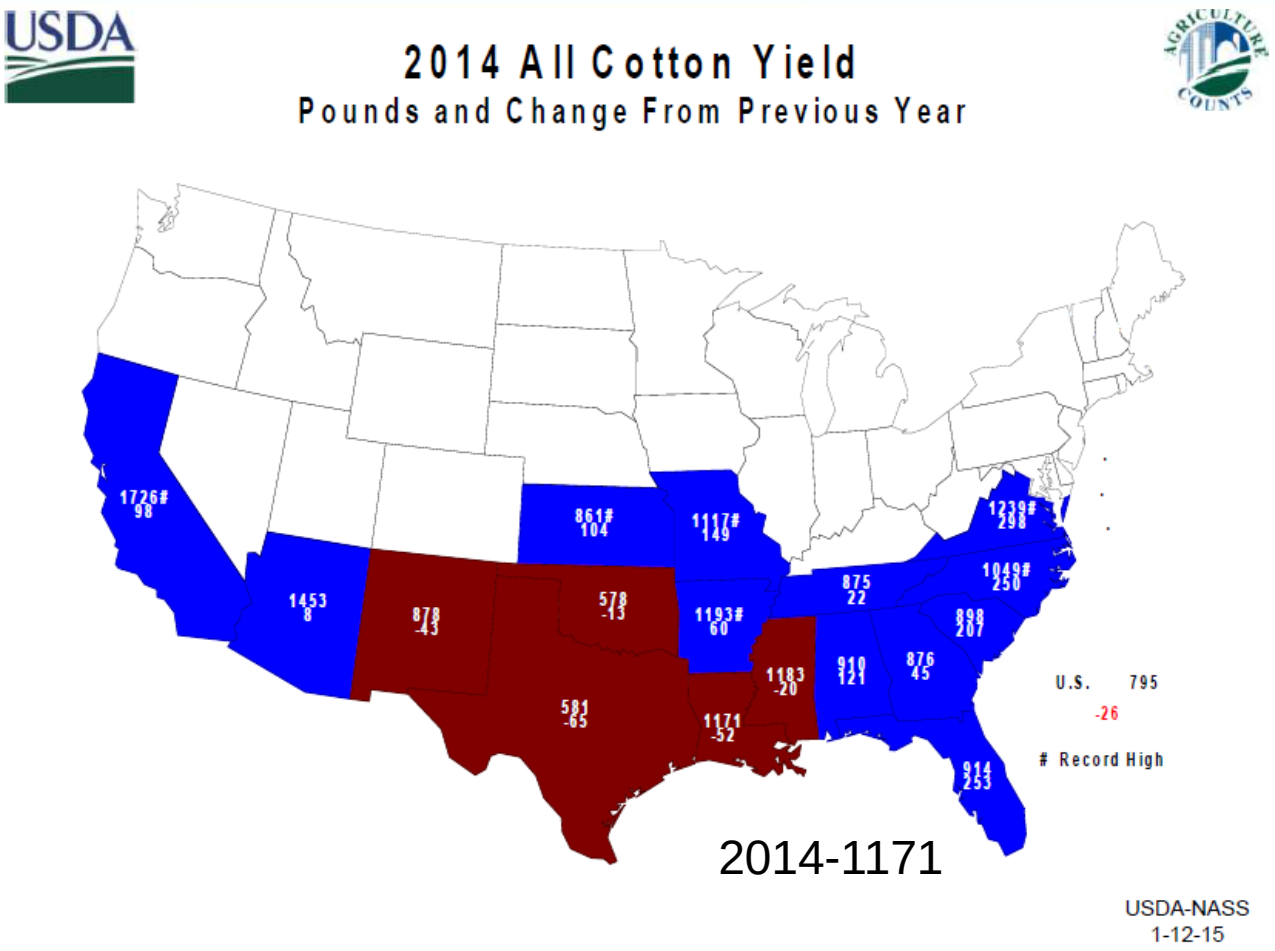
USDA-NASS
1-12-15

U.S. Cotton Yields

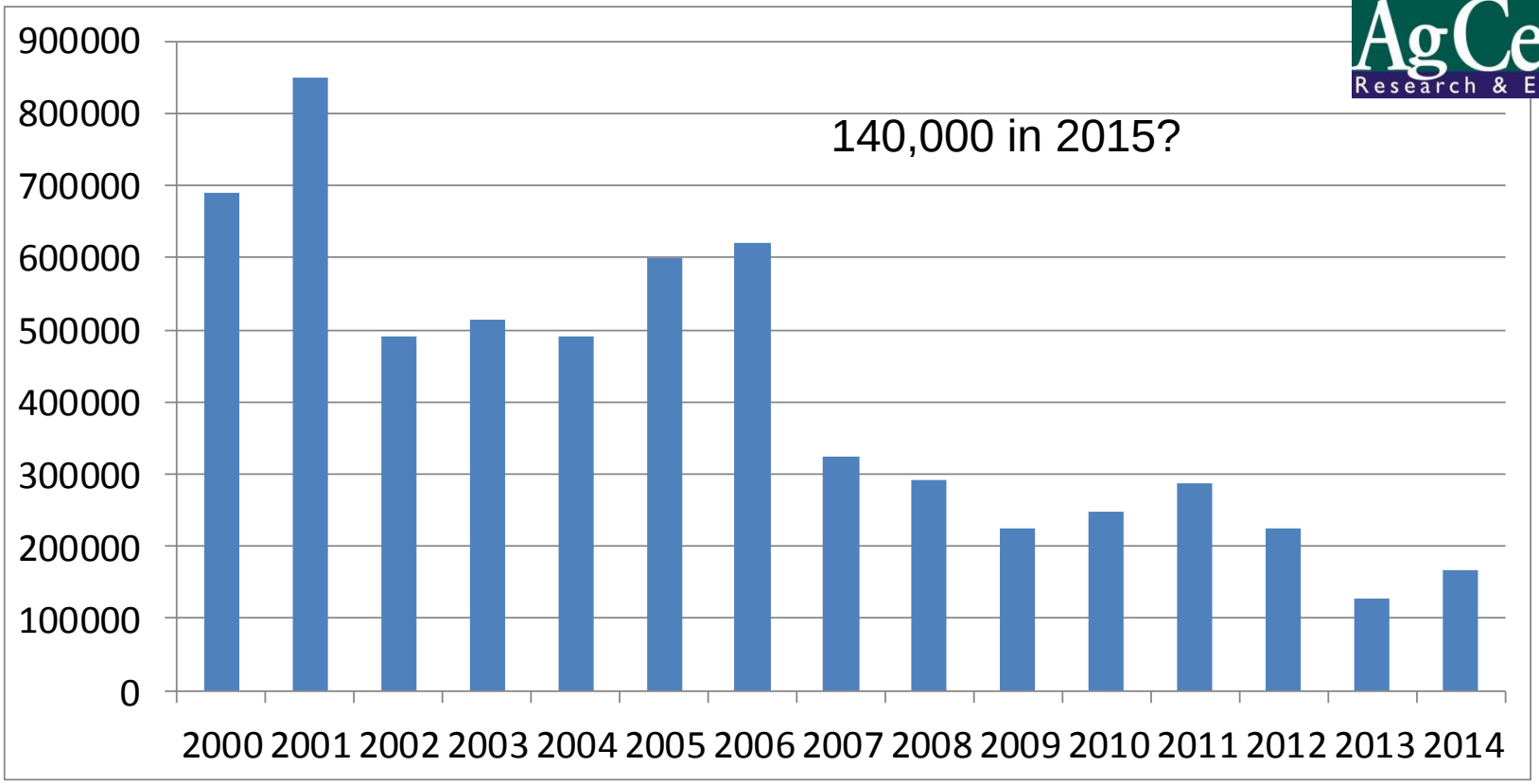


USDA-NASS
1-12-15

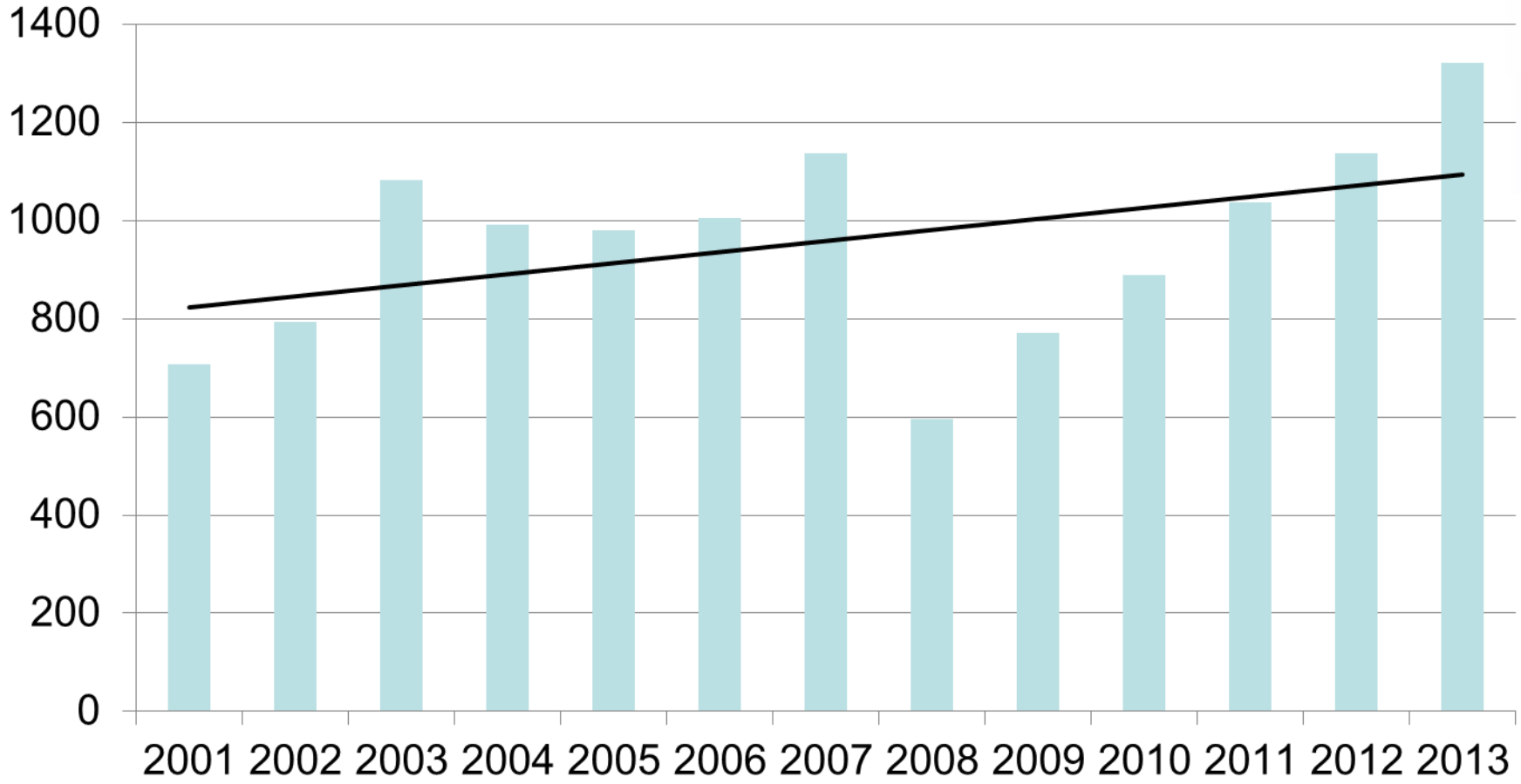
U.S. Cotton Yields



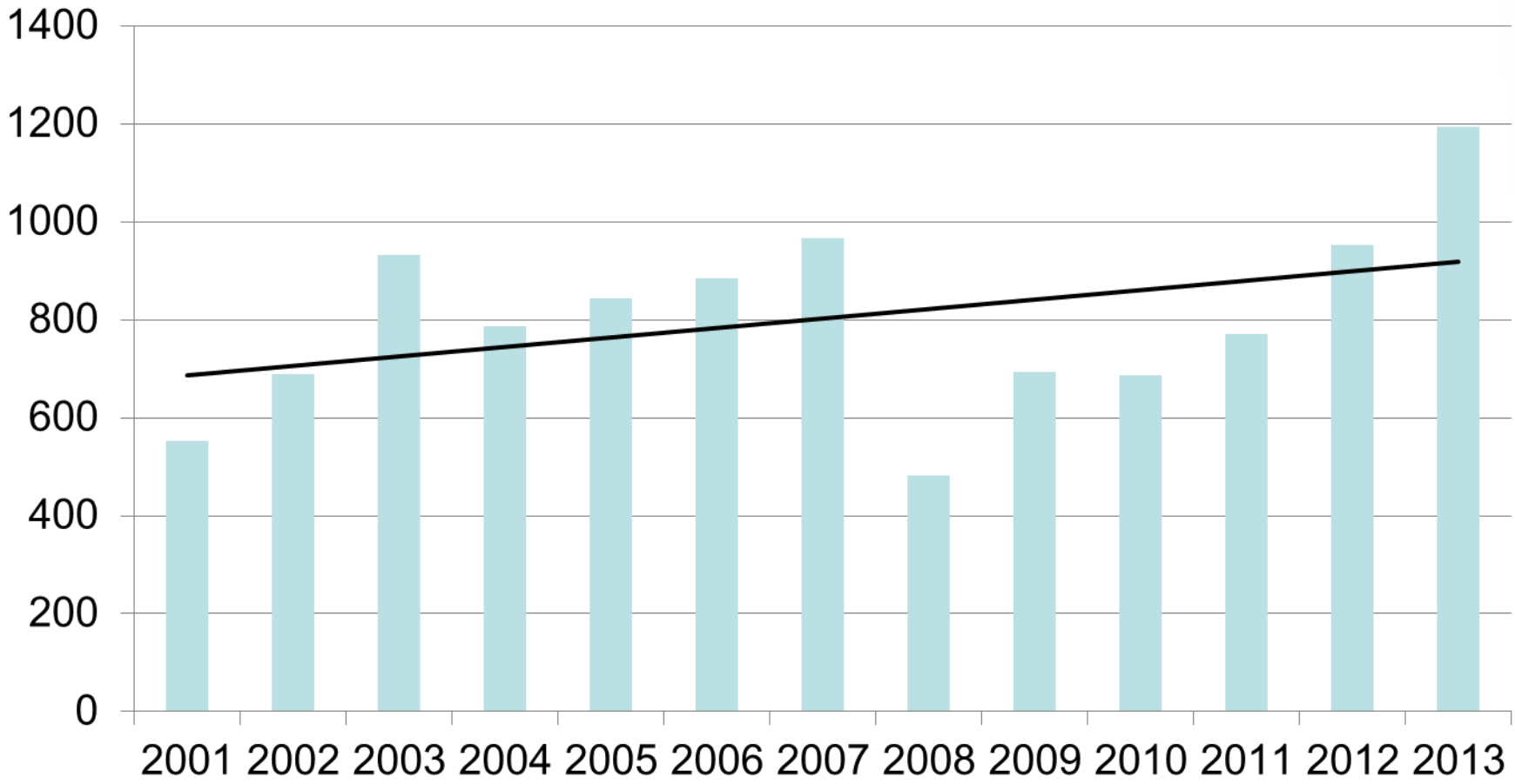
Louisiana Cotton Acres



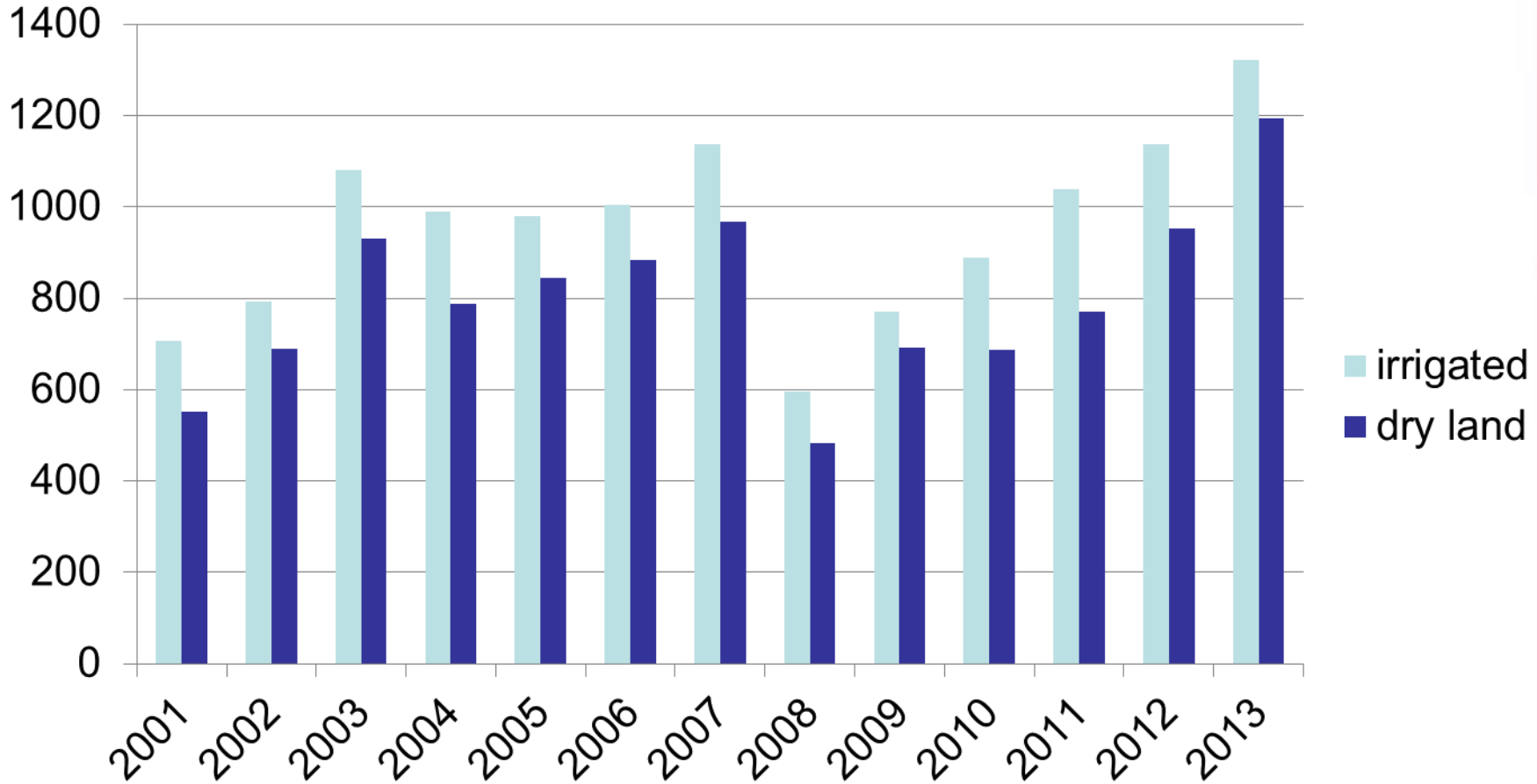
Louisina
Cotton Yields-Irrigated



Louisiana
Cotton Yields-Dry Land



Louisiana Cotton Yields



2014 Cotton Varieties Planted-Top 10

USDA

Variety	Louisiana (%)	U.S. (%)
PHY 499WRF	33.67	9.25
ST 5288B2F	21.52	0.41
DP 1133B2RF	19.80	0.64
ST 5289GLT	4.72	0.60
DP 0912B2RF	4.15	2.15
PHY 339WRF	4.08	1.07
ST 6448GLB2	2.67	3.02
ST 4946GLB2	2.10	6.70
FM 1944GLB2	2.09	6.04
DP 1321B2RF	1.74	2.69

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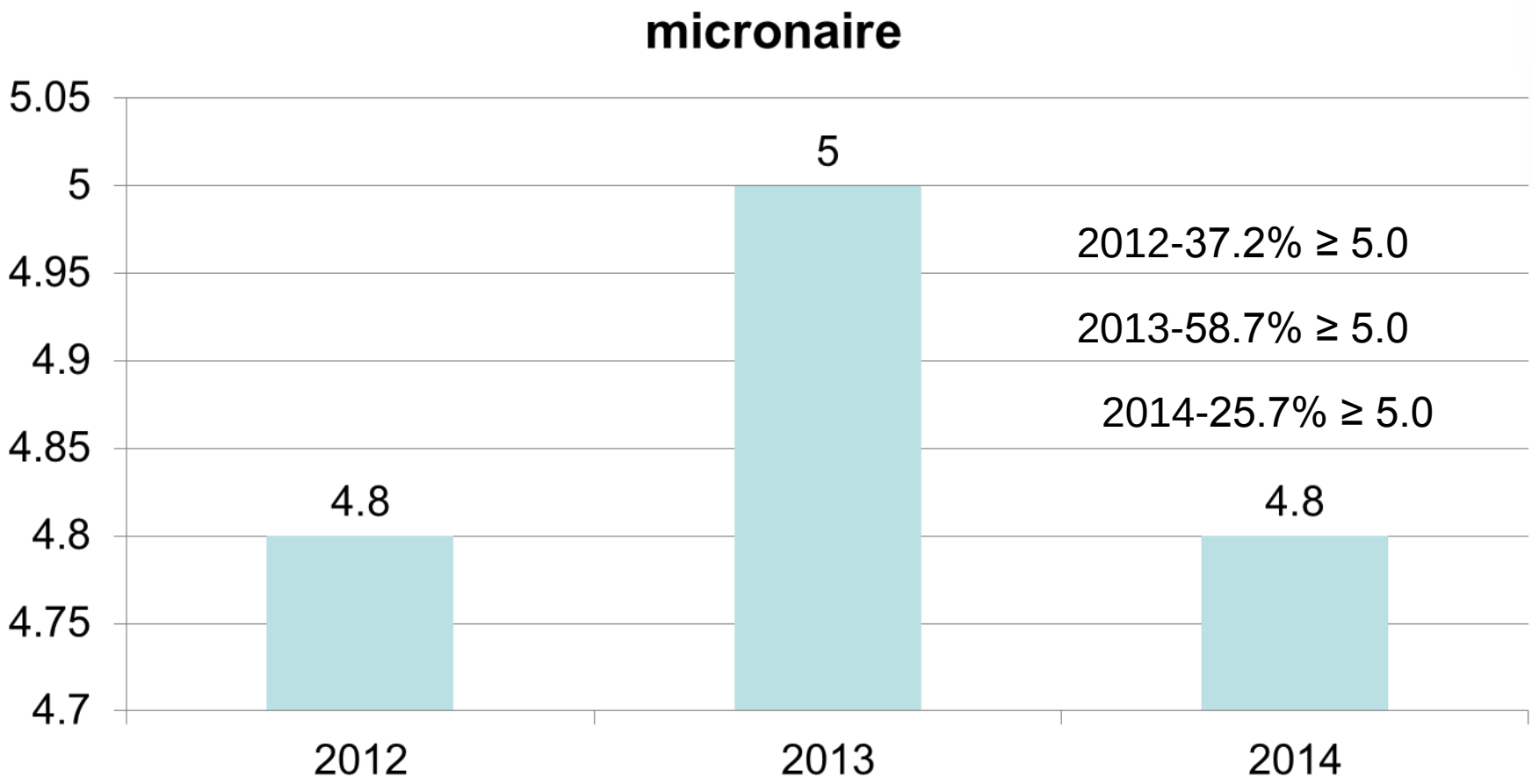
Fiber Quality-Rayville



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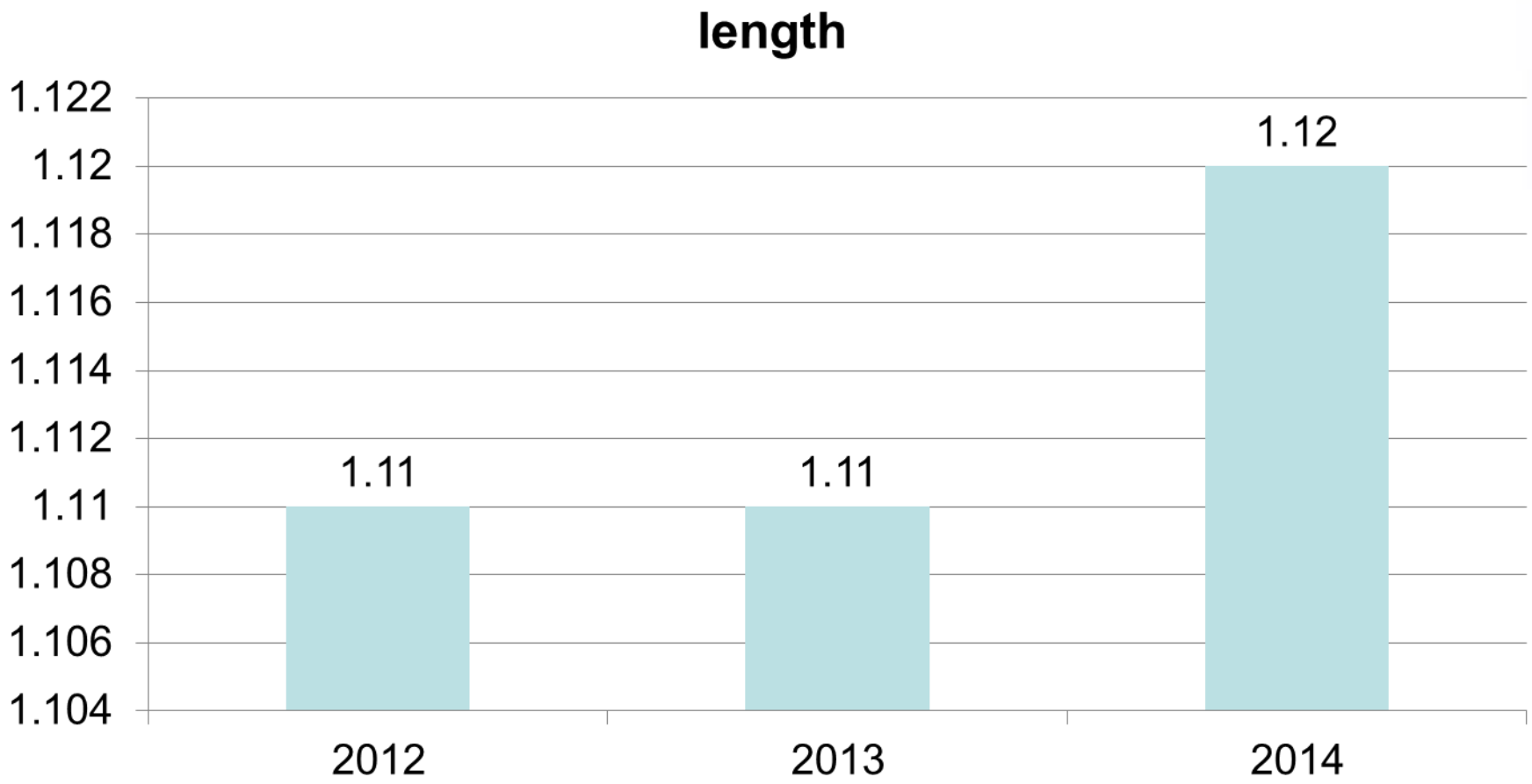
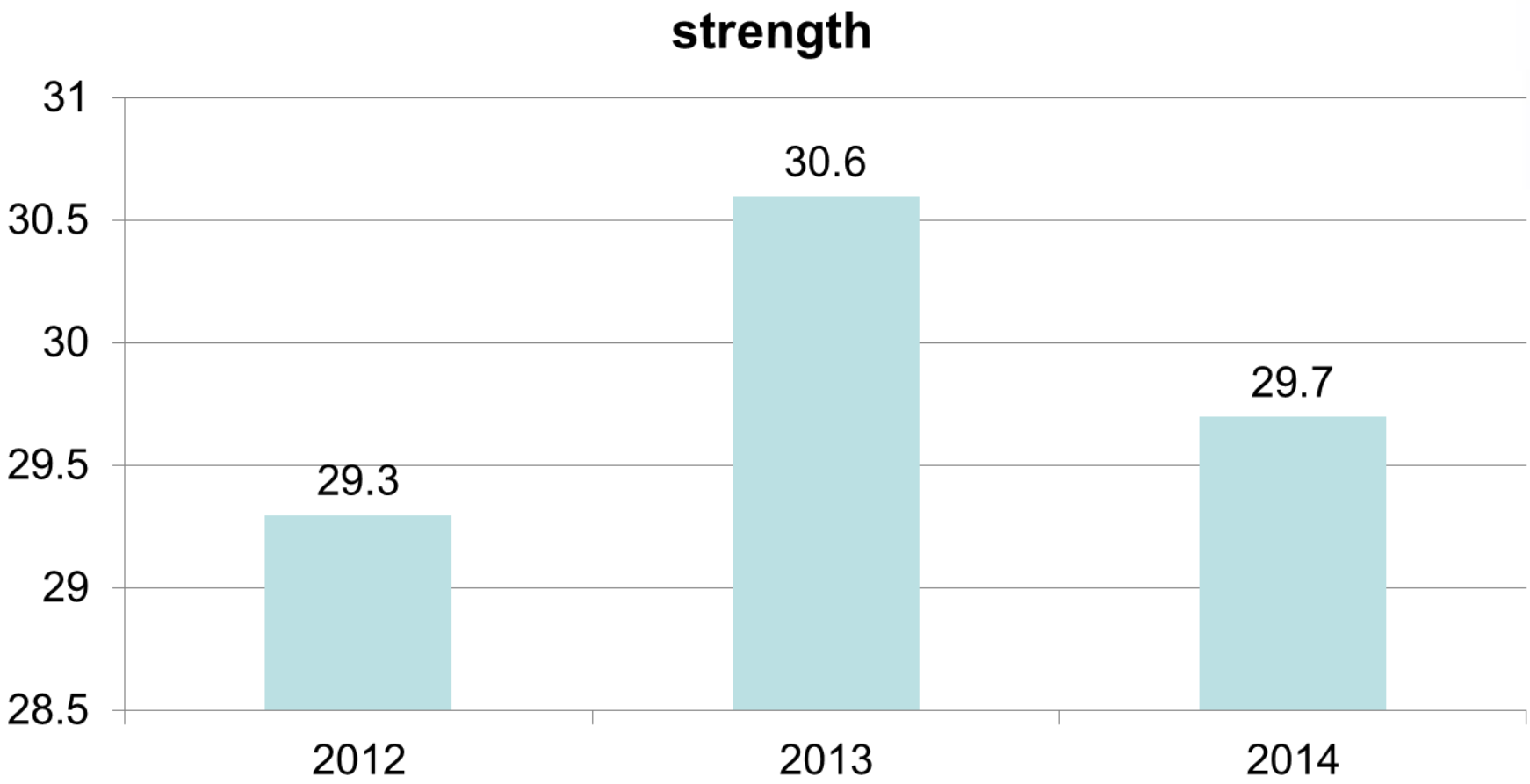
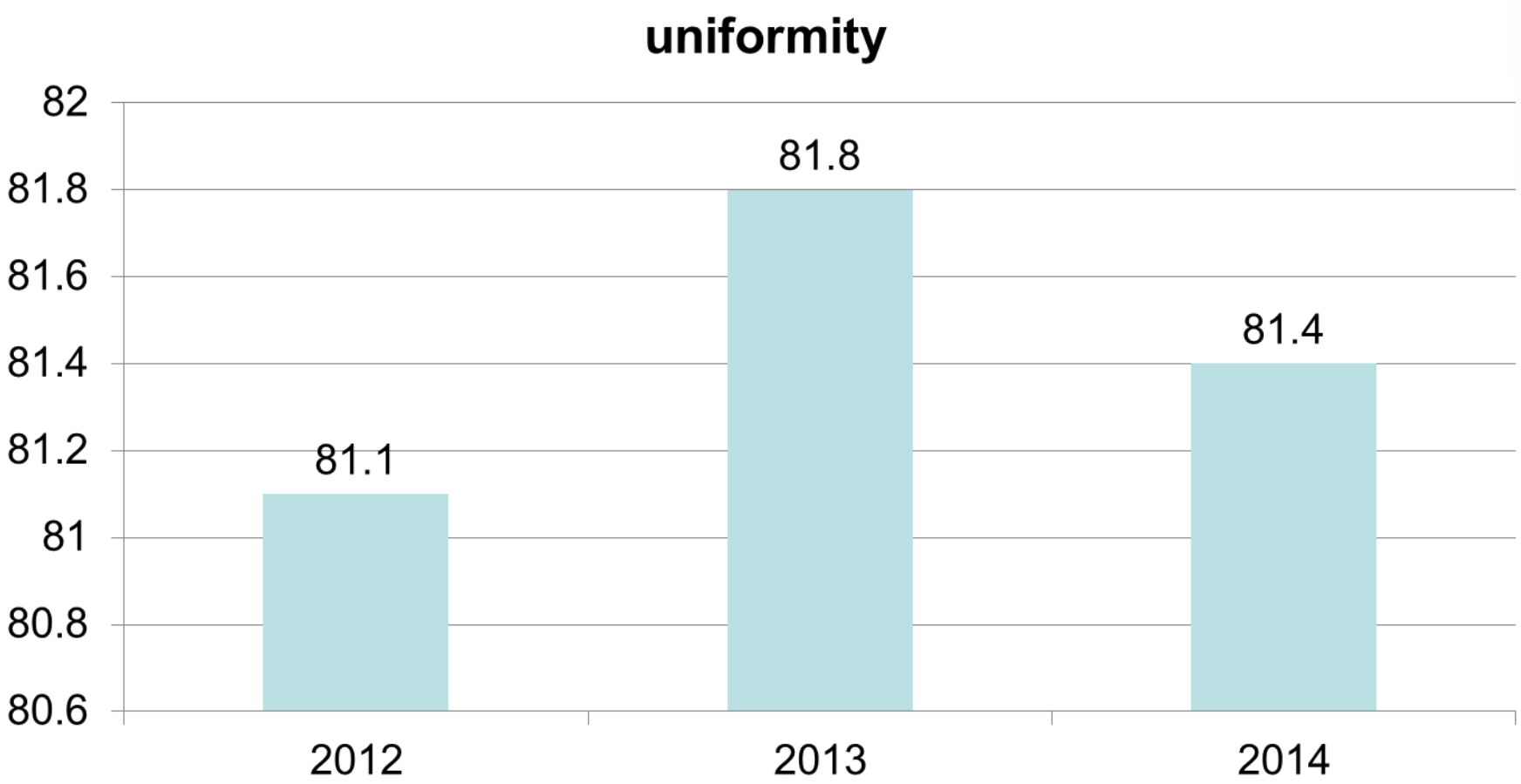


Fiber Quality-Rayville



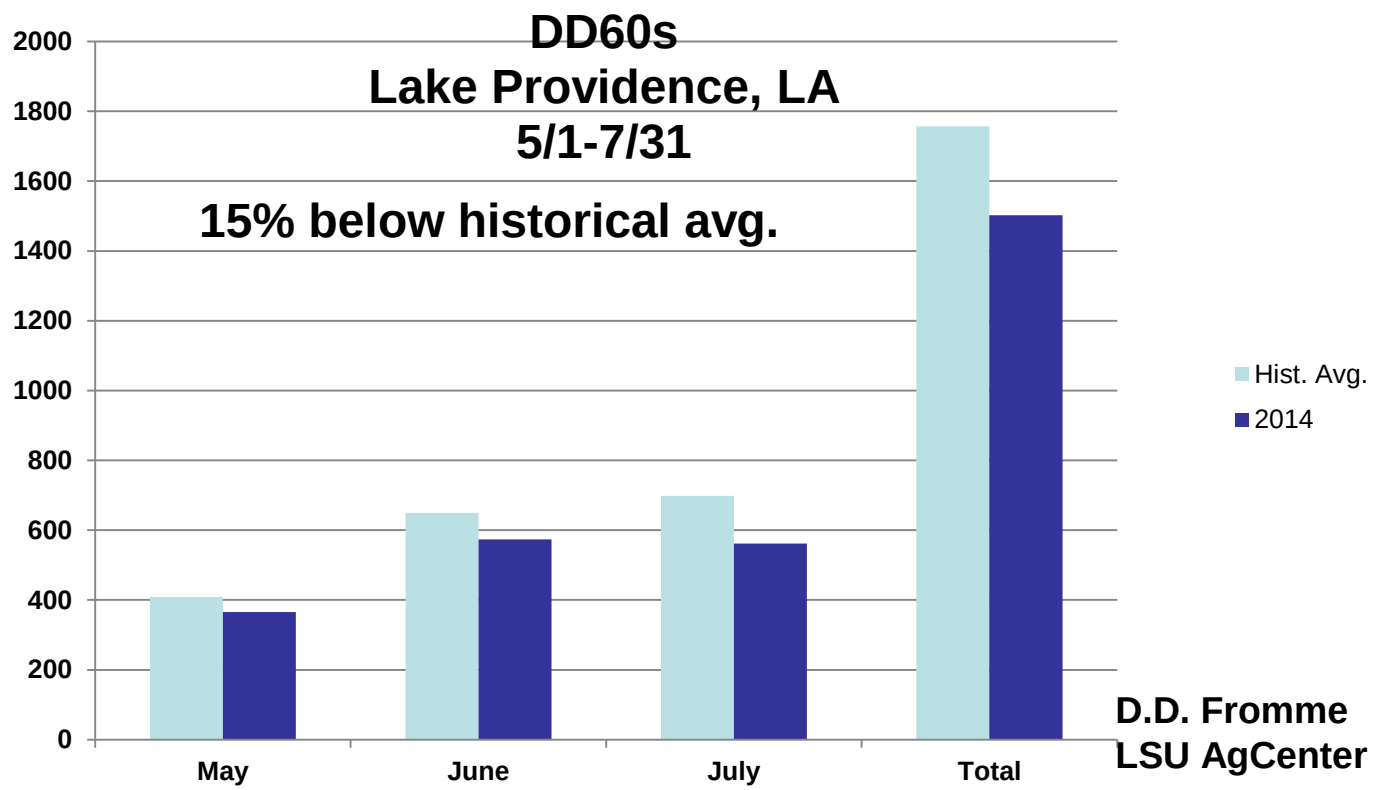
Fiber Quality-Rayville



Leaf Grades

- Increase in leaf grade discounts
  - Due to a trend of increasing leaf hairiness in current varieties.

2014 DD60s



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2014 OVT

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2014-OVT Locations

- Dean Lee-2
- St. Joseph-1
- Winnsboro-1
- Bossier City-2

Each location replicated 4-6 times

2014 Varieties

Company	Number of Entries
All-Tex	1
Americot	2
Croplan Genetics	1
Dyna Gro	3
DPL	7
Fiber Max	1
Phytogen	15
Stoneville	13
Seed Source Genetics	2
Total	45

2014 OVT Planting Dates

Alexandria		Bossier City		St. Joseph	Winnsboro
silt loam	clay	Silt loam	clay	clay	silt loam
4/29/14	4/29/14	5/8/14	6/9/14	5/22/14	5/6/14

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Mean, LSD, and CV by Locations

	Alexandria		Bossier City		St. Joseph	Winnsboro
	clay	s. loam	clay	s. loam	clay	s. loam
Mean	1244	1273	1287	1611	1444	1601
LSD (.05)	166	241	327	318	272	200
CV(%)	11.9	16.0	20.1	17.3	16.4	10.9

Choosing Varieties

- Importance
  - One of the most important decisions a cotton producer will make for the entire growing season.
    - Varieties come and go at a very fast pace
    - New biotechnologies entering the market
      - seed costs and associated technology fees.
  - Plant multiple varieties
    - Look at the top 10 percent
    - Consider performance across multiple locations and years. Especially the locations that nearest to you and where planted on the same soil type.

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Using the data-order of importance

- **Yield**
  - **Often there is no statistical difference between the top yielding varieties of a given trial.**
  - **A probability level of 5 percent is used, which means the test correctly identifies variety performance for that location with 95 percent certainty.**
- **Fiber quality**
  - **Length**
  - **Strength**
  - **Micronaire**
  - **Uniformity**
  - **Gin turnouts-will be higher (no lint cleaners)**
  - **Therefore, there are no leaf, trash, and color grades.**
- **Maturity at harvest (% open boll)**

Two year summary across all locations-19 varieties

Top Six (2013-2014)	
Variety	**Lint Yield**
PX3122B51WRF	1759
PHY333WRF	1665
PHY499WRF	1653
NG1511B2RF	1611
ST4946GLB2	1611
ST5288B2F	1600

Top 6 of 19

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One year performance across all locations-2014

Variety	Lint Yield/Acre
PX49907W3RF	1606
PX554010WRF	1578
PHY495W3RF	1560
ST4747GLB2	1547
PX3122B51WRF	1547
PX49936W3RF	1543

Top 6 of 45

2014 Alexandria-Clay Top 6

Variety	Lint Yield/Acre
DGCT14515	1538
PX554010WRF	1497
ST4747GLB2	1461
M13R352B2R2	1439
PHY339WRF	1432
M12R224B2R2	1388

2014 Alexandria-Silt Loam Top 6

Variety	Lint Yield/Acre
ST4946GLB2	1491
BX1533GLT	1461
ST4747GLB2	1459
ST5115GLT	1454
DP1311B2RF	1380
DP0912B2RF	1379

2014 Bossier City-Clay Top 6

Variety	Lint Yield/Acre
PHY333WRF	1789
PHY499WRF	1643
PX3122B551WRF	1639
PX49936W3RF	1519
PHY495W3RF	1505
PX49907W3RF	1491

2014 Bossier City-Silt Loam Top 6

Variety	Lint Yield/Acre
PX554010WRF	2104
PX49907W3RF	2034
PHY495W3RF	1929
PX49936W3RF	1879
ST5288B2F	1858
PX554057WRF	1767

2014 St. Joseph-Sharkey Clay Top 6

Variety	Lint Yield/Acre
PX49907W3RF	1768
PX3122B51WRF	1759
PX554010WRF	1697
PX444413WRF	1689
PX49936W3RF	1673
PX554063WRF	1669

2014 Winnsboro Gigger Silt Loam Top 6

Variety	Lint Yield/Acre
M13R352B2R2	1842
PHY495W3RF	1828
PX49907W3RF	1795
ST4747GLB2	1778
BX1532GLT	1745
ST6182GLT	1740

2014-OVT Summary

- 45 varieties
- Top two were experimental varieties.
- Top 8 out of 10 were experimental numbered or in the commercial market for the first year.
- Fiber length is increasing in new varieties that were entered.

2014 Core Block Trials

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Locations (12)

- Rapides-Dekeyzer
- Rapides-Collins
- Rapides- Dean Lee Research & Extension Center
- Point Coupee
- Caddo
- Tensas
- Franklin
- Richland
- Morehouse
- Catahoula
- Avoyelles
- Ouchita

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Varieties

- DP 1321B2RF
- DP 1133B2RF
- NG 5315B2RF
- NG 1511B2RF
- PHY 499WRF
- PHY 339WRF
- PHY 333WRF
- ST 5032GLT
- ST 6448GLB2
- ST 5289GLT
- ST 4946GLB2

Results-Lint Yield

Variety	Avoyelle	Caddo	Catahoul	Rapides1	Franklin	Ouchita	P. Coupee	Rapides2	Rapides3	Richland	Tensas	Avg.
DP1321B2RF	1362	1612	1819	1129	1391	1390	679	1764	1401	940	1614	1373
NG1511B2RF	1274	1687	1784	1013	1442	1468	715	1733	1454	913	1436	1356
DP1133B2RF	1423	1435	1873	1178	1660	1176	696	1647	1420	764	1451	1338
ST4946GLB2	1294	1793	1682	1258	1570	1596	593	1614	1142	981	1332	1350
ST6448GLB2	1386	1426	1643	1308	1417	1289	676	1583	1023	879	1331	1269
PHY499WRF	1250	1581	1856	1104	1358	1183	626	1578	1396	833	1470	1294
ST5032GLT	1197	1730	1663	893	1599	1513	564	1570	1092	816	1468	1282
NG5315B2RF	1399	1304	1807	1213	1644	1082	706	1511	1083	941	1304	1272
ST5289GLT	1280	1600	1748	1156	1449	1363	573	1506	1158	881	1480	1290
PHY333WRF	1408	1769	1793	1306	1623	1466	688	1461	1430	824	1529	1391
PHY339WRF	1350	1446	1729	1341	1574	1324	610	1455	1160	757	1616	1306

Results-Fiber Quality

Variety	Lint (%)	Length (inches)	Uniformity (%)	Strength (g/tex)	Micronaire
DP1321B2RF	44.2	1.15	84.1	30.6	4.8
NG1511B2RF	45.2	1.12	83.9	30.4	4.8
DP1133B2RF	46.0	1.15	84.0	30.8	4.7
ST4946GLB2	43.1	1.14	83.9	30.1	4.7
ST6448GLB2	42.9	1.19	83.6	28.4	4.5
PHY499WRF	45.3	1.14	84.5	31.5	4.7
ST5032GLT	42.1	1.19	83.5	29.7	4.1
NG5315B2RF	45.2	1.15	83.8	29.6	4.6
ST5289GLT	42.8	1.14	83.0	28.1	4.4
PHY333WRF	44.8	1.18	84.0	28.4	4.3
PHY339WRF	43.5	1.18	83.9	29.6	4.3

Lint Yield-Rank Across All Locations

Variety	Average Lint Yield	Rank
PHY 333WRF	1391	1
DP 1321B2RF	1373	2
NG 1511B2RF	1356	3
ST 4946GLB2	1350	4
DP 1133B2RF	1338	5
PHY 339WRF	1306	6
PHY 499WRF	1294	7
ST 5289GLT	1290	8
ST5032GLT	1282	9
NG 5315B2RF	1272	10
ST 6448GLB2	1269	11

Acknowledgments

- Cotton Incorporated
- Louisiana State Support

Thank You

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Questions

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