



Cotton Production Costs: A Look Back

Sandy Stewart - North Carolina State
and

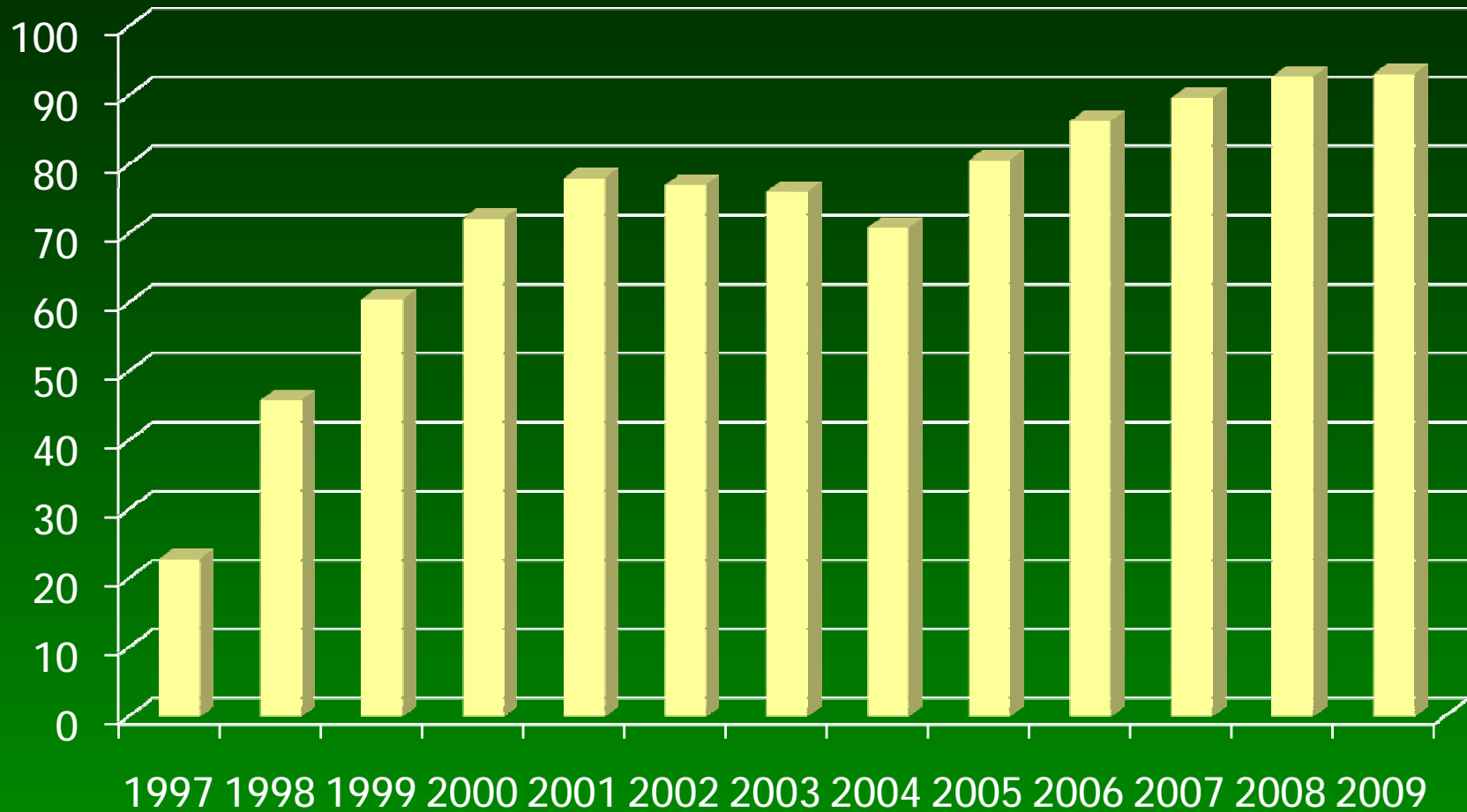
Tom Barber - University of Arkansas

Top 3 Input Costs for Cotton

- 1. Fuel and Fertilizer
- 2. Seed/Technology Fees
- 3. Chemicals

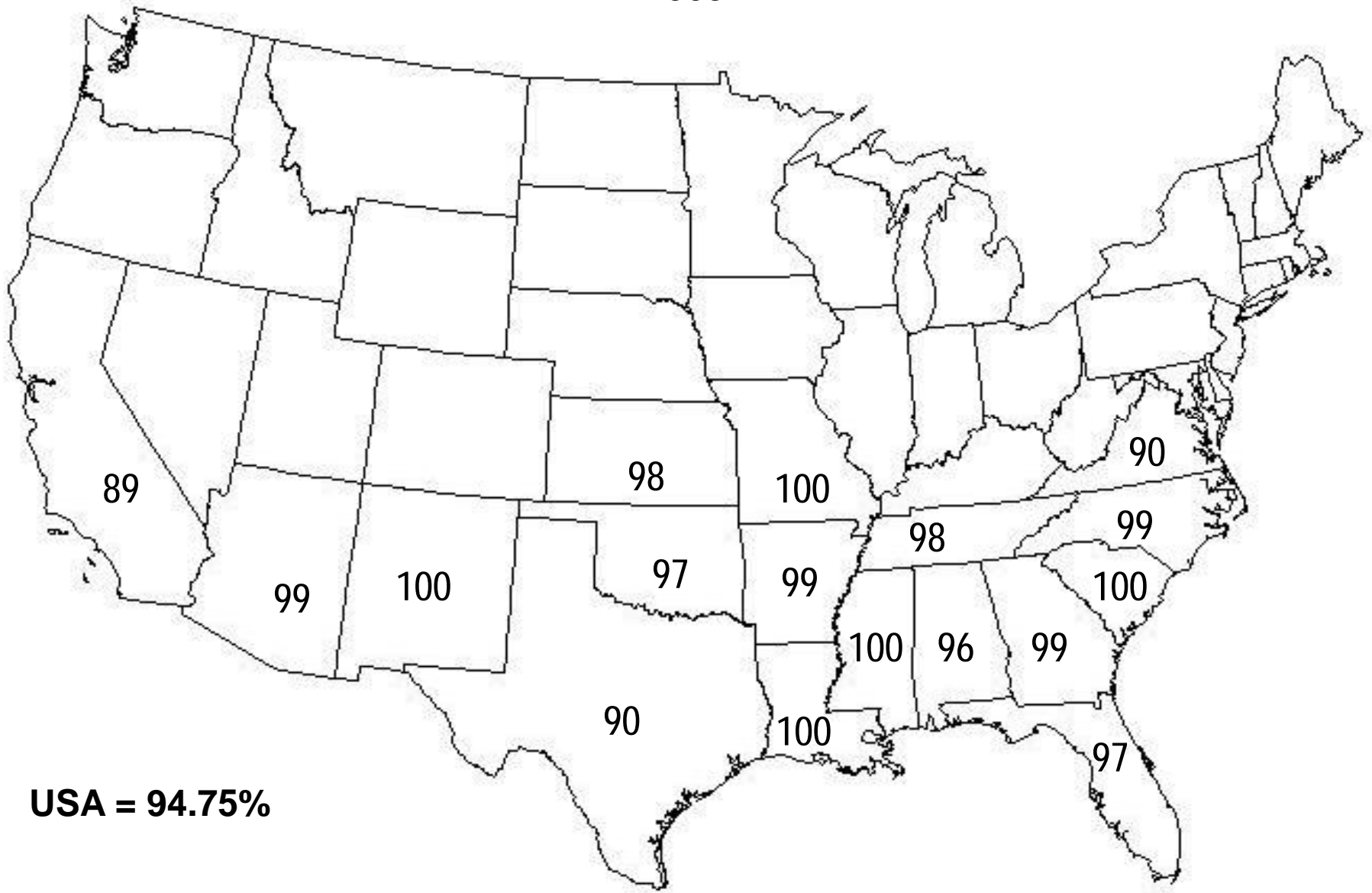


US Transgenic Cotton Acreage



Percent of cotton acreage planted to transgenic varieties

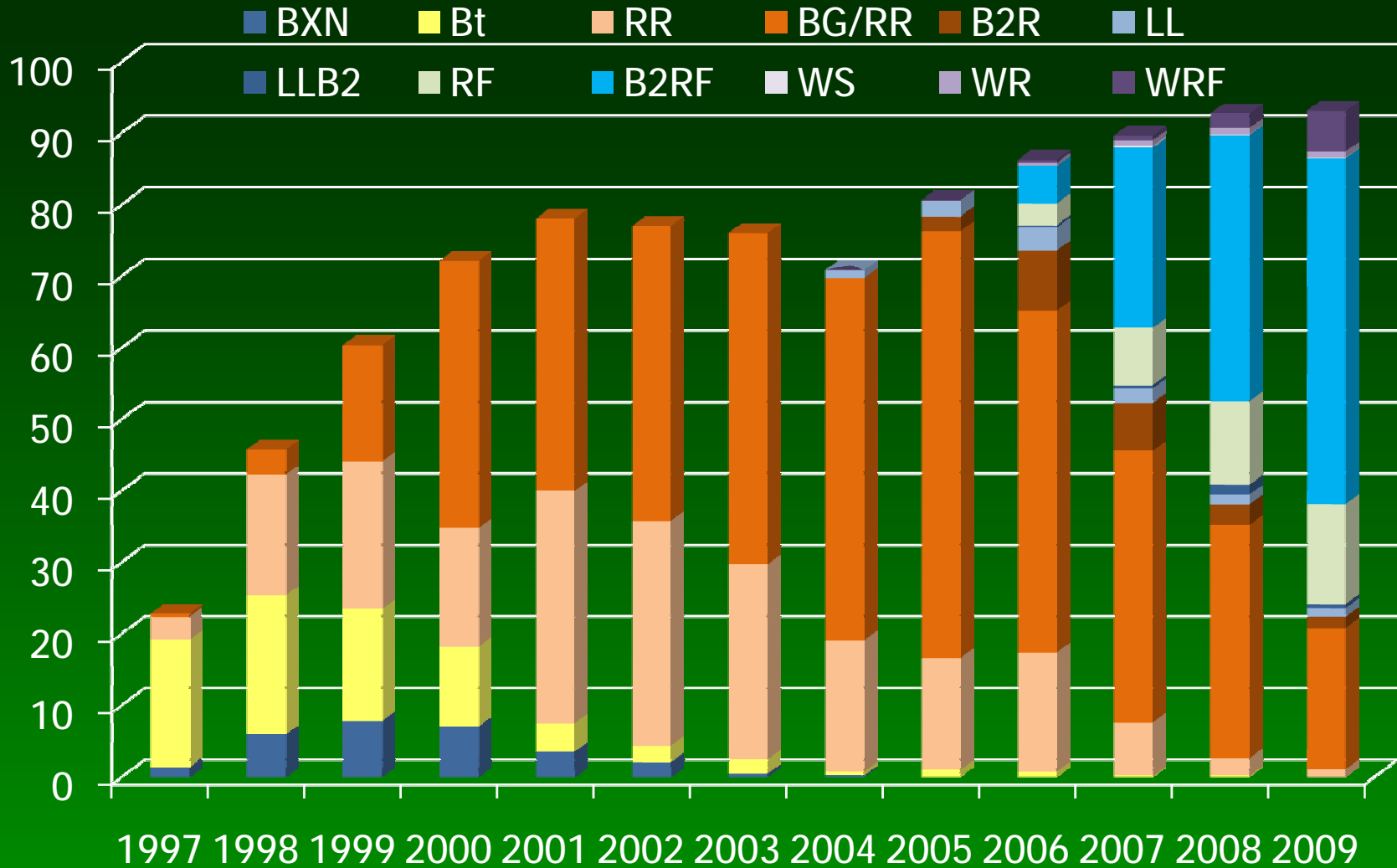
2009¹



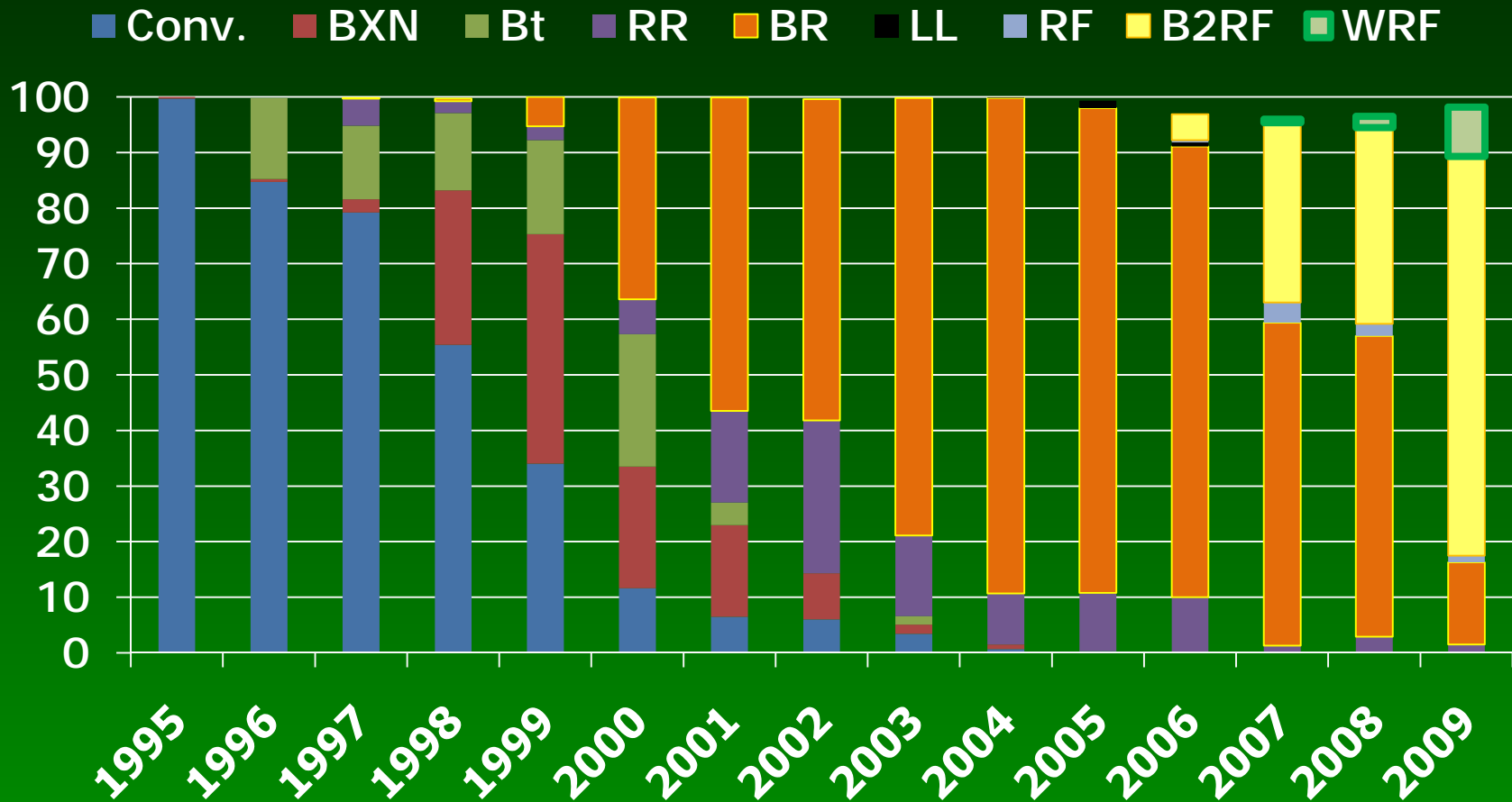
USA = 94.75%

¹USDA, AMS. 2009.

US Transgenic Cotton Acreage

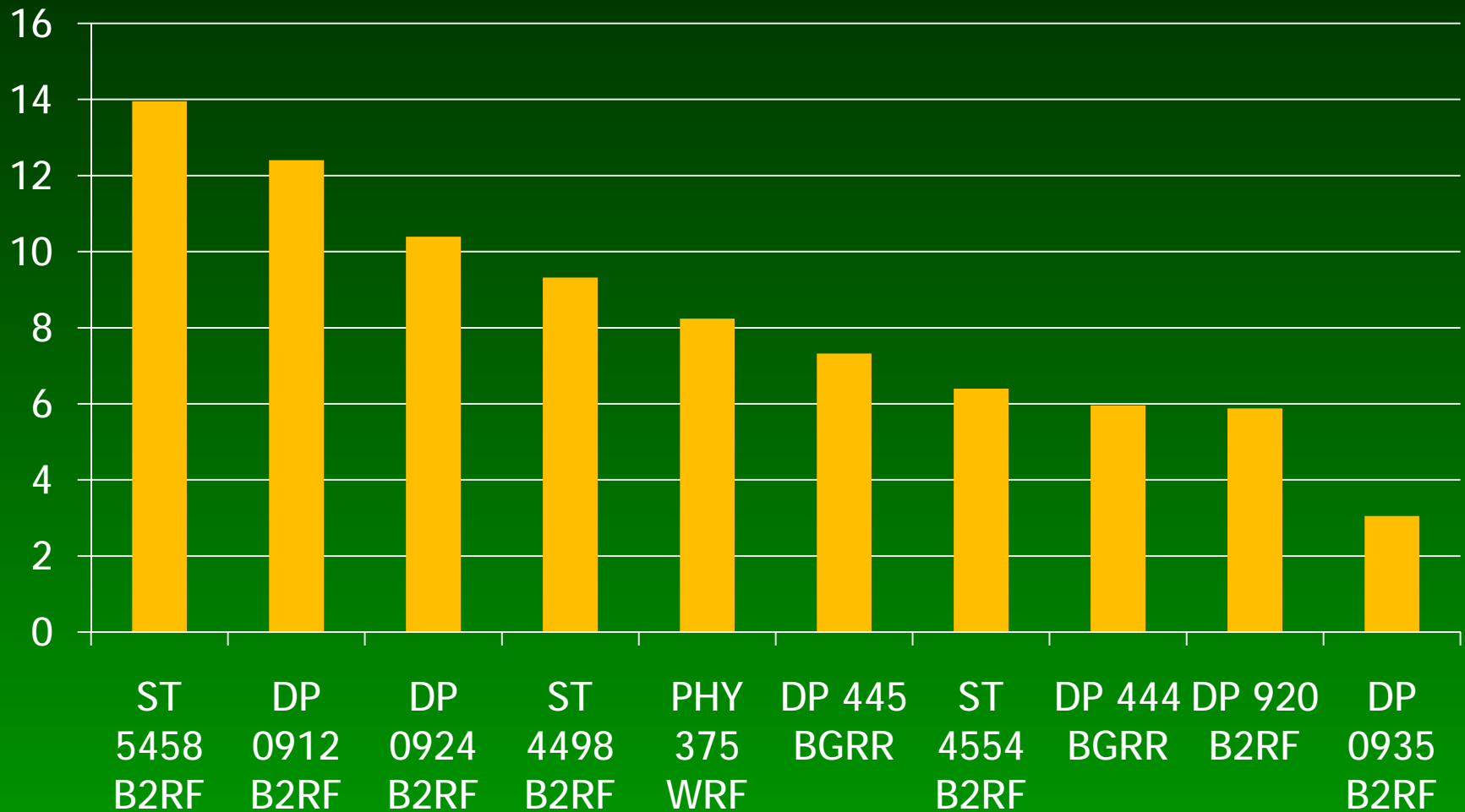


Percent Varieties Planted in Arkansas by Technology



Varieties Planted In Arkansas USDA-AMS 2009

Percent Acres Planted (83% total)



Questions

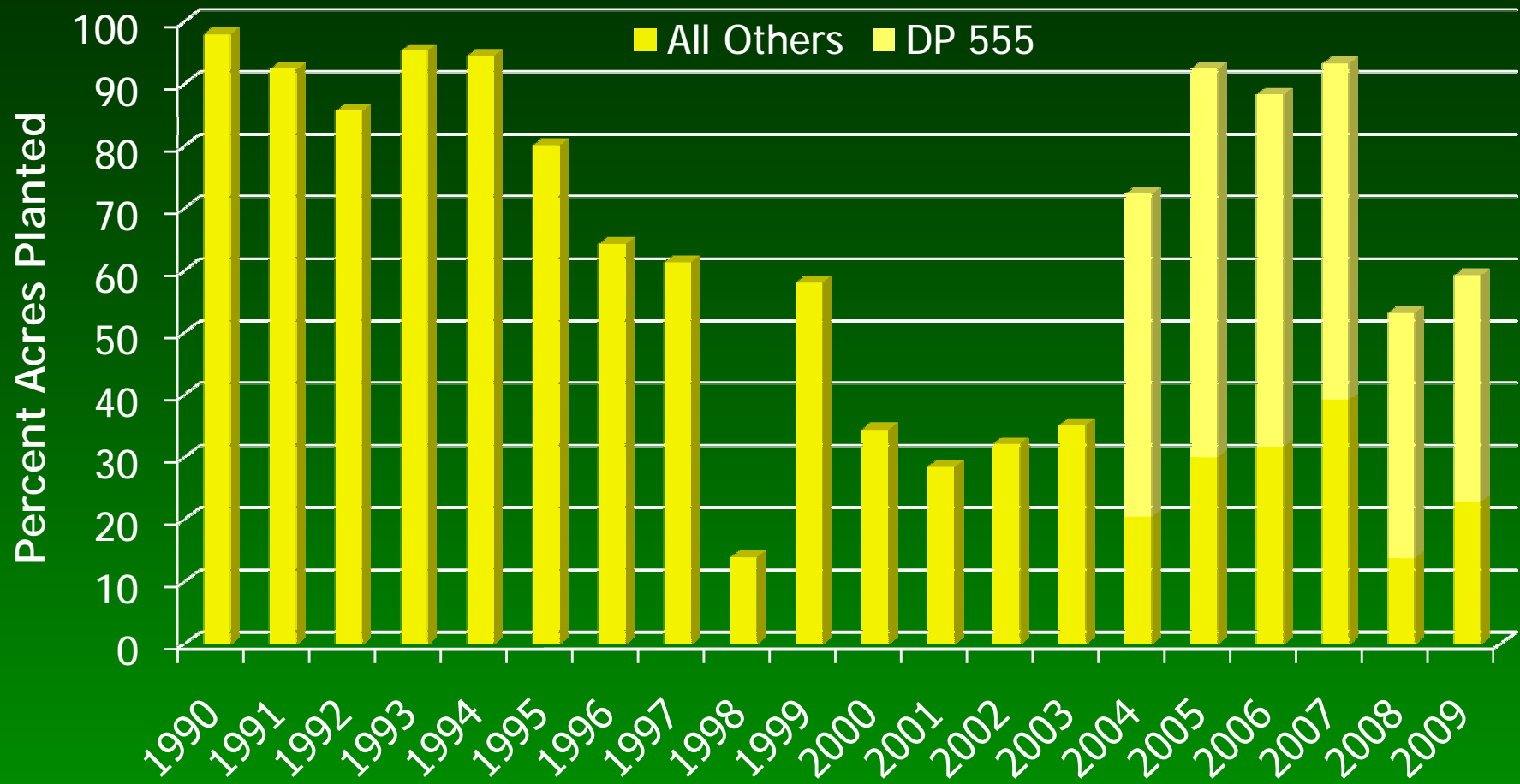
- How does yield performance actually relate to the varieties that are actually planted?
- Is yield the number one factor in variety selection for a grower?

Evaluating Variety Selection Trends

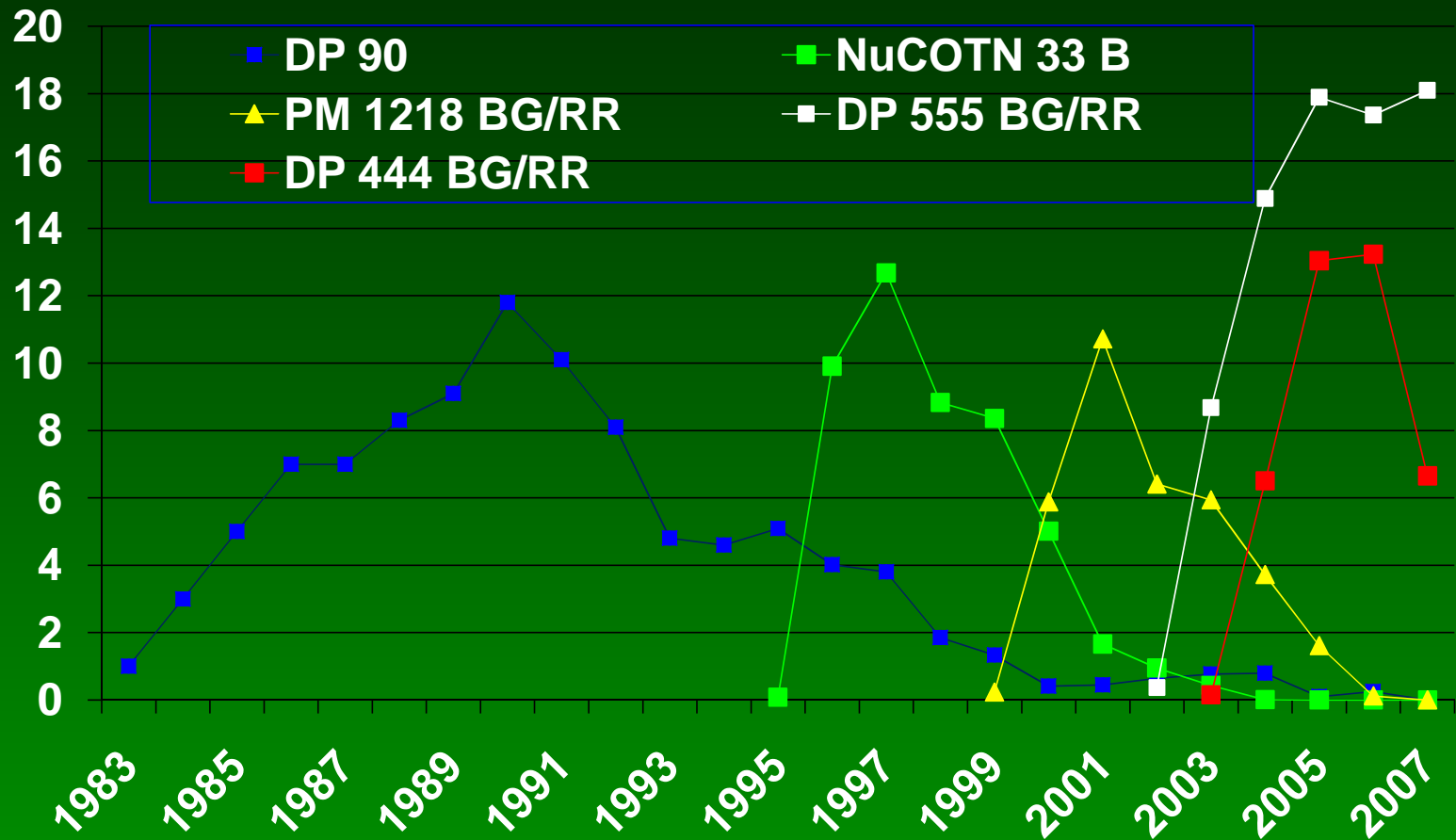
- **University Variety Trial (OVT) data 1990 to 2008**
 - Which varieties were either recommended or finished in the top 25% of the OVT? Where possible, data for a two-year average were used. In limited cases, one-year data were all that was available.
 - In each year, which varieties did a producer have a good reason to choose, based on the previous year's OVT results?
- **USDA-AMS *Cotton Varieties Planted* publication 1990-2009**
 - Lists the percent acreage devoted to specific varieties in each state.

Louisiana

Varieties planted that were in the top 25% of the OVT or recommended



Speed to Market



Source – Dr. Tom Kerby DPL

BG/RR Planted 2009

(Percent of total acres)

State	DP 555 BG/RR	DP 445 BG/RR	DP 444 BG/RR	DP 515 BG/RR	Total BG/RR	Total B2RF
AR	.	7.32	5.96	.	13.28	75
LA	36.4	3.8	.	7.81	48	40
MO	.	3.14	1.2	.	4.3	81
MS	4.75	3.81	.	.	8.56	58
TN	.	.	8.58	.	8.58	84
AL	65	.	3	.	68	9
GA	82.5	.	.	.	82.5	7
NC	6.3	.	.	.	6.3	70
SC	31	.	.	.	36	48
TX	40

USDA-AMS. Top Ten Cotton Varieties Planted 2009 Crop.

Is there a preferred trait package?



- The ability to control Palmer amaranth could drive variety selection.
- Over-the-top herbicide systems will continue to rule.
- Insect traits will continue to be in demand in the Mid-South
- Future technology??

What is the outlook for 2010 and beyond for variety selection?

- Is there a dominant variety?
- Is there a preferred trait package?
- How much influence will convenience have in variety selection?

Convenience vs. Cost

- More convenient technology has almost always been readily adopted, even with high cost.
 - Staple in the mid-1990s – first OT broadleaf herbicide
 - Bollgard cotton – despite initial variety performance
 - RR cotton – despite variety initial performance
 - Seed treatment insecticides and fungicides despite shorter residuals and a likelihood of more early sprays

IT ALL BEGINS WITH THE SEED

Value Shifts Continue

- No longer just a seed...
- **Planting unit**
 - Technology
 - Vigor
 - Protection
 - Fiber Quality
 - Additional Traits
- **\$\$FRONT END LOADED!!**

How much does it cost to plant?

- 2000
 - Seed cost - \$50-80/bag
 - Tech fee - ~\$40/a
 - IF insecticide - \$8/a
 - IF fungicide - \$12/a
- \$70 (before labor and fuel)

- 2010
 - Seed cost - \$120-140/bag
 - Tech fee - ~\$65/a
 - Seed Treatment - ~\$25/a
- \$115 (before fuel and labor)
- 64% increase

Costs of Seed Technology

- Focus is usually on tech fees... But, what about the rest of the seed package?
 - The seed is the delivery mechanism for
 - Genetics
 - Traits and Trait Packages
 - Insecticides
 - Fungicides
 - Nematicides

Do You Have a Choice?

Cost of Seed Technology

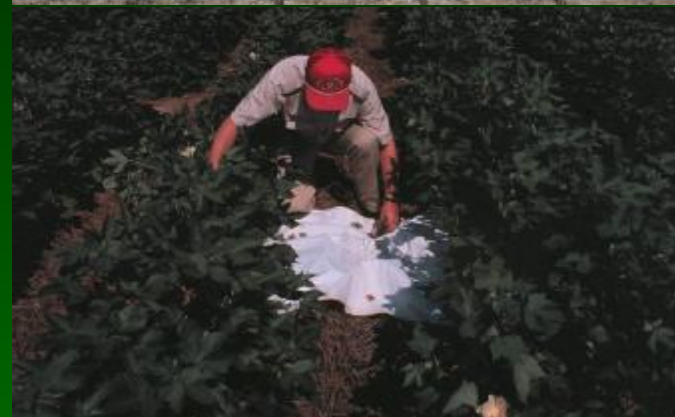
	Seed	Chemicals
Percent Increase from 2003 to 2008	108%	12%
	Percent of Total Operating Cost	
2003	13%	26%
2008	18%	20%
Change	+5%	-6%

Source: National Cotton Council estimated costs and returns for Mississippi Delta Region.

Arkansas Crop Budgets - 2009

www.aragriculture.org/farmplanning/budgets/default.asp

- **Cost of Technology –**
 - North Arkansas
 - B2RF - \$56.24
 - BGRR- \$41.93
 - Flex - \$43.76
 - B2LL - \$50.40
 - South Arkansas
 - B2RF - \$69.68
 - BGRR- \$54.20
 - Flex - \$48.00
 - B2LL - \$56.40
- \$15 – 20/A more to add 1sd/ft



2010 Choices?



IN 2010 THE GAME CHANGES
for the Mid-South and S.E.

FLEX ONLY or Stacked with

BG2

Widestrike

Liberty Link Stacked with

BG2

1.297 million acres could switch
to something other than the
standard BG/RR

\$ 170/A by 2 leaf

**Technology does not
solve all problems**





**M
A
J
O
R**



Concerns



Conventional Line in 2009 Strip Test –Tom Barber at Biscoe (Jody Nail farm)

Line	Seedcotton yield (lb/a)	Turnout (%)	Lint Yield/A
AR 0102-48	3240	38.9	1260
AR 9803-23-04	3280	38.7	1241
DP 174 RF	2996	39.2	1174
LA 1110035 R5	2943	35.2	1035
LA 1110017	2775	36.2	1004
PHY 315 RF	2764	38.9	1075
AR 9803-17-04	2715	36.9	1001
CT 210	2672	35.5	948
Except for DP 174RF and PHY 315RF, all are experimental lines and seed have not been offered for sale.			

Conventional Line in 2009 Strip Test –Tom Barber at Biscoe (Jody Nail farm)

Line	Mic	Staple	Strength	Uniformity
AR 9803-23-04	4	38	29.9	82.5
AR 0102-48	4.6	42	32.8	83.8
DP 174 RF	3.8	38	28	83.1
LA 1110035 R5	4	40	31.9	84.7
LA 1110017	4.1	39	33.3	84
PHY 315 RF	3.9	37	29.1	81.8
AR 9803-17-04	4.4	38	29.3	83.2
CT 210	4.3	37	31.7	82.9
Except for DP 174RF and PHY 315RF, all are experimental lines and seed have not been offered for sale.				

We Are High Volume Agriculture

An aerial photograph of a vast cotton field. The field is divided into long, straight rows of crops, creating a grid-like pattern. In the distance, a tractor is visible, working the land. The background shows a line of trees under a clear sky.

- 1945 – 15 labor-hours required to produce 100 pounds of lint cotton.
- 1965- 5 labor-hours.
- 1975 - 2-3 labor-hours.
- 1985 – 1.5 to 2 labor-hours.
- Today it requires less than 30 minutes to produce 100 pounds of lint cotton.

Questions?

