

Table 2. Lint yield and fiber quality results for the advanced strain trial conducted in Yuma, AZ, 2005.

Strain	Lint Yield	Means Separation*	Percent	Staple	Micronaire	Strength	Length	Uniformity
	lbs/acre		Lint	32nds		g/tex	inches	
STX 0401RF	2269.5	a	36.0	35.7	4.70	29.0	1.11	83.3
DP 117B2RF	2262.5	a b	40.2	36.7	4.70	29.6	1.14	81.9
CS 44	2221.0	a b c	41.2	36.3	4.90	29.2	1.13	81.6
STX 0404B2RF	2212.0	a b c	39.1	36.0	4.70	30.7	1.12	83.1
ST 5599BR	2123.1	a b c d	37.4	36.3	4.65	30.6	1.13	82.7
DP 113B2RF	2103.6	a b c d e	40.3	37.0	4.60	31.8	1.16	82.8
ACGA 24	2085.1	a b c d e	41.1	37.7	4.20	30.7	1.18	82.8
DP 110RF	2002.8	a b c d e f	37.3	38.0	4.65	33.0	1.18	83.6
ACGA 32	1989.6	b c d e f g	39.9	37.3	4.00	28.7	1.17	82.3
ACGA 30	1988.3	b c d e f g	39.4	37.0	4.30	29.7	1.15	83.1
DP 448B	1955.3	c d e f g h	41.7	36.7	4.20	31.5	1.15	82.2
CS 37	1933.4	d e f g h i	39.4	37.7	4.65	31.1	1.17	83.2
DP 449BR	1911.6	d e f g h i j	40.7	36.3	4.90	30.7	1.14	83.0
STX 0416B2R	1865.0	d e f g h i j k	41.0	36.7	4.65	29.7	1.14	81.7
DP 108RF	1862.2	d e f g h i j k	42.0	36.3	4.00	31.3	1.13	82.8
CS 41	1843.8	e f g h i j k l	39.9	38.7	4.15	30.1	1.21	82.3
ACGA 1	1840.4	e f g h i j k l m	39.7	36.3	4.20	30.9	1.14	82.0
ACGA 20	1796.2	f g h i j k l m n	38.7	37.7	4.55	32.9	1.19	83.5
ACGA 39	1788.4	f g h i j k l m n	39.8	37.0	4.05	30.9	1.16	82.7
ACGA 22	1772.4	f g h i j k l m n o	39.4	37.0	4.10	29.9	1.15	82.3
FM 960RR	1739.7	f g h i j k l m n o p	39.7	36.3	4.10	32.0	1.13	81.4
FMX 1003B2LL	1725.1	g h i j k l m n o p	38.6	38.3	4.45	31.8	1.20	82.9
FMX 0052B2LL	1700.4	h i j k l m n o p	40.0	37.3	4.95	31.3	1.18	82.5
DP 147RF	1685.2	h i j k l m n o p q	39.6	37.0	4.05	29.6	1.16	81.8
ACGA 3	1664.7	i j k l m n o p q	35.5	38.3	4.05	29.9	1.21	83.5
FM 0222B2LL	1654.2	j k l m n o p q r	37.9	37.3	4.50	31.1	1.17	83.1
DP 167RF	1653.3	j k l m n o p q r	41.2	39.0	3.75	29.4	1.22	83.5
DP 152RF	1649.2	j k l m n o p q r	40.9	36.7	3.80	28.8	1.14	82.1
FM 958LL	1608.6	k l m n o p q r s	37.9	37.0	4.20	30.2	1.16	82.6
FM 960B2R	1592.3	k l m n o p q r s	36.5	37.7	4.40	30.7	1.18	82.6
DPLX 03X179R	1582.5	l m n o p q r s t	39.0	38.0	4.40	32.3	1.19	83.9
FM 989B2R	1573.8	l m n o p q r s t	39.4	38.0	4.00	33.1	1.19	84.0
DP 164B2RF	1567.8	l m n o p q r s t	38.7	38.7	3.90	30.6	1.21	82.9
FM 966LL	1564.8	m n o p q r s t u	38.1	36.7	4.20	33.5	1.13	83.4
ACGA 7	1562.5	n o p q r s t u	38.9	38.3	4.15	33.2	1.19	84.2
DP 156B2RF	1552.2	n o p q r s t u	39.6	37.0	4.10	28.2	1.15	82.0
FMX 5863RRF	1498.1	o p q r s t u v	38.0	37.7	4.15	33.1	1.18	82.4
SCX-11	1476.1	p q r s t u v	41.2	34.7	4.25	32.9	1.08	83.2
CS 38	1472.1	p q r s t u v	39.2	38.7	4.20	31.6	1.21	84.2
ACGA 13	1415.1	q r s t u v	37.7	38.0	3.90	30.8	1.19	83.6
STX 0403RF	1382.9	r s t u v	35.9	38.0	4.20	33.4	1.19	84.1
CS 42	1363.3	s t u v	38.6	37.7	4.10	33.3	1.18	83.0
FM 9166B2LL	1360.9	s t u v	37.9	37.0	4.25	31.6	1.15	82.1
STX 0414B2RF	1344.8	s t u v	37.9	37.3	4.35	32.8	1.17	83.9
SCX-12	1344.8	s t u v	38.4	38.0	4.00	32.2	1.19	83.8
DPLX 05X648DR	1343.6	s t u v	38.3	37.3	4.45	32.1	1.16	82.4
SCX-246	1307.8	t u v	41.2	37.7	4.35	34.0	1.19	83.3
STX 0406B2RF	1306.8	t u v	38.8	37.3	4.40	31.6	1.17	83.2
STX 0405B2RF	1287.7	u v	40.3	38.0	4.30	32.0	1.20	84.7
CS 43	1243.3	v	35.7	38.7	4.15	30.3	1.22	83.0
LSD§	277.5		1.9	1.2	0.3	2.5	0.04	1.3
OSL†	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
CV‡	10.1		3.0	2.0	3.6	4.9	1.9	1.0

*Means followed by the same letter are not statistically different according to a Fisher's least significant difference means separation test.

§ Least Significant Difference

† Observed Significance Level

‡ Coefficient of Variation

Table 3. End of season plant measurement data, average seedcotton weight per boll, premium/discount and crop value, Yuma, AZ, 2005.

Strain	Final Plant Height (in.)	Average First Fruiting Branch	Number of Mainstem Nodes	Average Seecotton Weight per Boll	Points Premium/Discount	Crop Value \$/acre
ACGA 1	60.0	6.9	32.5	5.8	383	1027
ACGA 13	60.4	7.6	32.8	4.5	678	832
ACGA 20	59.1	6.9	33.8	5.2	315	990
ACGA 22	56.8	7.8	35.0	6.0	428	996
ACGA 24	58.2	6.6	27.8	5.1	328	1153
ACGA 3	57.2	7.3	33.8	5.5	467	942
ACGA 30	57.6	7.0	32.5	5.4	463	1126
ACGA 32	58.2	7.9	32.0	5.7	512	1139
ACGA 39	57.7	7.9	33.0	5.4	643	1045
ACGA 7	56.5	6.4	30.3	5.7	600	905
CS 37	61.0	8.0	35.5	4.5	368	1077
CS 38	66.4	8.0	32.5	5.9	615	856
CS 41	58.2	7.5	32.5	5.3	655	1080
CS 42	69.6	6.9	33.0	5.7	668	800
CS 43	73.9	8.1	33.3	5.3	658	728
CS 44	52.5	6.9	26.8	5.3	252	1211
DPLX03X179R	60.7	7.5	33.3	5.6	382	883
DP 164B2RF	63.1	8.4	28.8	5.2	563	901
DP 167RF	60.3	8.0	29.8	4.7	647	967
DP 156B2RF	60.9	7.9	32.0	5.1	593	900
DP 147RF	62.2	7.4	37.5	5.0	545	967
DP152RF	57.0	8.3	30.5	5.0	490	937
DP 113B2RF	53.5	6.6	28.3	5.4	565	1213
DP 117B2RF	55.9	7.4	29.8	5.1	313	1247
DP 108RF	61.2	7.4	32.8	5.0	535	1068
DP 110RF	58.3	6.9	35.0	4.8	477	1136
DPLX 05X648DR	67.8	8.1	35.8	4.5	647	785
DP448B	55.7	7.3	35.8	5.2	460	1109
DP449BR	56.2	8.9	28.5	5.4	445	1078
FMX 0052B2LL	57.1	8.5	29.0	6.1	338	942
FMX 0222B2LL	60.6	7.9	32.8	6.3	552	951
FMX 1003B2LL	62.1	9.3	37.0	5.3	682	1014
FMX 5863RRF	55.2	8.3	32.3	5.7	622	872
FMX 9166B2LL	59.6	7.0	31.8	5.0	655	797
FM 958LL	53.8	9.1	29.5	5.7	528	923
FM 960B2R	56.0	7.9	34.5	5.6	560	917
FM 960RR	55.9	7.6	29.0	5.5	567	1004
FM 966LL	60.0	7.0	29.5	5.7	675	920
FM 989B2R	56.8	8.3	30.5	5.8	598	914
ST 4664RF	59.0	6.8	34.3	5.1	267	1240
ST 6622RF	66.4	8.1	30.0	4.8	455	781
ST 4554B2RF	57.6	7.4	29.5	5.6	165	1186
STX 5885B2RF	62.3	7.0	34.3	4.9	500	732
ST 6611B2RF	57.7	7.6	38.3	5.2	422	732
STX 0414B2RF	71.1	7.3	41.8	5.1	538	769
STX 0416B2R	59.3	7.9	28.5	4.9	493	1058
SCX-11	63.7	6.4	33.5	4.9	282	807
SCX-12	57.8	7.0	30.8	4.7	682	791
SCX-246	66.5	8.4	31.8	4.9	678	769
ST 5599BR	63.3	7.6	33.8	6.3	343	1177

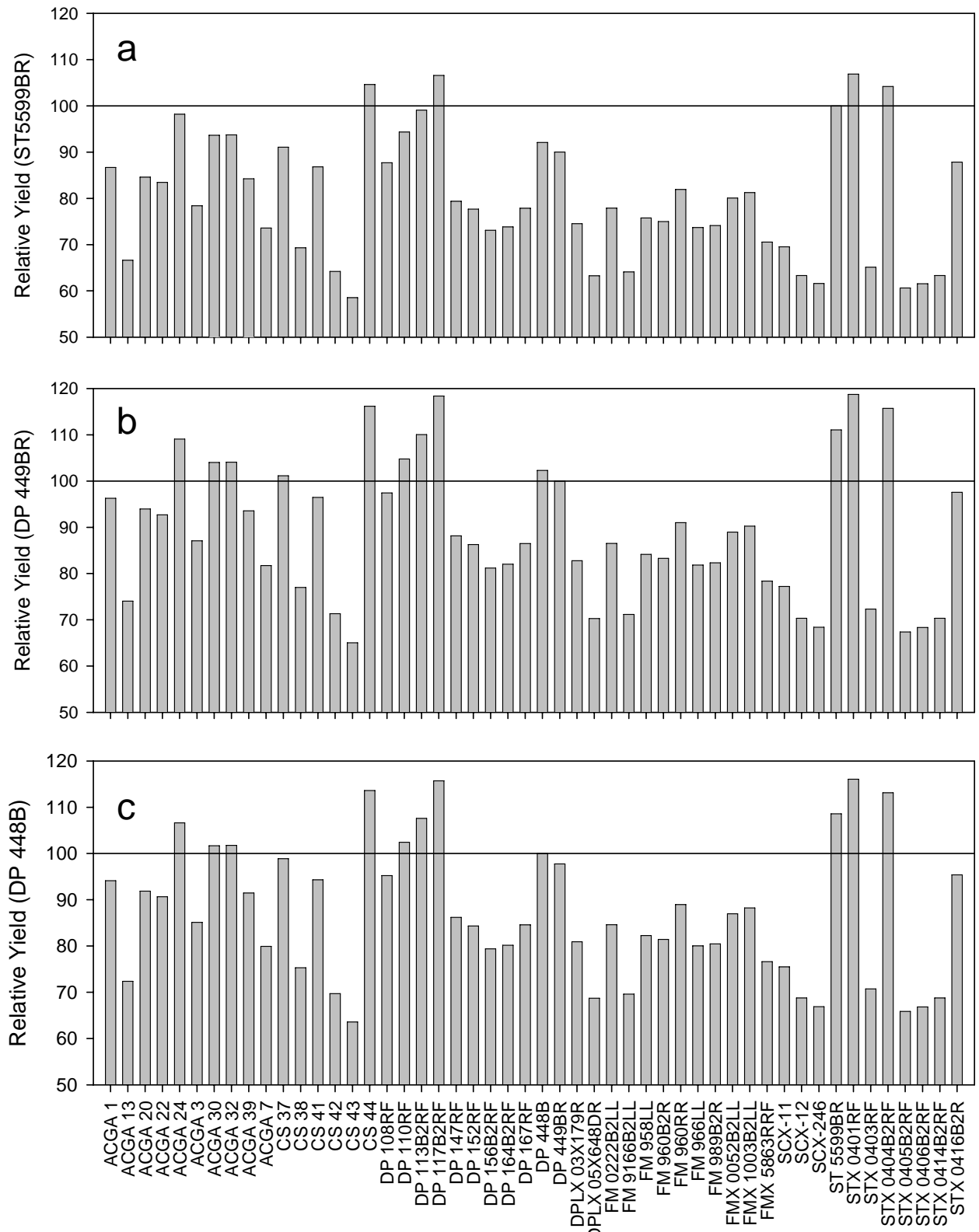


Figure 1. Percent relative lint yield for each of the advanced strain entries. Relative lint yield was calculated by dividing the mean yield of the strain by mean lint yield of each of the commercial variety controls in this trial (a) ST5599BR, (b) DP449BR and (c) DP448B at Yuma, AZ, 2005.

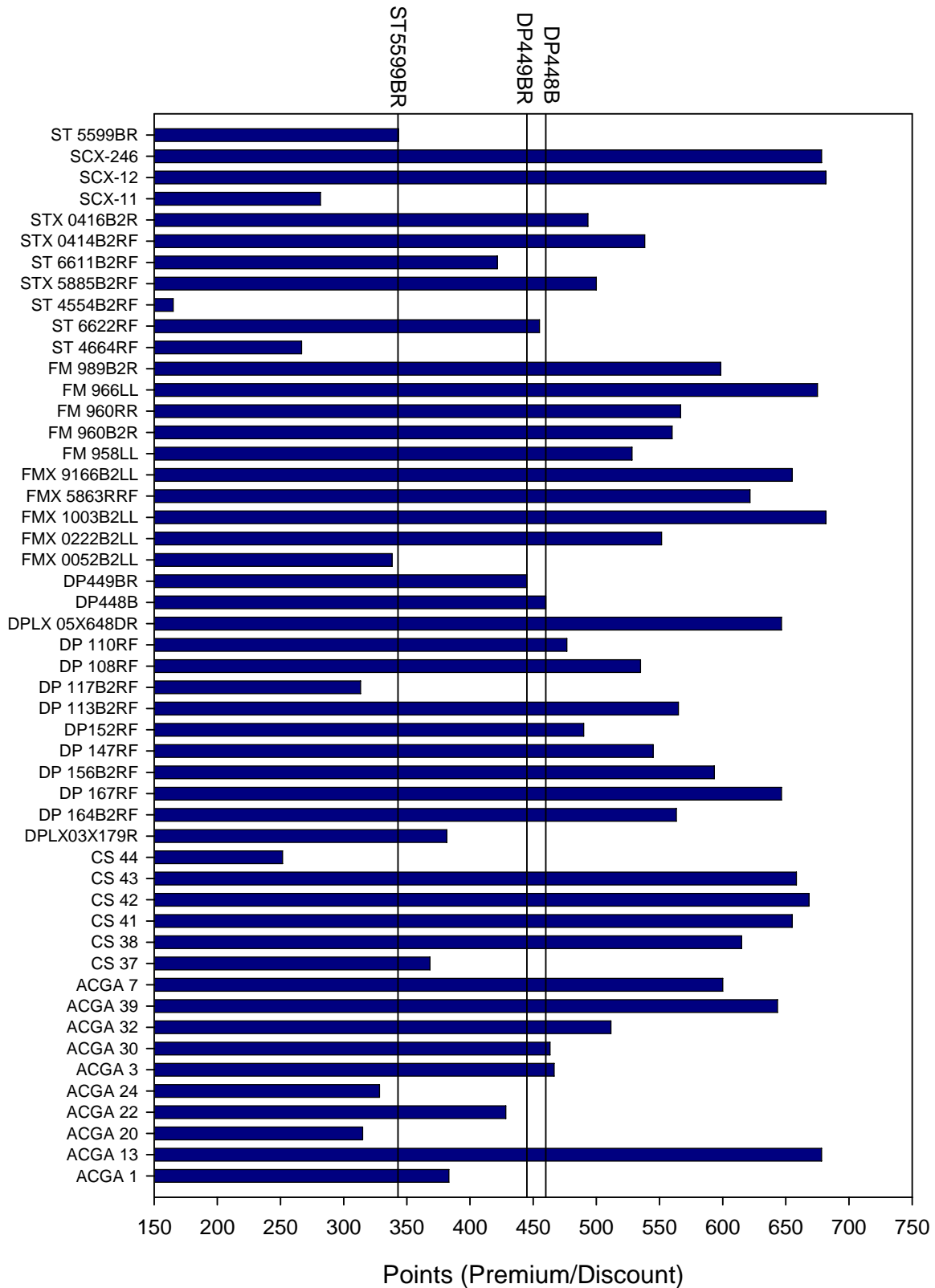


Figure 2. Points associated with the premium and discounts based upon fiber quality characteristics for each entered strain. Points were determined using the 2005 CCC loan schedule for Upland cotton. Vertical lines indicate points level for each commercial variety control. Data from Yuma, AZ, 2005.

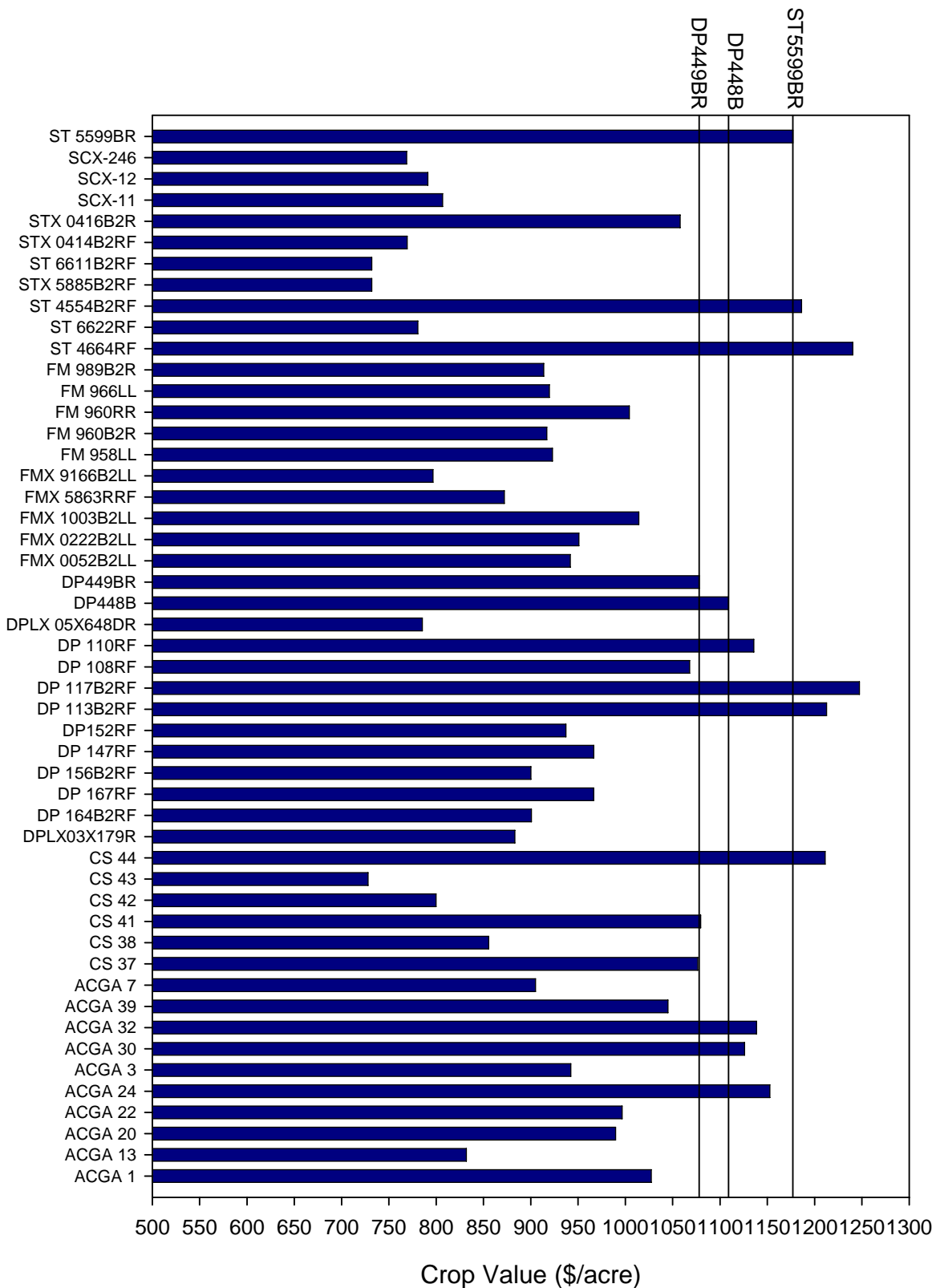


Figure 3. Total crop value for each entered strain. Final crop price was calculated from a base price of 52.00 cents/pound plus premiums/discounts for fiber quality. Total crop value was calculated by multiplying the final price by lint yield. Vertical lines indicate crop value levels for each commercial variety control. Data from Yuma, AZ, 2005.

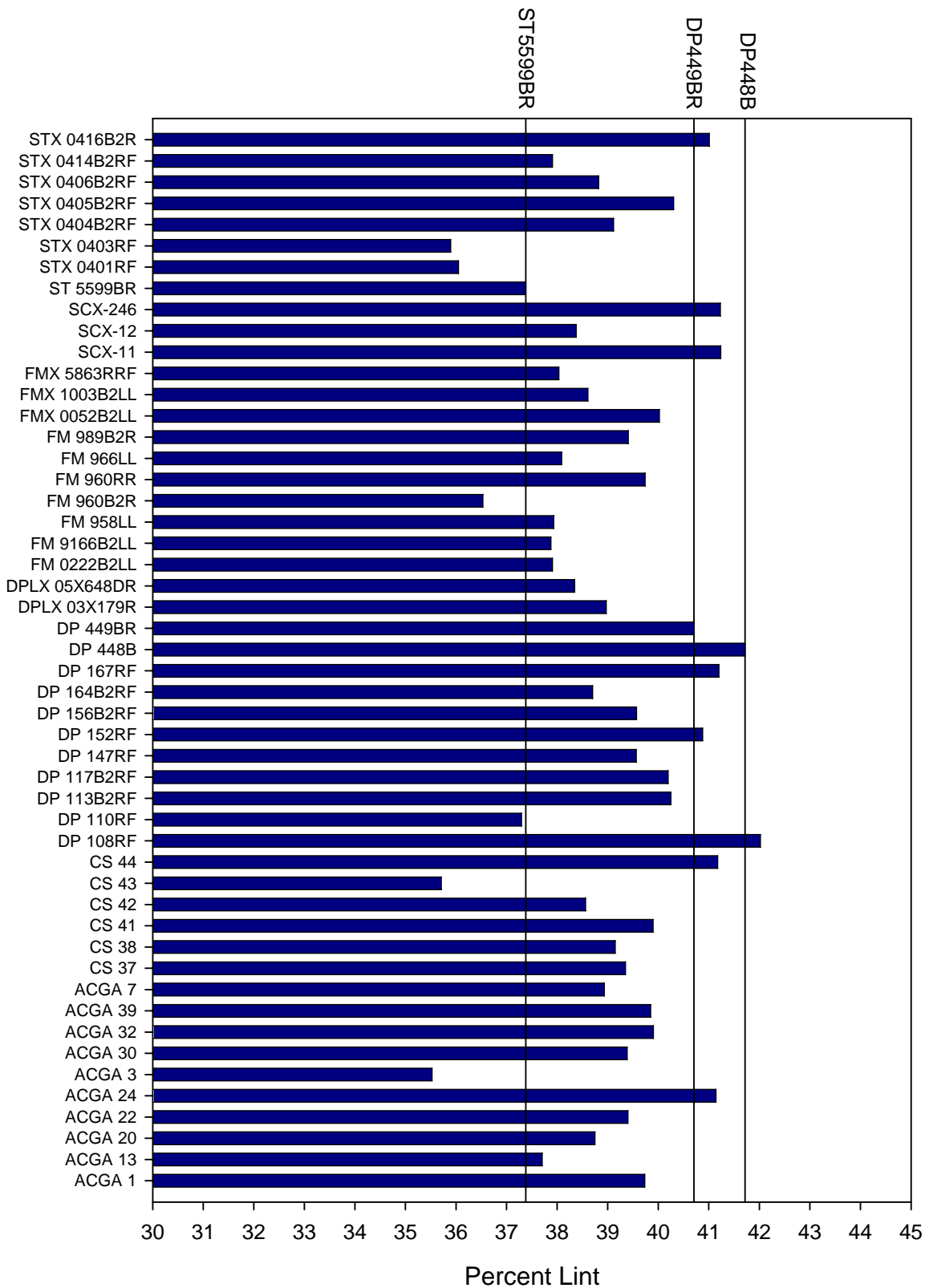


Figure 4. Percent lint for each entered strain. Percent lint was determined by ginning a 50 boll sample from each experimental unit. Vertical lines indicate percent lint levels for each commercial variety control. Data from Yuma, AZ, 2005.

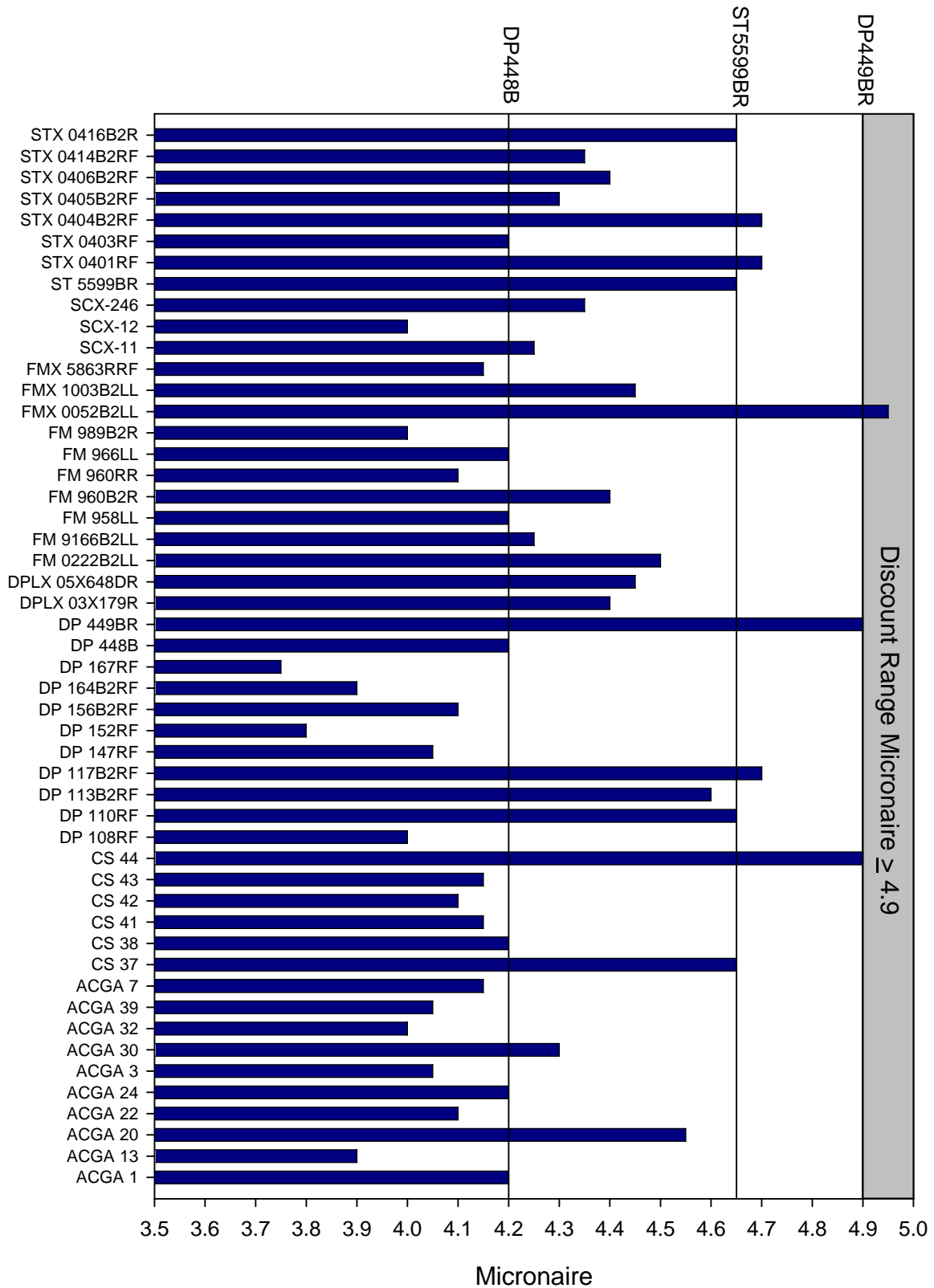


Figure 5. Fiber micronaire values for each entered strain. Discount range for fiber micronaire is indicated by grey box. Vertical lines indicate micronaire levels for each commercial variety control. Data from Yuma, AZ, 2005.

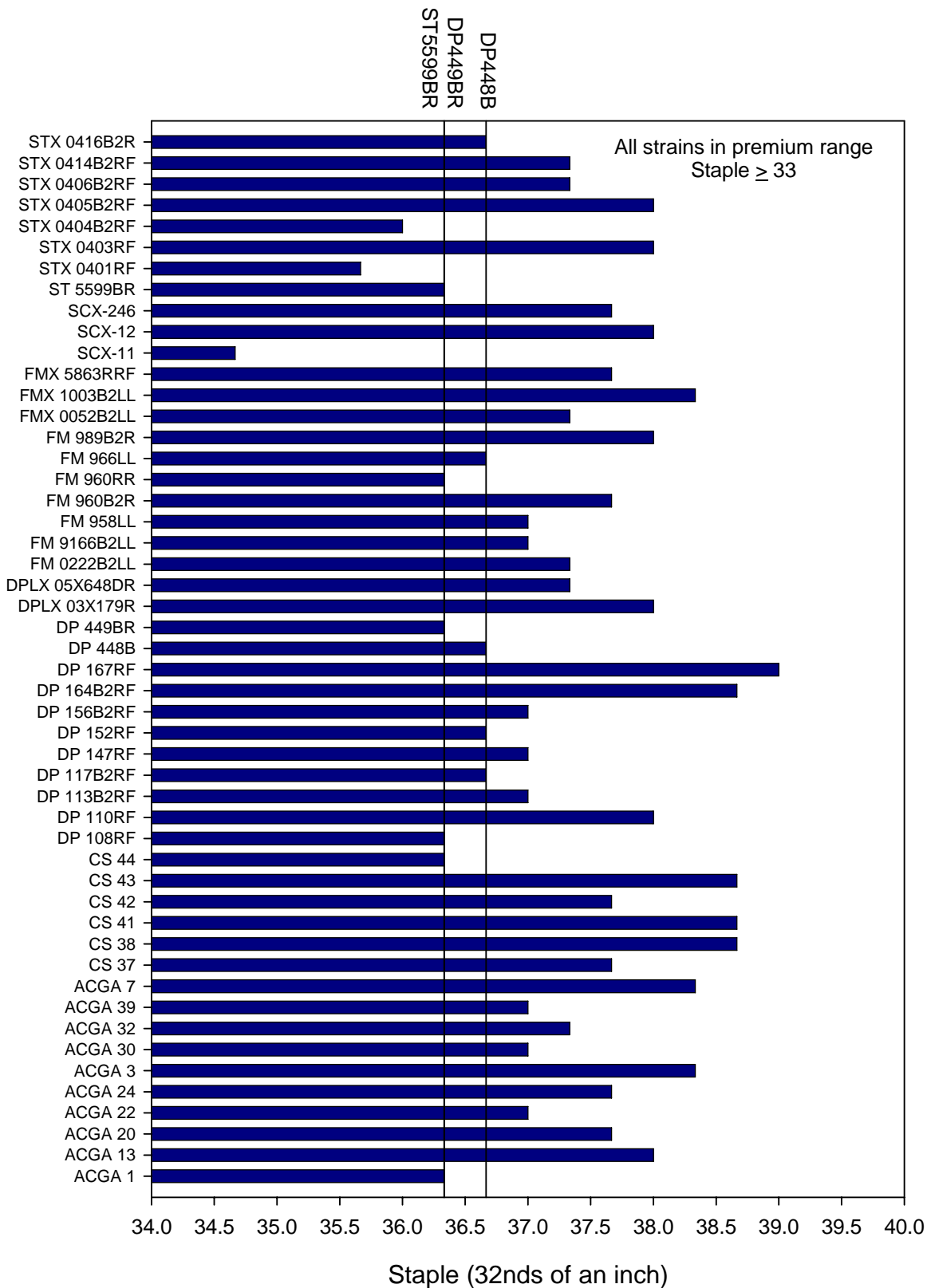


Figure 6. Fiber staple (32nds) values for each entered strain. All entered strains fell in the premium range for fiber staple. Vertical lines indicate staple levels for each commercial variety control. Data from Yuma, AZ, 2005.

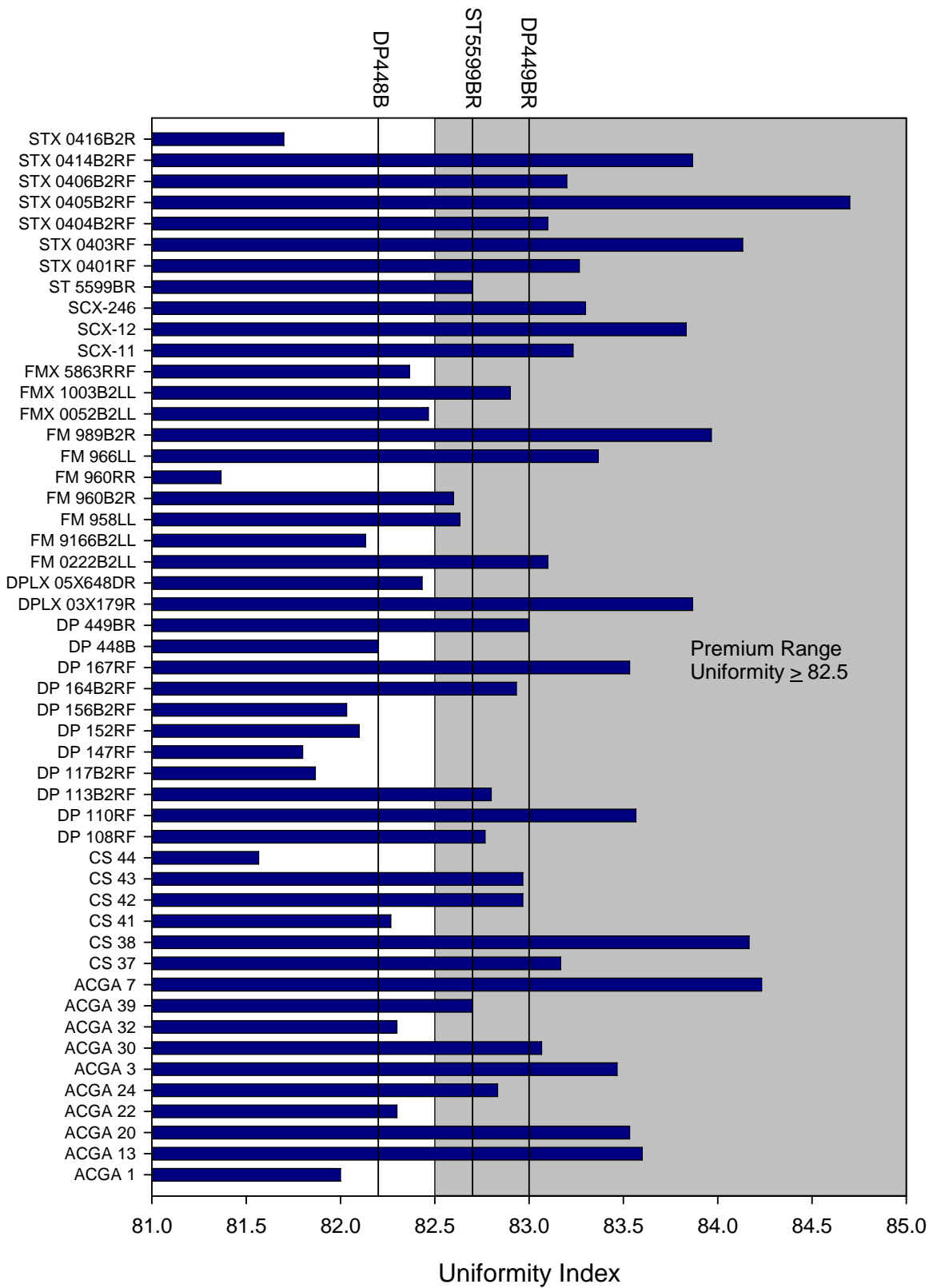


Figure 7. Fiber uniformity index values for each entered strain. Premium range for fiber uniformity is indicated by grey box. Vertical lines indicate uniformity levels for each commercial variety control. Data from Yuma, AZ, 2005.

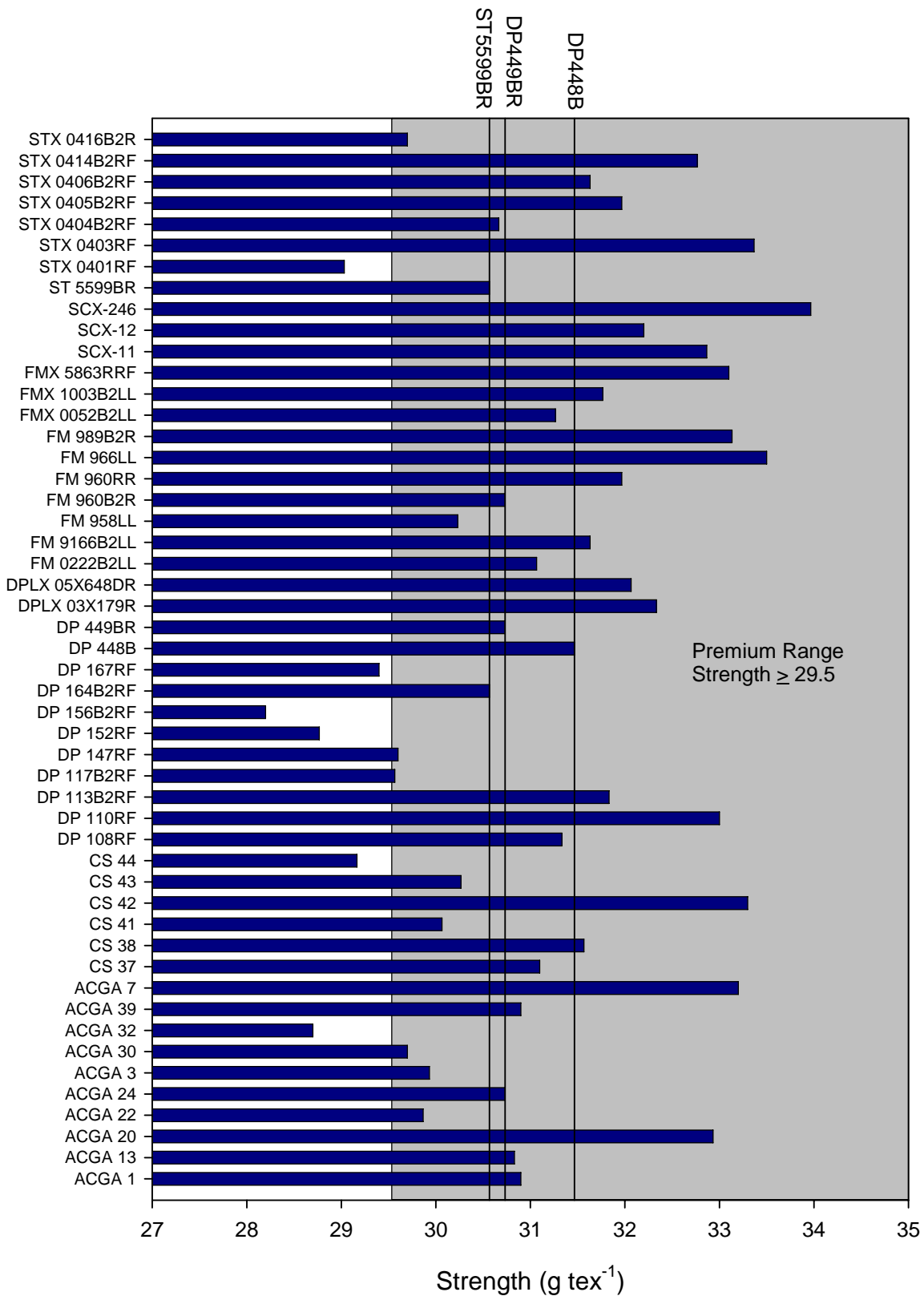


Figure 8. Fiber strength (g tex^{-1}) values for each entered strain. Premium range for fiber strength is indicated by grey box. Vertical lines indicate strength levels for each commercial variety control. Data from Yuma, AZ, 2005.

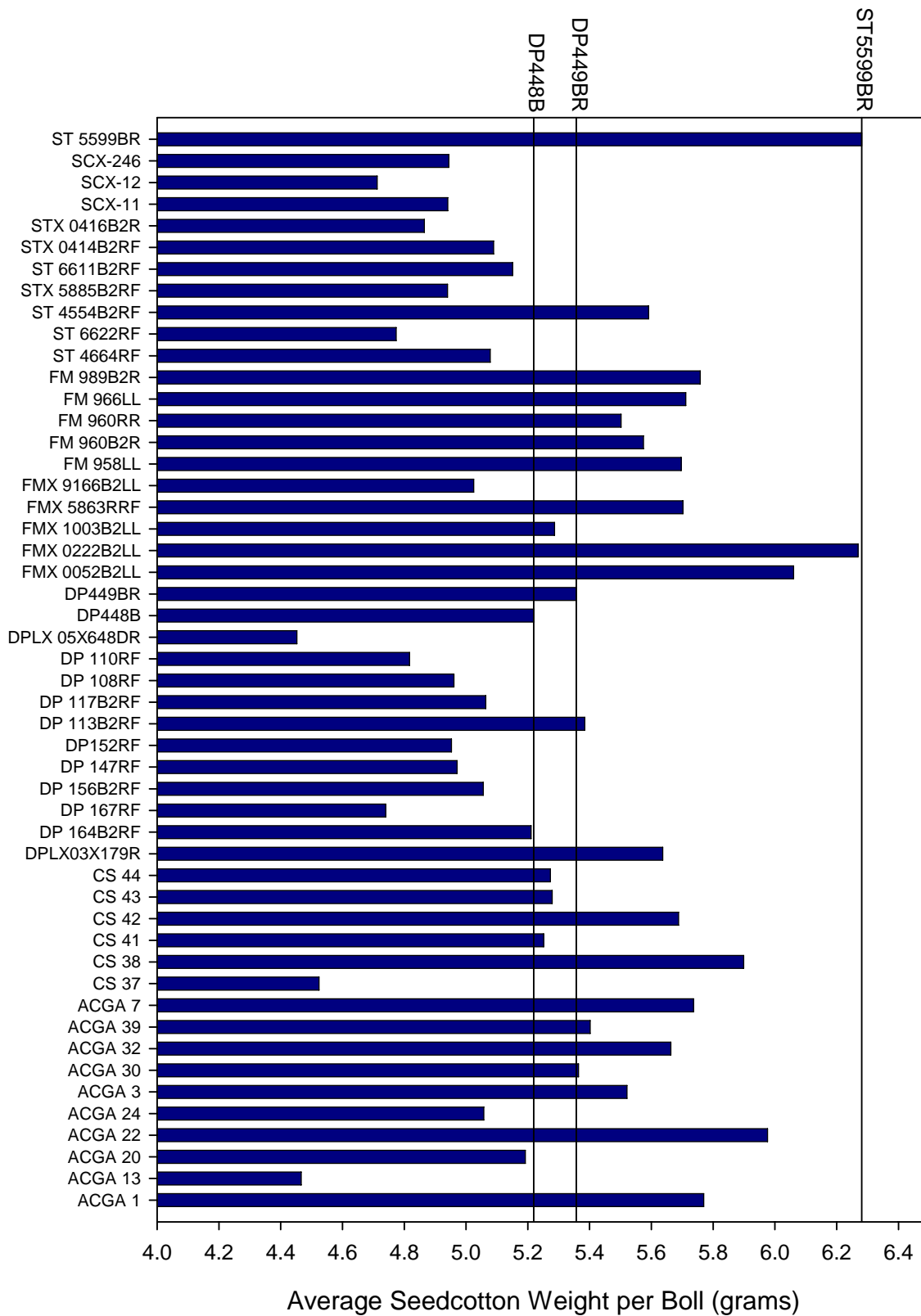


Figure 9. Average seedcotton weight (grams) per boll for each entered strain. Vertical lines indicate weight levels for each commercial variety control. Data from Yuma, AZ, 2005.

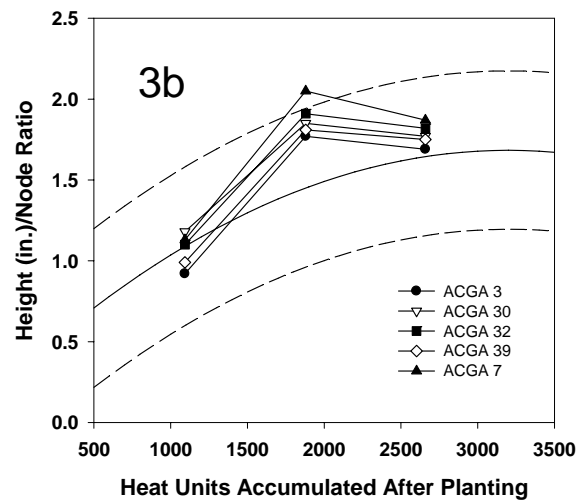
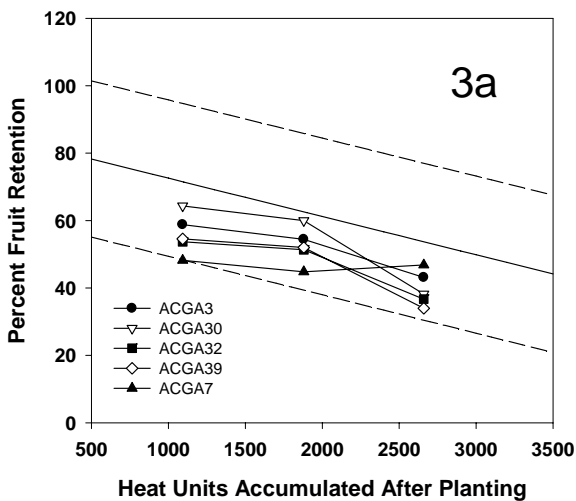
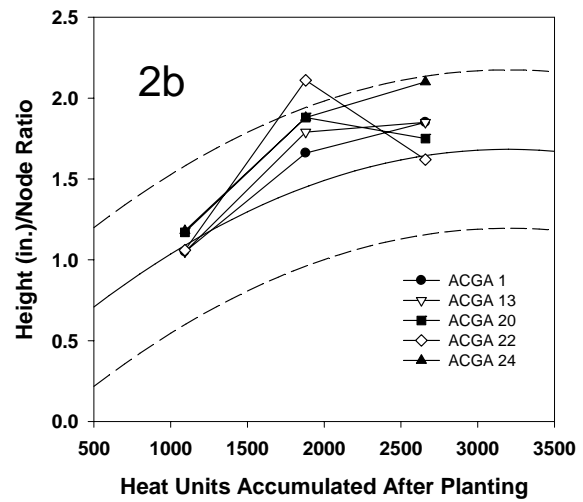
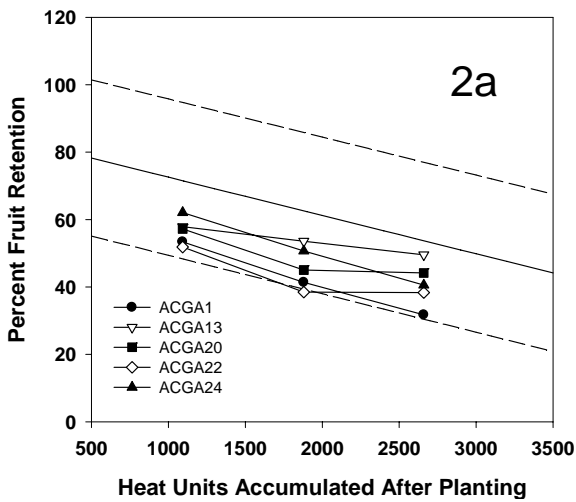
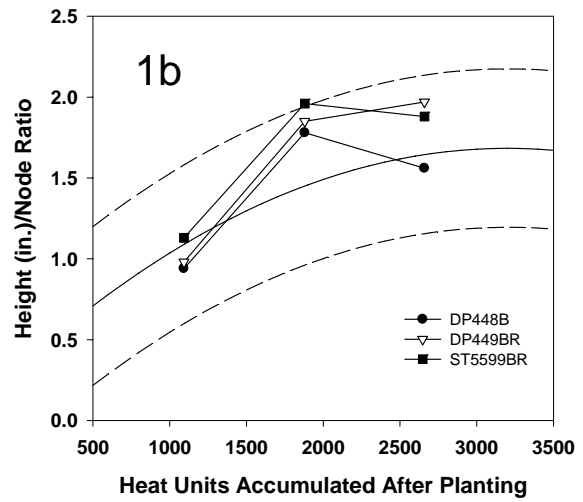
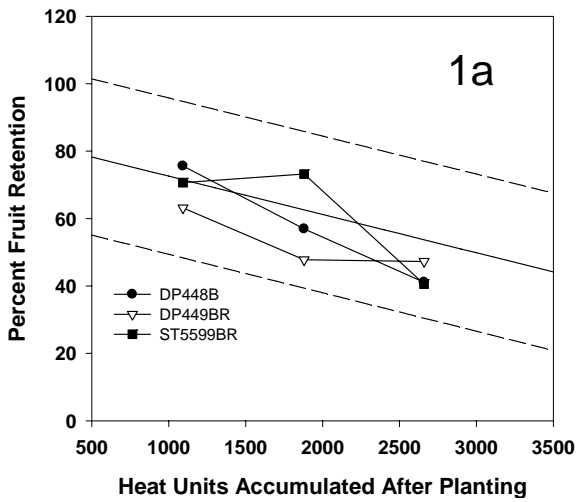


Figure 10. Percent fruit retention (a) and height to node ratio (b) levels for the control varieties (1) and ACGA (2 and 3) advanced strains planted at Yuma, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

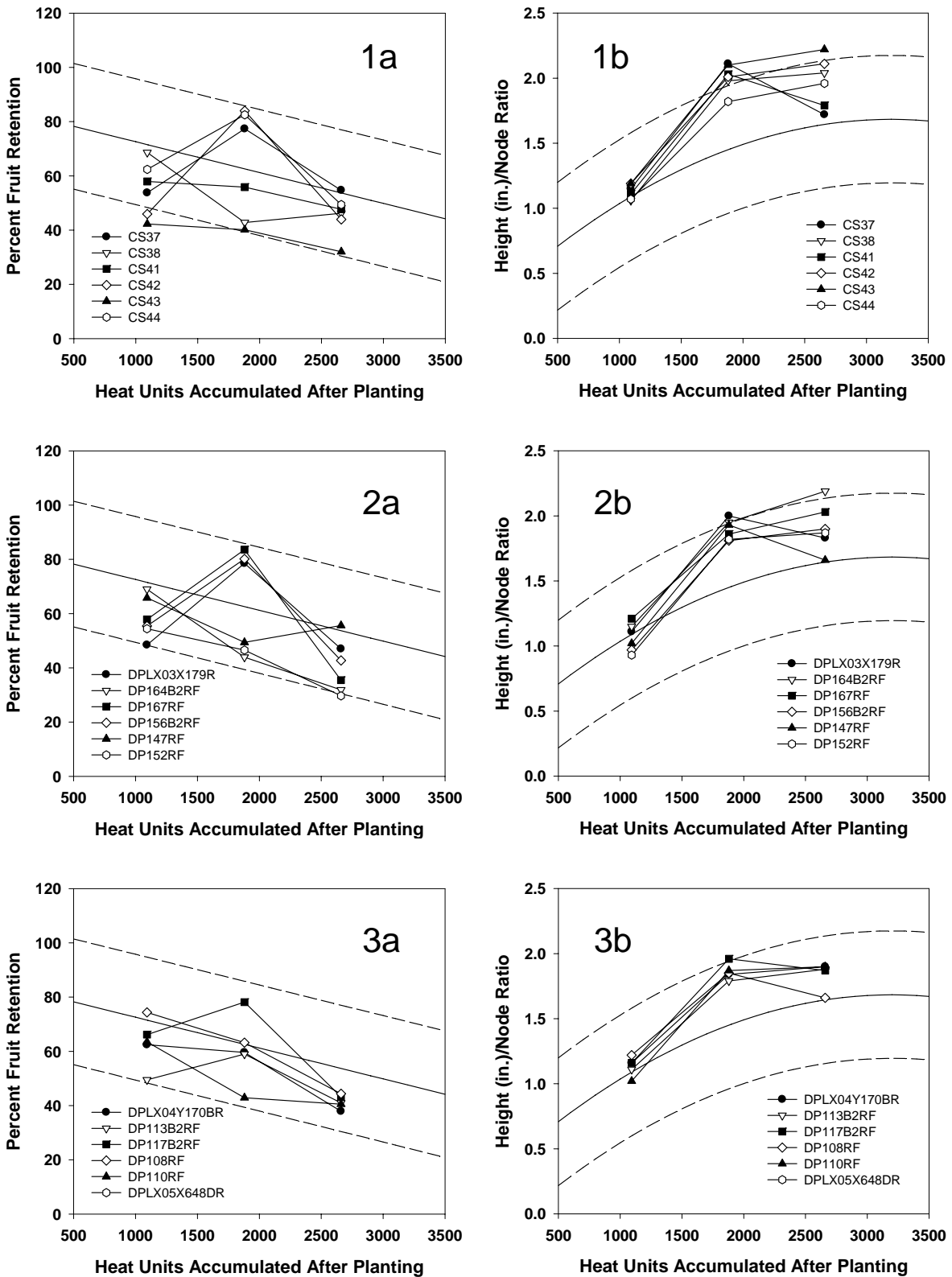


Figure 11. Percent fruit retention (a) and height to node ratio (b) levels for CPCSD (1) and Deltapine (2 and 3) advanced strains planted at Yuma, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

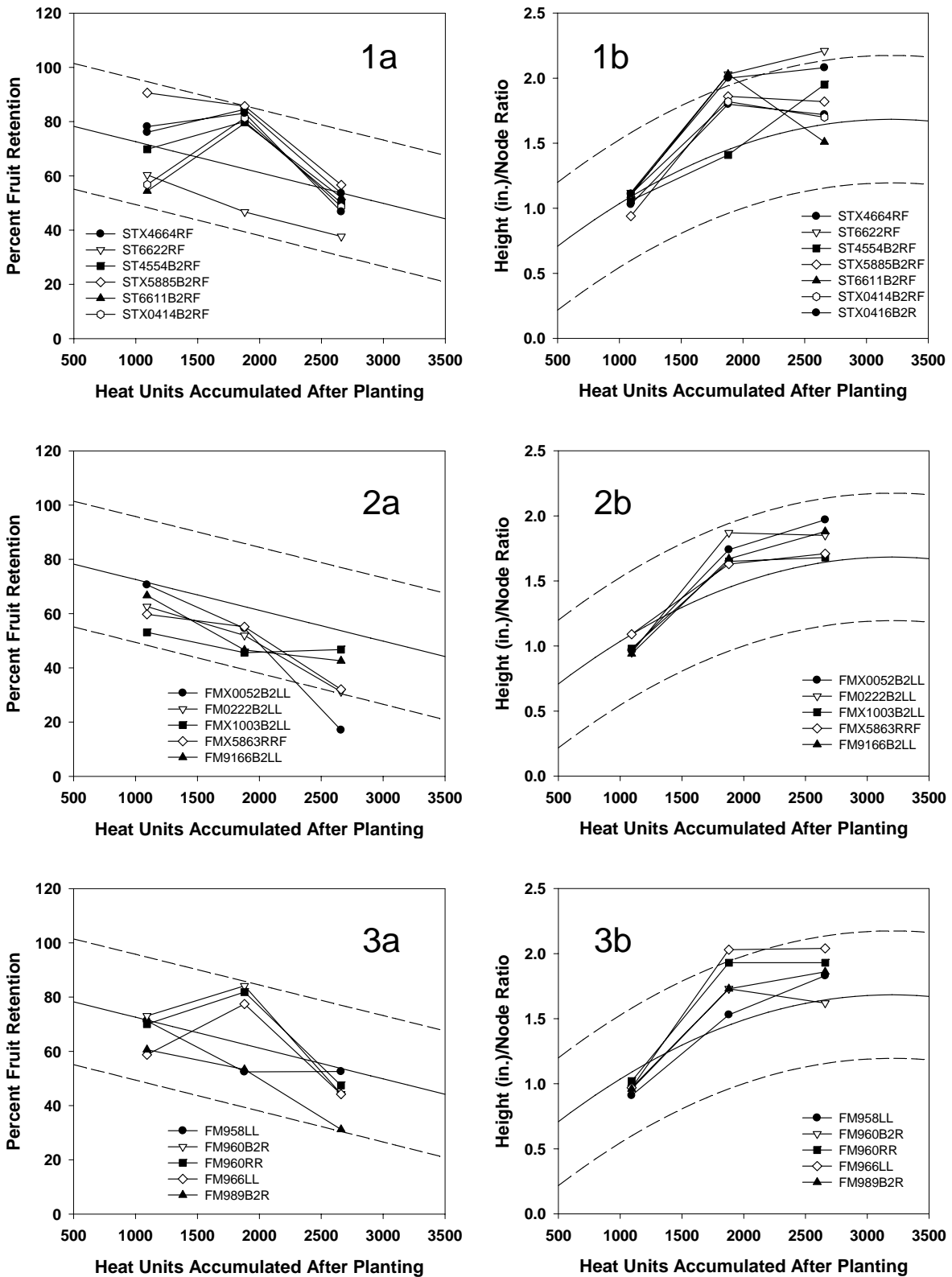


Figure 12. Percent fruit retention (a) and height to node ratio (b) levels for Stoneville (1) and FiberMax (2 and 3) advanced strains planted at Yuma, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

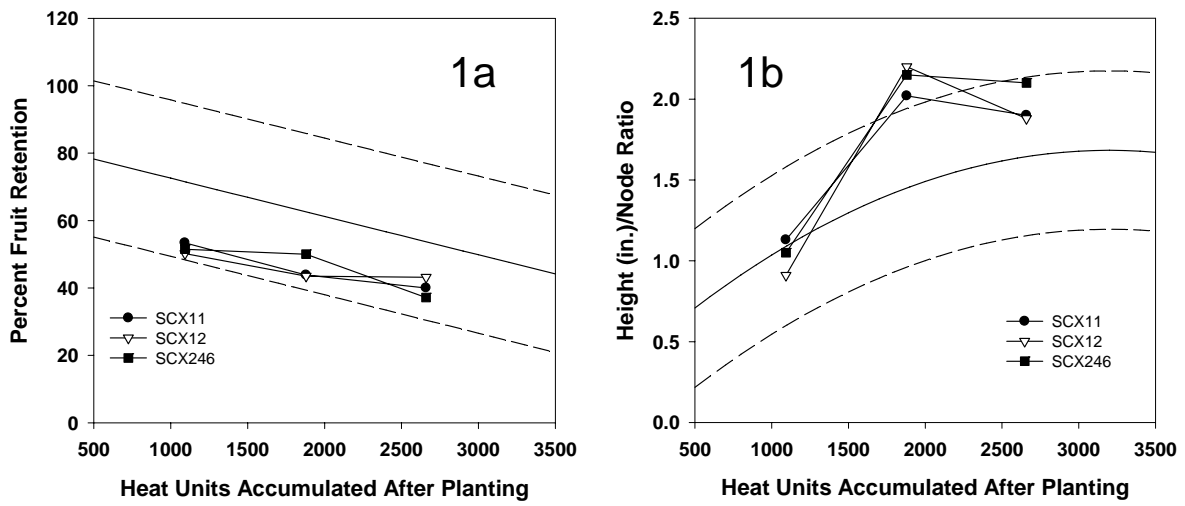


Figure 13. Percent fruit retention (a) and height to node ratio (b) levels for Salcot (1) advanced strains planted at Yuma, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

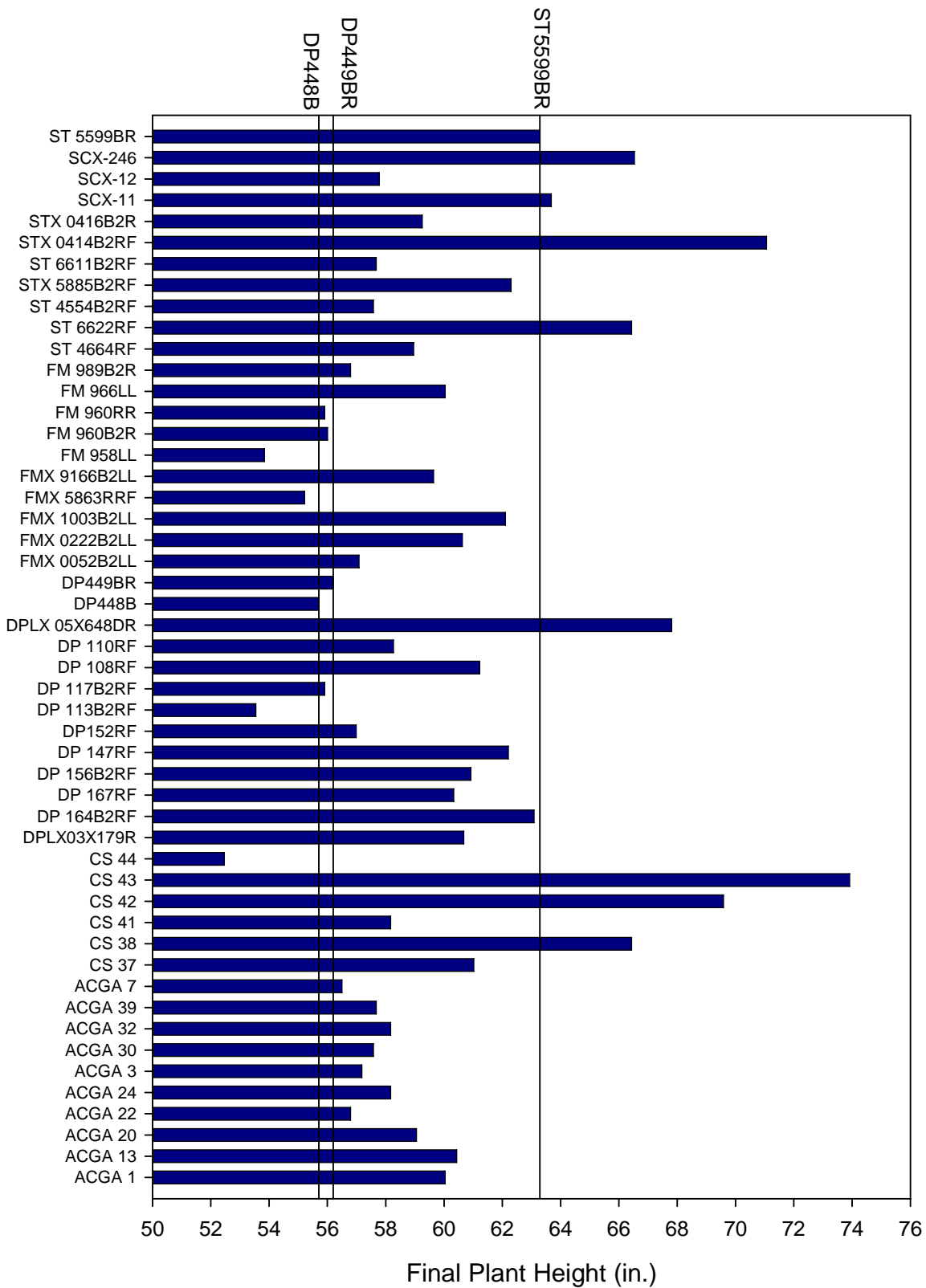


Figure 14. Average final plant height for each entered strain. Vertical lines indicate height levels for each commercial variety control. Data from Yuma, AZ, 2005.

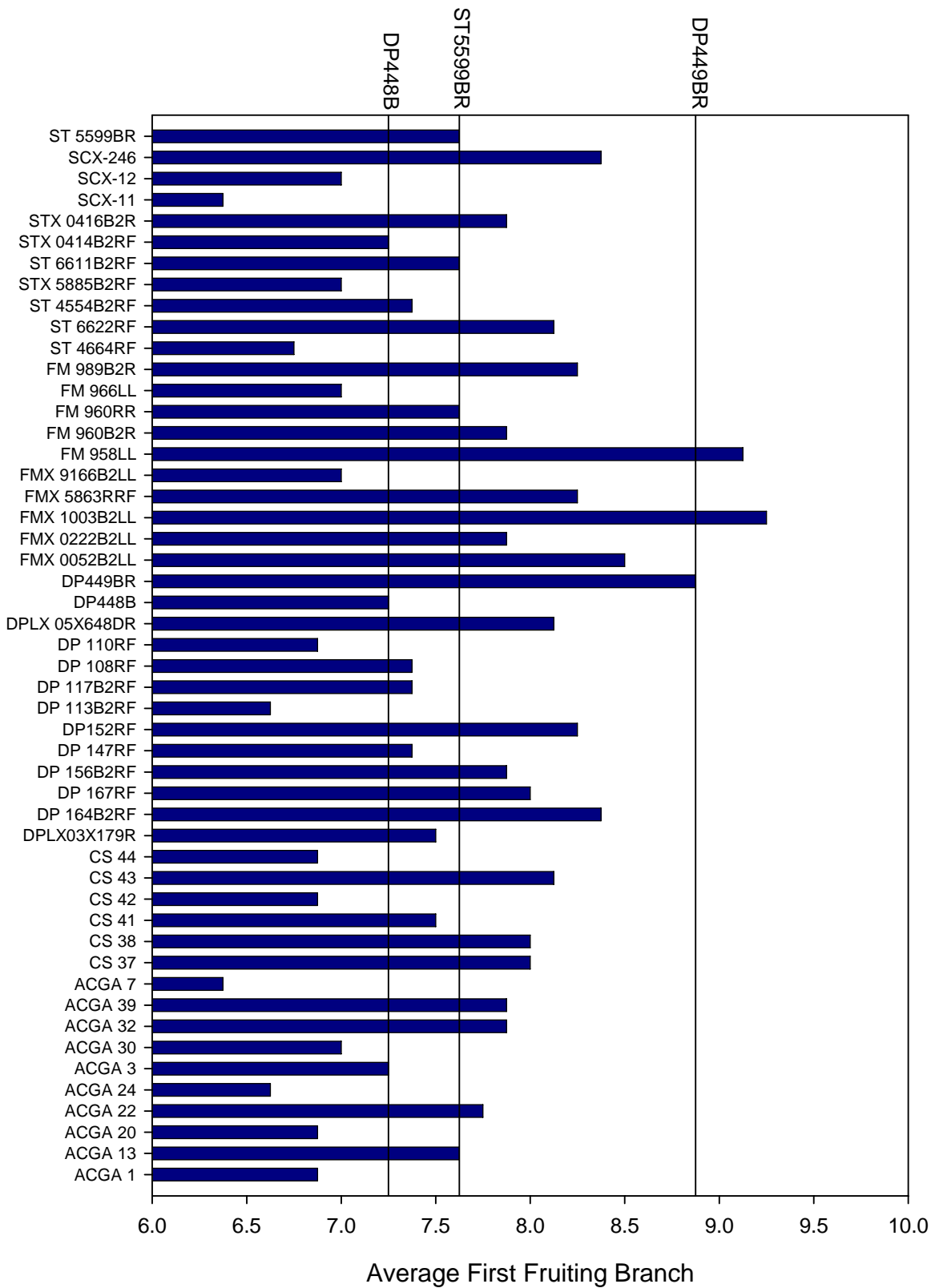


Figure 15. Average first fruiting branch for each entered strain. Vertical lines indicate first fruiting branch levels for each commercial variety control. Data from Yuma, AZ, 2005.

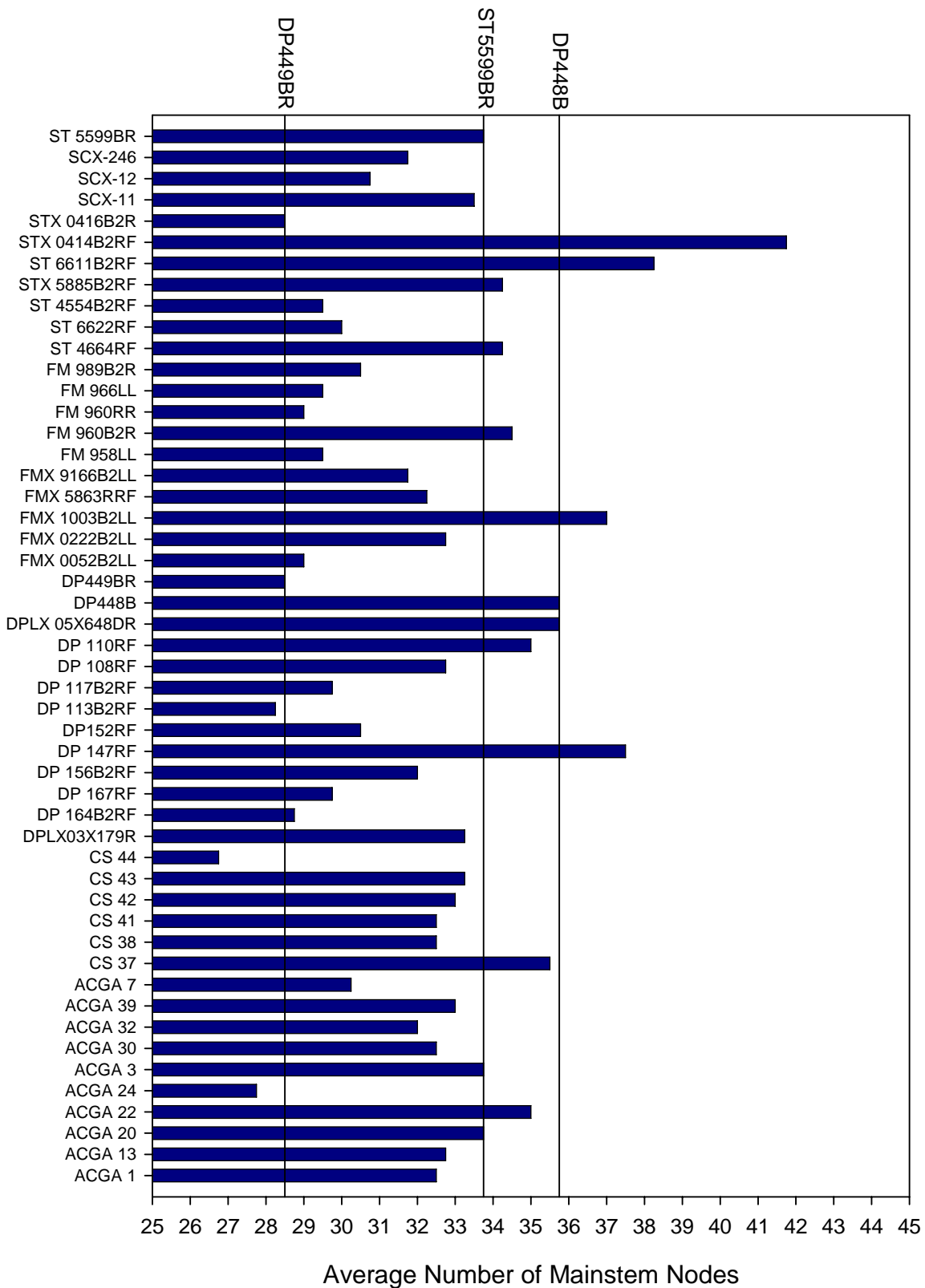


Figure 16. Average total number of mainstem nodes for each entered strain. Vertical lines indicate mainstem node numbers for each commercial variety control. Data from Yuma, AZ, 2005.

Table 4. Lint yield and fiber quality results for the advanced strain trial conducted in Maricopa, AZ, 2005.

Strain	Lint Yield lbs/acre	Means Separation*	Percent		Micronaire	Strength g/tex	Length inches	Uniformity
			Lint	Staple 32nds				
DPLX 04Y170BR	1609.8	a	44.7	35.0	5.00	32.5	1.10	81.8
P03X 5079	1516	a b	41.3	37.3	5.43	36.4	1.16	83.8
ACGA 20	1348.6	b c	39.6	36.3	5.38	34.4	1.13	82.5
P03X 5087	1316	b c d	36.7	36.3	5.15	35.4	1.12	82.8
DPLX 04T159F	1315.6	b c d	35.4	37.5	5.00	33.0	1.18	83.2
DPLX 04T126DF	1303	b c d e	33.4	38.0	5.03	32.2	1.19	82.7
STX 0403RF	1284.2	c d e f	35.3	36.8	5.25	34.4	1.15	83.6
DPLX 05X648DR	1257.5	c d e f g	41.9	35.3	5.05	29.8	1.10	80.9
DPLX 03X179R	1216	c d e f g h	41.4	36.3	5.48	32.5	1.14	83.1
DP 449BR	1193.8	c d e f g h	38.6	35.8	5.28	33.4	1.11	82.9
CS 37	1189.9	c d e f g h	35.6	36.8	5.28	33.5	1.14	82.2
P03X 5080	1183.2	c d e f g h i	36.6	35.8	4.93	35.1	1.11	82.7
STX 0405B2RF	1169.7	c d e f g h i j	35.7	36.5	4.88	34.3	1.14	81.7
ACGA 13	1161.1	c d e f g h i j k	35.1	36.8	4.78	33.4	1.15	81.3
CS 42	1116.3	d e f g h i j k l	35.8	37.3	5.05	34.1	1.16	82.3
DPLX 04X436DF	1092.2	e f g h i j k l m	36.0	36.8	4.73	29.9	1.15	82.8
ACGA 24	1079.4	f g h i j k l m	37.4	37.5	5.08	33.6	1.18	82.0
SCX-246	1072	f g h i j k l m n	35.1	36.0	5.45	34.2	1.13	81.7
STX 0406B2RF	1037.4	g h i j k l m n o	32.8	37.0	5.10	33.0	1.15	83.2
DP 448B	1029.8	h i j k l m n o	34.2	36.0	5.18	30.7	1.13	82.2
STX 0414B2RF	1000.9	h i j k l m n o p	31.5	37.5	5.13	34.2	1.17	83.7
CS 43	963.7	i j k l m n o p q	31.1	37.3	4.93	31.6	1.17	82.0
ACGA 32	953.7	j k l m n o p q	31.9	35.5	4.78	30.9	1.11	81.0
ACGA 3	950.4	j k l m n o p q	34.4	36.3	5.00	30.3	1.13	81.2
DPLX 04X495F	940.4	k l m n o p q r	35.9	36.8	4.85	31.3	1.15	81.8
P03X 4109	926.9	l m n o p q r s	36.1	36.3	4.93	35.3	1.13	82.5
ACGA 30	900.6	l m n o p q r s t	33.5	36.5	4.95	33.4	1.13	82.8
ACGA 22	889.4	m n o p q r s t	37.3	36.3	5.15	33.0	1.13	82.6
DPLX 04Z503DF	884.3	m n o p q r s t	36.4	35.3	4.78	34.0	1.10	82.4
CS 41	850.5	n o p q r s t u	34.8	38.0	4.83	32.8	1.19	82.5
ST 5599BR	848.5	o p q r s t u	37.2	35.0	5.15	30.5	1.08	81.2
STX 0416B2R	838.2	o p q r s t u	34.9	36.8	4.93	31.5	1.14	83.2
SCX-13	816.5	o p q r s t u v	33.8	33.8	4.78	32.8	1.06	82.1
CS 44	785.2	p q r s t u v	33.6	35.8	5.15	32.0	1.12	82.0
ACGA 7	753.2	q r s t u v	37.0	35.0	5.23	34.4	1.09	82.0
SCX-11	753	q r s t u v w	40.5	32.3	5.03	33.9	1.01	81.5
P03X 5075	744.5	q r s t u v w x	38.0	36.0	5.15	33.6	1.12	82.9
ACGA 39	723.9	r s t u v w x	37.1	36.0	4.80	31.6	1.12	81.8
P03X 5076	722.2	r s t u v w x	34.9	36.5	4.98	31.4	1.14	82.8
DPLX 04Z600DF	721.4	r s t u v w x	40.4	35.8	4.95	35.0	1.12	81.6
DPLX 04Z602F	709.3	s t u v w x	37.2	35.3	4.90	31.9	1.10	81.9
CS 38	697.1	t u v w x	40.6	36.5	4.53	32.3	1.14	82.3
P03X 4100	681	t u v w x y	36.1	35.8	5.10	33.2	1.12	83.3
STX 0404B2RF	656.9	u v w x y z	37.9	35.8	5.15	34.3	1.11	82.1
P03X 4099	651.4	u v w x y z	36.1	36.0	5.05	33.3	1.13	82.5
ACGA 1	598.9	v w x y z	36.2	34.8	4.68	30.5	1.09	81.3
STX 0401RF	531.5	w x y z	38.5	34.3	4.75	31.4	1.07	81.9
DPLX 04Z603F	528.4	x y z	35.8	35.3	4.78	35.8	1.11	82.3
P03X 5091	465.8	y z	35.5	33.3	4.85	30.7	1.04	81.8
DPLX 04X462F	459.2	z	36.3	35.0	4.60	30.3	1.10	81.4
LSD§	221.6		5.2	1.1	0.26	2.2	0.03	1.6
OSL†	0.0001		0.0002	0.0001	0.0001	0.0001	0.0001	0.0306
CV‡	16.5		10.3	2.2	3.7	4.7	2.2	1.4

*Means followed by the same letter are not statistically different according to a Fisher's least significant difference means separation test.

§ Least Significant Difference

† Observed Significance Level

‡ Coefficient of Variation

Table 5. End of season plant measurement data, average seedcotton weight per boll, premium/discount and crop value, Maricopa, AZ, 2005.

Strain	Final Plant Height (in.)	Average First Fruiting Branch	Number of Mainstem Nodes	Average Seecotton Weight per Boll	Points Premium/Discount	Crop Value \$/acre
ACGA 1	33.9	6.0	28.5	3.2	75	315
ACGA 13	36.2	7.3	27.3	3.0	469	657
ACGA 20	33.9	6.5	22.5	2.7	280	739
ACGA 22	35.3	7.5	28.0	3.4	280	488
ACGA 24	37.6	6.0	24.5	3.5	363	599
ACGA 3	33.7	7.5	26.3	3.5	361	529
ACGA 30	34.1	8.0	28.5	3.5	495	513
ACGA 32	37.6	7.0	24.3	3.7	224	517
ACGA 39	36.0	7.0	29.0	3.3	401	408
ACGA 7	33.1	7.3	25.5	3.0	-35	391
CS 37	40.9	9.0	35.5	3.1	161	638
CS 38	31.8	6.3	28.0	2.4	353	387
CS 41	38.2	7.5	27.5	3.4	638	497
CS 42	40.9	6.5	27.8	4.1	328	617
CS 43	44.6	7.3	26.3	3.5	553	553
CS 44	29.3	7.3	26.8	3.9	129	420
DPLX 03X179R	33.4	6.8	27.0	3.5	238	662
DP 164B2RF	43.6	8.5	28.5	3.7	313	718
DP 167RF	41.3	8.5	30.0	3.1	413	738
DP 156B2RF	44.7	7.3	35.3	3.0	554	629
DP 147RF	36.5	5.5	28.0	3.2	263	250
DP152RF	37.1	7.0	30.3	2.9	578	544
DPLX 04Y170BR	42.7	7.0	28.0	2.5	265	884
DP 113B2RF	38.5	6.3	23.5	3.6	38	461
DP 117B2RF	34.3	6.5	26.5	2.6	-63	371
DP 108RF	38.1	7.0	27.3	3.4	174	382
DP 110RF	32.7	7.0	27.3	2.8	8	290
DPLX 05X648DR	45.1	8.5	32.0	2.8	298	691
DP 448B	32.8	7.3	24.8	3.5	248	562
DP 449BR	37.8	4.8	25.5	2.9	193	642
P03X 4099	34.0	6.8	27.3	2.7	-43	337
P03X 4100	36.8	6.0	21.5	2.7	-230	340
P03X 4109	37.0	6.5	27.8	3.1	448	524
P03X 5075	38.0	6.8	24.8	2.8	-9	387
P03X 5076	39.5	7.3	26.5	2.9	396	405
P03X 5079	46.1	8.0	31.0	2.9	175	815
P03X 5080	47.2	7.3	30.3	3.1	410	667
P03X 5087	48.0	6.5	30.5	3.1	362	735
P03X 5091	32.1	8.8	28.0	2.7	300	317
ST 4664RF	36.2	7.8	27.0	3.0	-12	261
ST 6622RF	53.3	7.0	29.0	3.1	278	705
ST 4554B2RF	33.3	8.0	27.5	3.3	136	350
STX5885B2RF	40.8	6.5	26.8	3.1	560	675
ST 6611B2RF	53.0	8.3	30.0	3.3	235	557
STX 0414B2RF	42.0	7.0	26.0	3.8	306	553
STX 0416B2R	43.9	6.8	27.5	3.8	104	444
SCX-11	36.1	7.3	27.0	2.6	-183	378
SCX-13	40.5	6.3	29.5	3.1	106	433
SCX-246	33.3	6.5	27.0	2.8	216	581
ST 5599BR	34.2	6.0	27.5	3.8	200	459

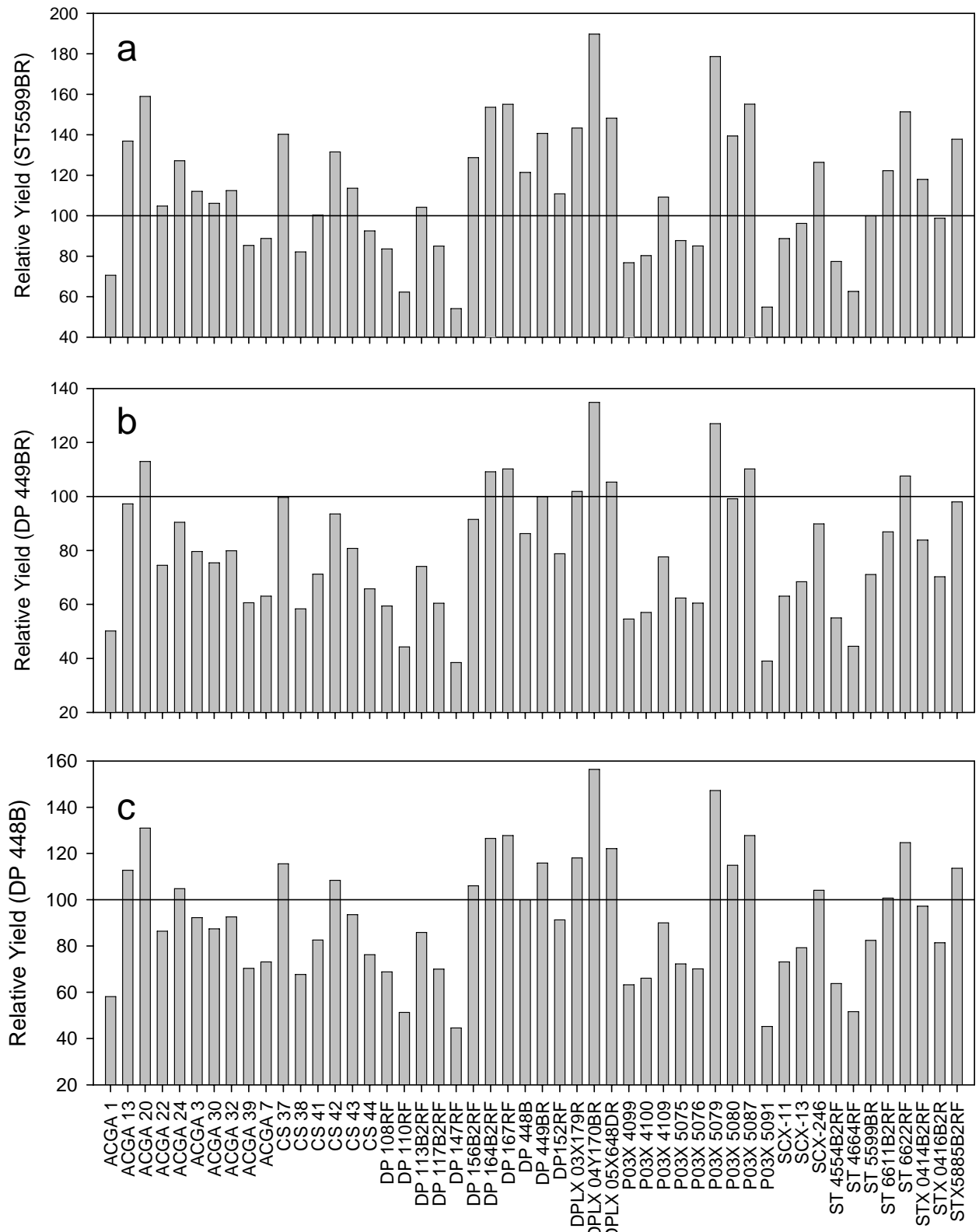


Figure 17. Percent relative lint yield for each of the advanced strain entries. Relative lint yield was calculated by dividing the mean yield of the strain by mean lint yield of each of the commercial variety controls in this trial (a) ST5599BR, (b) DP449BR and (c) DP448B at Maricopa, AZ, 2005.

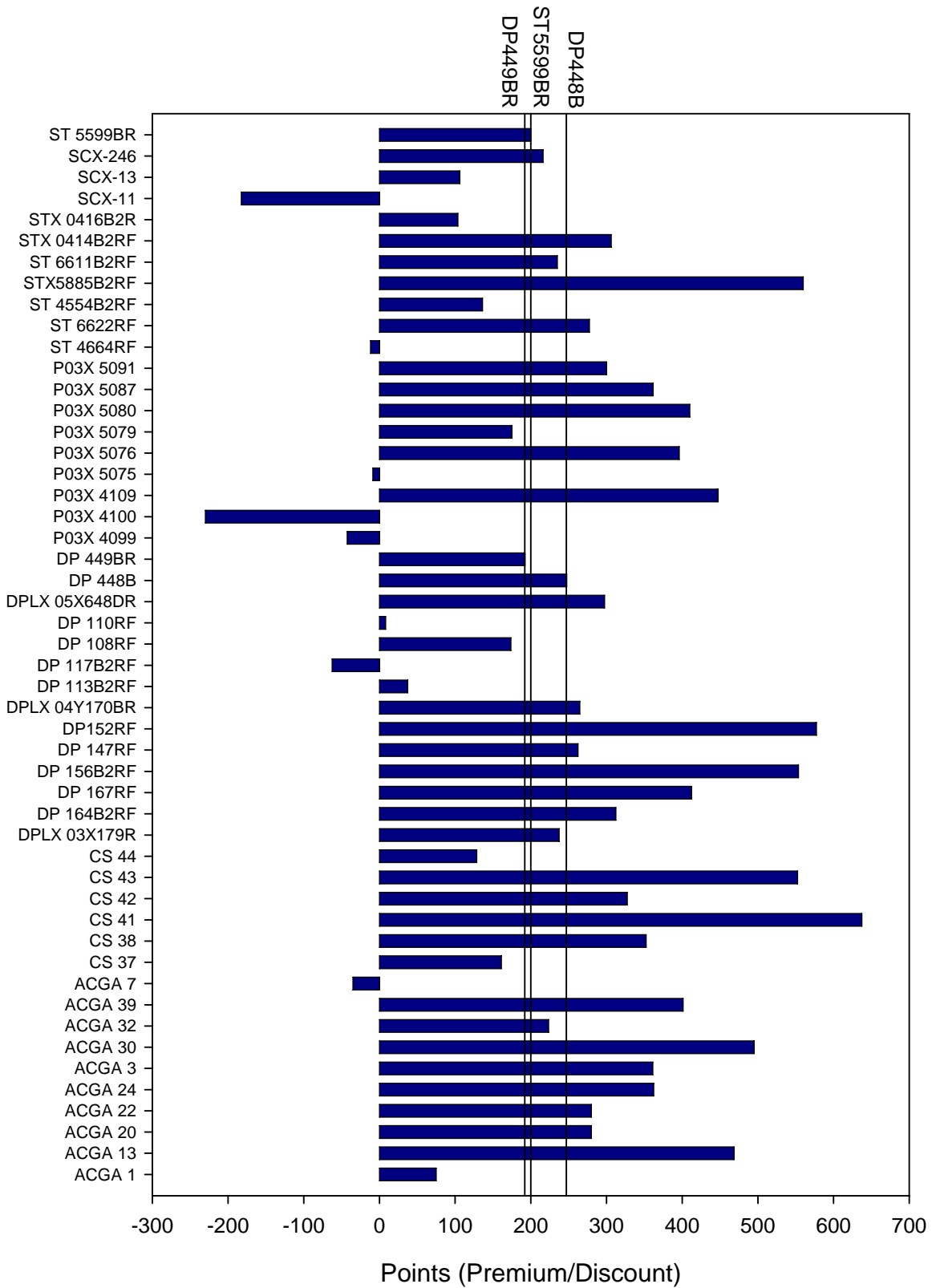


Figure 18. Points associated with the premium and discounts based upon fiber quality characteristics for each entered strain. Points were determined using the 2005 CCC loan schedule for Upland cotton. Vertical lines indicate points level for each commercial variety control. Data from Maricopa, AZ, 2005.

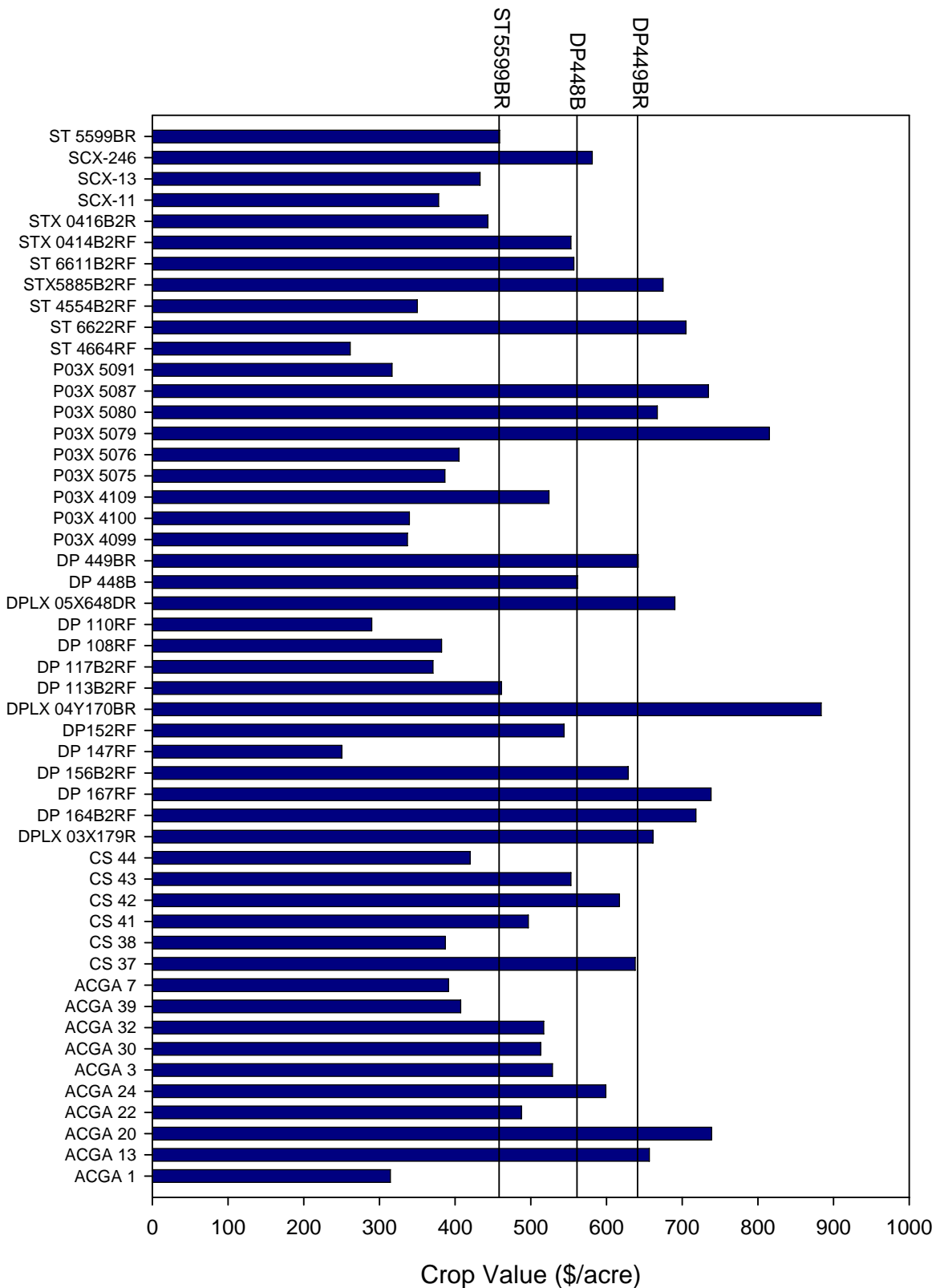


Figure 19. Total crop value for each entered strain. Final crop price was calculated from a base price of 52.00 cents/pound plus premiums/discounts for fiber quality. Total crop value was calculated by multiplying the final price by lint yield. Vertical lines indicate crop value levels for each commercial variety control. Data from Maricopa, AZ, 2005.

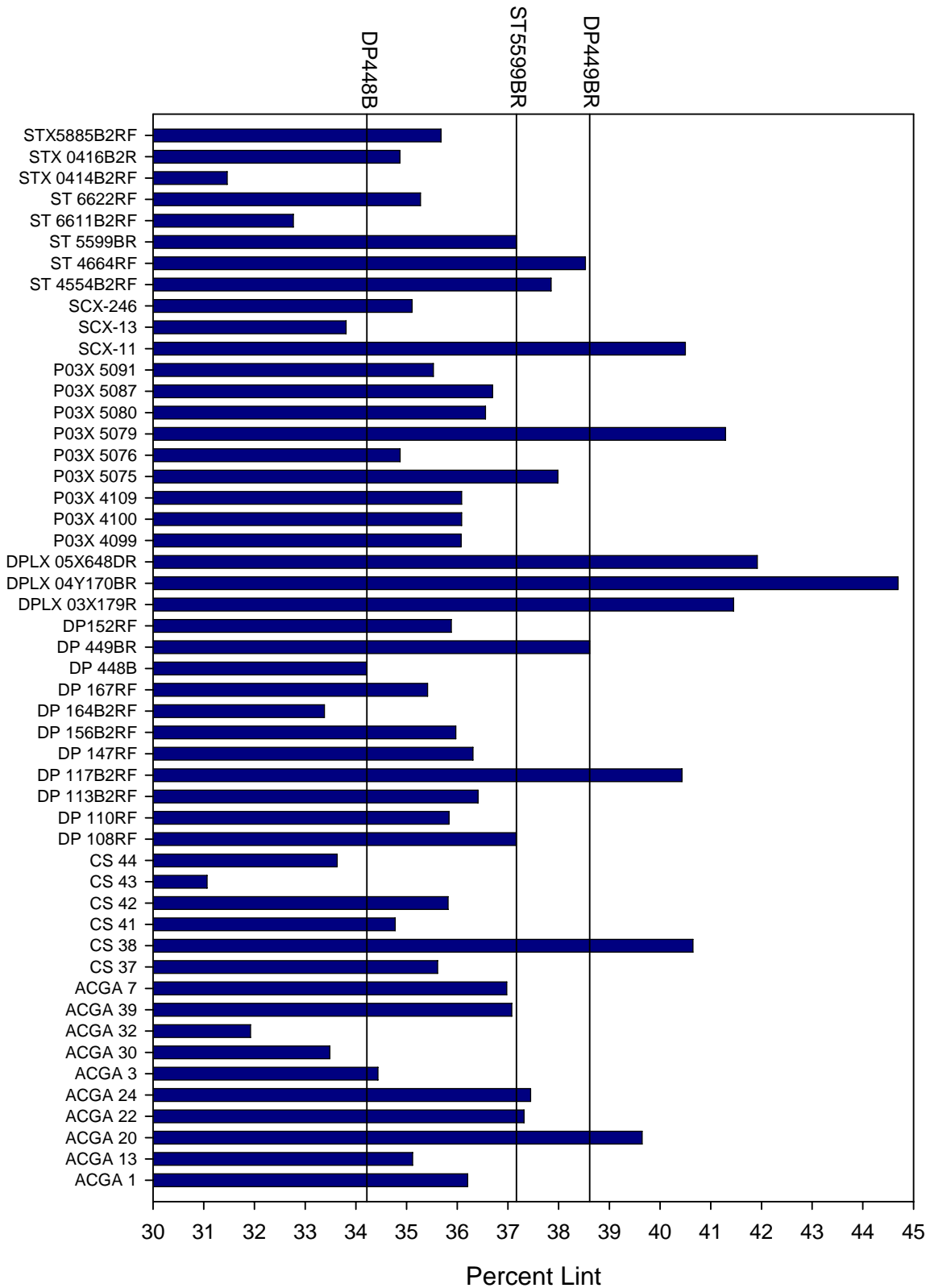


Figure 20. Percent lint for each entered strain. Percent lint was determined by ginning a 50 boll sample from each experimental unit. Vertical lines indicate percent lint levels for each commercial variety control. Data from Maricopa, AZ, 2005.

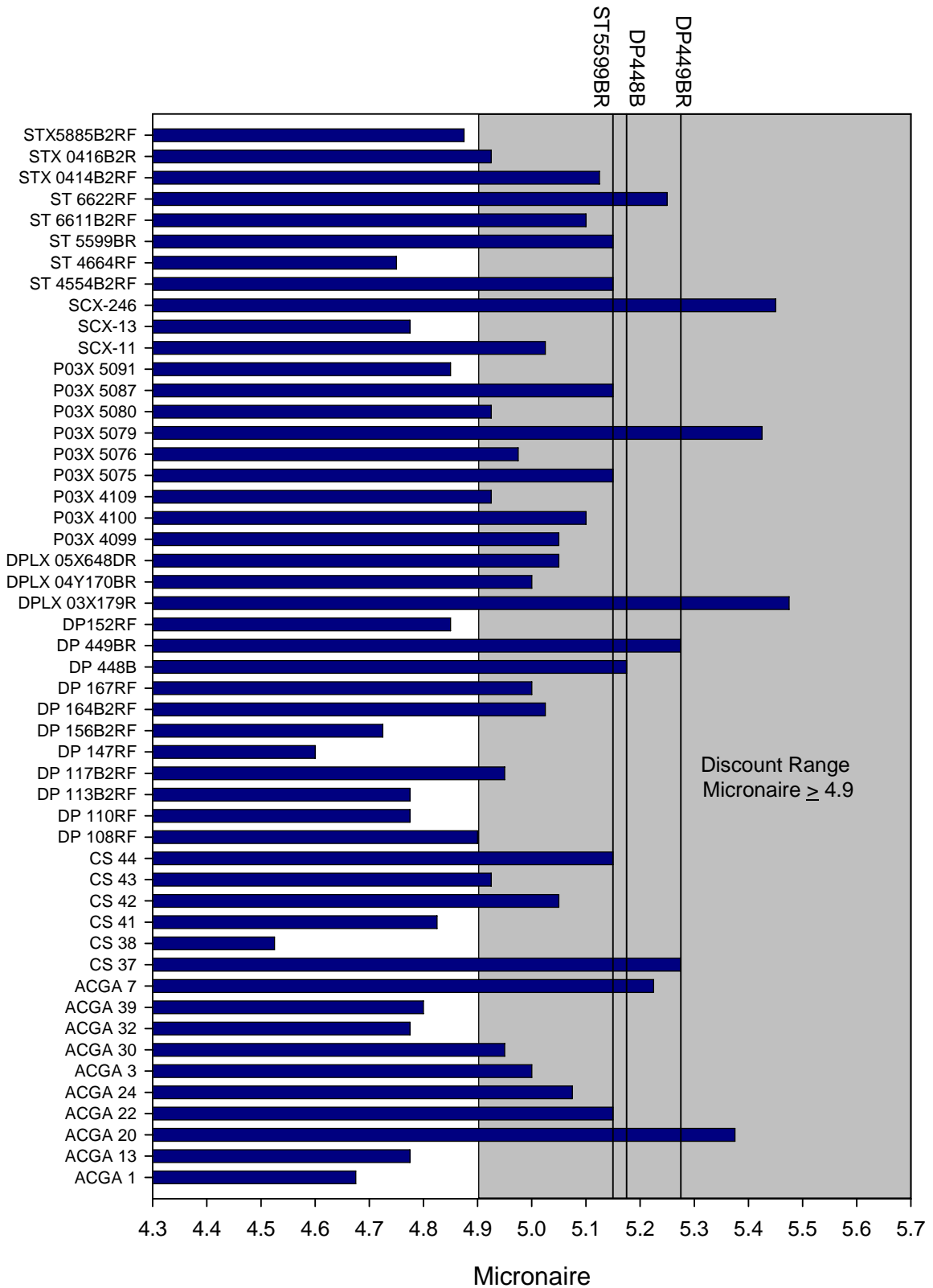


Figure 21. Fiber micronaire values for each entered strain. Discount range for fiber micronaire is indicated by grey box. Vertical lines indicate micronaire levels for each commercial variety control. Data from Maricopa, AZ, 2005.

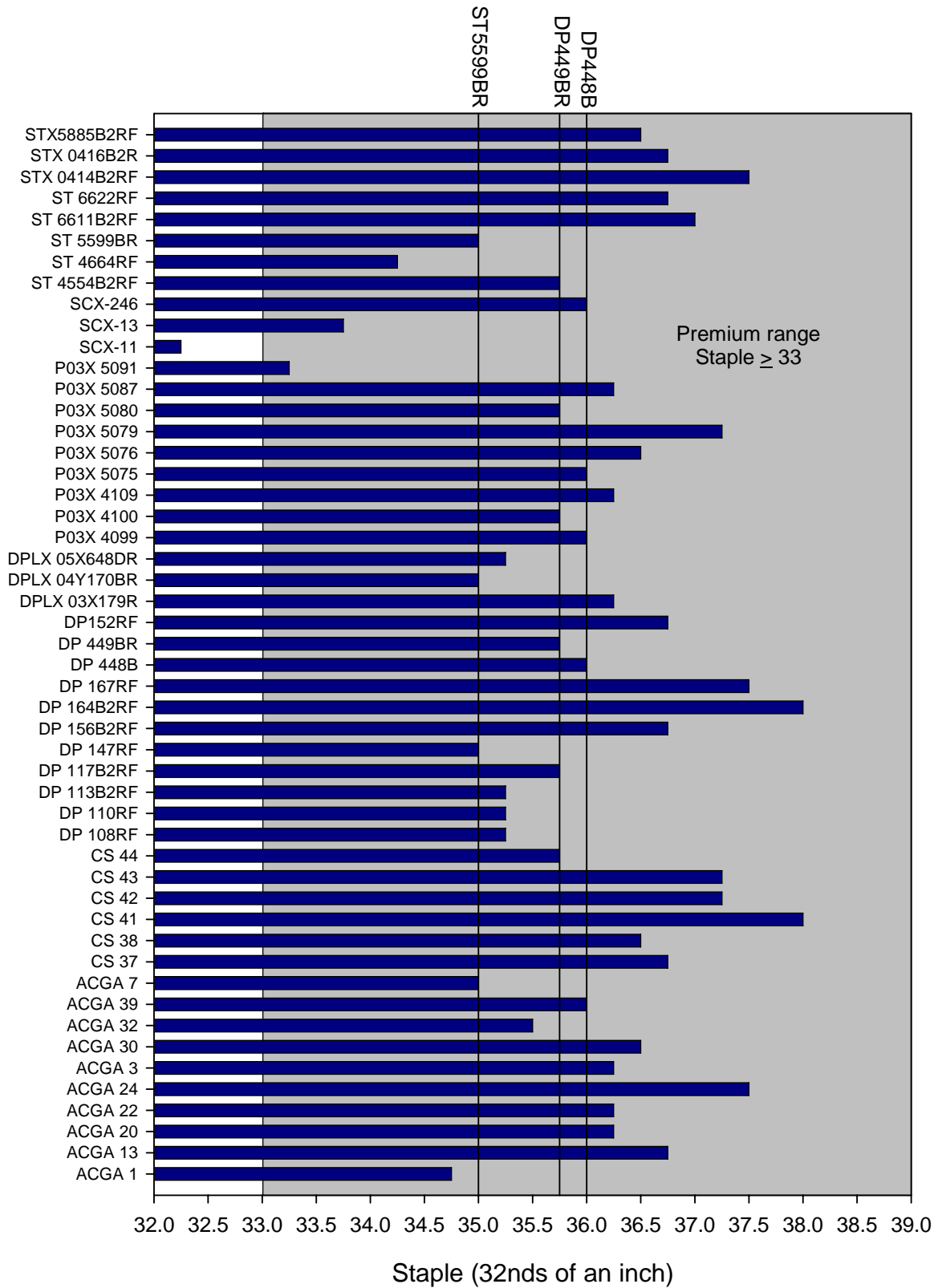


Figure 22. Fiber staple (32nds) values for each entered strain. Premium range for fiber staple is indicated by grey box. Vertical lines indicate staple levels for each commercial variety control. Data from Maricopa, AZ, 2005.

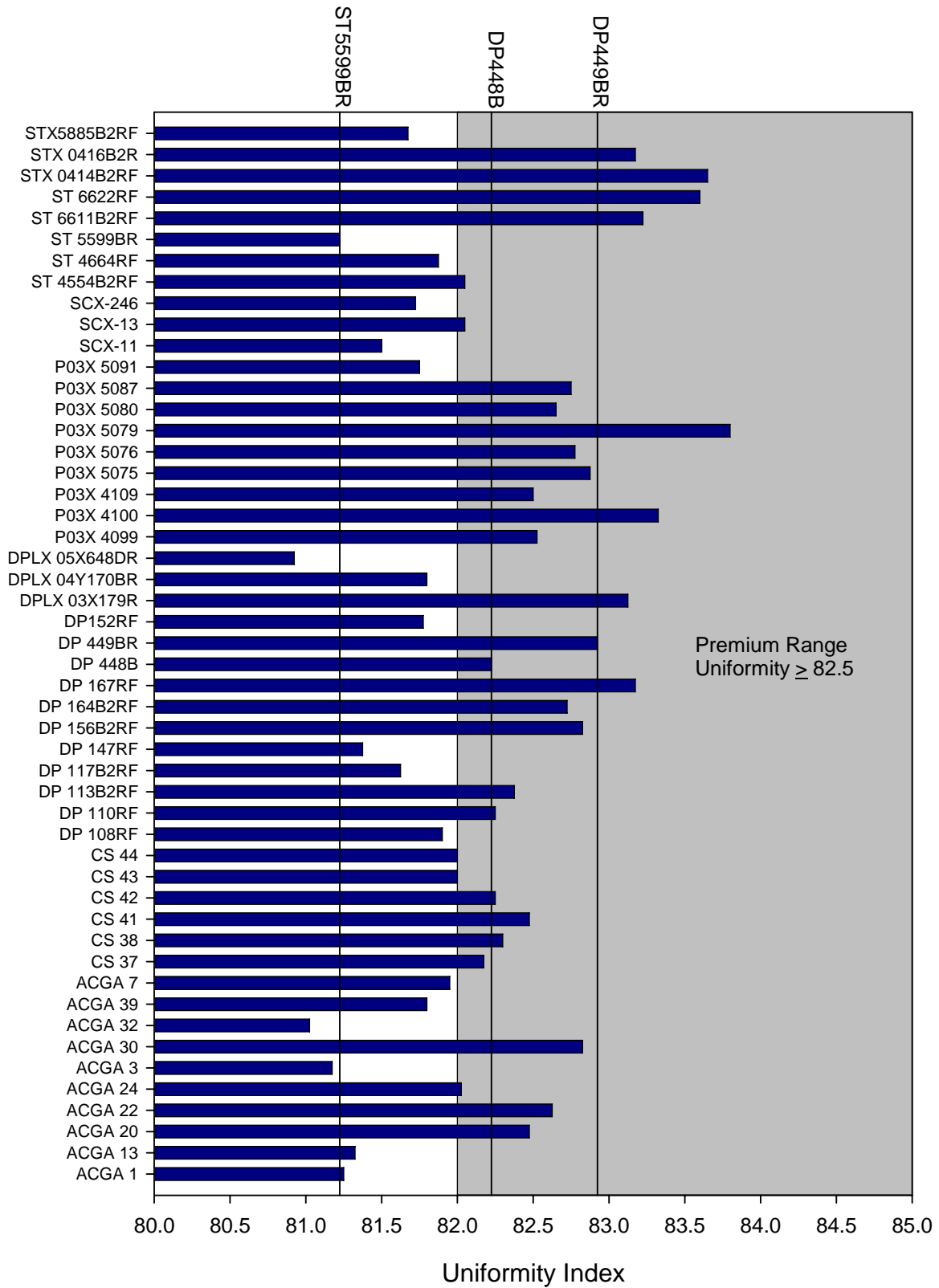


Figure 23. Fiber uniformity index values for each entered strain. Premium range for fiber uniformity is indicated by grey box. Vertical lines indicate uniformity levels for each commercial variety control. Data from Maricopa, AZ, 2005.

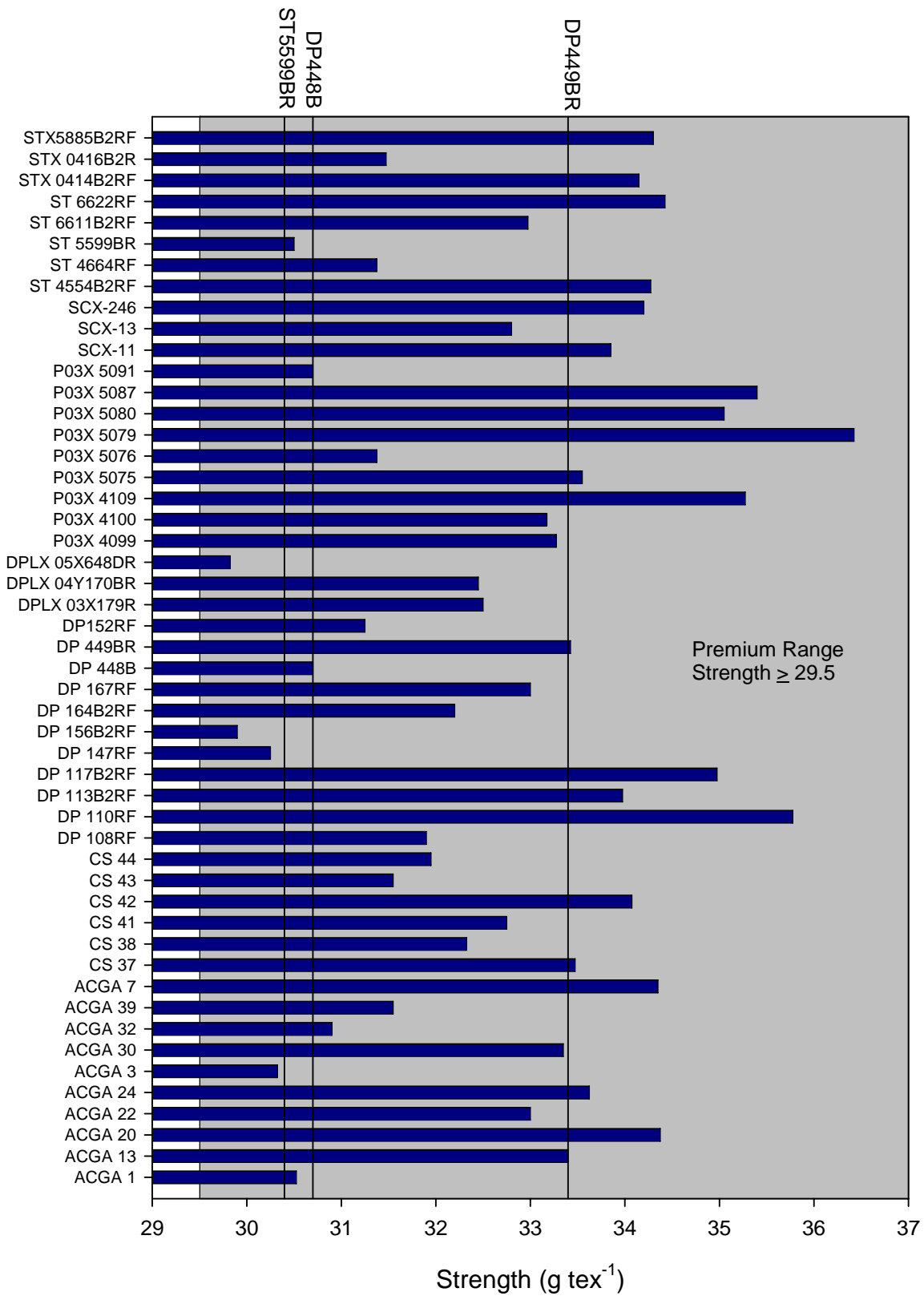


Figure 24. Fiber strength (g tex⁻¹) values for each entered strain. Premium range for fiber strength is indicated by grey box. Vertical lines indicate strength levels for each commercial variety control. Data from Maricopa, AZ, 2005.

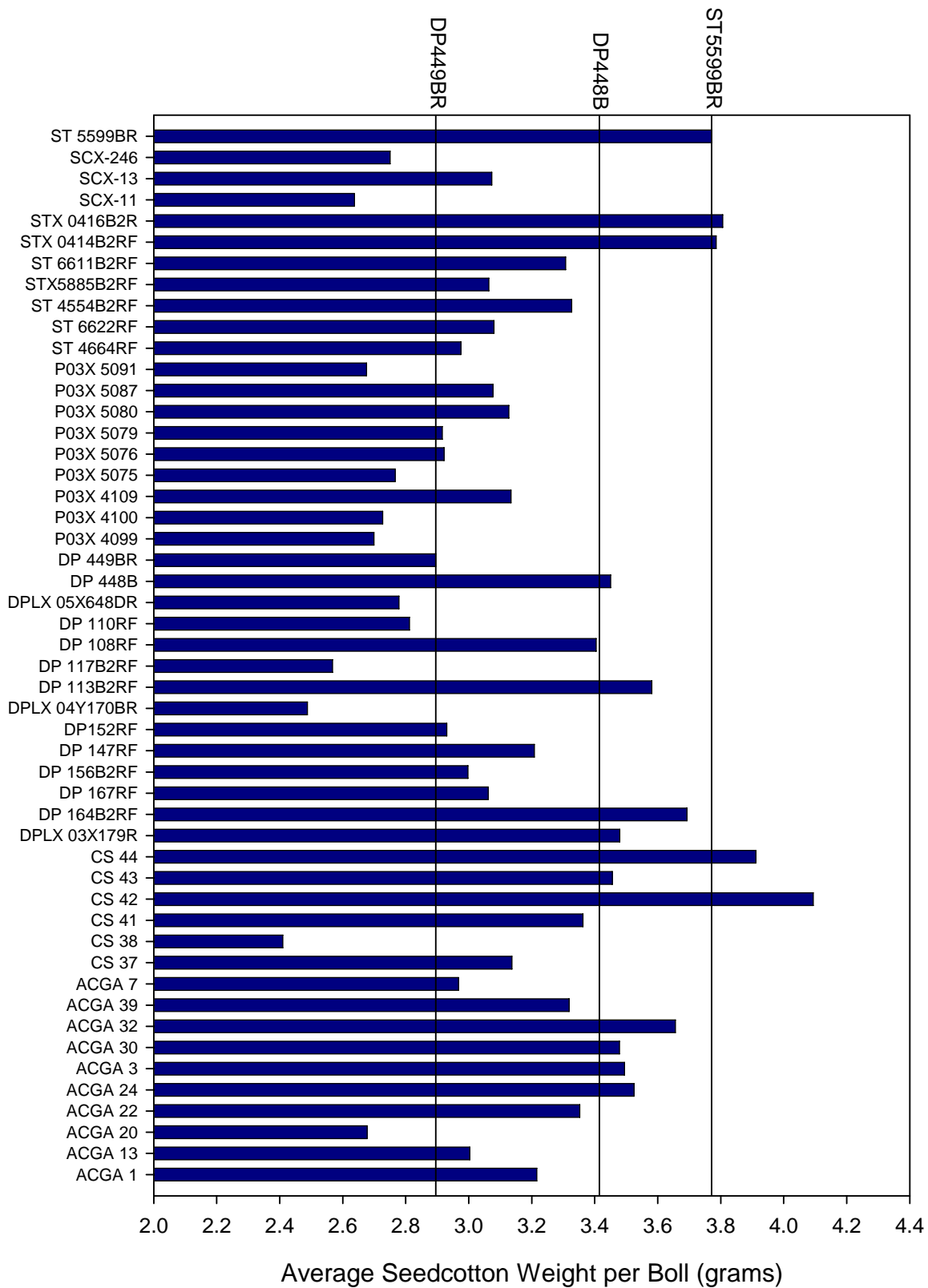


Figure 25. Average seedcotton weight (grams) per boll for each entered strain. Vertical lines indicate weight levels for each commercial variety control. Data from Maricopa, AZ, 2005.

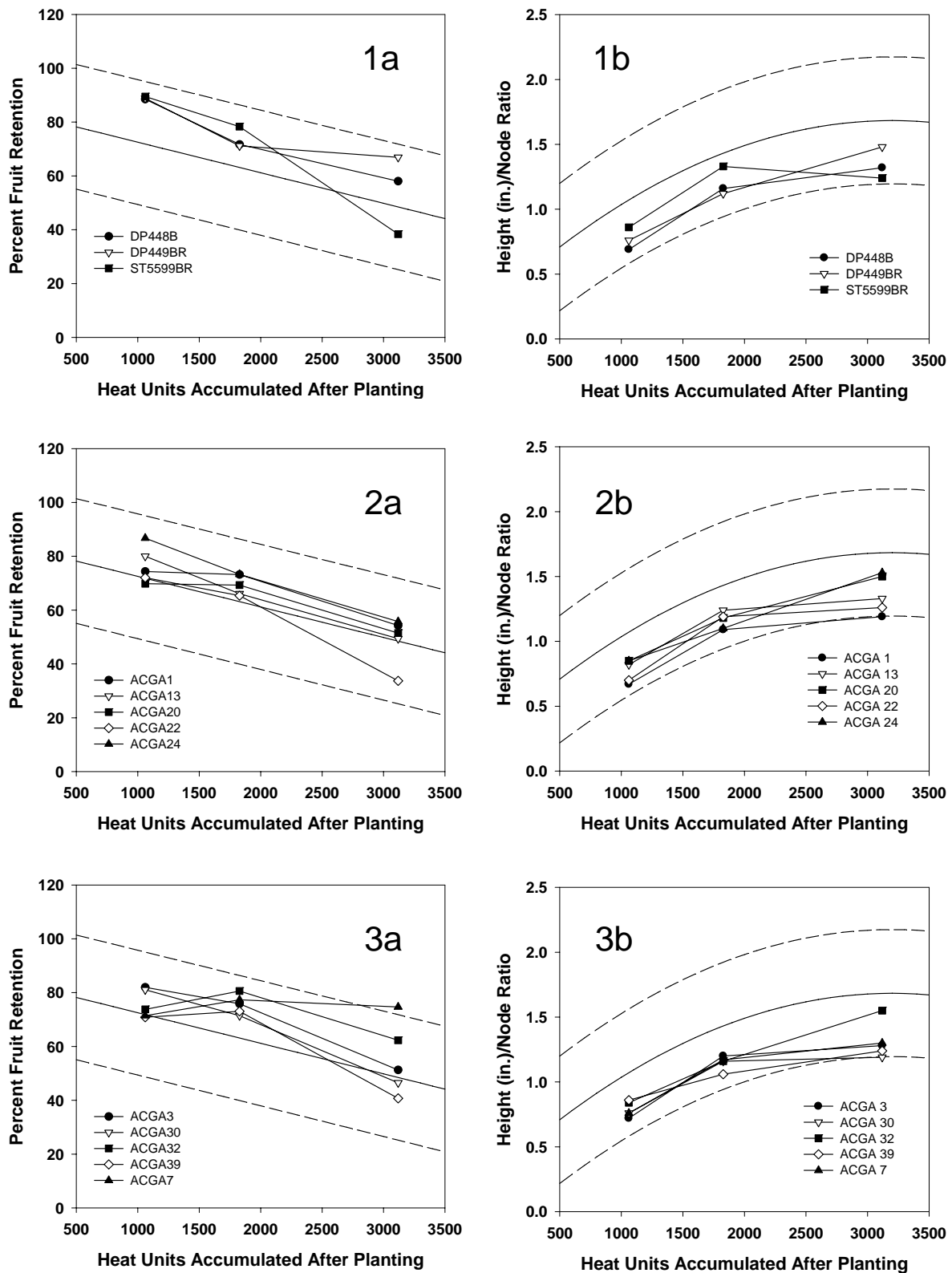


Figure 26. Percent fruit retention (a) and height to node ratio (b) levels for the control varieties (1) and ACGA (2 and 3) advanced strains planted at Maricopa, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

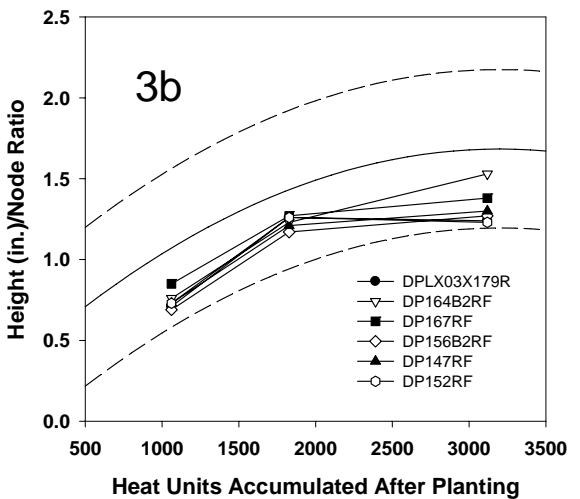
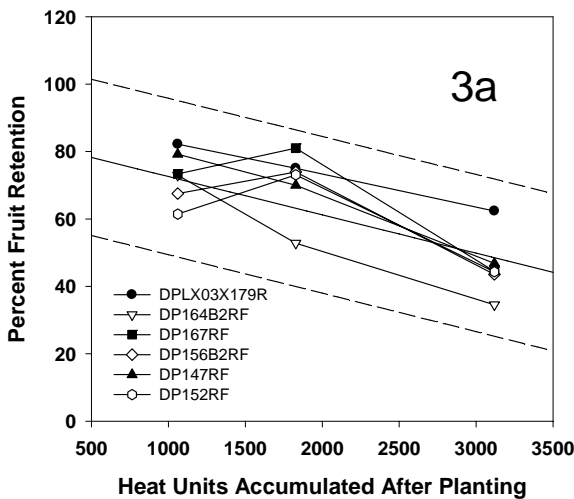
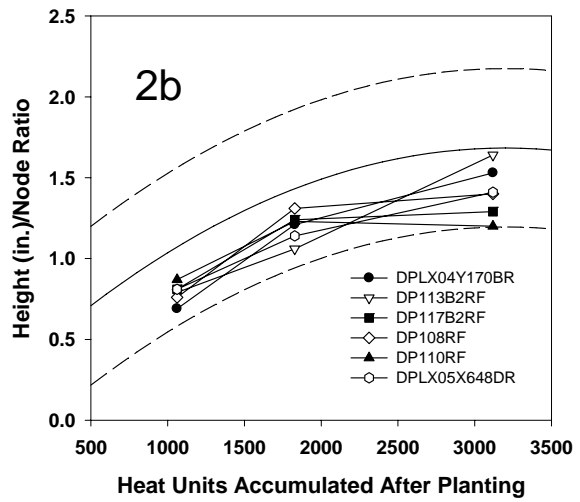
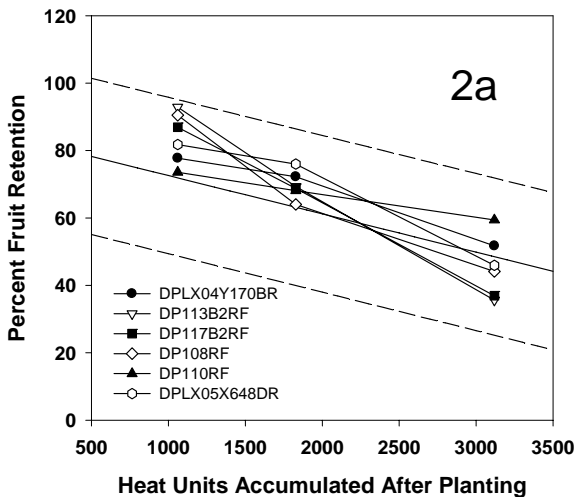
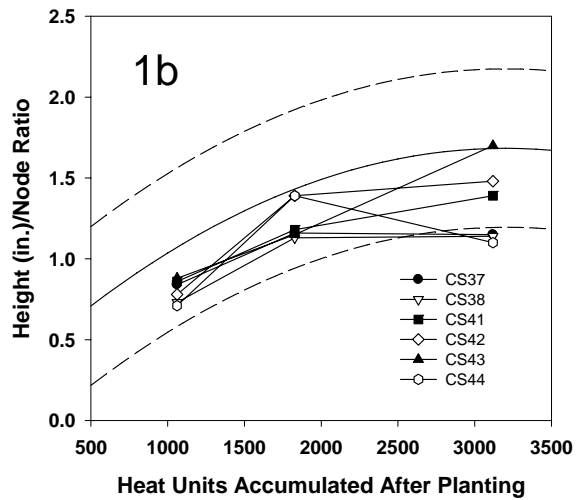
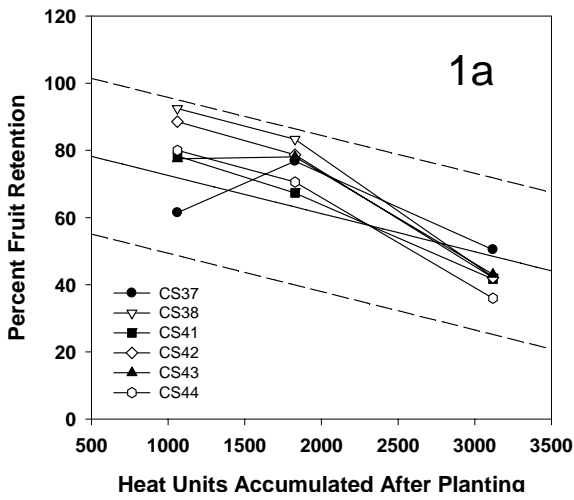


Figure 27. Percent fruit retention (a) and height to node ratio (b) levels for CPCSD (1) and Deltapine (2 and 3) advanced strains planted at Maricopa, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

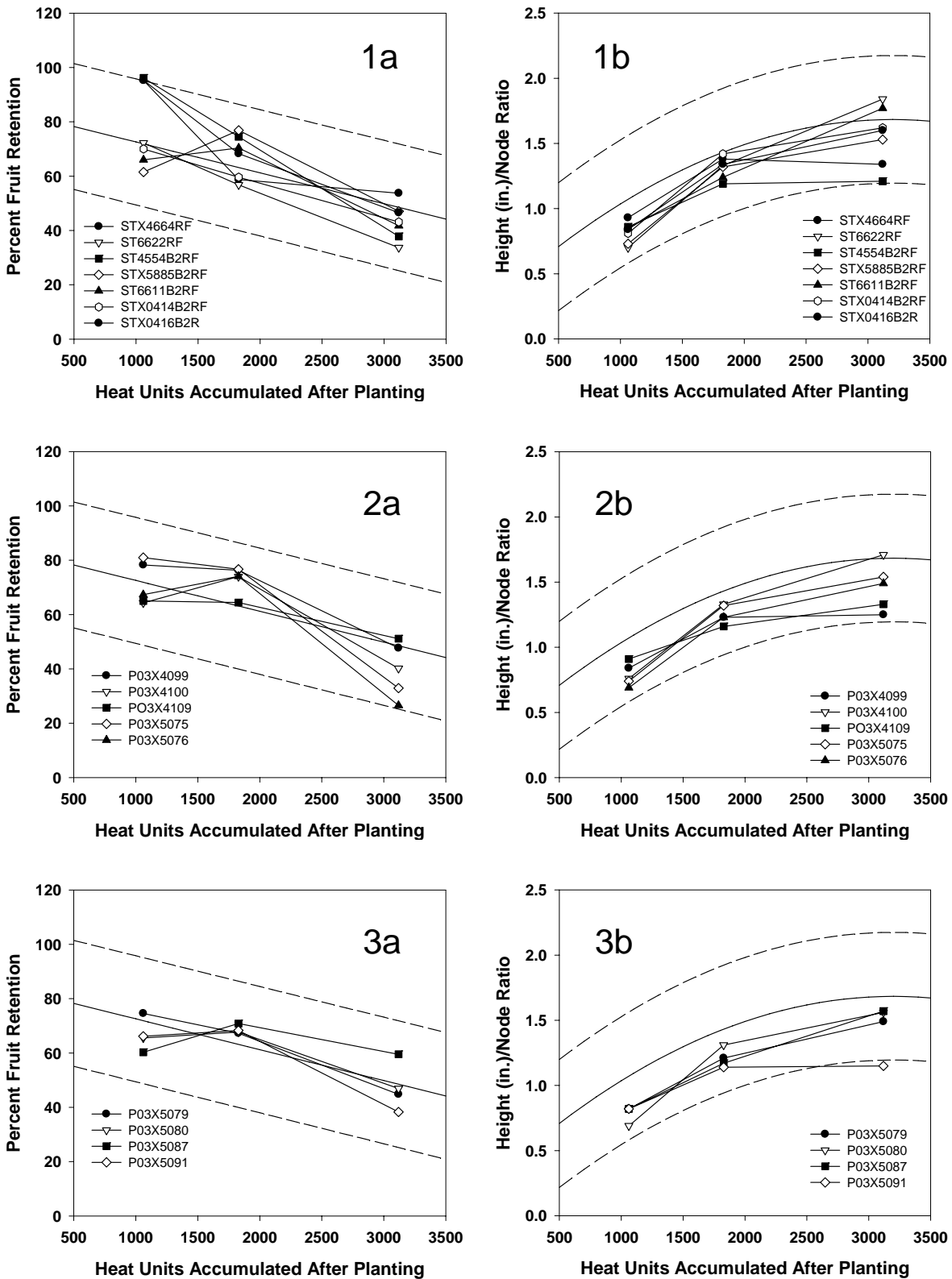


Figure 28. Percent fruit retention (a) and height to node ratio (b) levels for Stoneville (1) and Phytogen (2 and 3) advanced strains planted at Maricopa, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

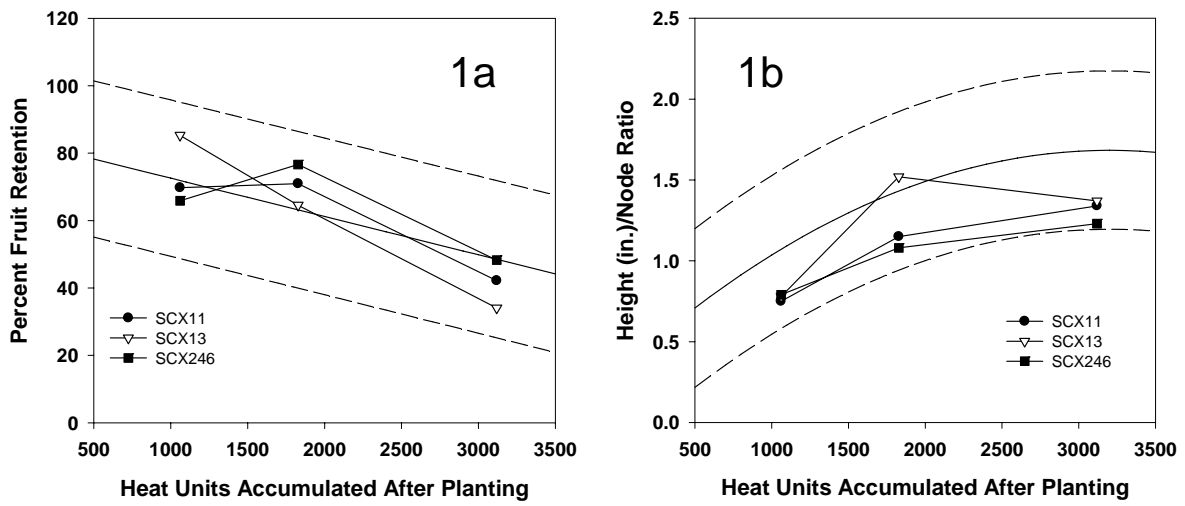


Figure 29. Percent fruit retention (a) and height to node ratio (b) levels for Salcot (1) advanced strains planted at Maricopa, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

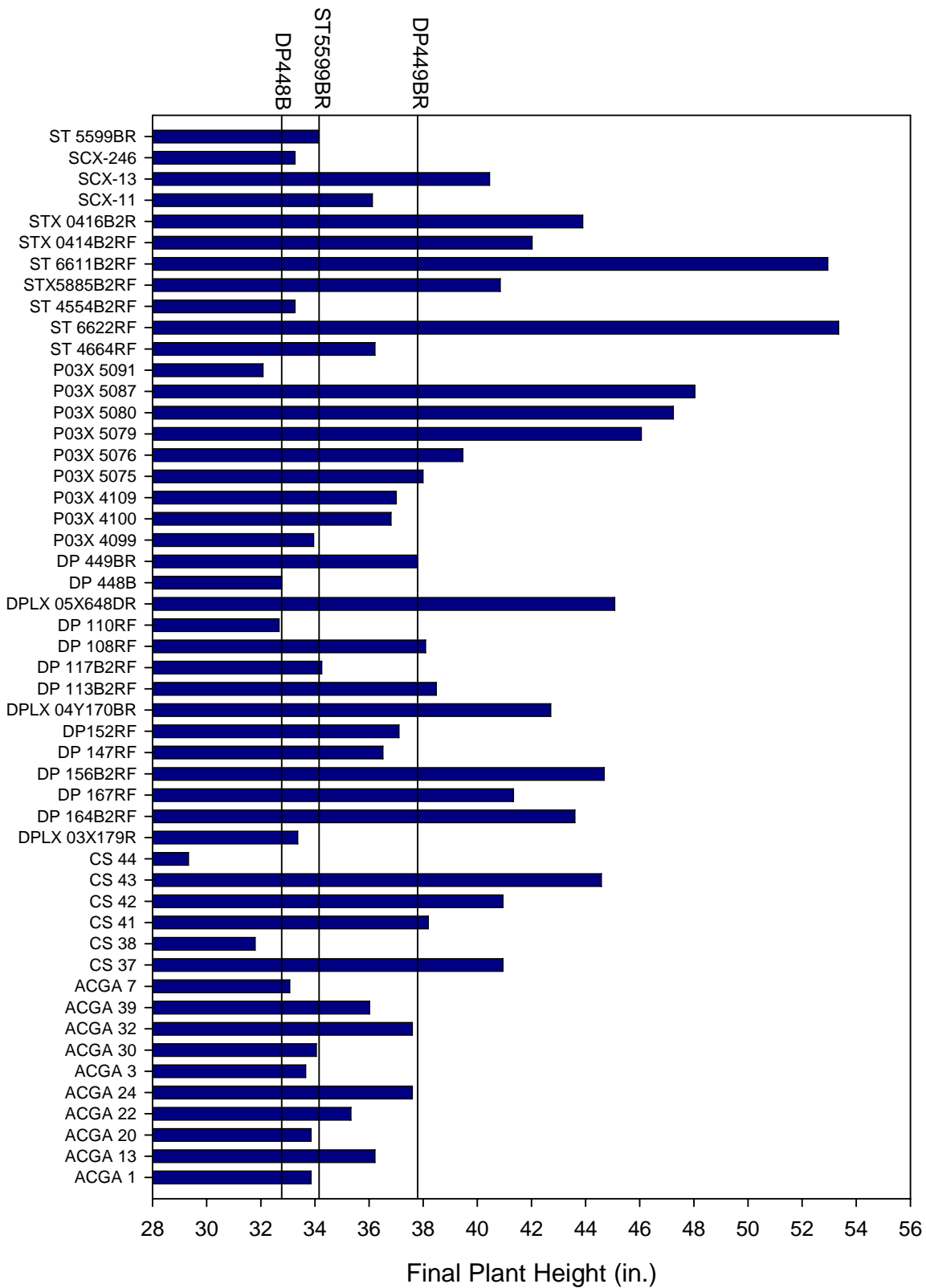


Figure 30. Average final plant height for each entered strain. Vertical lines indicate height levels for each commercial variety control. Data from Maricopa, AZ, 2005.

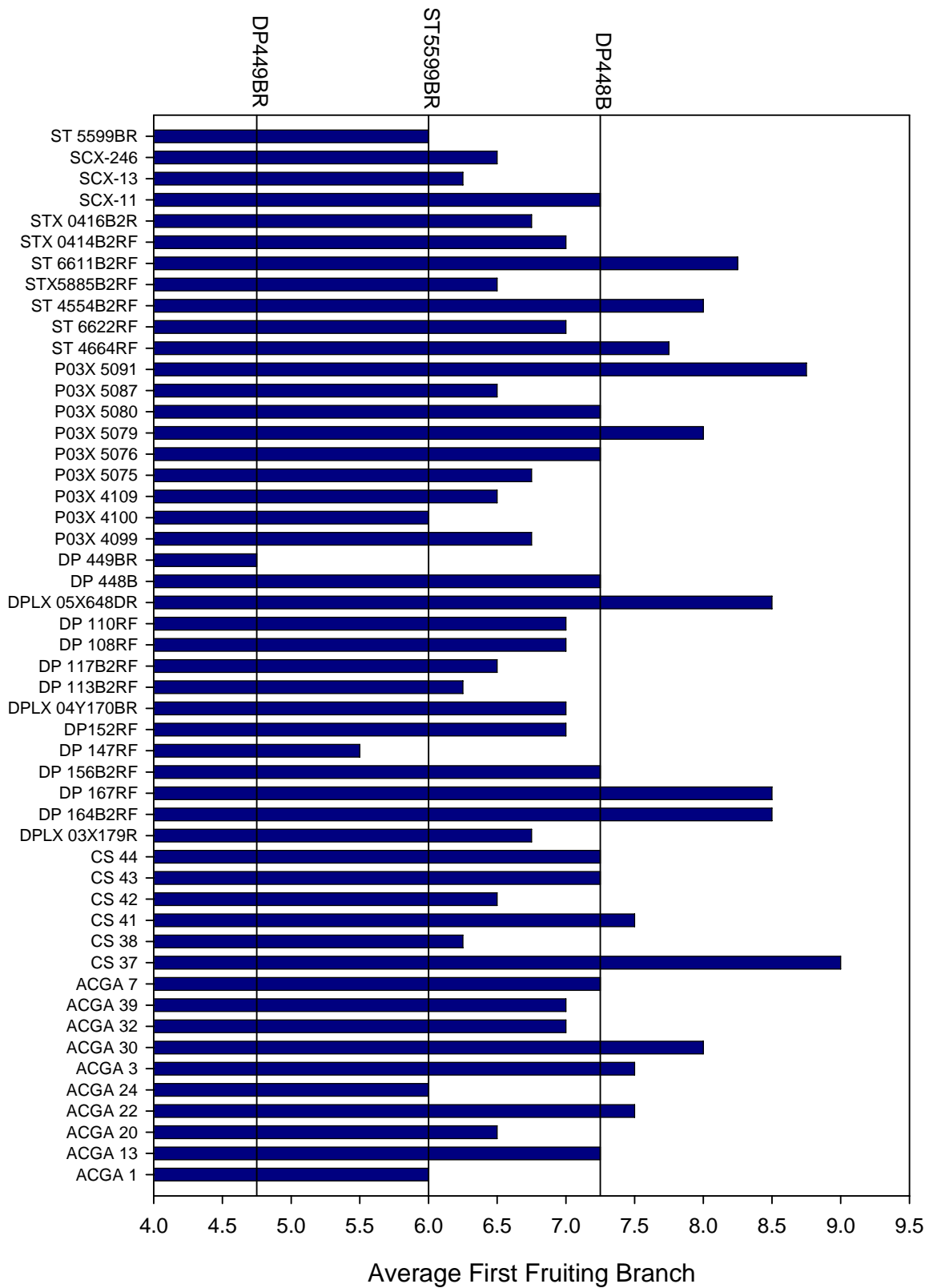


Figure 31. Average first fruiting branch for each entered strain. Vertical lines indicate first fruiting branch levels for each commercial variety control. Data from Maricopa, AZ, 2005.

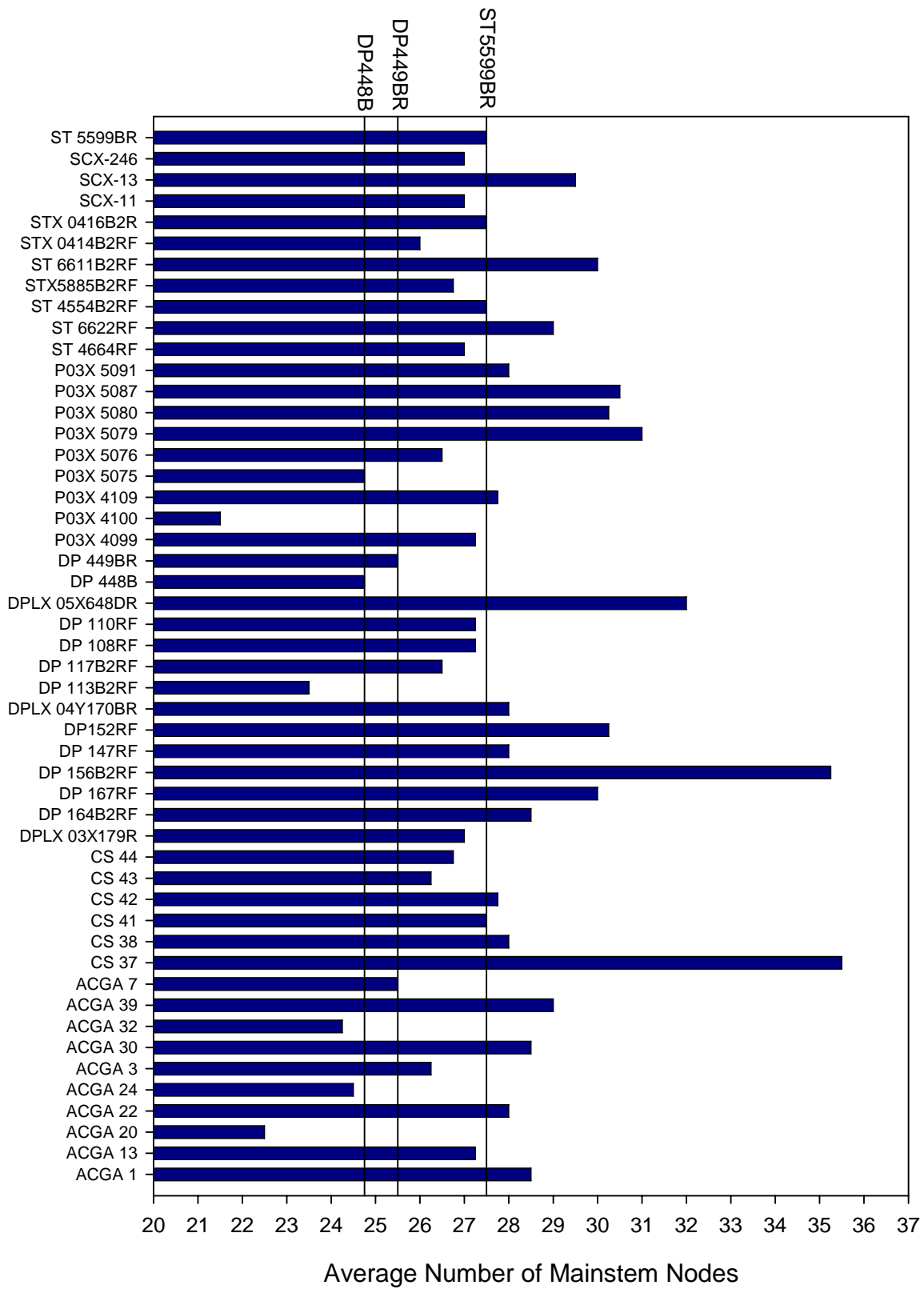


Figure 32. Average total number of mainstem nodes for each entered strain. Vertical lines indicate mainstem node numbers for each commercial variety control. Data from Maricopa, AZ, 2005.

Table 6. Lint yield and fiber quality results for the advanced strain trial conducted in Safford, AZ, 2005.

Strain	Seed Cotton lbs/acre	Means Separation*	Percent Lint	Staple 32nds	Micronaire	Strength g/tex	Length inches	Uniformity
STX 0414B2RF	2460.2	a	41.7	37.5	4.60	29.4	1.18	82.5
DPLX 05X648DR	2167.3	a b	44.2	36.5	4.15	28.5	1.14	80.4
FMX 1003B2LL	2132.1	a b c	42.8	37.8	4.55	30.6	1.18	81.5
CS 38	2107.4	b c d	41.9	37.8	4.43	29.4	1.18	82.7
CS 44	2064.4	b c d e	42.8	36.3	4.88	30.4	1.13	80.1
ST 4554B2RF	2001.8	b c d e f	42.4	36.0	4.70	27.5	1.12	80.8
SCX-11	1979.4	b c d e f g	43.1	34.3	4.38	29.8	1.07	82.3
CS 37	1963.0	b c d e f g h	40.2	36.5	4.55	28.6	1.14	81.4
DP555BR	1955.7	b c d e f g h	42.3	36.6	3.75	29.1	1.14	80.2
ACGA 39	1935.2	b c d e f g h	40.0	36.3	4.33	28.8	1.14	80.6
ACGA 1	1934.7	b c d e f g h	38.1	36.8	4.50	29.6	1.14	82.0
FM 989B2R	1928.4	b c d e f g h	39.9	37.3	4.20	31.1	1.16	82.2
FM 960B2R	1917.9	b c d e f g h	40.9	37.0	4.45	30.6	1.15	81.7
FM 960RR	1917.3	b c d e f g h	41.5	37.0	4.00	30.9	1.15	81.0
DPLX03X179R	1917.0	b c d e f g h	44.8	37.0	4.53	30.3	1.16	83.2
DP449BR	1910.0	b c d e f g h	41.9	36.3	4.05	30.6	1.13	81.5
DP448B	1892.0	b c d e f g h	37.9	37.0	4.15	29.5	1.16	82.3
ST 5599BR	1883.6	b c d e f g h	41.4	36.3	4.48	28.3	1.14	80.2
ST 4664RF	1878.4	b c d e f g h	41.8	35.8	4.45	27.3	1.11	80.9
CS 41	1874.8	b c d e f g h	40.9	38.0	4.43	28.6	1.19	81.5
DPLX04Y170BR	1856.8	b c d e f g h	40.0	37.0	4.23	27.7	1.15	81.6
ST 4357B2RF	1848.1	b c d e f g h	39.9	37.0	4.10	26.4	1.15	80.2
SCX-12	1839.1	b c d e f g h i	40.0	35.0	4.28	30.9	1.09	82.3
SCX-246	1836.9	b c d e f g h i	39.0	37.0	4.45	31.1	1.16	81.7
ACGA 24	1825.5	c d e f g h i j	41.2	37.8	4.55	29.6	1.17	81.4
ACGA 20	1824.7	c d e f g h i j	39.1	37.3	4.53	30.8	1.16	81.6
DP 147RF	1811.8	c d e f g h i j k	42.1	36.5	4.08	27.9	1.15	79.9
ACGA 22	1798.7	c d e f g h i j k	39.5	36.5	4.13	30.1	1.14	81.1
ST 6611B2RF	1782.8	d e f g h i j k l	38.6	37.3	4.38	31.8	1.16	82.3
DP152RF	1779.4	d e f g h i j k l	39.7	38.0	3.95	28.1	1.19	81.0
ST 5007B2RF	1757.8	e f g h i j k l m	40.8	38.0	4.05	27.9	1.18	81.4
FM 958LL	1757.4	e f g h i j k l m	39.7	38.0	4.40	32.0	1.19	81.7
ST 6622RF	1747.8	e f g h i j k l m	39.6	37.3	4.53	32.2	1.17	81.2
ACGA 32	1729.0	f g h i j k l m	39.5	37.0	4.00	28.0	1.16	80.0
STX 0416B2R	1722.8	f g h i j k l m	38.9	35.8	4.58	27.1	1.12	80.7
FMX 9166B2LL	1719.4	f g h i j k l m	41.4	37.0	4.10	30.8	1.16	81.8
DP 113B2RF	1718.3	f g h i j k l m	42.9	36.8	4.35	31.5	1.14	81.3
DP 167RF	1715.5	f g h i j k l m	37.0	38.0	4.25	30.1	1.19	82.3
FMX 5863RRF	1713.8	f g h i j k l m	38.0	37.8	4.58	30.8	1.18	81.8
FM 966LL	1712.7	f g h i j k l m	40.0	36.8	4.40	33.5	1.16	83.1
CS 43	1682.1	f g h i j k l m	38.3	37.8	4.53	29.8	1.18	82.4
FMX 0222B2LL	1672.2	f g h i j k l m	38.2	36.5	4.48	29.6	1.14	80.3
DP 108RF	1669.5	f g h i j k l m	42.7	35.3	4.45	29.2	1.10	79.7
STX 5885B2RF	1666.2	g h i j k l m	36.0	38.0	4.18	29.5	1.19	82.5
ACGA 30	1661.8	g h i j k l m	37.9	37.0	4.28	30.5	1.15	81.4
ACGA 3	1645.1	h i j k l m	35.4	37.5	4.55	29.2	1.18	82.6
FMX 0052B2LL	1644.6	h i j k l m	38.8	37.0	4.65	28.7	1.16	81.4
ACGA 13	1513.6	i j k l m	38.6	36.8	3.95	28.8	1.15	80.5
DP 117B2RF	1507.7	i j k l m	42.5	36.0	4.55	30.4	1.12	79.8
DP 164B2RF	1494.7	j k l m	39.1	38.3	4.25	28.7	1.21	81.3
DP 110RF	1489.0	k l m	43.9	36.3	4.68	31.9	1.13	82.4
DP 156B2RF	1463.9	l m	37.3	36.8	3.85	29.1	1.15	81.0
CS 42	1432.3	m	39.6	37.8	4.53	30.0	1.18	81.6
LSD§	334.3		0.04	1.4	0.35	2.2	0.05	1.7
OSL†	0.0001		0.0005	0.0001	0.0001	0.0001	0.0001	0.0001
CV‡	13.1		7.3	2.8	5.8	5.3	2.9	1.5

*Means followed by the same letter are not statistically different according to a Fisher's least significant difference means separation test.

§ Least Significant Difference

† Observed Significance Level

‡ Coefficient of Variation

Table 7. End of season plant measurement data, average seedcotton weight per boll, premium/discount and crop value, Safford, AZ, 2005.

Strain	Final Plant Height (in.)	Average First Fruiting Branch	Number of Mainstem Nodes	Average Seecotton Weight per Boll	Points Premium/Discount	Crop Value \$/acre
ACGA 1	40.2	6.0	26.5	4.8	545	1112
ACGA 13	47.2	6.0	29.5	3.4	551	870
ACGA 20	34.5	7.3	25.3	4.0	631	1064
ACGA 22	43.4	9.0	27.0	4.8	549	1035
ACGA 24	37.5	8.0	27.5	4.3	594	1058
ACGA 3	41.9	8.3	29.3	4.7	574	949
ACGA 30	36.9	6.8	26.0	4.4	635	970
ACGA 32	45.6	7.0	26.8	3.6	585	1000
ACGA 39	35.6	7.8	27.0	4.2	575	1122
CS 37	45.0	7.3	25.3	3.9	591	1137
CS 38	50.0	6.3	29.5	4.1	551	1222
CS 41	41.9	6.8	26.3	4.7	538	1077
CS 42	44.5	7.3	25.3	5.0	593	829
CS 43	49.9	8.0	31.0	3.8	629	980
CS 44	39.7	6.3	24.5	3.7	510	1181
DPLX03X179R	45.8	7.5	28.0	4.0	639	1120
DP 164B2RF	48.9	7.0	25.3	3.8	484	853
DP 167RF	46.0	6.3	27.5	4.3	636	1001
DP 156B2RF	45.5	6.8	29.8	3.7	604	849
DP 147RF	45.4	7.8	30.0	4.0	298	997
DP152RF	47.7	8.0	30.8	3.8	604	1033
DPLX04Y170BR	56.2	8.3	26.8	4.2	538	1067
DP 113B2RF	36.3	8.0	24.0	4.3	180	923
DP 117B2RF	34.8	7.8	23.0	4.3	291	831
DP 108RF	34.4	5.8	25.8	4.3	323	920
DP 110RF	46.3	9.8	24.3	4.1	314	832
DPLX 05X648DR	44.8	7.5	28.3	3.4	528	1246
DP448B	46.9	8.0	26.3	3.7	638	1105
DP449BR	46.0	6.8	25.3	3.7	625	1112
DP555BR	50.2	8.8	31.4	3.8	556	1126
FMX 0052B2LL	39.2	8.3	27.3	4.2	478	933
FMX 0222B2LL	43.7	6.8	27.0	4.7	599	970
FMX 1003B2LL	37.4	5.8	24.0	3.7	539	1227
FMX 5863RRF	40.8	6.8	26.0	4.8	485	979
FMX 9166B2LL	47.7	7.5	29.0	4.1	660	1008
FM 958LL	34.6	7.8	27.3	4.7	616	1022
FM 960B2R	41.6	7.0	28.3	5.3	636	1119
FM 960RR	41.9	7.8	26.8	4.5	566	1105
FM 966LL	48.1	6.3	25.0	4.6	664	1004
FM 989B2R	43.2	8.3	28.5	4.4	648	1127
ST 4664RF	39.0	6.3	25.0	4.3	340	1042
ST 6622RF	46.8	8.3	27.3	3.7	636	1020
ST 4554B2RF	39.1	8.0	24.5	3.6	398	1122
STX 5885B2RF	45.9	7.3	27.3	4.1	580	964
ST 6611B2RF	58.4	7.5	33.0	4.3	594	1035
STX 0414B2RF	59.5	7.5	28.8	3.8	620	1433
STX 0416B2R	42.0	7.5	26.8	4.2	276	940
ST 4357B2RF	40.3	6.3	27.5	3.6	416	1036
ST 5007B2RF	40.6	6.0	25.8	3.3	566	1013
SCX-11	46.1	7.5	26.5	4.2	346	1101
SCX-12	42.2	7.3	24.8	3.6	460	1041
SCX-246	48.1	8.0	27.3	4.1	620	1069
ST 5599BR	43.0	6.0	27.5	4.4	548	1084

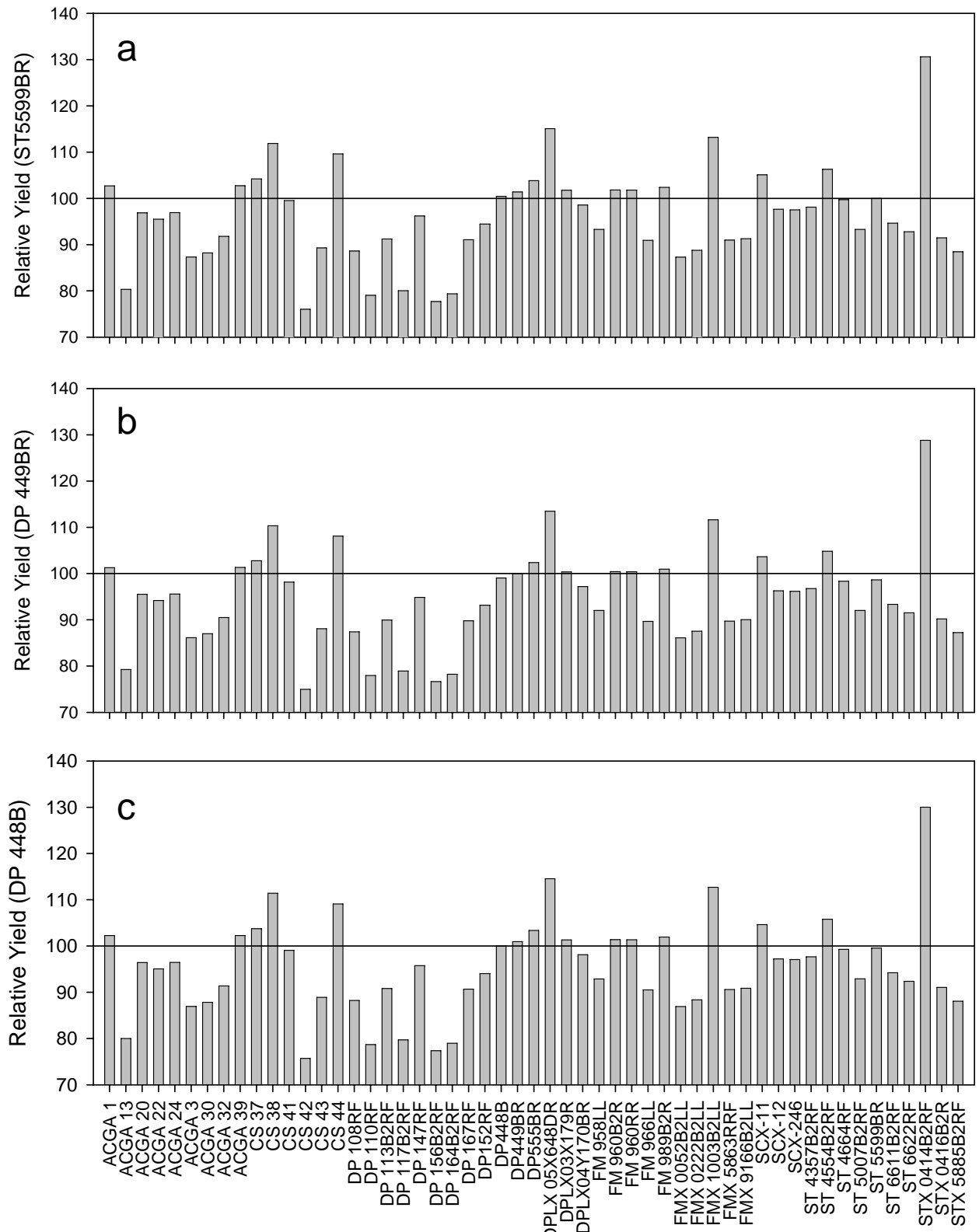


Figure 33. Percent relative lint yield for each of the advanced strain entries. Relative lint yield was calculated by dividing the mean yield of the strain by mean lint yield of each of the commercial variety controls in this trial (a) ST5599BR, (b) DP449BR and (c) DP448B at Safford, AZ, 2005.

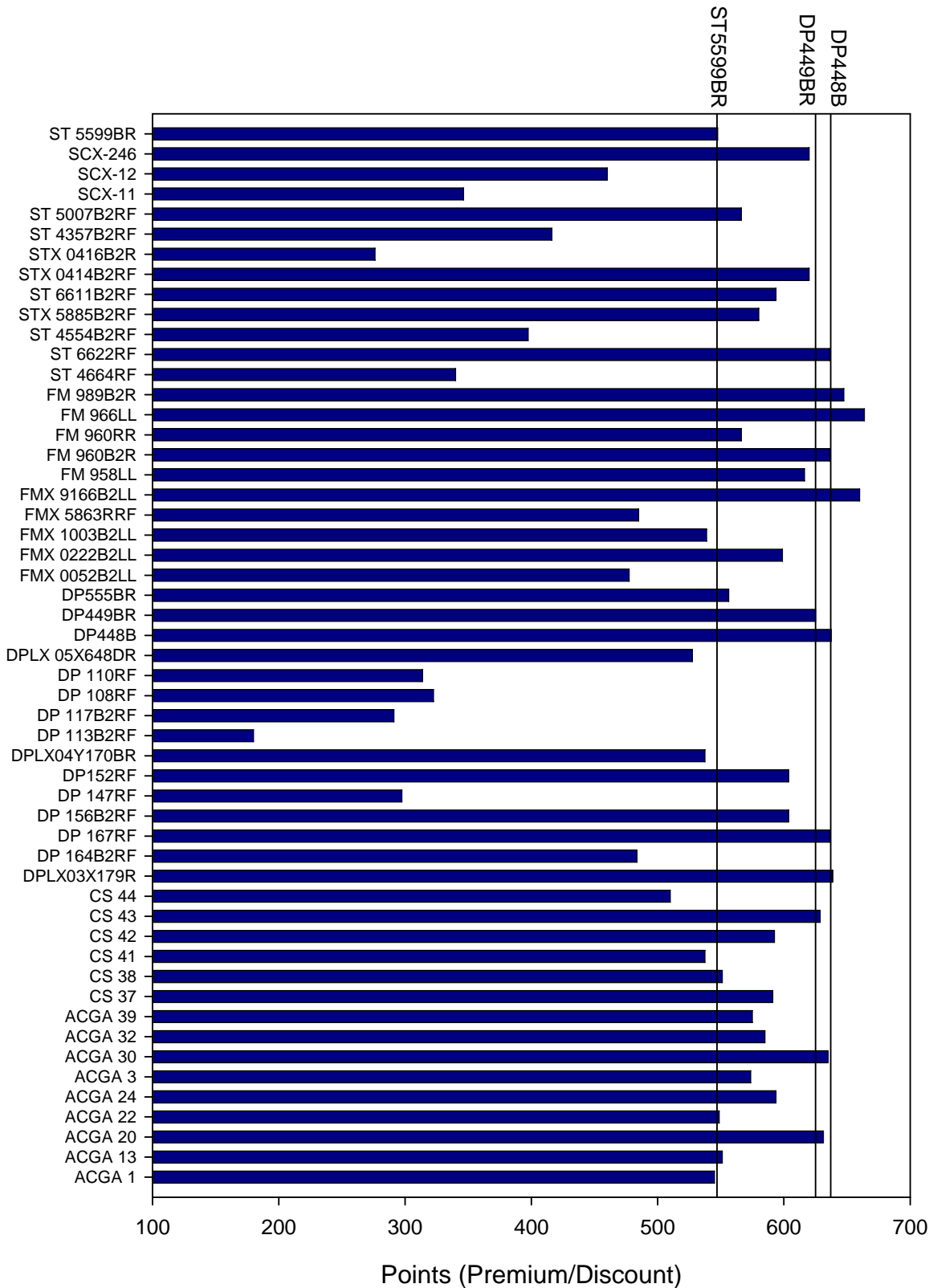


Figure 34. Points associated with the premium and discounts based upon fiber quality characteristics for each entered strain. Points were determined using the 2005 CCC loan schedule for Upland cotton. Vertical lines indicate points level for each commercial variety control. Data from Safford, AZ, 2005.

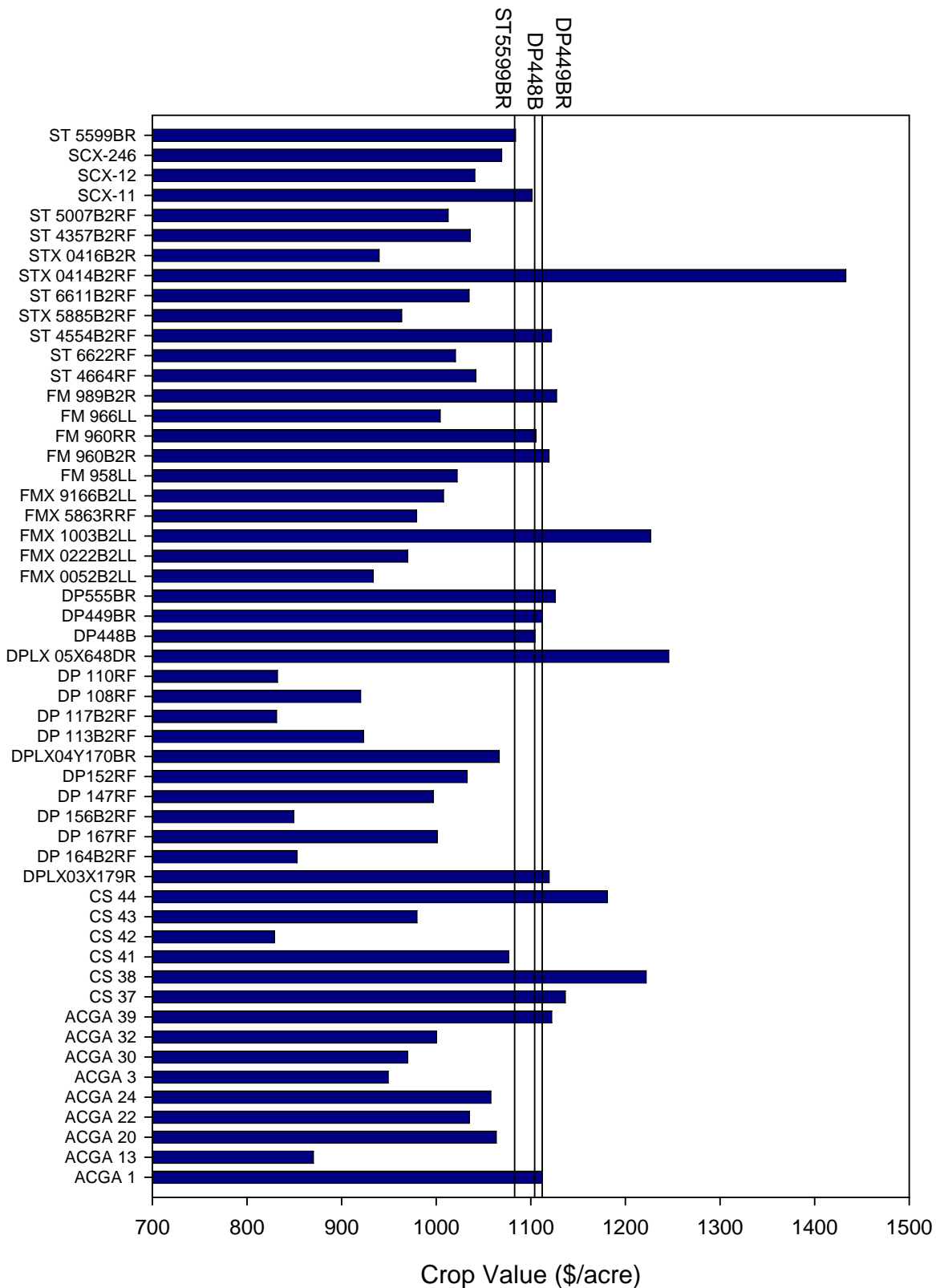


Figure 35. Total crop value for each entered strain. Final crop price was calculated from a base price of 52.00 cents/pound plus premiums/discounts for fiber quality. Total crop value was calculated by multiplying the final price by lint yield. Vertical lines indicate crop value levels for each commercial variety control. Data from Safford, AZ, 2005.

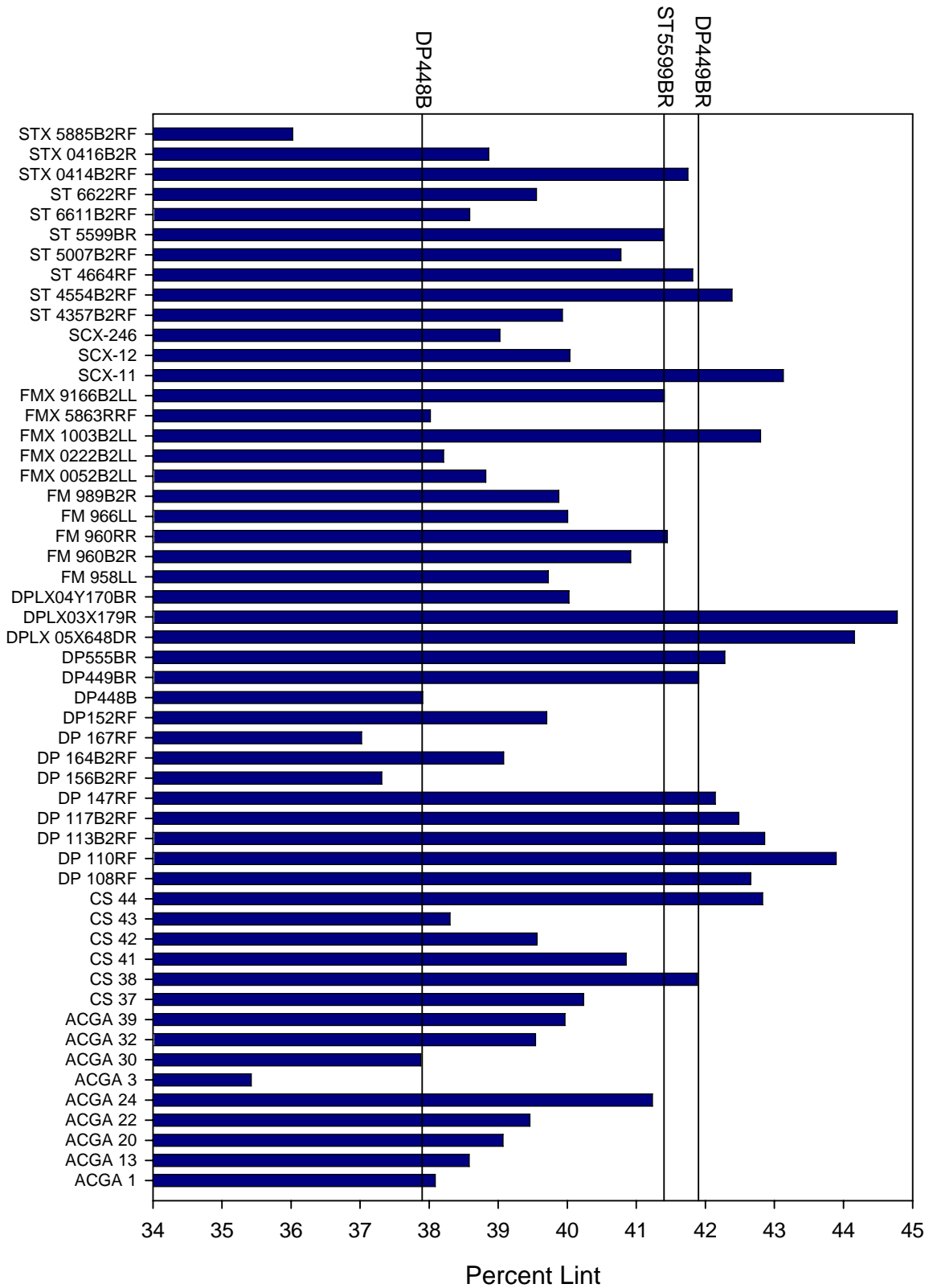


Figure 36. Percent lint for each entered strain. Percent lint was determined by ginning a 50 boll sample from each experimental unit. Vertical lines indicate percent lint levels for each commercial variety control. Data from Safford, AZ, 2005.

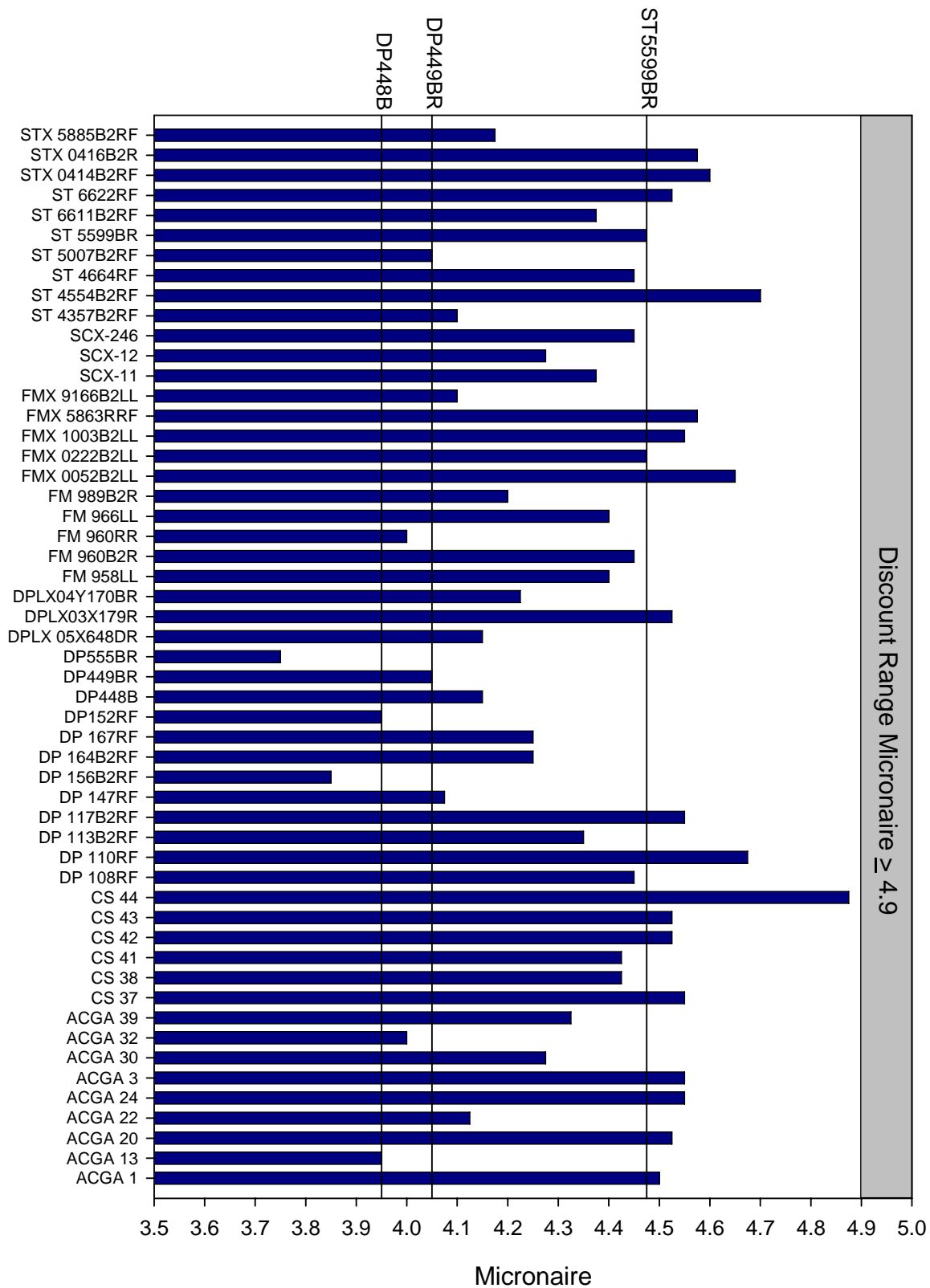


Figure 37. Fiber micronaire values for each entered strain. Discount range for fiber micronaire is indicated by grey box. Vertical lines indicate micronaire levels for each commercial variety control. Data from Safford, AZ, 2005.

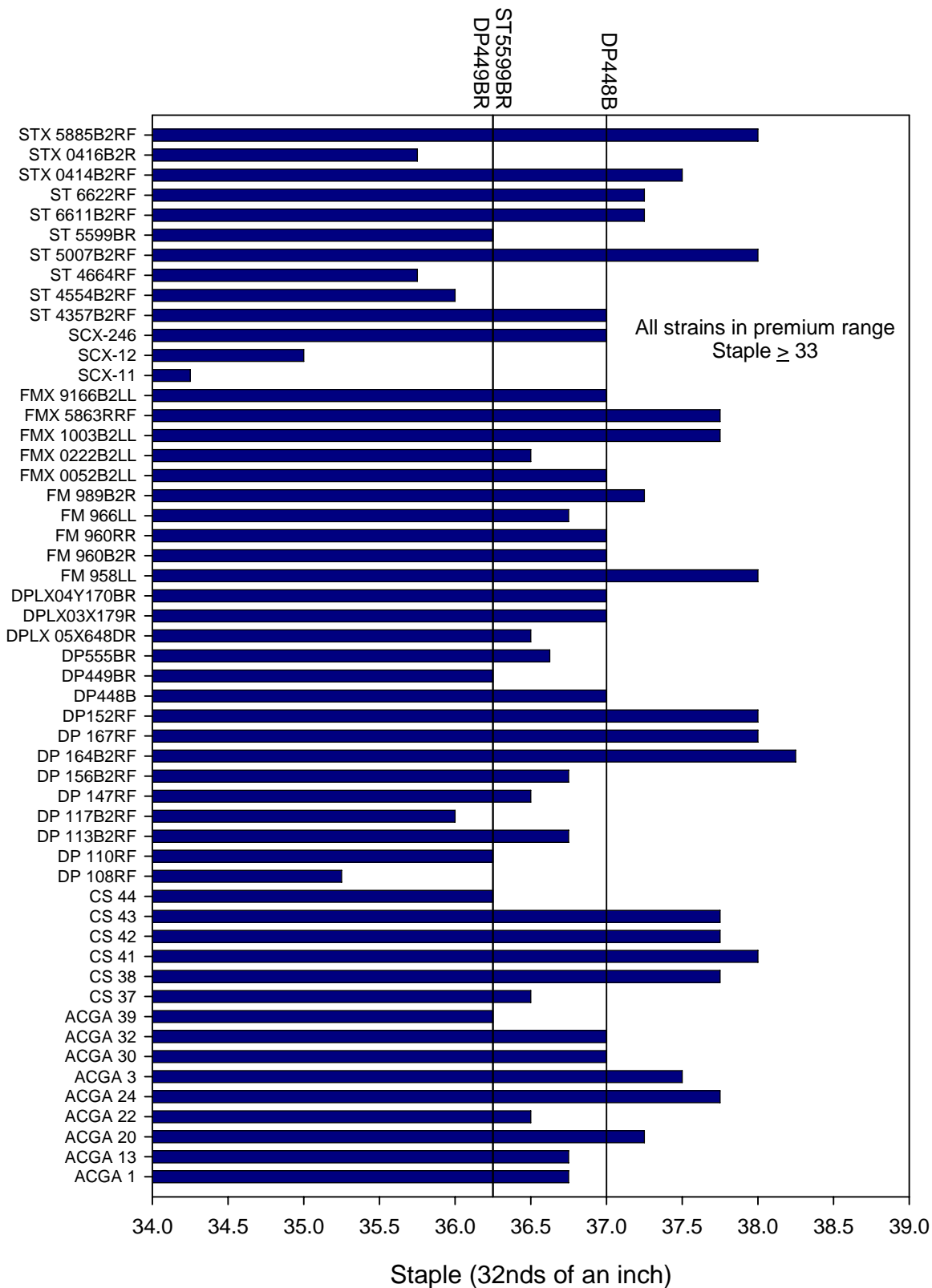


Figure 38. Fiber staple (32nds) values for each entered strain. All entered strains fell in the premium range for fiber staple. Vertical lines indicate staple levels for each commercial variety control. Data from Safford, AZ, 2005.

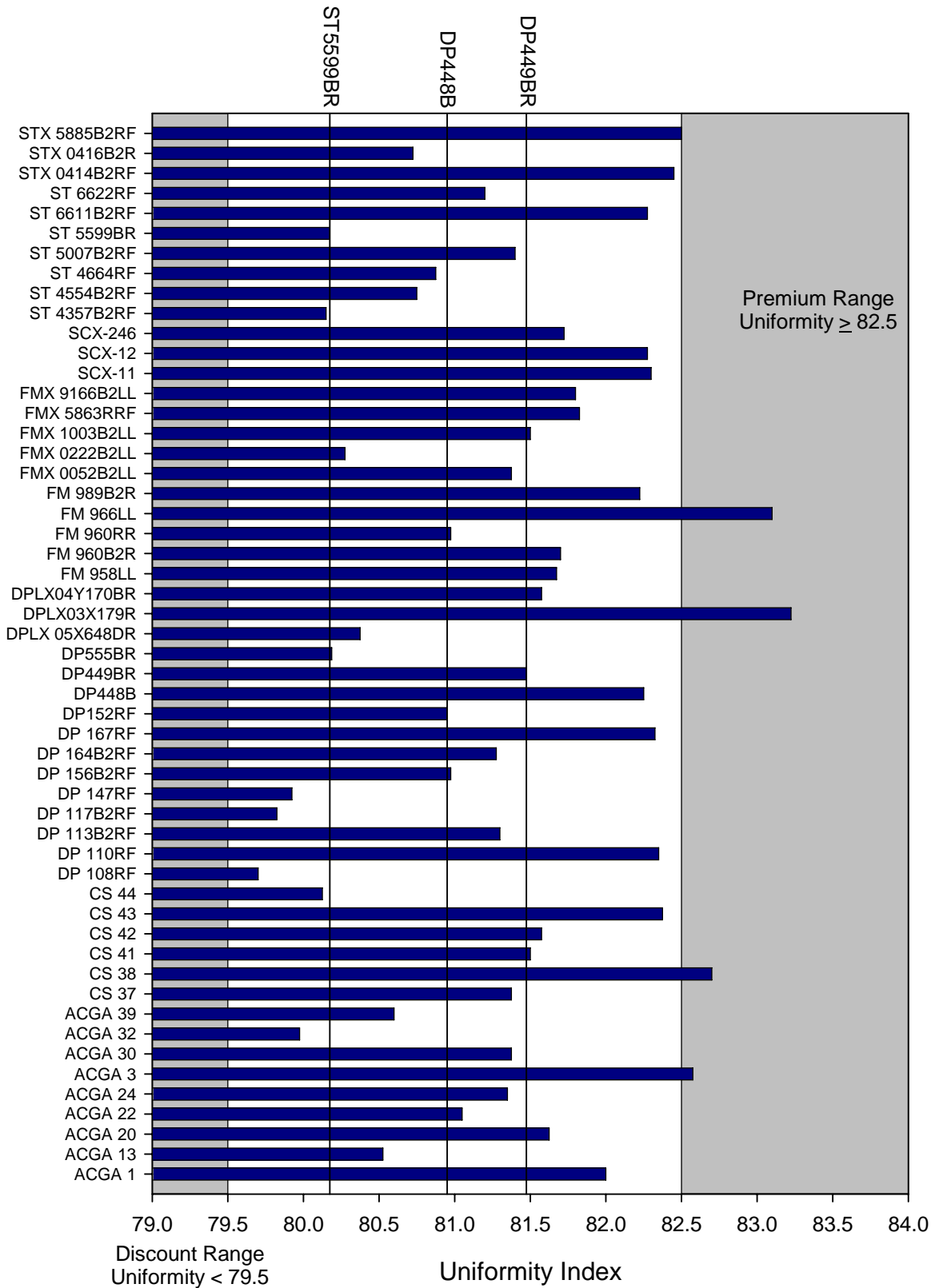


Figure 39. Fiber uniformity index values for each entered strain. Premium/Discount range for fiber uniformity is indicated by grey box. Vertical lines indicate uniformity levels for each commercial variety control. Data from Safford, AZ, 2005.

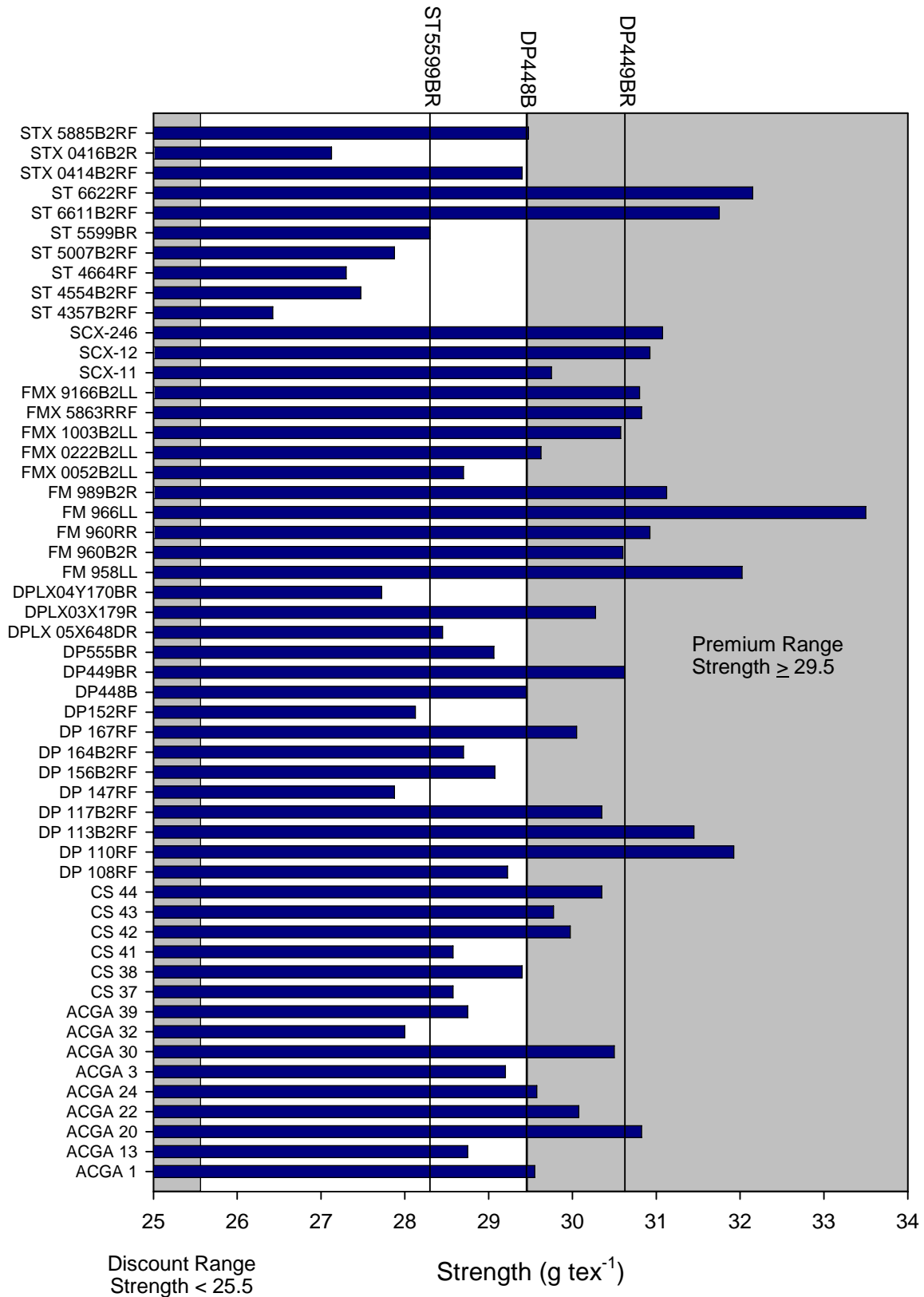


Figure 40. Fiber strength (g tex^{-1}) values for each entered strain. Premium/Discount range for fiber strength is indicated by grey box. Vertical lines indicate strength levels for each commercial variety control. Data from Safford, AZ, 2005.

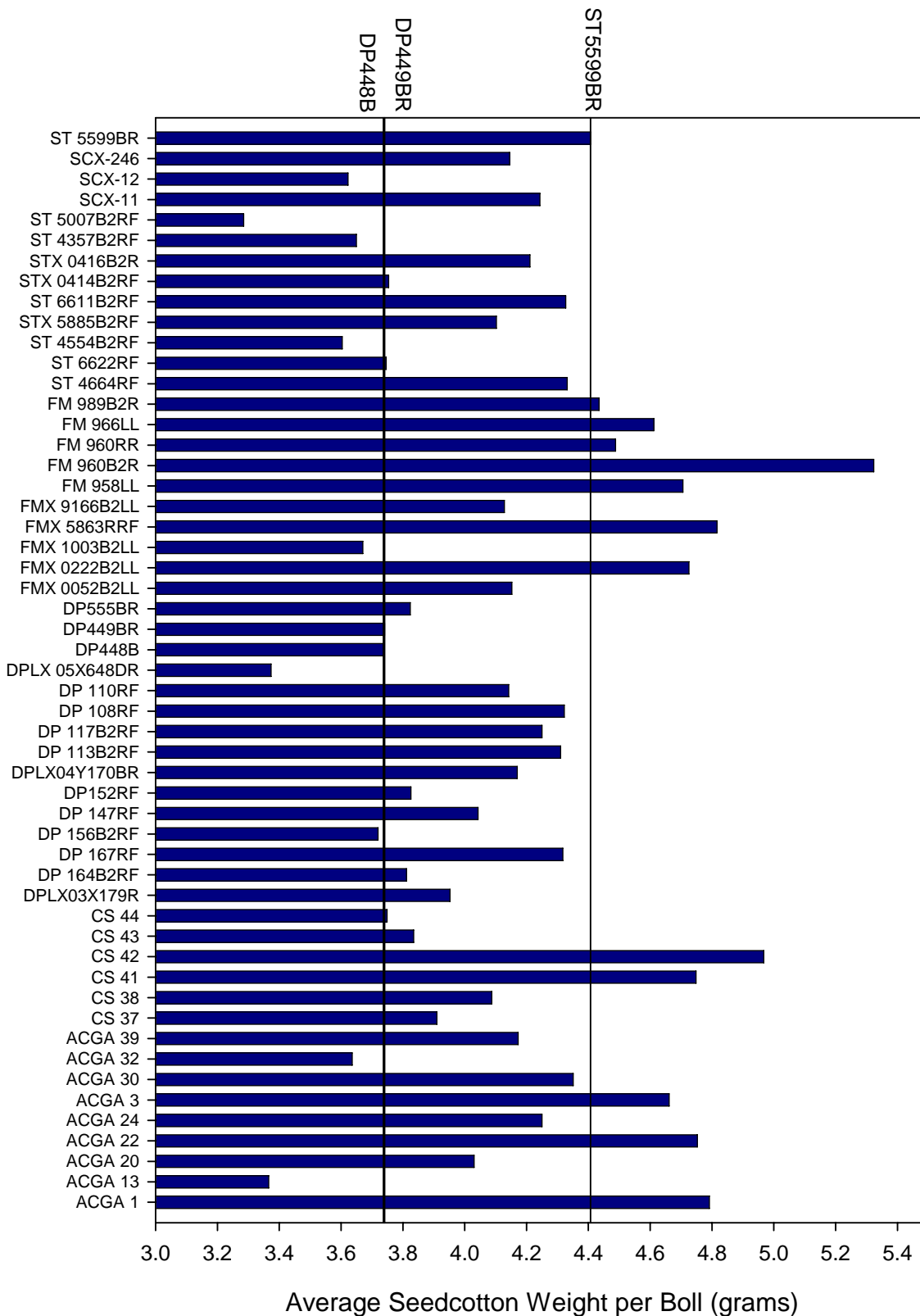


Figure 41. Average seedcotton weight (grams) per boll for each entered strain. Vertical lines indicate weight levels for each commercial variety control. Data from Safford, AZ, 2005.

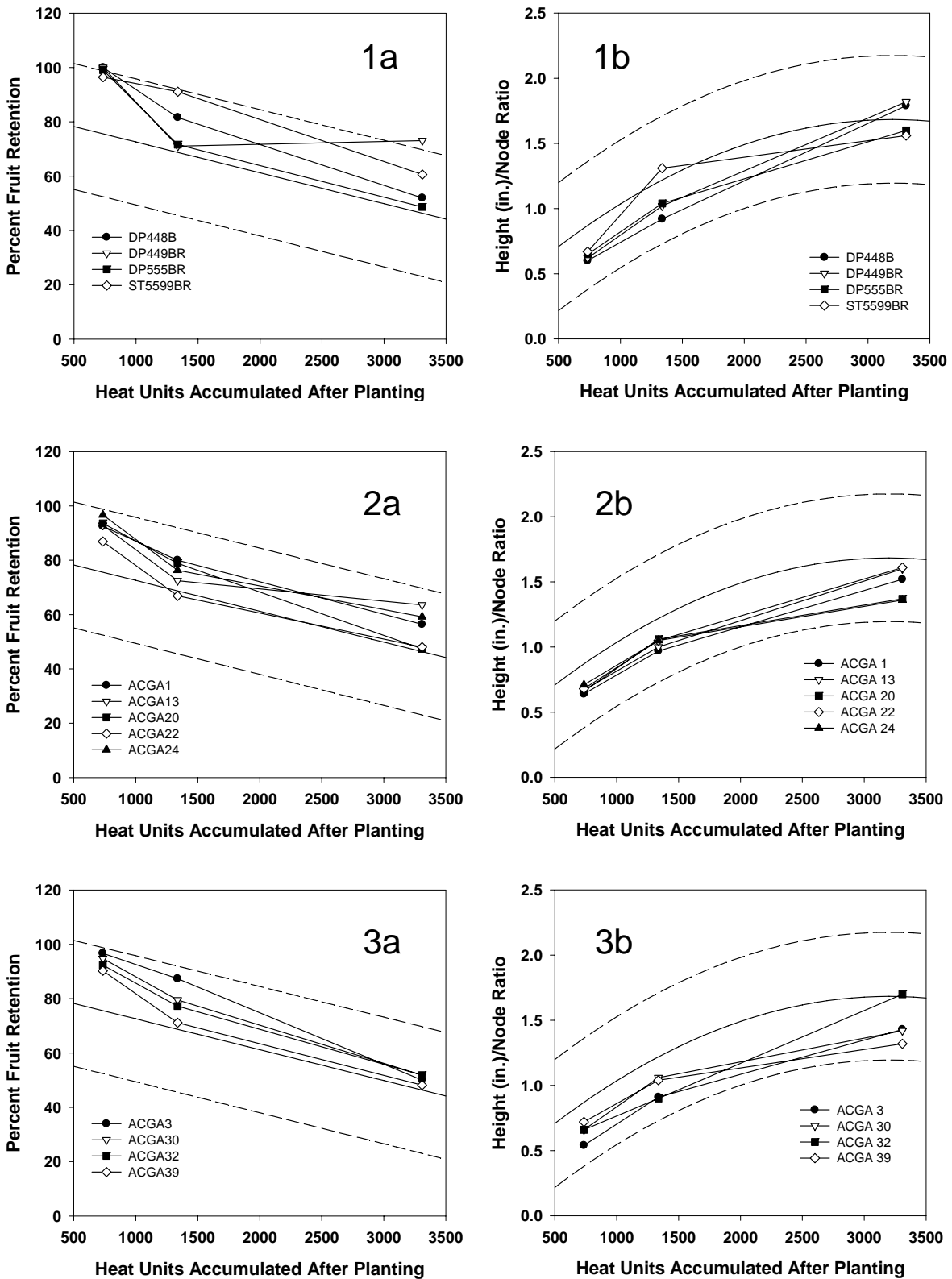


Figure 42. Percent fruit retention (a) and height to node ratio (b) levels for the control varieties (1) and ACGA (2 and 3) advanced strains planted at Safford, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

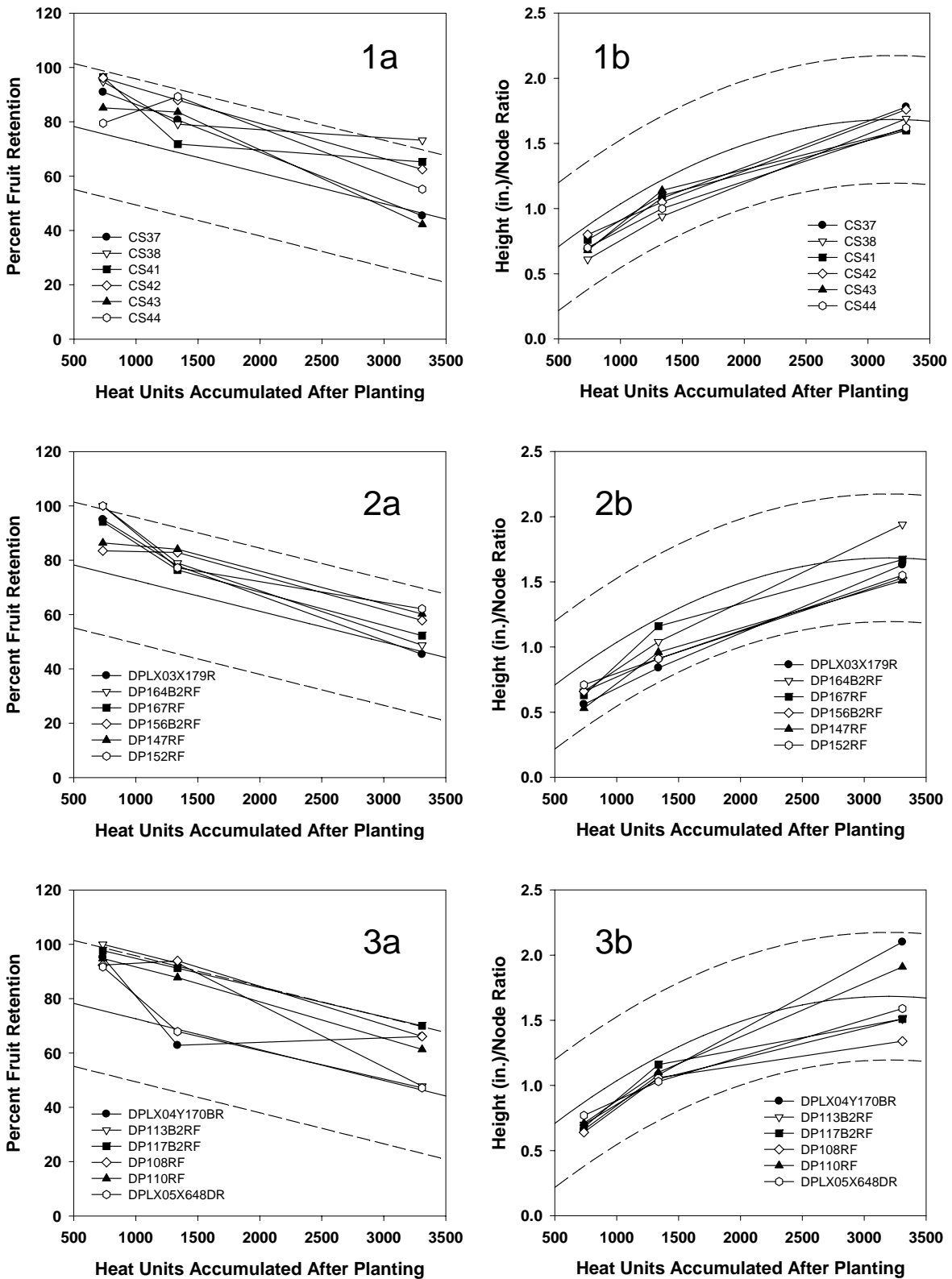


Figure 43. Percent fruit retention (a) and height to node ratio (b) levels for CPCSD (1) and Deltapine (2 and 3) advanced strains planted at Safford, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

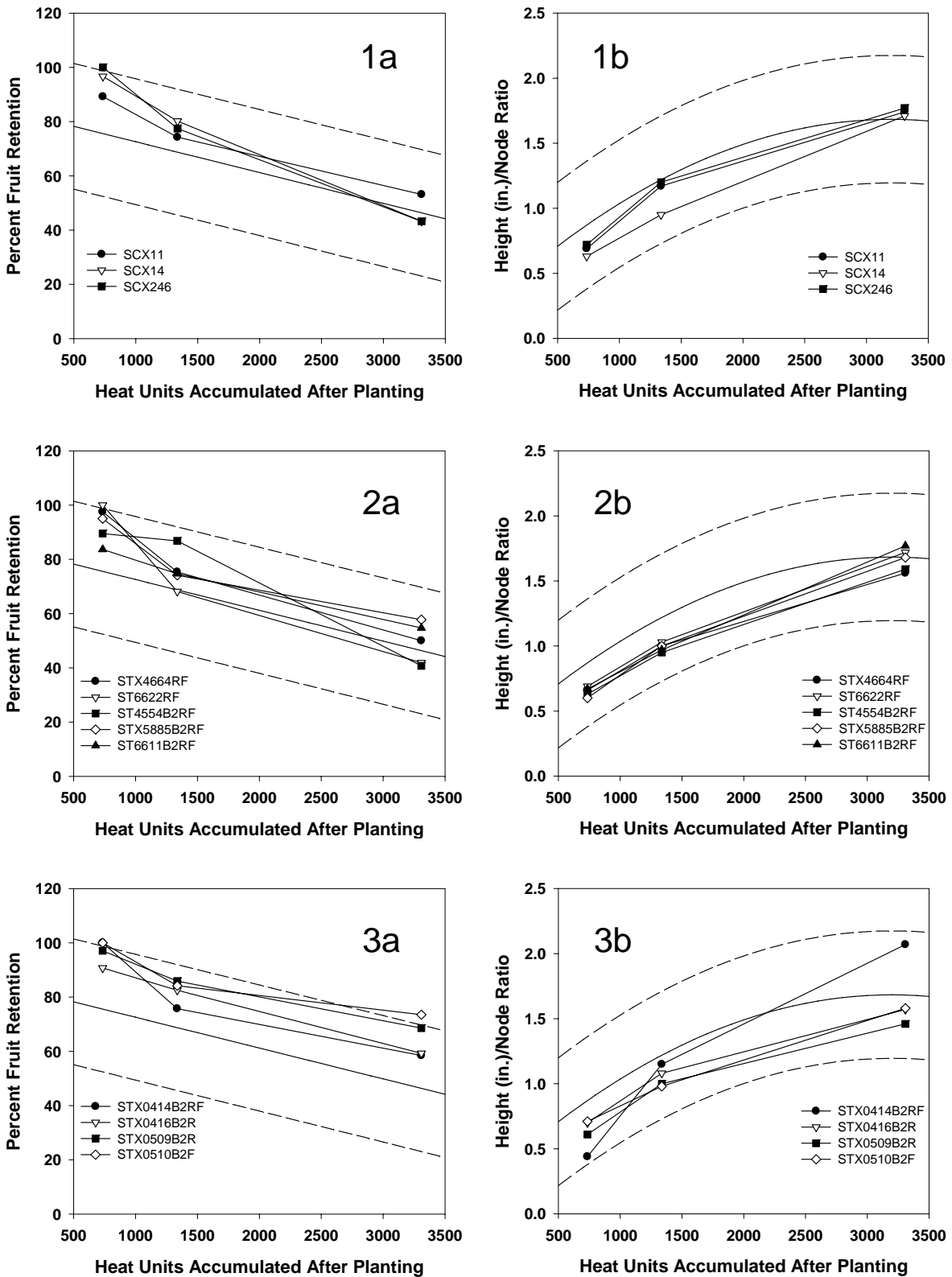


Figure 44. Percent fruit retention (a) and height to node ratio (b) levels for Salcot (1) and Stoneville (2 and 3) advanced strains planted at Safford, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

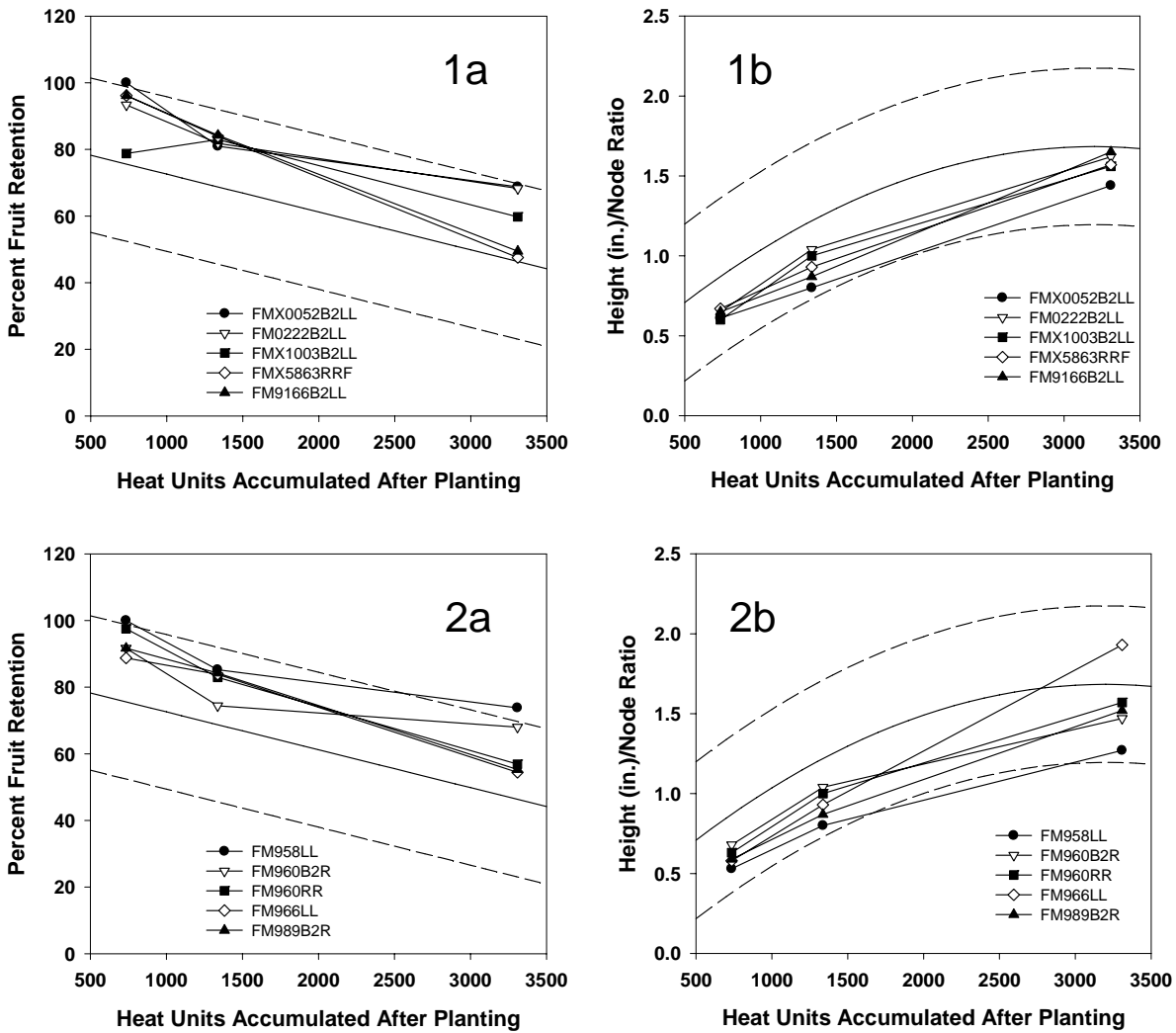


Figure 45. Percent fruit retention (a) and height to node ratio (b) levels for FiberMax (1 and 2) advanced strains planted at Safford, AZ, 2005. The data are plotted as a function of heat units accumulated after planting. Solid and dotted lines represent baseline and upper/lower confidence intervals respectively for the two parameters.

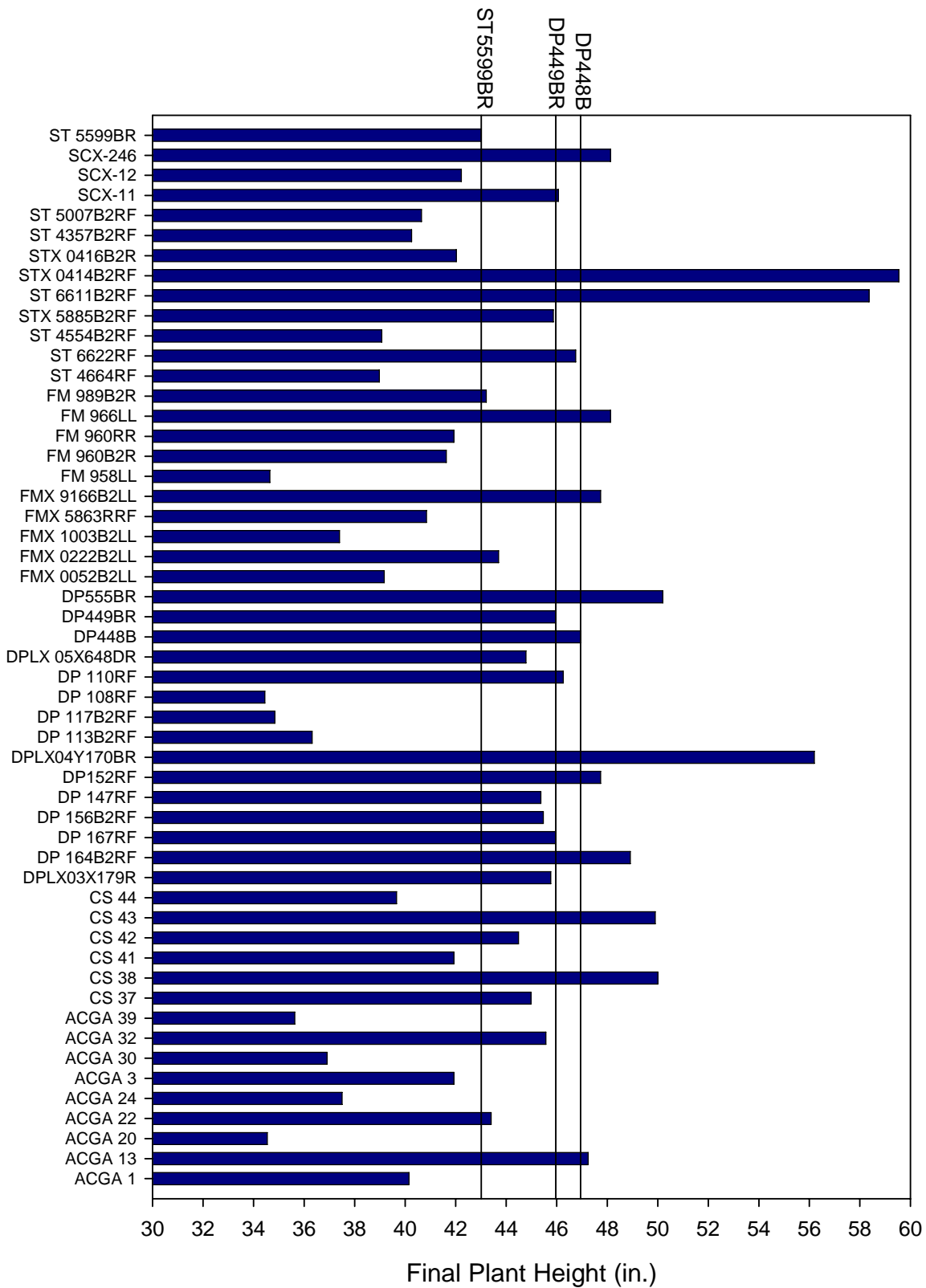


Figure 46. Average final plant height for each entered strain. Vertical lines indicate height levels for each commercial variety control. Data from Safford, AZ, 2005.

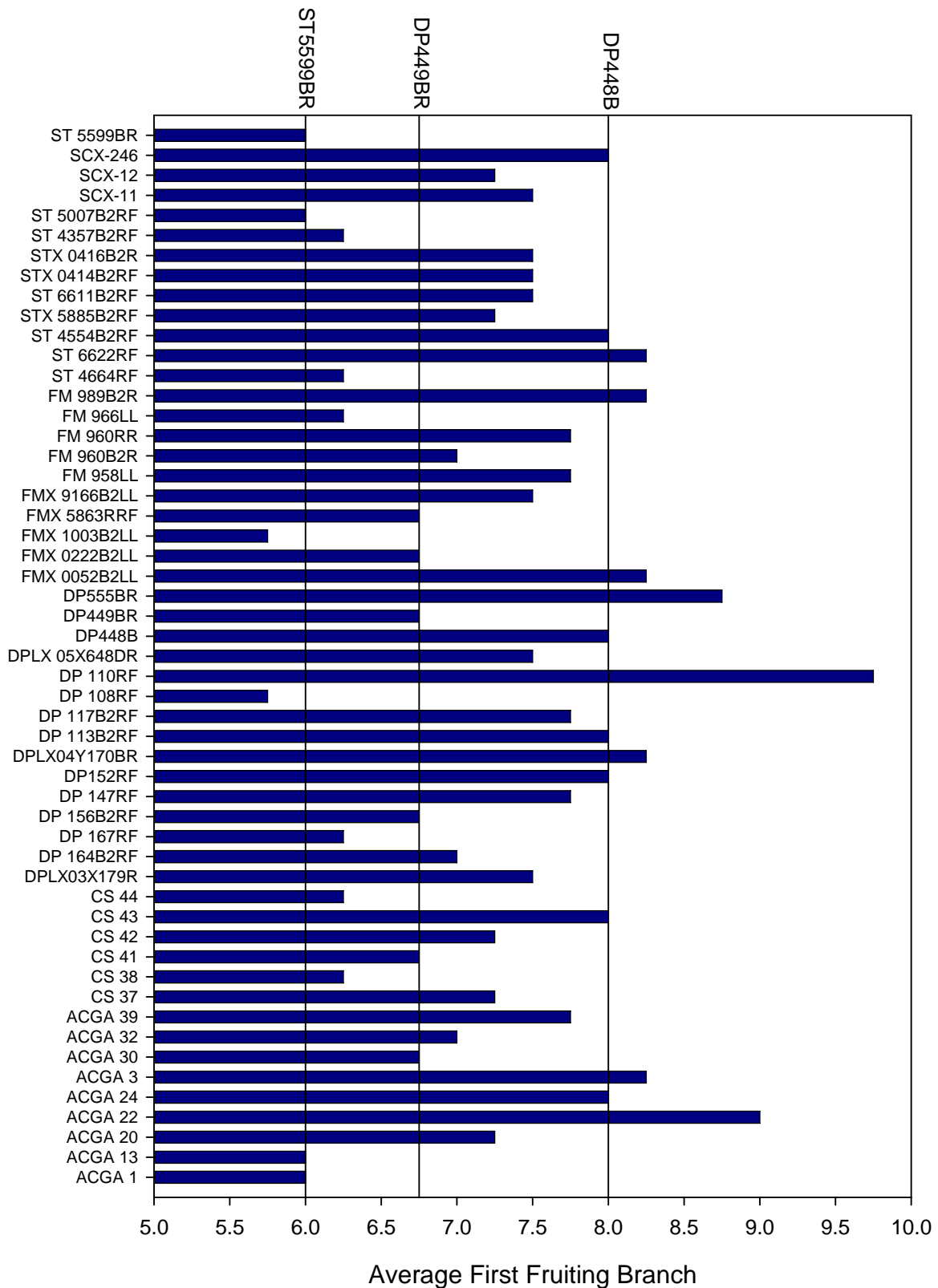


Figure 47. Average first fruiting branch for each entered strain. Vertical lines indicate first fruiting branch levels for each commercial variety control. Data from Safford, AZ, 2005.

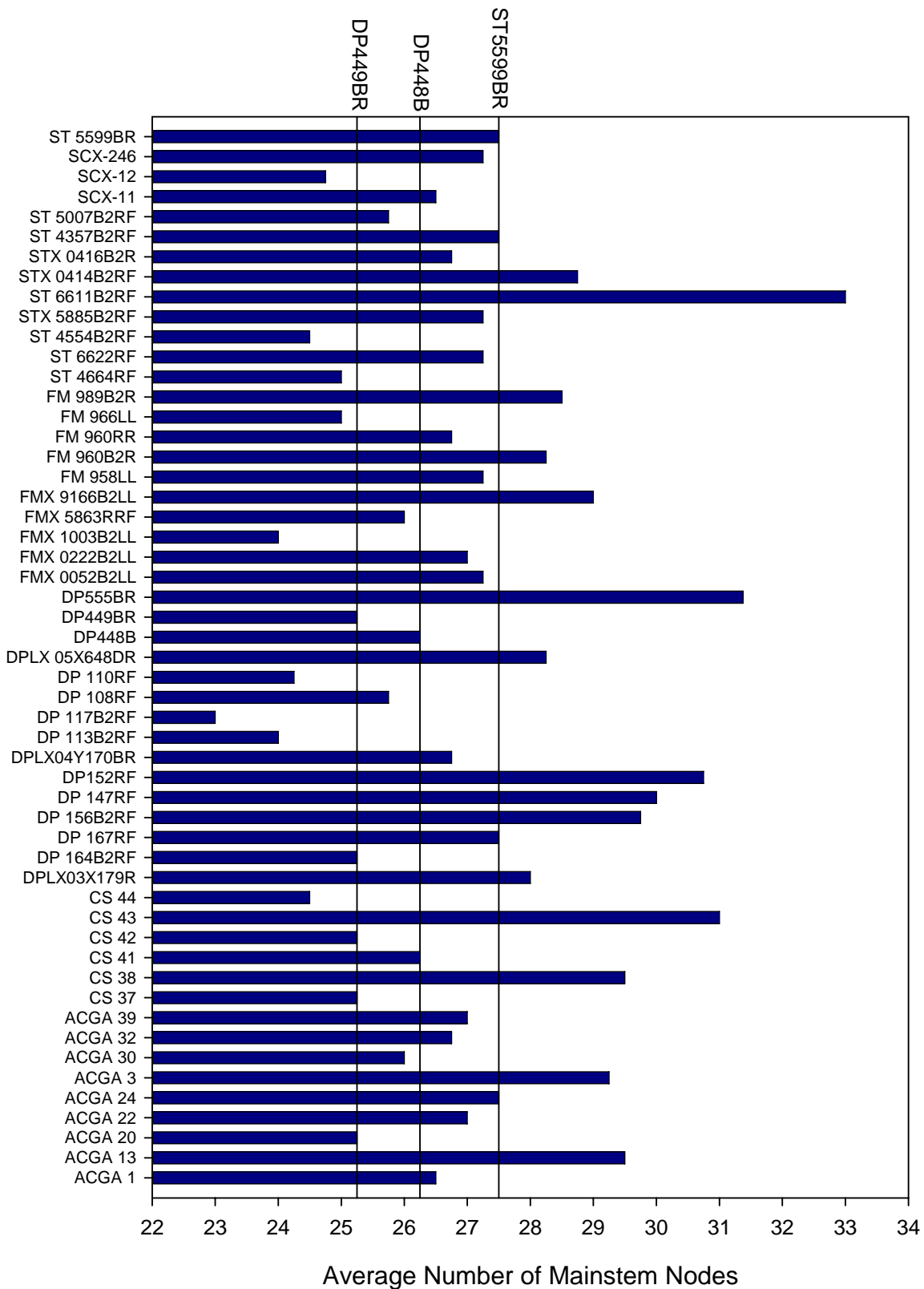


Figure 48. Average total number of mainstem nodes for each entered strain. Vertical lines indicate mainstem node numbers for each commercial variety control. Data from Safford, AZ, 2005.