

Evaluation of Peanut Varieties in Mississippi

Seven varieties were selected based on seed availability and grower interest. These varieties included: Georgia Green, Georgia O6G, Georgia Greener, Florida 07, Georgia O7W, AT 215, and Georgia O9B. Study locations included Lucedale, Hamilton, and Stoneville, Mississippi. Plots were arranged in a randomized complete block design with four replications. Plots were 50 feet long by 4 rows wide. In Lucedale and Stoneville locations, the study was planted "early" and "late" in the planting season to determine if differences were detected in planting dates. Only the later planting date was in the Hamilton location due to weather problems. Each study had Georgia Green, Georgia O6G, Georgia Greener, Florida 07, Georgia O7W, and the later plantings at Lucedale and Hamilton had the addition of AT 215 and Georgia O9B. These two varieties were not included in the early studies because AT 215 has proven to be successful only if planted in mid May or later, and Georgia O9B had only enough seed for two locations.

Early planting dates were planted on April 25 and May 4 in Lucedale and Stoneville respectively. Later planting dates were planted on May 21 in Lucedale, May 24 in Stoneville, and May 28 in Hamilton. Plots were managed under standard production practices in each area, and treated the same at each location. Plots were dug based on pod blasting results, and the center two rows in each plot were harvested to determine yield. After the harvested rows had been weighed, a sample was taken from the bag for grade determination.

In the early planted variety trials, Georgia O6G and Georgia Greener yielded significantly higher at the Lucedale location than the other varieties. Georgia Green and Georgia O7W yielded significantly lower than all other varieties. At the Stoneville location, Georgia Greener yielded significantly higher than Florida 07, but both were statistically similar to the other varieties. When data from both locations were combined, Georgia O6G and Georgia Greener yielded significantly higher than Florida 07.

In the later planted trial at Lucedale, Georgia O6G and Georgia Greener yielded significantly higher than all other varieties. Florida 07 and Georgia O9B were statistically similar, however both yielded statistically higher than Georgia Green, Georgia O7W, and AT 215. Georgia Green had significantly higher yields than did Georgia O7W and AT 215, and AT 215 had significantly lower yields than all other varieties. At the Hamilton location, Georgia O6G and Georgia Greener once again yielded significantly higher than all other varieties. Georgia O9B yielded significantly higher than Georgia Green, and AT 215, and AT 215 yielded significantly lower than all other varieties. In the Stoneville location, Georgia O6G and Georgia Greener had significantly higher yields than did Georgia Green and Georgia O7W, but were statistically similar to Florida 07. When data from these three locations were averaged together, Georgia O6G and Georgia Greener had significantly higher yields than all other varieties. When the data from the five individual trials were averaged together, Georgia O6G and Georgia Greener once again had significantly higher yields than all other varieties.

Table 1. Early Planted Peanut Variety Trials

Description Rating Type Rating Unit	Lucedale Yield lbs/acre	Stoneville Yield lbs/acre	Early Planted Avg Yield lbs/acre
Trt Treatment No. Name			
1 Georgia Green	4515 c	4863 ab	4689 ab
2 Georgia O6G	4896 a	5026 ab	4961 a
3 FI 07	4768 b	4013 b	4390 b
4 Georgia Greener	4840 a	5190 a	5015 a
5 Georgia O7W	4531 c	4909 ab	4720 ab
LSD (P=.05)	67.1	772.1	369.4
Standard Deviation	43.5	501.1	239.7
CV	0.92	10.44	5.04
Grand Mean	4710.0	4800.1	4755.05
Bartlett's X2	4.548	3.386	3.471
P(Bartlett's X2)	0.337	0.495	0.482
Friedman's X2	15.2	7.0	9.6
P(Friedman's X2)	0.004	0.136	0.048

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Table 2. Late Planted Peanut Variety Trials

Description Rating Type Rating Unit	Lucedale Yield lbs/acre	Hamilton Yield lbs/acre	Stoneville Yield lbs/acre	Late Planted Avg Yield lbs/acre
Trt Treatment No. Name				
1 Georgia Green	4294 d	2858 c	3849 b	3667 b
2 Georgia O6G	5006 a	3409 a	4506 a	4395 a
3 FI 07	4731 b	2941 bc	4140 ab	3938 b
4 Georgia Greener	4959 a	3409 a	4775 a	4291 a
5 Georgia O7W	4519 c	2985 bc	3734 b	3746 b
6 AT 215	3950 e	2151 d		
7 Georgia O9B	4821 b	3119 b		
LSD (P=.05)	134.3	177.6	531.37	319.5
Standard Deviation	90.4	119.6	344.87	207.4
CV	1.96	4.01	8.21	5.17
Grand Mean	4611.43	2981.61	4200.99	4007.36
Bartlett's X2	2.584	8.105	1.249	0.982
P(Bartlett's X2)	0.859	0.23	0.87	0.912
Friedman's X2	22.58	22.821	11.6	13.6
P(Friedman's X2)	0.001	0.001	0.021	0.009

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Table 3. Average of All Planting Dates and Locations

Description Rating Type Rating Unit	All Locations Avg Yield lbs/acre
Trt Treatment	
No. Name	
1 Georgia Green	4076b
2 Georgia O6G	4622a
3 FI 07	4069b
4 Georgia Greener	4581a
5 Georgia O7W	4136b
LSD (P=.05)	276.2
Standard Deviation	179.2
CV	4.17
Grand Mean	4296.43
Bartlett's X2	11.12
P(Bartlett's X2)	0.025*
Friedman's X2	12.8
P(Friedman's X2)	0.012

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Figure 1. Early Planted Peanut Variety Trial, Lucedale, MS

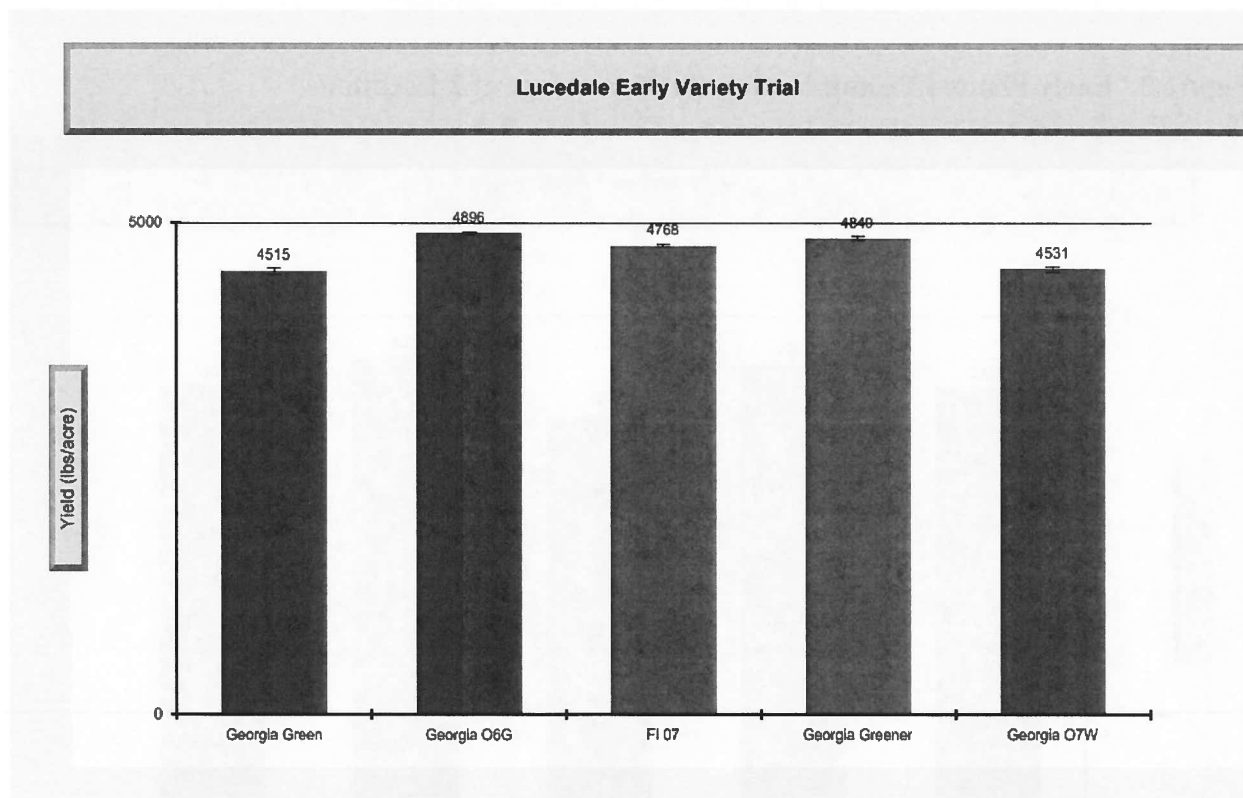


Figure 2. Early Planted Peanut Variety Trial, Stoneville, MS

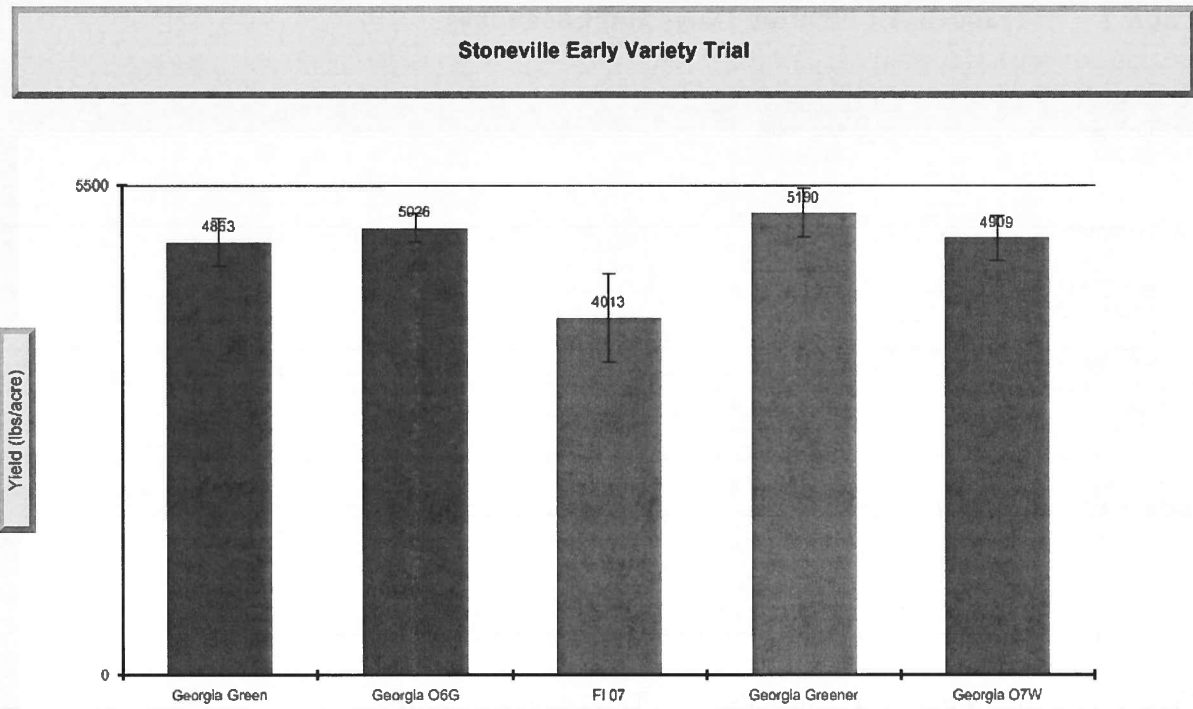


Figure 3. Early Planted Peanut Variety Trial, Average of 2 Locations

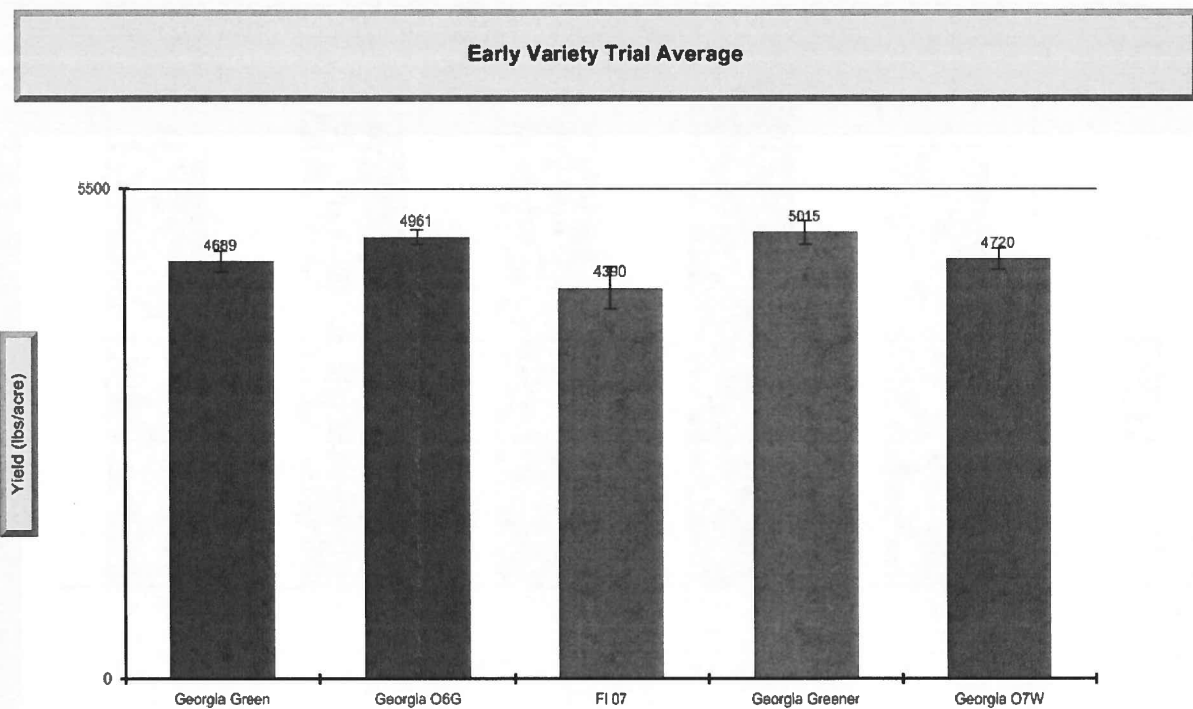


Figure 4. Late Planted Peanut Variety Trial, Lucedale, MS

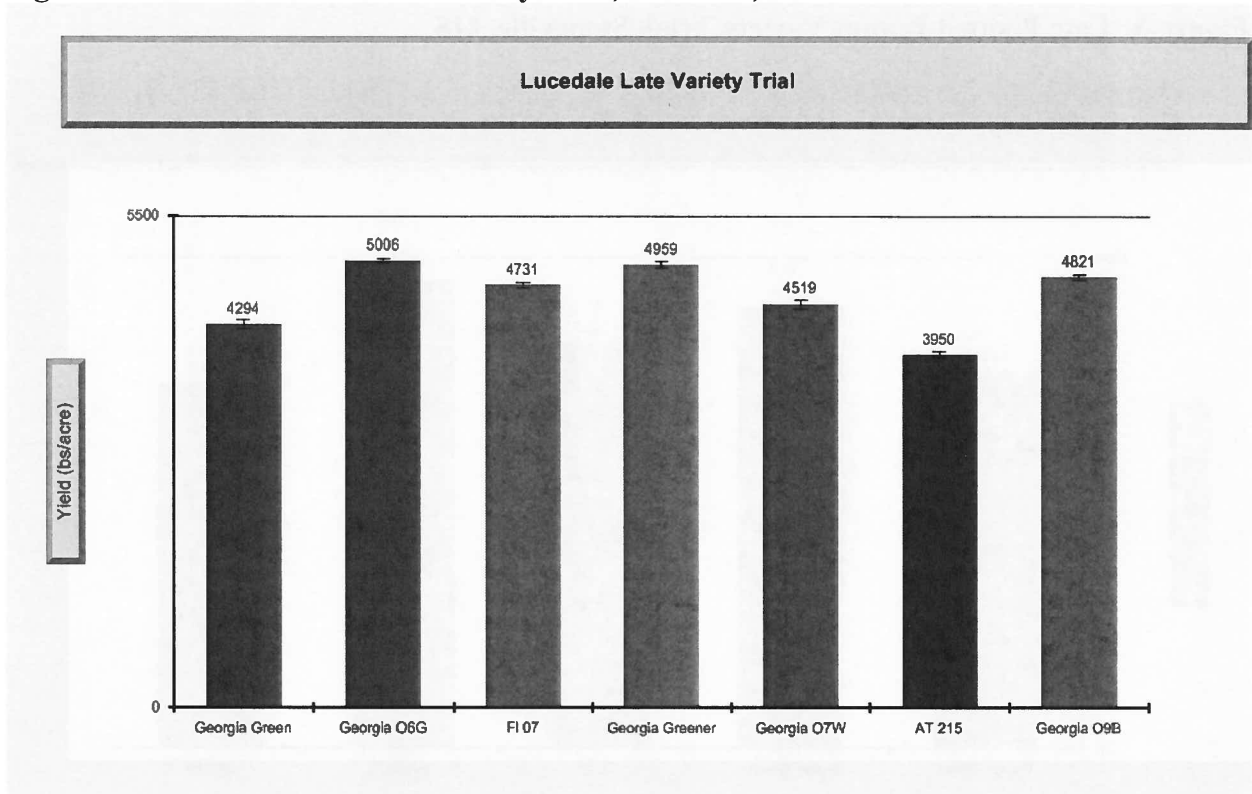


Figure 5. Late Planted Peanut Variety Trial, Hamilton, MS

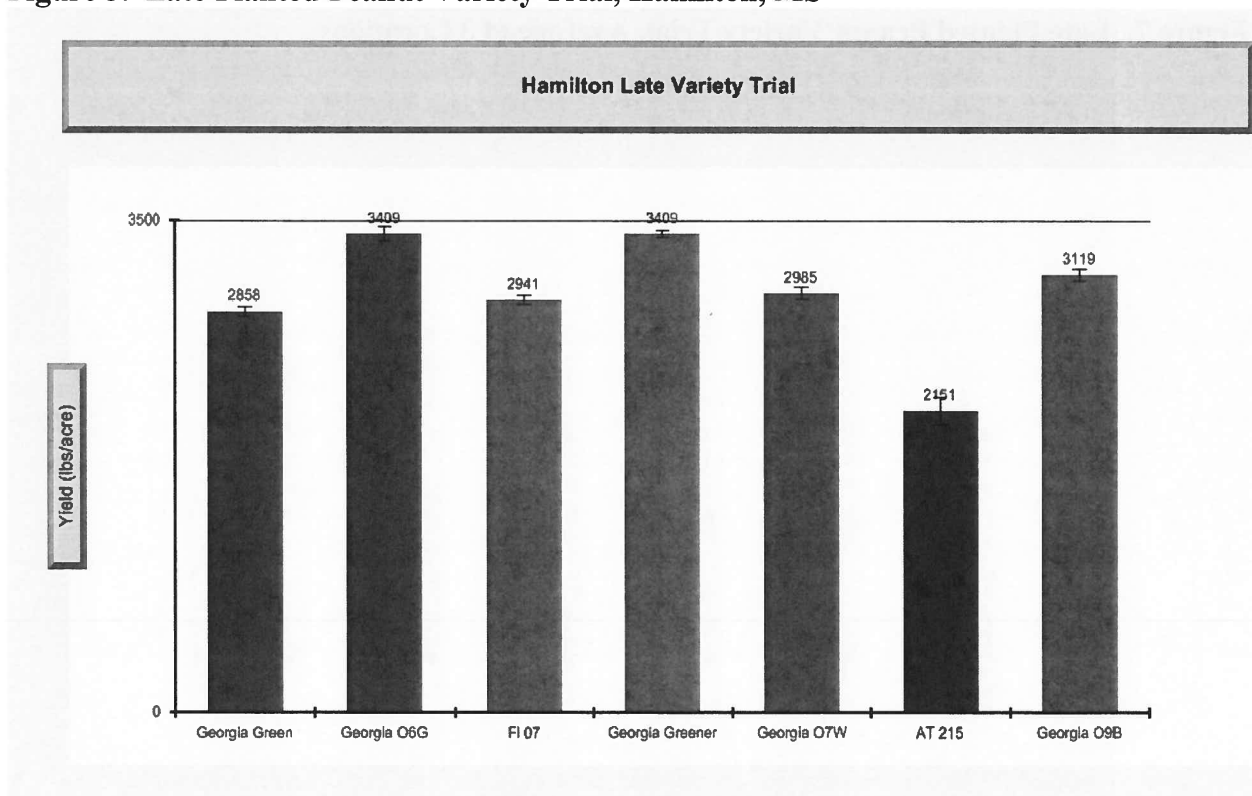


Figure 6. Late Planted Peanut Variety Trial, Stoneville, MS

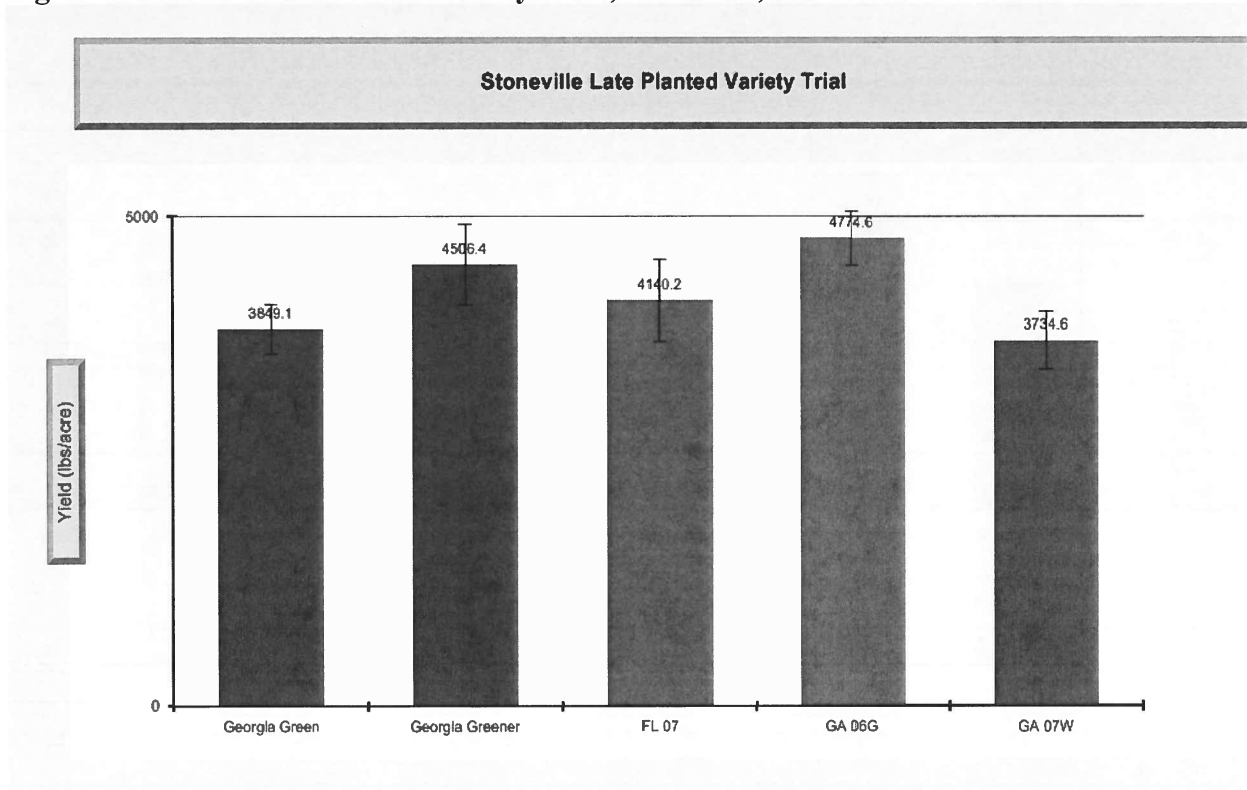


Figure 7. Late Planted Peanut Variety Trial, Average of 3 Locations

Average Late Planted Variety Trial

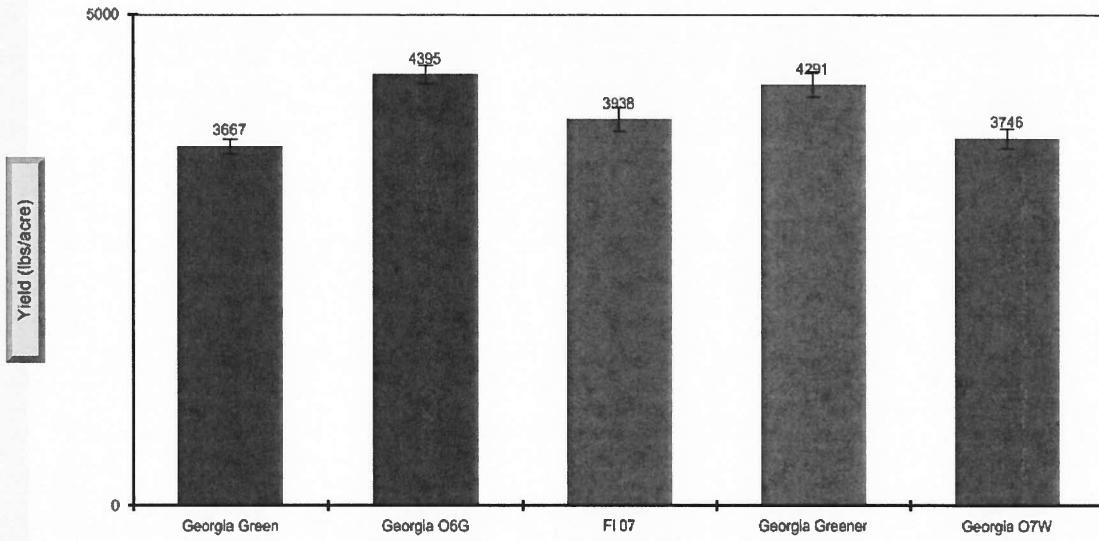


Figure 8. Average of All Locations and Planting Dates

Variety Trial Average (All Locations and Planting Dates)

