



1993 Commercial Vegetable Variety Trials - Cabbage

*William Terry Kelley - Extension Horticulturist and
Melvin R. Hall - Research Horticulturist*

Thirteen commercially available cabbage varieties and three experimental lines were compared in a fall-planted test at the Coastal Plain Experiment Station (elev. 382 feet) in Tifton, Georgia. Cabbage transplants were commercially grown in 200-cell polystyrene trays at Lewis-Taylor Farms near Tifton. Normal cultural practices were used for transplant production.

Cabbage were transplanted on September 20, 1993, into a Tifton sandy loam soil. Plots consisted of single rows of 20 plants each spaced 12 inches apart in rows spaced 36 inches apart. The planting was arranged in a Randomized Complete Block Design with four replications.

Normal cultural practices were used for bare ground cabbage culture in Georgia. Base fertilizer consisted of 900 pounds/acre of 10-10-10 incorporated prior to transplanting followed by two side-dress applications of 15-0-14 (200 pounds/acre each). Preplant applied Trifluralin (0.5 lb a.i./acre) was used for weed control. Fungicide and insecticide applications were made according to Extension recommendations.

Cabbage were harvested at maturity from December 21, 1993 to January 20, 1994. Data were collected on yield, days to harvest, heat unit accumulation, head size, weight, color and density, core length and head shape.

Variety Descriptions

Abbott & Cobb No. 5 Plus - Mid-late, blue-green, tolerant to black rot.

Bravo - Late-mid season, blue-green, res. to Fusarium yellows, tolerant to black rot.

Blue Vantage - Mid-season, deep blue-green, resistant to Fusarium yellows and tipburn.

CB7 - Released as Augusta. Mid-early. Tol. to black rot, Fusarium yellows and Alternaria.

Constanza - Blue-green, mid-season, resistant to tipburn, black rot and Fusarium yellows.

Crimson - Red, mid-season, deep red color.

Fortuna - Green-blue, midseason, resistant to tipburn, black rot and Fusarium yellows.

Gideon - Mid-season dense heads, Fusarium yellows resistant, tolerant to black rot.

Greencup - Dark, blue-green, mid-early, resistant to Fusarium yellows.

Izalco - Blue-green, late season, tolerant to blackrot and Black leaf speck, resistant to Fusarium yellows.

PSR 4389 - Experimental (PetoSeed)

PSR 18589 - Experimental (PetoSeed)

Quisto - Blue-green, main season, shows tolerance to tipburn and Fusarium yellows.

Red Rookie - Early red, resistant to cracking, deep red color.

Royal Vantage - Mid-season, dark blue-green, resistant to Fusarium yellows, tolerant to black rot and black leaf speck.

Sombrero - Mid-season red, tolerant to splitting with dense, dark red heads.

Summary

Results are given in Tables 1 and 2. Several green varieties performed well. Any of these yielding over 750 boxes/acre seem suited to Georgia. Of the red varieties, "Red Rookie" and "Crimson" seem best suited to Georgia. Days to harvest were longer due to the fall growing period.

Table 1. Yield, maturity and black rot rating of cabbage in 1993 at the Coastal Plain Experiment Station in Tifton, Georgia.

Variety	Sponsor	YIELD/A		% Marketable	Days to 50% Harvest ¹	Heat Units to 50% Harvest ²	Black Rot Rating ³
		CWT	50#-Cart.				
A&C #5 Plus	Abbott & Cobb	421	842	96.27	104	1919	3.3
Bravo	Harris	540	1081	98.57	104	1920	4.3
Blue Vantage	Sakata	389	778	94.81	109	1940	8.5
CB7	Rogers NK	471	942	95.54	101	1910	6.3
Constanza	Peto	559	1118	99.85	104	1919	6.5
Crimson	Rogers NK	204	409	93.07	113	1959	2.8
Fortuna	Peto	481	961	95.73	100	1905	5.3
Gideon	Bejo	315	629	87.49	114	1961	6.5
Greencup	Asgrow	414	827	96.24	108	1931	7.3
Izalco	Rogers NK	434	868	95.46	109	1933	3.3
PSR 4389	Peto	392	785	94.19	105	1922	2.8
PSR 18589	Peto	352	705	95.61	113	1954	3.0
Quisto	Rogers NK	317	634	91.81	113	1955	6.3
Red Rookie	Abbott & Cobb	286	572	98.84	106	1933	5.5
Royal Vantage	Sakata	483	965	94.73	112	1954	5.5
Sombrero	Bejo	199	399	91.28	114	1966	3.5
Mean of Test		391	782	94.97	108	1936	5.0
L.S.D. (0.05)		172	343	0.09	6.02	25.99	2.2
C.V. (%)		30.83	30.83	6.83	3.92	0.94	30.8

¹ -From transplanting. ² -Degree Days using 40 degrees F base temp. ³ -Incidence of Black Rot (1=none; 10=severe).

Table 2. Head and plant growth characteristics of cabbage in 1993 at the Coastal Plain Experiment Station in Tifton, Georgia.

Variety	Sponsor	Plant Width (cm) ¹	Head Weight (g)	Head Color ²	Head Density ³	Core Length (cm)	Head Shape ⁴	Head Diam. (cm)
A&C #5 Plus	Abbott & Cobb	66.1	1547	4.05	1.70	8.33	1.00	18.96
Bravo	Harris	66.4	1767	4.05	1.00	9.56	1.50	18.53
Blue Vantage	Sakata	63.3	1503	4.00	1.10	7.98	1.60	17.75
CB7	Rogers NK	62.6	1636	4.05	1.15	9.63	1.45	18.24
Constanza	Peto	63.8	1586	4.15	1.30	9.10	1.05	18.42
Crimson	Rogers NK	64.3	818	6.00	1.05	8.20	2.50	12.55
Fortuna	Peto	58.3	1371	4.05	1.15	9.20	1.05	18.23
Gideon	Bejo	59.1	1404	4.05	1.00	8.08	2.35	15.01
Greencup	Asgrow	60.3	1490	4.05	1.15	8.36	1.50	17.48
Izalco	Rogers NK	60.6	1340	4.00	1.00	8.14	2.05	16.13
PSR 4389	Peto	58.4	1571	4.10	1.00	9.49	1.95	17.01
PSR 18589	Peto	58.9	1461	4.05	1.00	6.94	1.00	17.50
Quisto	Rogers NK	60.2	1278	4.10	1.00	8.59	2.00	15.50
Red Rookie	Abbott & Cobb	61.1	903	6.00	1.00	7.84	2.55	13.73
Royal Vantage	Sakata	66.7	1523	4.05	1.00	7.32	2.00	16.47
Sombrero	Bejo	61.6	984	6.00	1.00	8.78	2.95	12.50
Mean of Test		62.0	1386	4.41	1.10	3.36	1.78	16.50
L.S.D. (0.05)		3.65	157	0.74	0.21	0.87	0.41	0.87
C.V. (%)		4.14	7.94	15.41	13.42	15.42	15.98	3.72

¹ -Width of frame at widest point - leaf to leaf. ² -Internal head color based on the scale 1=light green; 2=medium green; 3=dark green; 4=yellowish green; 5=whitish green; 6=red. ³ -Based on the scale 1=solid; 2=medium; 4=loose. ⁴ -Based on the scale 1=flat; 2=round; 3=pointed; 4=savoy.