

‘JADE CROSS’ PRODUCES HIGHEST BRUSSELS SPROUT YIELD

William Terry Kelley, Extension Horticulturist, and Denne Bertrand, Research Associate, Tifton Campus, Horticulture Building, 4604 Research Way, P.O. Box 748, Tifton, Georgia 31793, wtkelley@uga.edu

Introduction

A variety trial on Brussels sprout was conducted for the first time in the spring of 2006. Three commercially available varieties of the crop were compared in a replicated trial. While cabbage has been grown for decades as a mainstay vegetable crop, other Brassica crops have not been as popular. However, with increased transportation costs from the West coast, there is more interest in some of these other Brassica crops. Therefore, this trial was conducted to compare some of the more popular Brussels sprout varieties under spring conditions in Georgia. The growing season was very favorable throughout the season.

Methods

Three commercially-available Brussels sprout varieties were compared at the Tifton Vegetable Park at the Coastal Plain Experiment Station (elev. 382 feet) in Tifton, Georgia. Containerized transplants were produced in greenhouses on the research station. Brussels sprouts were transplanted to the field on March 3, 2006 into a Tifton sandy loam soil (fine, loamy, siliceous, thermic Plinthic Kandiudult). Plots consisted of two rows which contained eight plants each spaced 15 inches apart. Rows were 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 Brussels sprout culture in Georgia. Base fertilizer consisted of 1000 pounds/A of 10-10-10 incorporated prior to planting. Trifluralin (0.5 lb. ai/A) was applied pre-plant and incorporated for weed control. An additional 75

pounds/A N were applied through the drip irrigation in four separate injection events and one granular side dress with 250 pounds/A 34-0-0 was applied. Fungicide and insecticide applications were made according to current University of Georgia recommendations. Drip irrigation was applied as needed.

Brussels sprouts were harvested at maturity on June 19, July 6 and July 18, 2006. Data were collected on number and weight of fruit. Results are summarized in Table 1.

Results

While the average weight of Brussels sprouts was not significantly different among varieties, there were yield differences. ‘Jade Cross’ produced significantly higher numbers of sprouts and cartons of marketable sprouts than did ‘Brilliant’. Oliver was not significantly different from either of the other varieties for yield or number and was intermediate between the two others for both parameters. Oliver did produce larger sprouts than the other two varieties, but as stated, the difference was not significant. Based on this single trial it would appear that ‘Brilliant’ is not as well suited for spring production in Georgia as the other two varieties. However, this is only a single location and single year of data and further testing should be done before any definitive conclusions can be made about which Brussels sprout varieties to recommend to potential growers in Georgia. Although Brussels sprouts can be packed in eight to ten pound flats, yields in Table 1 are expressed as a 25-pound bulk carton.

Table 1. Yield in weight and cartons, number per acre and average weight of three varieties of Brussels sprouts grown at Tifton, GA in 2006.

Variety	Sponsor	Yield ¹ (25-lb. Boxes/Acre)	Yield (lbs.)	No. Per Acre	Avg. Wt. (grams)
Brilliant	Rupp	202.9 b	5072.9 b	184,223 b	12.6 a
Jade Cross	Twilley	336.9 a	8421.6 a	299,475 a	12.8 a
Oliver	Rupp	276.2 ab	6906.1 ab	221,067 ab	14.2 a
Mean of Test		272.0	6800.2	234,921.5	13.2
L.S.D. (0.05)		81.2	2029.7	86,164	2.59
C.V. (%)		17.2	17.3	21.2	11.4

Two-row plot, 10 ft. long x 6 ft. wide. ¹Marketable Yield.