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# 2016 Evaluation of Standard Pickling Cucumber Varieties in Kansas

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## Summary

Cucumbers are the fourth most popular specialty crop grown in Kansas and are sold through farmers markets, CSA's, on-farm sales, wholesale markets and restaurant sales. The goal of this study was to investigate the performance of 6 standard (non-parthenocarpic) pickling cucumber varieties ('Calypso,' 'Carolina,' 'Fancipak,' 'Supremo,' 'Eureka,' and 'SMR58') in Kansas. Total number of fruit per plant ranged from 18 to 31. 'Fancipak' had the highest total number per plant at 31 and was statistically similar to 'Calypso'. 'SMR58' had the lowest total fruit number at 18 and was not statistically similar to other varieties ( $P < 0.05$ ).

## Materials and Methods

The pickling cucumber variety trial was planted approximately 30 miles Southwest of Kansas City, at the Kansas State University Olathe Horticulture Research and Extension Center. Seeds were sown directly on 5 May, 2015 into two raised plasticulture beds planted at 6 foot centers. Each trial consisted of 8 plants sown at 18-inch row spacing. Seeds were re-sown as necessary. No trellis system was used and plants were allowed to vine on the ground. An initial insecticide (Assail) was applied on 4 June. On 26 June, potassium nitrate was applied at a rate of 15lbs. N/acre. Harvesting was carried out three times weekly from 26 June to 27 July. At each harvest, fruit were graded for marketability with number and weight of marketable and cull fruit recorded. Additionally, 10 marketable cucumbers were chosen randomly from each plot to determine fruit characteristics. Length, diameter, color (light, medium, dark, or yellow), and USDA Handbook 66 grade (1, 2, 3, or oversized) were recorded. If there were fewer than 10 cucumbers per plot, all marketable cucumbers were recorded.

Average fruit size and percent marketability were determined and are presented below. All data was analyzed using ANOVA (PlotIt, Scientific Programming Enterprises, Haslett, MI), and a mean separation test was carried out by using an F-protected least significant difference (LSD) test. A separate analysis was carried out for each individual observation and the results of the LSD test are shown where statistically significant treatment effects occurred.

## Results and Discussion

Peak harvest of marketable fruit occurred on 6 July with 'Fancipak' being the highest at 3.4 marketable fruit number per plant. 'Supremo' and 'Calypso' were the second and third highest at 3.1 and 3 marketable fruit number per plant (data not shown). A second peak occurred on 13 July, again with 'Fancipak' being the highest at 3.1 of marketable fruit number per plant with 'Eureka' and 'Supremo' behind at 2.8 and 2.6 respectively (data not shown). As the season progressed, the incidence of fruit rot, curving, and crooked fruit occurred among all 6 varieties. 'Fancipak' had the highest per plant total and marketable yield; however, the marketable yield was statistically similar to 'Supremo' and 'Calypso'. 'Calypso', 'Carolina', 'Eureka', and

‘Supremo’ all had statistically similar marketable yields. ‘SMR58’ had the lowest marketable yield and was not statistically similar to any of the other varieties. There was no statistical difference in the average marketable fruit size between all 6 varieties (Figure 1). Based upon the 10 randomly selected cucumbers, ‘Eureka’ and ‘Supremo’ tended to produce a darker colored cucumber while all other varieties tended to produce medium and light colored fruit. The highest amount of light colored fruit was found with ‘Calypso’ at 66% of the samples being light colored (Figure 2).

## **Acknowledgements**

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## **Seed Sources**

Harris Moran – HM  
Seedway – SW/SDW

## **Contact Info**

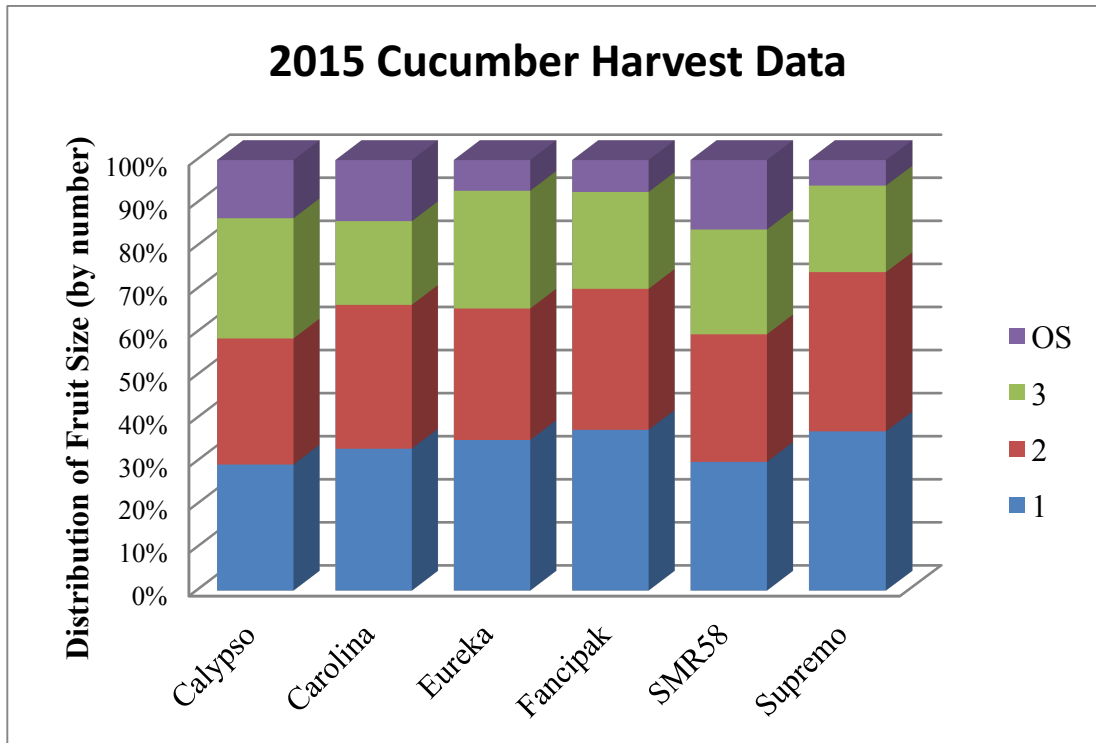
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**Table 1.** Marketable and total per plant fruit yield of pickling cucumber varieties grown in Olathe, Kansas.

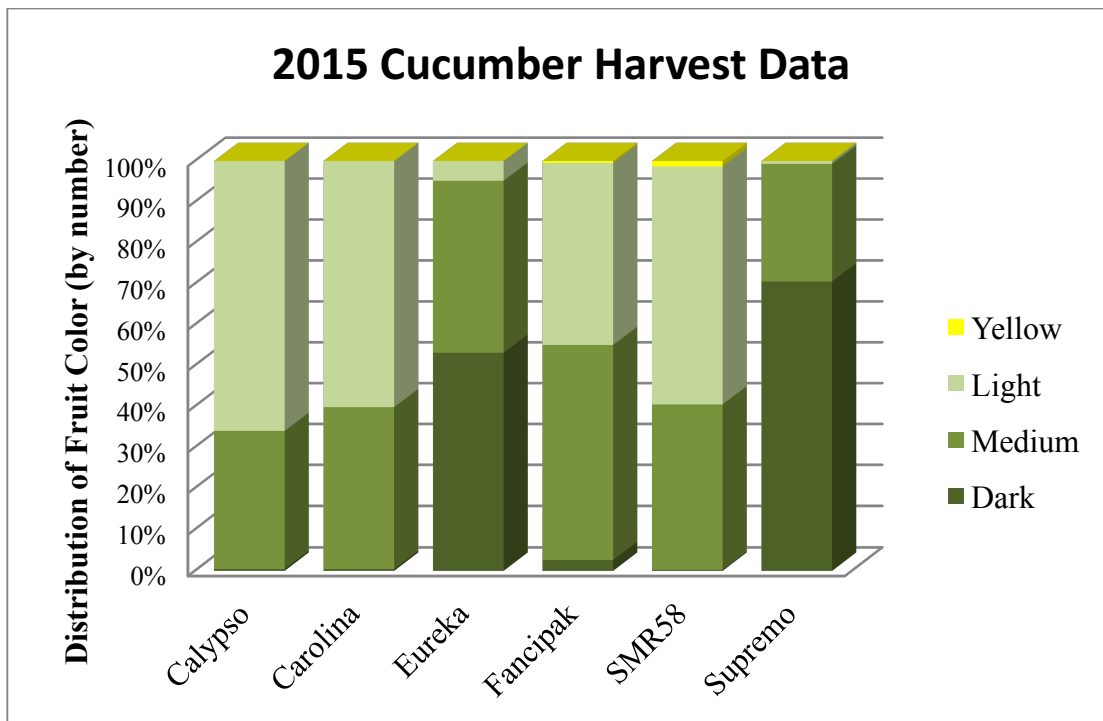
Variety	Marketable				Total			
	Number		Wt (lbs)		Number		Wt (lbs)	
Fancipak	23.9	c	3.36	c	30.6	c	4.81	bc
Supremo	21.6	bc	2.94	bc	25.4	b	3.78	ab
Calypso	19.5	b	2.94	bc	26.3	bc	4.96	c
Eureka	18.4	b	2.65	b	23.1	b	3.75	ab
Carolina	18.1	b	2.57	b	25.3	b	4.81	bc
SMR58	11.7	a	1.58	a	17.9	a	3.55	ab

**Table 2.** Mean pickling cucumber fruit size (lbs) and marketability of pickling cucumbers in Olathe, Kansas.

Variety	Average Fruit Size (lbs)				Percent Marketability			
	Marketable		Total		Number		Weight	
Calypso	0.15		0.19	b	73.4%	bc	58.9%	b
Eureka	0.15		0.16	a	79.7%	de	70.8%	c
Carolina	0.14		0.19	b	71.4%	b	53.4%	b
Fancipak	0.14		0.16	a	78.2%	cd	70.9%	c
SMR58	0.14		0.20	b	63.7%	a	44.0%	a
Supremo	0.14		0.15	a	85.3%	e	78.1%	c



**Figure 1.** Distribution of Fruit Size (by Number)



**Figure 2.** Distribution of Fruit Color (by number)