



Consumers hedonic liking of organic squash (*Cucurbita pepo .L*)

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Introduction

- ▶ The demand for organic food has increased
 - ▶ driven by consumer perception
 - ▶ More sustainable
 - ▶ Environment friendly
 - ▶ Healthier

Objective

- ▶ This study
 - ▶ consumers preference/acceptance of three cultivars
 - ▶ Gentry
 - ▶ Spineless Beauty
 - ▶ Zephyr

Materials and Methods

- ▶ The squash samples
 - ▶ Tuskegee University Certified Organic Farm.

- ▶ Six squash samples,
 - ▶ Three seasoned
 - ▶ Three unseasoned

Gentry seasoned	Spineless Beauty seasoned	Zephyry
Gentry unseasoned	Spineless Beauty unseasoned	Zephyry unseasoned

Materials and Methods

Seasoned squash formulation



Yellow squash cut into ½ inch slices

1 large onion, chopped

1 garlic clove, chopped

Material and Methods

Sample preparation

- ▶ Cooking method
 - ▶ Steamed for 15 minutes
- ▶ Storage
 - ▶ Samples placed in 2oz. Containers
- ▶ labels
 - ▶ three-digit random codes

Materials and Methods

- ▶ Location
 - ▶ local grocery store in Tuskegee, Alabama
- ▶ Participants
 - ▶ Random untrained judges
- ▶ Measuring Instrument
 - ▶ A nine-point Hedonic scale

Materials and Methods

► Nine-point Hedonic scale

Consumer score card for consumer testing

Instruction: In front of you are samples. Beginning on the left, taste each sample and mark how much you like or dislike it. Please rinse your mouth with water before tasting each sample. Thank You!!

(1)Like extremely (2)Like very much (3)Like moderately (4)Like slightly (5)Neither like nor dislike (6)Dislike slightly (7)Dislike moderately (8)Dislike very much (9)Dislike extremely

Sample # _____

Appearance	1 []	2 []	3 []	4 []	5 []	6 []	7 []	8 []	9 []
Taste	1 []	2 []	3 []	4 []	5 []	6 []	7 []	8 []	9 []
Color	1 []	2 []	3 []	4 []	5 []	6 []	7 []	8 []	9 []
Texture	1 []	2 []	3 []	4 []	5 []	6 []	7 []	8 []	9 []

Sample # _____

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Texture	1 []	2 []	3 []	4 []	5 []	6 []	7 []	8 []	9 []



Results

Social Demographics

One hundred- (N=100) were analyzed. Table 1 Represents the demographic characteristic of the study population

Variable	Frequency	Percent
Gender (N=100)		
Family Food		
Male	45%	
Female	55%	
Age in years		
18-25	16% Males,	20 %
Females		
26-45	33% Males,	33%
Females		
46-70	51% Males,	47 %
Females		
Income Range		
<\$20,000	34% Males,	40%

Results

Social Demographics

Sixty -Three (N=63) were analyzed. Table 1 Represents the demographic characteristic of the study population

Variable	Frequency	Percent
Gender (N=63)		
	Piggly Wiggly	
Male		42%
Female		58%
Age in years		
18-25	48% Males,	42%
Females		
26-45	26% Males,	14%
Females		
46-70	26% Males,	44%
Females		
Income Range		
<\$20,000	30% Males,	36%

Results

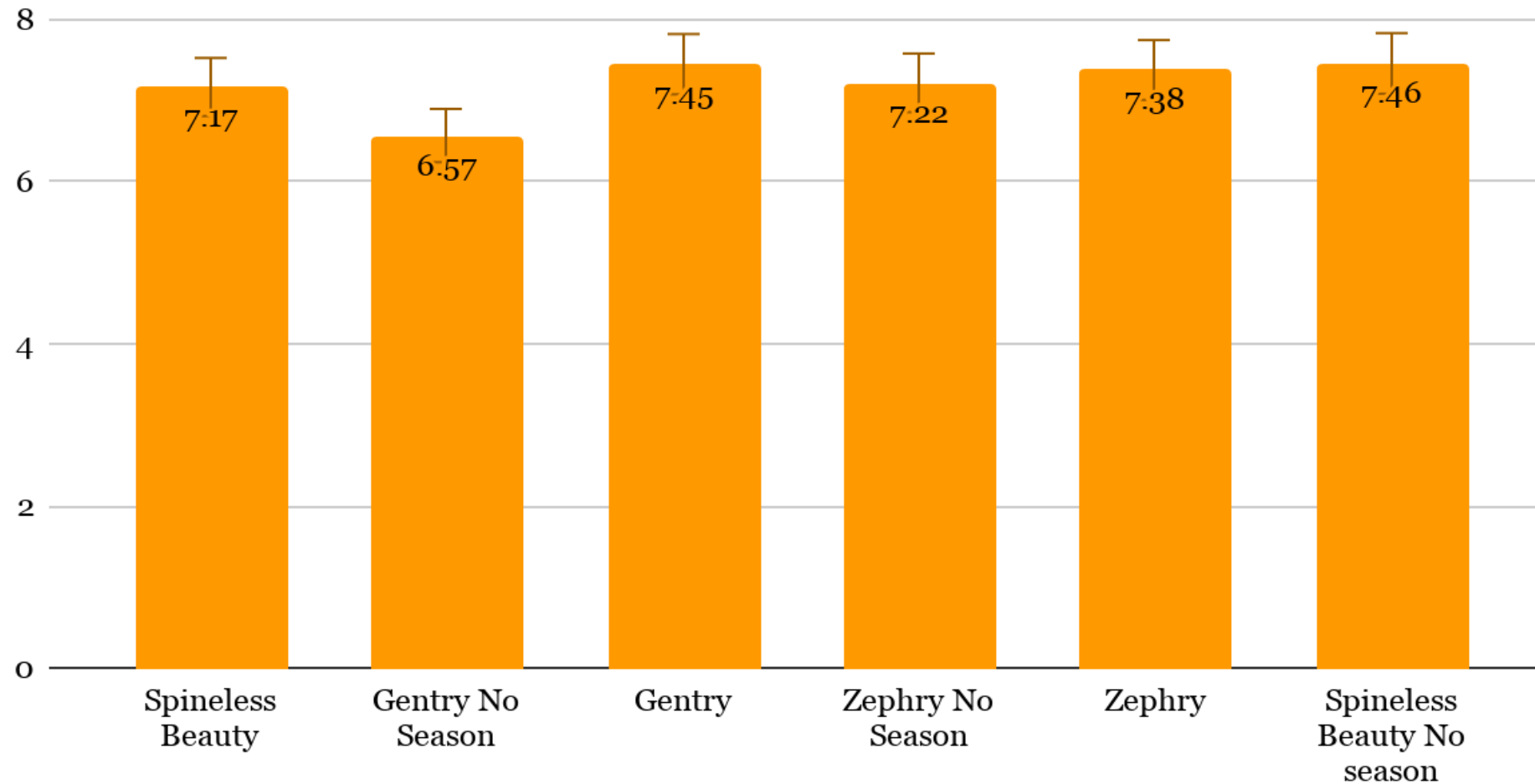
Social Demographics

Forty-six (N=46) were analyzed. The data below represents the demographic characteristic of the study population

Variable	Frequency	Percent
Gender (N=46)		
Kroger		
Male	34%	
Female	66%	
Age in years		
18-25	02% Males	06 % Females
26-45	13 % Males	19 % Females
46-70	21 % Males	39% Females
Income Range		
<\$20,000	00% Males	14% Females
\$20,000-40,0000	40 % Males	15% Females
\$40,000-60,000	60% Males	71% Females

Results: (Taste) Significant difference

Taste Means: Family Foods: N=100



Results (Taste): No significant difference

Taste from Piggly Wiggly: N=63

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.746	7.5873	7.5873	7.6984	7.6984	7.7778
SD	.1767	.1642	.1642	.1578	.1578	.1759

Taste from Kroger: N=46

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.3043	7.4130	7.4130	7.000	7.1304	7.804
SD	.3596	.3194	.3195	.3919	.3284	.2649

Results: (Texture) No significant difference

Texture from Family Food: N=100

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.65	7.85	7.38	7.77	7.65	7.84
SD	.167	.130	.160	.142	..175	.121

Texture from Piggly Wiggly: N=63

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	8.396	8.09	8.06	8.30	8.30	8.19
SD	.097	.123	.131	.105	.105	.108

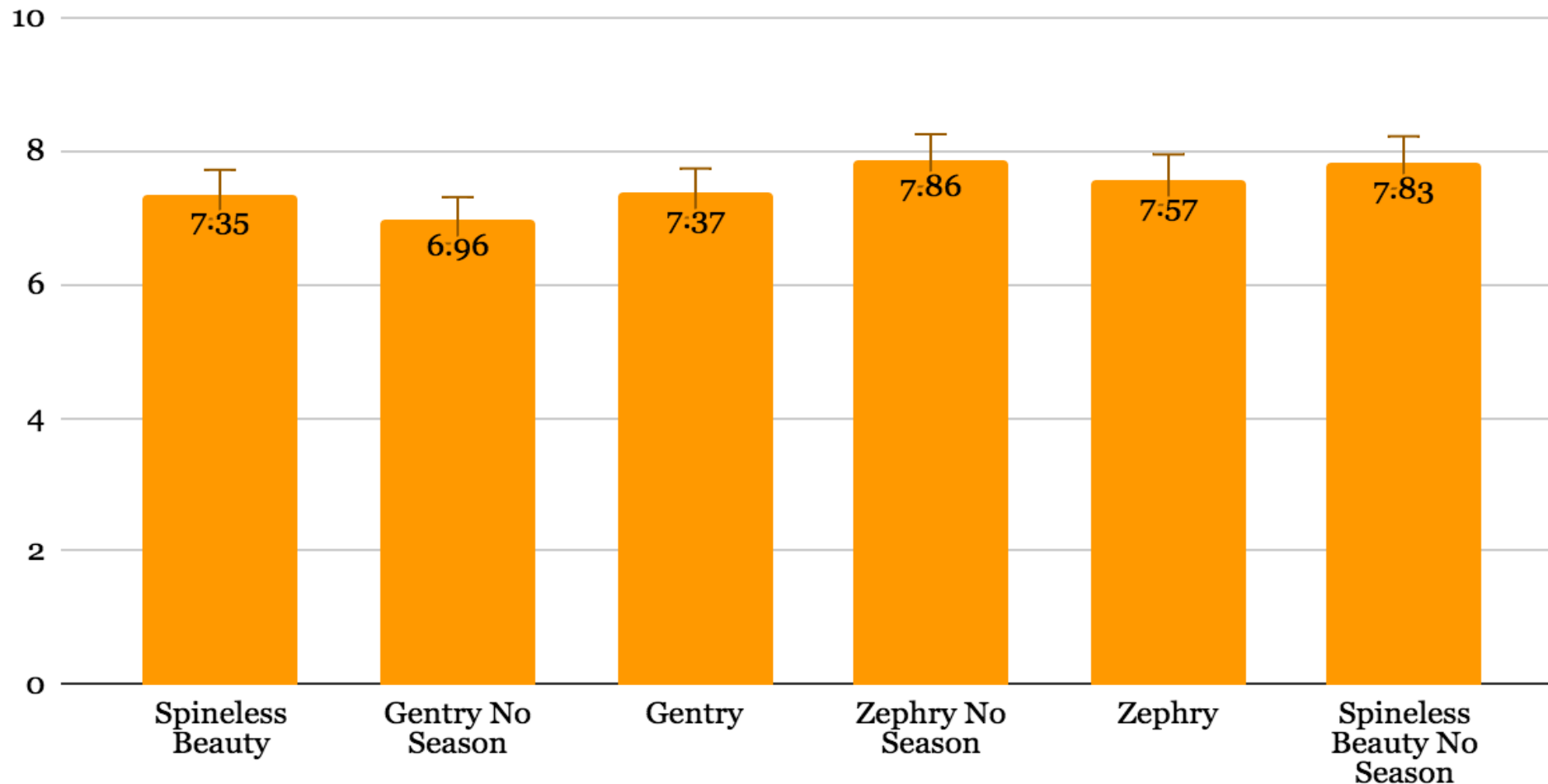
Results: (Texture) No significant difference

Texture from Kroger: N=46

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.02	6.5	6.63	6.76	6.78	6.91
SD	.369	.380	.384	.423	.381	.331

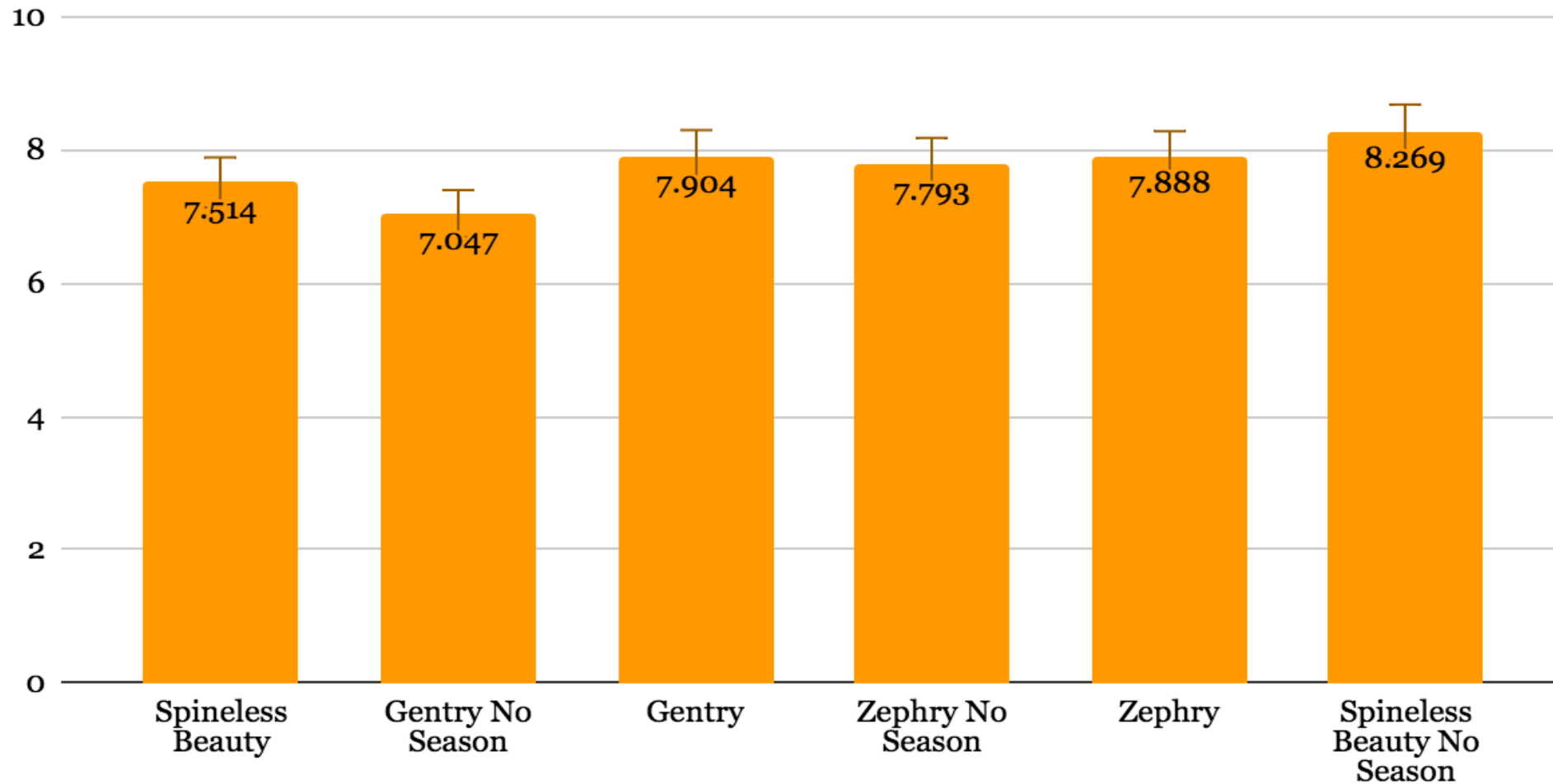
Results: (Color) Significant difference

Color Means: Family Foods: N=100



Results: (Color) Significant difference

Color Means: Piggly Wiggly: N=63



Results: (Color) No significant difference

Color from Kroger: N=46

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	6.91	6.8	6.8	6.82	6.82	7.13
SD	.378	.366	.356	.404	.388	.337

Results: (Appearance) No significant difference

Appearance from Family Food: N=100

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.36	7.36	6.58	6.76	6.76	6.95
SD	.191	.191	.241	.215	.215	.230

Appearance from Piggly Wiggly: N=63

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyr no season</i>	<i>zephyr</i>	<i>Sp. Beauty no season</i>
Means	7.85	7.38	7.58	8.03	7.79	8.07
SD	.149	.207	.161	.173	.233	.154

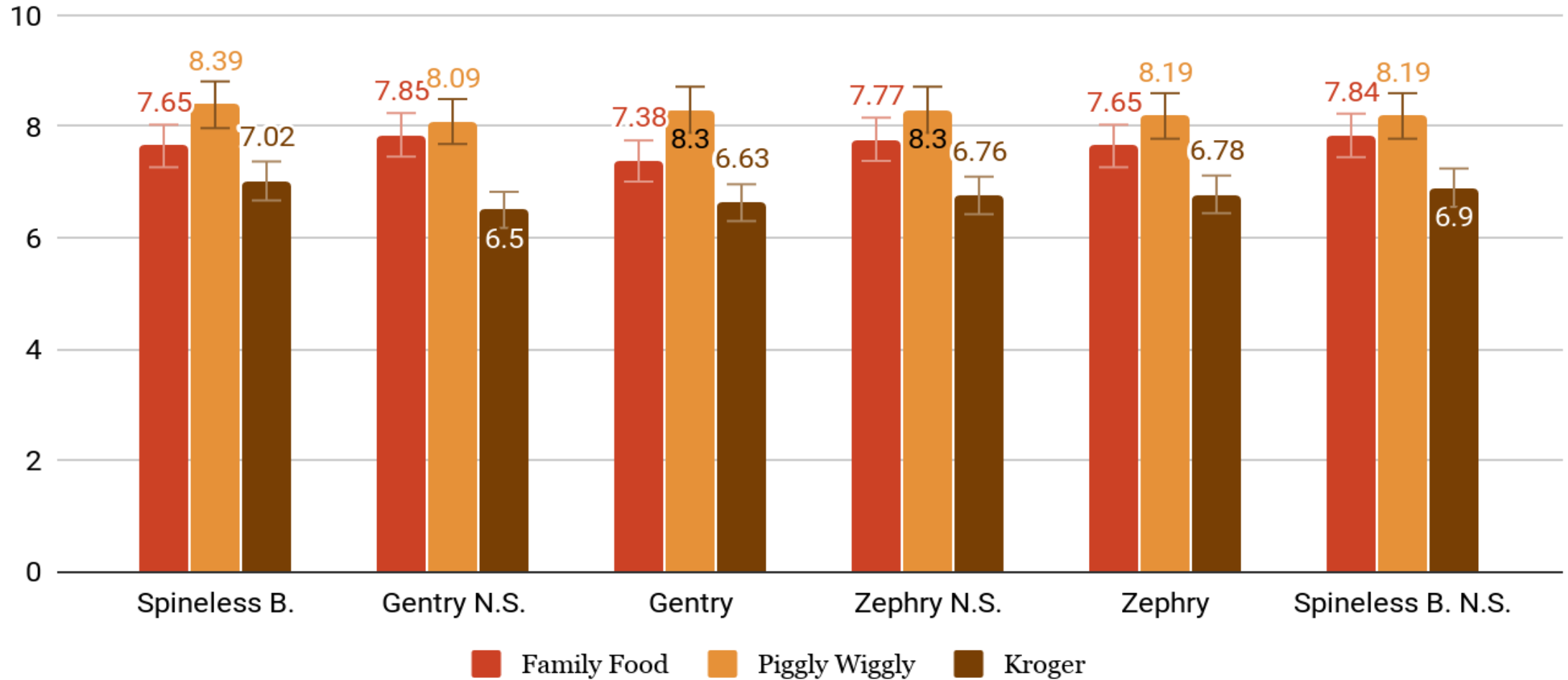
Results: (Appearance) No significant difference

Appearance from Kroger: N=46

Squash	<i>Sp. Beuty</i>	<i>Gentry no season</i>	<i>Gentry</i>	<i>Zephyry no season</i>	<i>zephyry</i>	<i>Sp. Beauty no season</i>
Means	7.23	6.91	7.95	6.67	7.06	7.54
SD	.364	.418	.232	.449	.421	.389

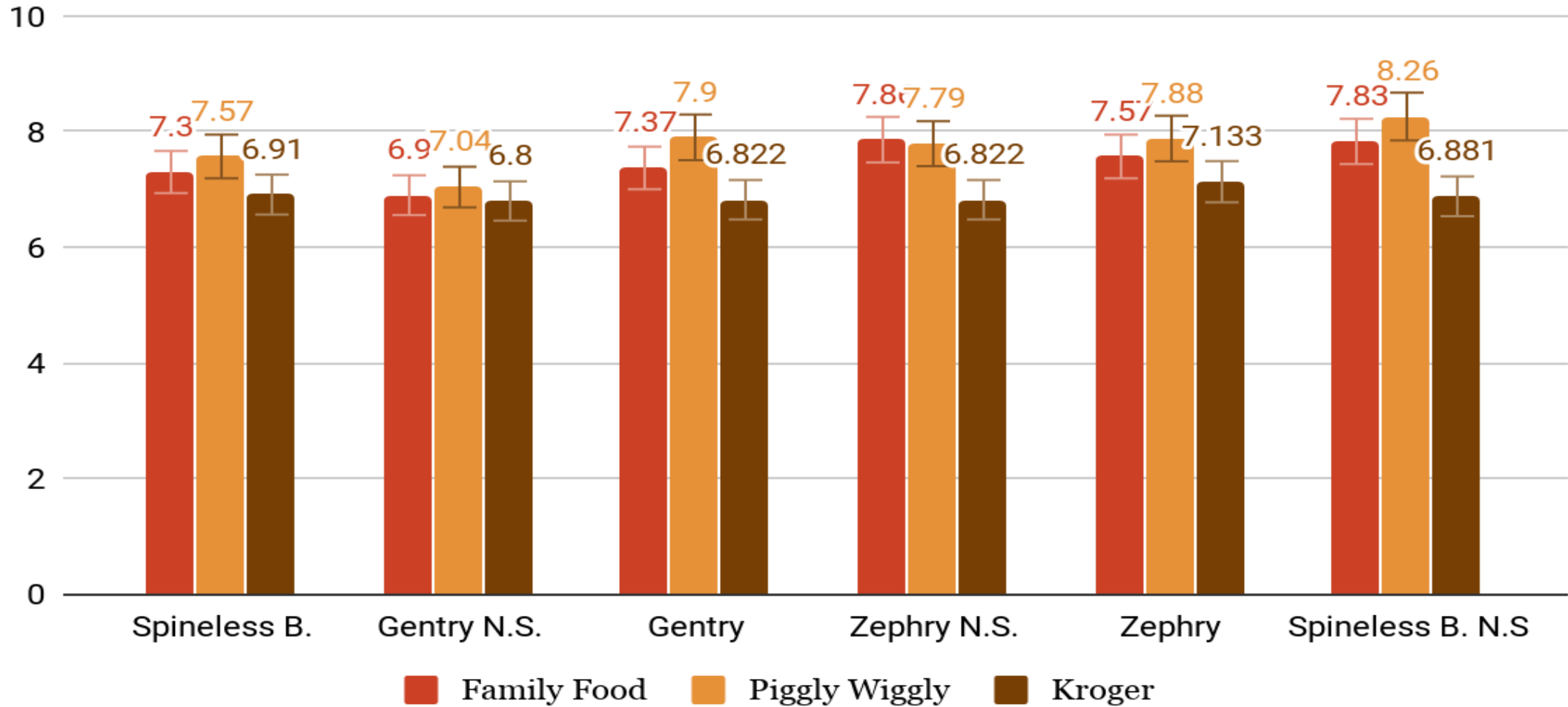
Results

Overall Texture



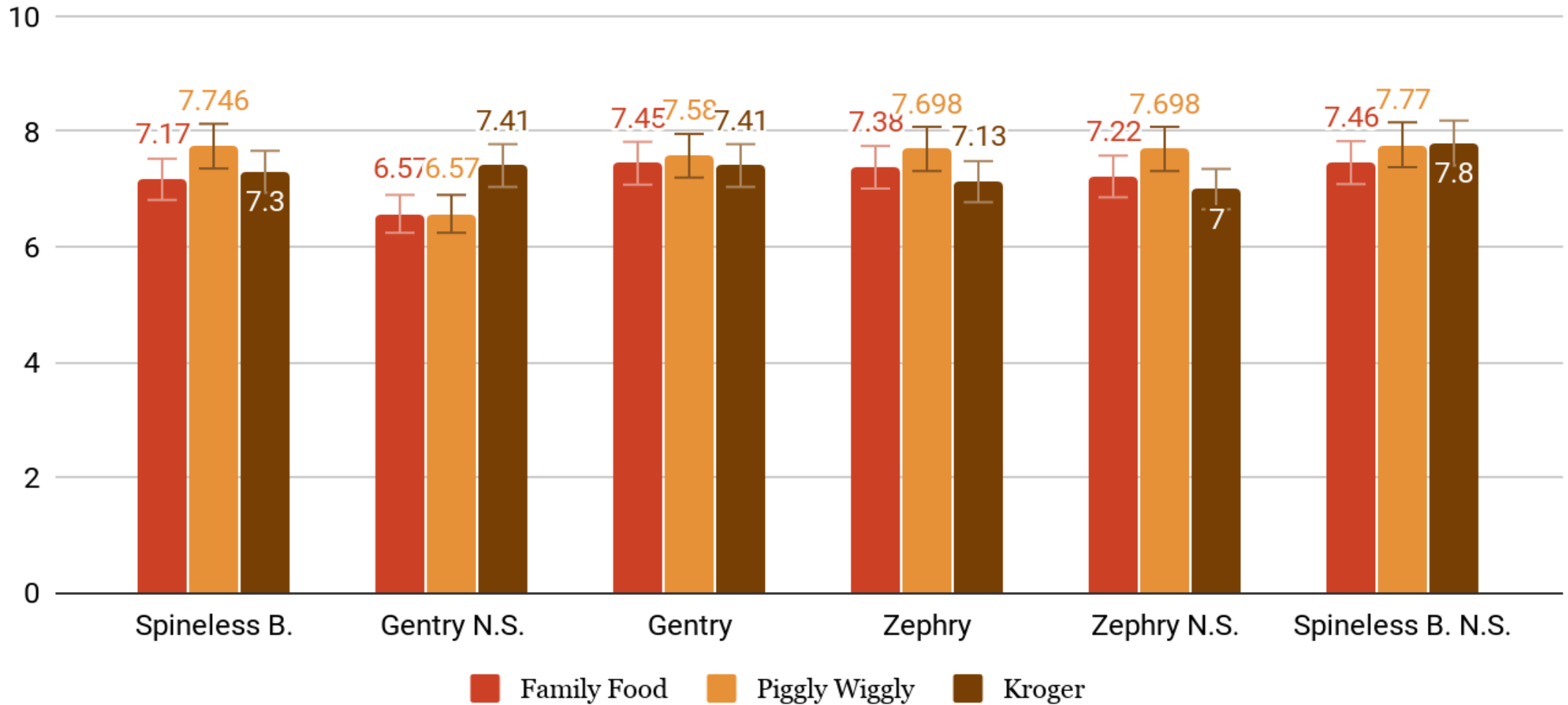
Results

Overall Color



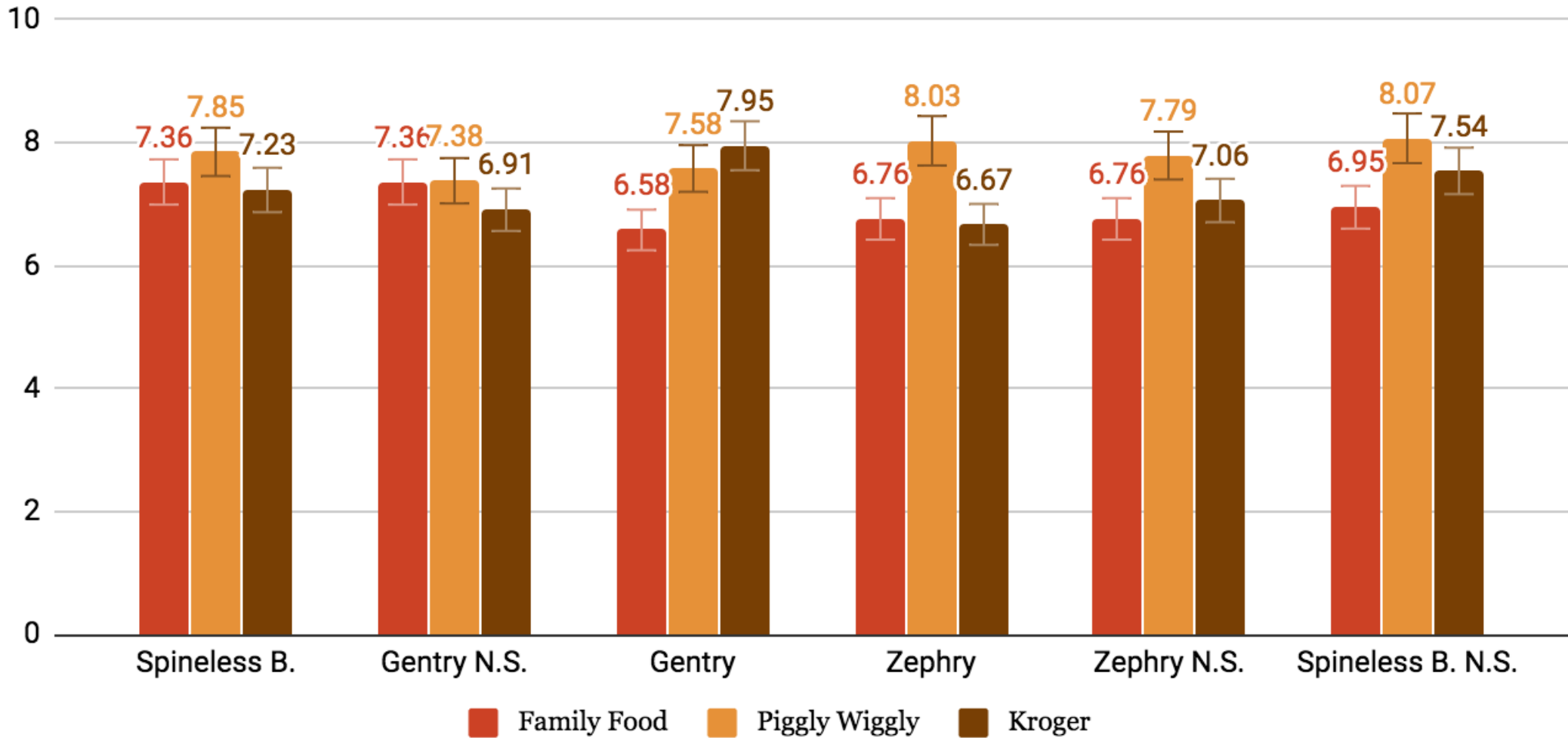
Results

Overall Taste



Results

Overall Appearance



Conclusion

- ▶ Significant difference
 - ▶ Color and Taste
 - ▶ Family food and Piggly Wiggly
- ▶ No significant difference
 - ▶ Texture
 - ▶ Appearance

Conclusion

- ▶ Color character of Gentry no season was liked the least
- ▶ Gentry no season was least liked in taste at Family Food
- ▶ Spineless Beauty was the most favorable in taste
- ▶ Kroger participants scored lower in color and taste overall compared to Family Food and Piggly Wiggly.

Acknowledgements

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