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Canine Preference Results

Pedigree Chopped Ground Chicken & Rice \$vs\$ Pedigree Chopped Ground Chicken & Rice with Dried Cream Extract @ 0.40%

Study # BUTPALC00220

Submitted to: Joel David Butter Buds 2330 Chicory Road Racine, WI 53403

Dates of Performance: 08/02/20 to 08/03/20

Amanda L. Fallon	Date
Study Coordinator	

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Consumption Summary

The total amount of food consumed by the 20 dogs during the 2 days of this test was 30,449 Grams as follows:

Diet A as Pedigree Ckn&Rice: 2,601 Grams or 8.5 %

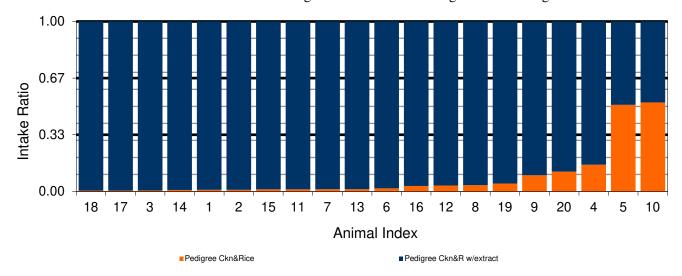
Diet B as Pedigree Ckn&R w/extract: 27,848 Grams or 91.5 %

There is a 10.71 to 1 consumption ratio of Pedigree Ckn&R w/extract to Pedigree Ckn&Rice.

Using a Wilcoxon Signed Rank test there is significant reason to suspect a consumption difference between the two Diets (P = 0.0001). A 2-way analysis of variance (2-Way ANOVA) indicates that there is significant reason to suspect a difference in consumption of the 2 diets when the variance in consumption of the dogs is accounted for. (F = 154.056, P = 0.0000)

Intake Ratio Chart

The individual Intake Ratios for each of the 20 dogs are sorted in ascending order for Pedigree Ckn&Rice:



The average of the 20 individual Intake Ratios for each Diet are as follows:

Diet A as Pedigree Ckn&Rice: Average IR = 0.084.

Diet B as Pedigree Ckn&R w/extract: Average IR = 0.916.

Preference By First Choice

Over both days Pedigree Ckn&Rice was chosen first on 2 occasions and Pedigree Ckn&R w/extract was chosen first on 38 occasions. A significant First Choice is detected and tends to favor Pedigree Ckn&R w/extract. The Chi² probability is p = 0.0000

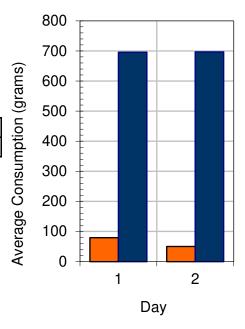
Over both days 0 dogs chose Pedigree Ckn&Rice first every day and 18 dogs chose Pedigree Ckn&R w/extract first every day, the other 2 were undecided. There is significant reason to suspect that this result is not random as a definite preference is detected. The Chi² probability is p = 0.0000

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Daily Consumption Summary

The average daily consumption of each diet is listed below for both days. The consumption of each diet is compared using a separate paired t-Test within each day (20 dogs by 2 diets) to assess significance in consumption difference for that day.

	Average Daily Consumption Data								
Day	Day Diet A Diet B Total P of t Sign								
1	79.7	695.6	775.3	0.0000	YES!				
2	50.4	696.9	747.2	0.0000	YES!				



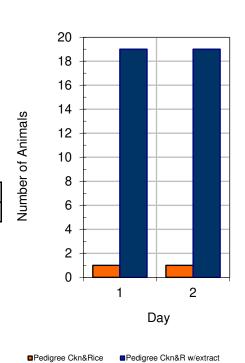
■Pedigree Ckn&Rice

■Pedigree Ckn&R w/extract

Daily Preference By First Choice

The diet of First Choice preference is scored daily for each dog and the counts are listed below. A Chi² test compares the daily counts for Pedigree Ckn&Rice and Pedigree Ckn&R w/extract to the counts that might have been expected if there was no First Choice difference in the two diets. In this case that would be a 10:10 ratio or both diets chosen equally. Now, a Significant result (YES!) here indicates that these products were not chosen equally. Whereas, a non Significant result (NO) means that there is no evidence to suspect a First Choice difference.

Daily First Choice Counts						
Day	Diet A	Diet B	P of Chi ²	Significant		
1	1	19	0.0001	YES!		
2	1	19	0.0001	YES!		



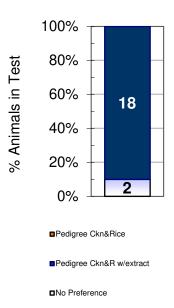
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Preference Scoring by Intake Ratio

It is a popular contention that an animal shows a clear preference by consuming twice as much of one diet as the other. This is measured as a 2:1 consumption ratio or a 0.6667 Intake Ratio.

Scoring is achieved by reviewing the average intake ratios for each dog in the test and scoring one point for the Diet with an Intake Ratio greater than or equal to 0.6667.

Using the 2:1 consumption criteria in the Intake Preference chart to the right, no dogs prefer Pedigree Ckn&Rice, 18 dogs prefer Pedigree Ckn&R w/extract and the other 2 dogs show no Preference.



Methods and Procedures

The kennel facility is registered with the USDA No. 23-R-0126 under the Animal Welfare Act. The kennel had a 12-hour-light/12-hour-dark cycle. Every attempt was made to keep temperature ranges within targeted conditions (from 50° to 85°F) in accordance with the Animal Welfare Act. Cages and feed bowls were cleaned daily and sanitized in accordance with the Animal Welfare Act.

The purpose of the study was to assess the palatability of Pedigree Ckn&Rice and Pedigree Ckn&R w/extract. The Sponsor owns the study, including raw data, results, and final reports. Summit Ridge Farms agrees to keep all aspects of this study and report confidential. All data created for this study will be stored in Summit Ridge Farms' archives for a five year period.

On 07/20/20, 160 cans pedigree + dried cream of test article Pedigree Ckn&Rice and of test article Pedigree Ckn&R w/extract were received.

Twenty male and female Beagles identified by ear tattoo and cage number were presented the test diets on an individual basis. Two stainless steel bowls, each containing approximately 2 cans of diet, were offered once daily for 2 days. To create diet B, 0.40% of dried cream was added to 2 cans of Pedigree Chopped Ground Chicken & Rice. Bowl placement was reversed daily and both bowls were presented for 30 minutes. If one diet was completely consumed prior to the end of the 30 minutes, both bowls were removed. Food consumption and first choice preference were recorded for each dog.

Study #BUTPALC00220 Date: 8/2/2020

Table 1: Day 1 Food Consumption and First Choice Data

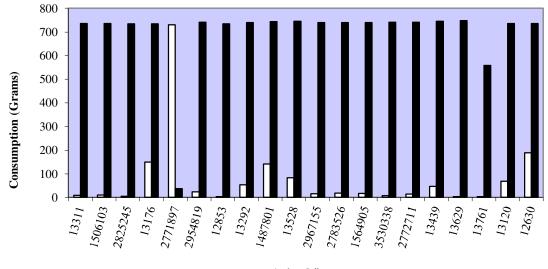
		Grams of Diet Pedigree Ckn&Rice				Grams of Diet Pedigree Ckn&R w/extract				
		\mathbf{A}	A	A	First	В	В	В	First	
	Dog	Weigh In	Weigh Out	Total	Choice	Weigh In	Weigh Out	Total	Choice	IR
1	13311	963	954	9		987	<u>251</u>	736	*	0.01
2	1506103	925	915	10		922	<u>186</u>	736	*	0.01
3	2825245	910	905	5		905	<u>171</u>	734	*	0.01
4	13176	913	763	150		909	<u>174</u>	735	*	0.17
5	2771897	909	179	730	*	913	875	38		0.95
6	2954819	906	882	24		918	<u>177</u>	741	*	0.03
7	12853	908	905	3		905	<u>170</u>	735	*	0.00
8	13292	914	861	53		918	<u>178</u>	740	*	0.07
9	1487801	906	765	141		920	<u>176</u>	744	*	0.16
10	13528	915	832	83		922	<u>176</u>	746	*	0.10
11	2967155	920	904	16		914	<u>174</u>	740	*	0.02
12	2783526	912	893	19		912	<u>172</u>	740	*	0.03
13	1564905	911	894	17		972	<u>232</u>	740	*	0.02
14	3530338	921	914	7		914	<u>173</u>	741	*	0.01
15	2772711	913	898	15		952	<u>210</u>	742	*	0.02
16	13439	948	901	47		922	<u>177</u>	745	*	0.06
17	13629	969	965	4		978	<u>230</u>	748	*	0.01
18	13761	907	903	4		917	359	558	*	0.01
19	13120	972	904	68		909	<u>173</u>	736	*	0.08
20	12630	912	723	189		911	<u>175</u>	736	*	0.20
	Total:	18454	16860	1594	1	18520	4609	13911	19	1.97
	Average:	922.7	843.0	79.7		926.0	230.5	695.6		0.10

Day 1, 2 dogs were observed with loose stool.

The underlined numbers indicate all of the diet offered was consumed.

8.73 to 1 consumption ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice

19.00 to 1 First Choice ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice



Animal #

■Pedigree Ckn&Rice

■Pedigree Ckn&R w/extract

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Table 2: Day 2 Food Consumption and First Choice Data

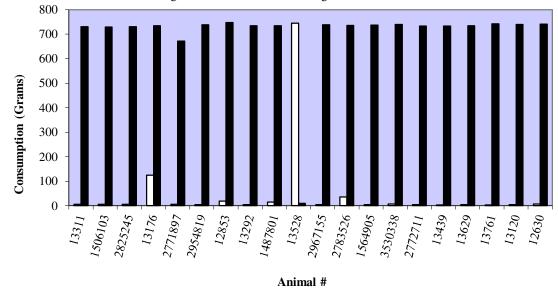
		Gran	ns of Diet Pedig	ree Ckn&Ri	ce	Grams of Diet Pedigree Ckn&R w/extract				
		A	A	A	First	В	B	B	First	
	Dog	Weigh In	Weigh Out	Total	Choice	Weigh In	Weigh Out	Total	Choice	IR
1	13311	961	955	6		982	<u>252</u>	730	*	0.01
2	1506103	925	920	5		916	<u>187</u>	729	*	0.01
3	2825245	910	905	5		901	<u>171</u>	730	*	0.01
4	13176	912	788	124		908	<u>174</u>	734	*	0.14
5	2771897	916	911	5		916	244	672	*	0.01
6	2954819	916	912	4		916	<u>178</u>	738	*	0.01
7	12853	914	896	18		918	<u>170</u>	748	*	0.02
8	13292	911	907	4		914	<u>179</u>	735	*	0.01
9	1487801	912	897	15		911	<u>176</u>	735	*	0.02
10	13528	919	<u>174</u>	745	*	909	900	9		0.99
11	2967155	925	921	4		913	<u>174</u>	739	*	0.01
12	2783526	910	874	36		908	<u>172</u>	736	*	0.05
13	1564905	909	905	4		969	<u>232</u>	737	*	0.01
14	3530338	919	912	7		914	<u>174</u>	740	*	0.01
15	2772711	912	908	4		944	<u>211</u>	733	*	0.01
16	13439	949	946	3		910	<u>177</u>	733	*	0.00
17	13629	962	958	4		966	<u>231</u>	735	*	0.01
18	13761	897	894	3		918	<u>175</u>	743	*	0.00
19	13120	977	973	4		913	<u>173</u>	740	*	0.01
20	12630	908	901	7		916	<u>175</u>	741	*	0.01
	Total:	18464	17457	1007	1	18462	4525	13937	19	1.32
	Average:	923.2	872.9	50.4		923.1	226.3	696.9		0.07

Day 2, 1 dog was observed with loose stool.

The underlined numbers indicate all of the diet offered was consumed.

13.84 to 1 consumption ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice

19.00 to 1 First Choice ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice



■Pedigree Ckn&Rice

■Pedigree Ckn&R w/extract

Study #BUTPALC00220

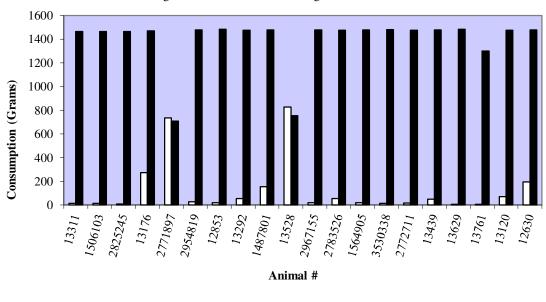
Dates: 08/02/20 through 08/03/20

Summary Table: Total Food Consumption and First Choice Data

		Gran	ns of Diet Pedigi	ree Ckn&R	ice	Grams of Diet Pedigree Ckn&R w/extract				
		A	A	A	First	В	В	В	First	
	Dog	Weigh In	Weigh Out	Total	Choice	Weigh In	Weigh Out	Total	Choice	IR
1	13311	1924	1909	15	0	1969	503	1466	2	0.01
2	1506103	1850	1835	15	0	1838	373	1465	2	0.01
3	2825245	1820	1810	10	0	1806	342	1464	2	0.01
4	13176	1825	1551	274	0	1817	348	1469	2	0.16
5	2771897	1825	1090	735	1	1829	1119	710	1	0.51
6	2954819	1822	1794	28	0	1834	355	1479	2	0.02
7	12853	1822	1801	21	0	1823	340	1483	2	0.01
8	13292	1825	1768	57	0	1832	357	1475	2	0.04
9	1487801	1818	1662	156	0	1831	352	1479	2	0.10
10	13528	1834	1006	828	1	1831	1076	755	1	0.52
11	2967155	1845	1825	20	0	1827	348	1479	2	0.01
12	2783526	1822	1767	55	0	1820	344	1476	2	0.04
13	1564905	1820	1799	21	0	1941	464	1477	2	0.01
14	3530338	1840	1826	14	0	1828	347	1481	2	0.01
15	2772711	1825	1806	19	0	1896	421	1475	2	0.01
16	13439	1897	1847	50	0	1832	354	1478	2	0.03
17	13629	1931	1923	8	0	1944	461	1483	2	0.01
18	13761	1804	1797	7	0	1835	534	1301	2	0.01
19	13120	1949	1877	72	0	1822	346	1476	2	0.05
20	12630	1820	1624	196	0	1827	350	1477	2	0.12
	Total:	36918	34317	2601	2	36982	9134	27848	38	1.67
	Average:	1845.9	1715.9	130.1		1849.1	456.7	1392.4		0.08

10.71 to 1 consumption ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice 19.00 to 1 First Choice ratio for Pedigree Ckn&R w/extract to Pedigree Ckn&Rice

■Pedigree Ckn&Rice



■Pedigree Ckn&R w/extract