

Supplementary data

Table S1: Detailed diet composition

Product		LF 2000 mg/kg vitC	LF 100 mg/kg vitC	LF 0 mg/kg vitC	HF 2000 mg/kg vitC	HF 100 mg/kg vitC	HF 0 mg/kg vitC
Alfalfa	%	33	33	33	22	22	22
Wheat	%	3.86	4.41	4.44	10	10	10
Barley	%	10	10	10	-	-	-
Wheat Bran	%	15.55	15.55	15.55	-	-	-
Sucrose	%	-	-	-	14.83	15.41	15.38
Inulin	%	3	3	3	-	-	-
Cellulose (Lignocellulose)	%	4	4	4	4.6	4.6	4.6
Sunflower meal	%	5	5	5	3	3	3
Soybean meal	%	10.2	10.2	10.2	6	6	6
Soybeans (full fat)	%	1	1	1	2.6	2.6	2.6
Soybean concentrate	%	-	-	-	12	12	12
Corn gluten feed	%	8	8	8	-	-	-
Amino acids	%	0.65	0.65	0.65	0.5	0.5	0.5
Vitamin/trace element premix	%	1	1	1	1	1	1
Choline Cl	%	0.3	0.3	0.3	0.3	0.3	0.3
Vitamin C, stabilized	%	0.58	0.029	-	0.58	0.029	-
Sugar beet pulp	%	1.3	1.3	1.3	1	1	1
Soybean oil	%	1.2	1.2	1.2	0.5	0.5	0.5
Cholesterol	%	-	-	-	0.35	0.35	0.35
Coconut oil, hydrogenated	%	-	-	-	18	18	18
Crude protein (=N x 6.25)	%	17.1	17.1	17.1	16.9	16.9	16.9
Crude fat	%	3.8	3.8	3.8	20	20	20
Crude fiber	%	19.8	19.9	19.9	11.4	11.4	11.4
NDF ¹	%	32.3	32.4	32.4	-	-	-
Crude ash	%	7.9	7.9	7.9	6.6	6.6	6.6
Starch	%	13.3	13.7	13.7	7.9	7.9	7.9
Sugar	%	4	4	4	17.3	17.9	17.9

Carbohydrates (NfE)	%	41.1	41.1	41.1			
ME (Atwater)²	MJ/kg	11.2	11.2	11.2	16.8	16.8	16.8
Kcal% Protein		26	26	26	17	17	17
Kcal% Fat		13	13	13	45	45	45
Kcal% CHO		61	61	61	38	38	38
Fatty Acids, % in diet							
C8:0	-	-	-	-	1.06	1.06	1.06
C10:0	-	-	-	-	0.86	0.86	0.86
C12:0	-	-	-	-	8.22	8.22	8.22
C14:0	0.01	0.01	0.01	0.01	3.53	3.53	3.53
C16:0	0.64	0.64	0.64	0.64	2.23	2.23	2.23
C18:0	0.11	0.11	0.11	0.11	2.32	2.32	2.32
C20:0	0.01	0.01	0.01	0.01	0.03	0.03	0.03
C16:1	0.02	0.02	0.02	0.02	0.01	0.01	0.01
C18:1	0.67	0.67	0.67	0.67	0.44	0.44	0.44
C18:2	1.89	1.89	1.89	1.89	0.96	0.96	0.96
C18:3	0.35	0.35	0.35	0.35	0.22	0.22	0.22

¹NDF: Neutral Detergent Fiber; fiber fraction that is included in the CHO (NfE). ²Atwater may not accurately reflect the ME of high fiber diets for guinea pigs as this is currently not known. Consequently the Atwater has been estimated using ME for rats.. Diets containing 50 mg vitC/kg feed were obtained by mixing 0 and 100 mg vitC/kg feed. All feed were manufactured by Sniff Spezialdiäten, Soest, Germany, and vitamin C content confirmed by post production analysis. CHO: Hydrated carbohydrates, LF: Low fat diet; HF: high fat diet, ME: Metabolizable Energy, NfE: Nitrogen free extracts, vitC: vitamin C.