Supplementary Table S1. Physical and chemical characteristics of starch sugar by-product[1] (n=10)

Items	Mean	Median	SD	MIN	MAX	Skewness[2]	$2\times SE_S$[3]	Kurtosis[4]	$2\times SE_k$[5]
Physical characteristics									
Complex viscosity, hPa/s	133.98	118.39	50.29	75.36	212.35	0.29	1.55	-1.48	3.10
Particle, size, μm	557	570	128	289	703	-1.16	1.55	1.07	3.10
Density, DM g/cm^3	1.31	1.26	0.14	1.19	1.61	1.15	1.55	0.71	3.10
Chemical compositions									
DM, %	61.43	61.80	3.52	55.20	65.83	-0.44	1.55	-0.79	3.10
CP, %DM	14.43	13.00	7.63	6.01	33.46	1.93	1.55	4.57	3.10
EE, %DM	23.26	21.40	7.41	10.66	36.99	0.22	1.55	0.42	3.10
NDF, %DM	35.67	34.10	11.28	13.15	51.22	-0.76	1.55	0.66	3.10
ADF, %DM	31.29	28.93	10.93	11.76	47.11	-0.20	1.55	-0.12	3.10
Ash, %DM	32.60	33.68	13.67	11.01	57.32	0.20	1.55	-0.06	3.10
WSC, %DM	9.96	9.22	3.98	1.71	15.78	-0.48	1.55	1.37	3.10
GE, Kcal/kg	4,198	3965	1,033	2,341	6,005	0.11	1.55	0.48	3.10
pH	4.14	3.71	0.80	3.41	5.33	0.97	1.55	-1.22	3.10

[1]DM, dry matter; CP, crude protein; EE, ether extract; NDF, neutral detergent fiber; ADF, acid detergent fiber; WSC, water soluble carbohydrate; GE, gross energy; SD, Standard deviation; MIN, Minimum value in database, MAX, Maximum value in database.

[2]The degree of asymmetry of a distribution around its mean where $0 \pm 2 \times Se_S$ = normal.

[3]SE_S, square root (6/n).

[4]Characterizes the relative peakedness or flatness of a distribution, where $0 \pm 2 \times Se_k$ = normal.

[5]SE_k, square root (24/n)