

CORN SOY REPORT 2022

AMINONIR®





Dear Customer,

In continuation of our long-term commitment to our customers, Evonik Nutrition & Care has compiled a comprehensive report characterizing the amino acids, crude fat, crude fiber, sugar, starch, and ash contents of corn, soybean meal, soybean expeller, and corn-based dried distiller's grains with solubles (DDGS) for 2022. The data presented for corn and soybean meal are representative of the current U.S. crops and are segmented by region.

For the 2022 corn crop, there was an increase of crude protein content (7.67 vs. 7.37%), and decrease of starch (64.39 vs. 65.01 %) compared to the 2021 corn crop.

For the 2022 soybean meal, there was a decrease in crude protein compared to the 2021 harvest (46.12 vs. 46.63%). Consistent with previous years, the soybean meal from this year's crop shows regional differences in crude protein content. Samples originating from Western Corn Belt, Eastern Corn Belt, Midsouth, Southeast, and East Coast reported 45.94, 45.92, 46.91, 46.47, 45.71 % of crude protein, respectively.

In 2022, the average crude protein content for DDGS was 28.62 %, higher than the previous year (28.53 %). Lower concentration of crude fat (8.18 vs. 8.39 %) was observed compared to the previous year.

Processing condition of soybean meal, soy expeller, and DDGS were reported. Based on the processing condition indicator (PCI), an Evonik-created parameter, 59 % of the

soy product samples showed optimal processing conditions (PCI between 12 and 14). 1 % of the soy samples could be slightly overcooked (PCI < 12) and 40 % of the samples could be slightly undercooked (PCI > 14). For DDGS, 27 % of the samples showed optimal processing conditions (PCI ≥ 14). 17 % of the samples showed medium to severe heat damage (PCI ≤ 11).

While we take the responsibility to generate this report, we feel that what makes it so successful is that it is entirely based on samples collected by our customers and analyzed through Evonik's AMINON/R® laboratory service. By compiling the report as presented, we believe we can provide information that is pertinent to our customers and their operations and give insight into general trends that are occurring in each year's crops.

Thank you to our customers who participated in the 2022 crop report. Without your participation, this report would not be possible.

Yours sincerely,

Paulo Sergio Teixeira
Regional Vice President Animal Nutrition

CORN

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Region	n	STAT	Crude Protein	Crude Fat	Starch	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
All Regions	690	Mean (%)	7.67	3.46	64.39	1.70	1.19	1.85	0.16	0.17	0.33	0.24	0.27	0.06	0.35	0.26	0.92	0.36	0.22	0.37
		SD	0.60	0.23	1.10	0.27	0.08	0.15	0.01	0.01	0.02	0.02	0.02	0.00	0.03	0.02	0.09	0.03	0.02	0.03
		CV (%)	7.87	6.73	1.71	16.06	6.67	8.21	8.72	6.24	7.40	6.76	7.54	6.08	8.24	8.51	9.69	7.59	7.56	9.56
		Min (%)	6.07	2.80	58.50	0.90	1.00	1.40	0.12	0.14	0.26	0.20	0.22	0.05	0.29	0.20	0.68	0.29	0.17	0.28
		Max (%)	10.24	4.80	67.00	2.70	1.50	2.40	0.20	0.20	0.40	0.32	0.37	0.08	0.51	0.36	1.22	0.49	0.28	0.51
Western Corn belt (IA, KS, MN, MO, ND, NE, SD)	244	Mean (%)	7.54	3.37	64.54	1.79	1.18	1.83	0.15	0.16	0.32	0.23	0.27	0.06	0.34	0.26	0.91	0.36	0.21	0.36
		SD	0.60	0.20	0.94	0.27	0.07	0.14	0.01	0.01	0.03	0.01	0.02	0.00	0.03	0.02	0.09	0.03	0.02	0.04
		CV (%)	7.99	5.94	1.46	14.84	6.21	7.60	8.87	6.88	7.86	6.07	7.55	5.36	8.10	8.64	10.29	7.71	8.28	9.84
		Min (%)	6.30	2.80	62.00	1.10	1.00	1.50	0.12	0.14	0.26	0.20	0.23	0.05	0.29	0.21	0.71	0.30	0.18	0.29
		Max (%)	9.51	4.20	66.80	2.70	1.40	2.30	0.19	0.20	0.40	0.27	0.33	0.07	0.42	0.33	1.22	0.44	0.27	0.48
Eastern Corn Belt (IL, IN, OH, WI)	72	Mean (%)	7.20	3.41	65.24	1.59	1.16	1.81	0.14	0.16	0.30	0.22	0.26	0.06	0.33	0.25	0.86	0.34	0.21	0.34
		SD	0.46	0.19	0.75	0.25	0.08	0.11	0.01	0.01	0.02	0.01	0.02	0.00	0.02	0.02	0.07	0.02	0.01	0.03
		CV (%)	6.40	5.43	1.14	15.42	6.76	6.32	7.35	4.74	5.69	4.41	5.90	3.94	5.61	7.30	8.56	6.20	6.01	7.97
		Min (%)	6.07	3.00	63.20	0.90	1.00	1.50	0.12	0.14	0.27	0.20	0.22	0.05	0.29	0.20	0.68	0.29	0.17	0.28
		Max (%)	8.06	3.80	67.00	2.20	1.30	2.00	0.17	0.17	0.34	0.25	0.29	0.06	0.38	0.28	1.03	0.38	0.23	0.40
Midsouth (AR, KY, LA, MS, TN, TX)	178	Mean (%)	7.93	3.55	63.94	1.74	1.21	1.88	0.16	0.17	0.34	0.24	0.28	0.06	0.37	0.27	0.94	0.37	0.23	0.38
		SD	0.51	0.22	0.94	0.31	0.08	0.19	0.01	0.01	0.02	0.01	0.02	0.00	0.02	0.02	0.09	0.02	0.01	0.03
		CV (%)	6.40	6.22	1.47	17.82	6.76	9.95	6.20	4.43	5.12	5.09	5.84	4.72	5.42	7.25	9.09	6.14	5.68	8.29
		Min (%)	6.62	3.00	61.70	0.90	1.00	1.40	0.14	0.15	0.30	0.20	0.24	0.05	0.30	0.22	0.72	0.32	0.20	0.30
		Max (%)	9.33	4.00	66.30	2.70	1.40	2.40	0.19	0.19	0.38	0.27	0.33	0.07	0.41	0.33	1.22	0.43	0.26	0.48
Southeast (AL, GA, FL, NC)	101	Mean (%)	8.05	3.59	63.62	1.61	1.22	1.92	0.17	0.17	0.34	0.25	0.29	0.06	0.38	0.28	0.95	0.38	0.23	0.39
		SD	0.55	0.26	1.22	0.20	0.09	0.12	0.01	0.01	0.02	0.02	0.02	0.00	0.03	0.02	0.08	0.03	0.01	0.03
		CV (%)	6.80	7.31	1.91	12.54	6.98	6.49	5.86	5.55	5.64	6.44	6.67	5.82	7.32	7.42	8.24	6.67	6.29	8.45
		Min (%)	6.90	2.80	58.50	1.00	1.00	1.70	0.14	0.15	0.30	0.22	0.25	0.06	0.33	0.23	0.78	0.33	0.20	0.31
		Max (%)	10.24	4.80	65.70	2.10	1.50	2.20	0.20	0.20	0.39	0.32	0.37	0.08	0.51	0.36	1.15	0.49	0.28	0.51
East Coast (DE, MD, NJ, NY, PA, VA)	67	Mean (%)	7.59	3.50	64.88	1.54	1.18	1.81	0.15	0.17	0.32	0.23	0.27	0.06	0.35	0.26	0.90	0.36	0.22	0.36
		SD	0.45	0.22	0.96	0.18	0.06	0.12	0.01	0.01	0.02	0.01	0.02	0.00	0.02	0.02	0.07	0.02	0.01	0.03
		CV (%)	5.94	6.22	1.48	11.54	5.43	6.80	6.65	4.35	5.31	5.08	5.65	4.40	5.59	6.61	8.06	5.51	5.03	7.63
		Min (%)	6.44	3.00	63.00	1.20	1.10	1.60	0.13	0.15	0.29	0.20	0.23	0.05	0.29	0.22	0.71	0.31	0.19	0.29
		Max (%)	8.85	4.10	67.00	1.90	1.40	2.10	0.18	0.18	0.37	0.26	0.31	0.06	0.39	0.31	1.13	0.41	0.25	0.44
West Coast (UT, CO)	28	Mean (%)	7.15	3.31	65.20	1.73	1.14	1.75	0.15	0.16	0.31	0.22	0.25	0.06	0.33	0.24	0.86	0.34	0.21	0.34
		SD	0.37	0.16	0.97	0.22	0.06	0.10	0.01	0.01	0.01	0.01	0.01	0.00	0.02	0.01	0.05	0.02	0.01	0.02
		CV (%)	5.10	4.86	1.48	12.78	4.98	5.92	4.34	3.51	4.14	6.06	5.50	5.13	6.62	5.92	6.04	5.35	4.72	7.20
		Min (%)	6.61	3.00	62.80	1.00	1.10	1.60	0.14	0.15	0.29	0.20	0.24	0.05	0.29	0.22	0.79	0.31	0.19	0.30
		Max (%)	8.34	3.70	66.90	2.00	1.30	2.00	0.17	0.18	0.35	0.26	0.30	0.06	0.39	0.29	1.02	0.40	0.23	0.42

Crop Year	n	STAT	Crude Protein	Crude Fat	Starch	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
2018	311	Mean (%)	7.43	3.42	65.59	1.34	1.13	1.72	0.15	0.16	0.31	0.24	0.27	0.06	0.35	0.26	0.89	0.36	0.22	0.37
2019	472	Mean (%)	7.23	3.47	65.87	1.85	1.16	1.76	0.15	0.16	0.31	0.23	0.26	0.06	0.34	0.25	0.86	0.34	0.21	0.35
2020	552	Mean (%)	7.37	3.47	65.07	1.66	1.18	1.79	0.15	0.16	0.32	0.24	0.27	0.06	0.36	0.25	0.87	0.35	0.21	0.36
2021	743	Mean (%)	7.37	3.47	65.01	1.64	1.18	1.87	0.15	0.16	0.32	0.24	0.26	0.06	0.35	0.25	0.85	0.35	0.21	0.35
2022	690	Mean (%)	7.67	3.46	64.39	1.70	1.19	1.85	0.16	0.17	0.33	0.24	0.27	0.06	0.35	0.26	0.92	0.36	0.22	0.37

Dry matter of corn is standardized at 88%.

	Digestibility Coefficients ¹ (%)											
	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
Swine	87	81	84	74	78	73	88	85	88	82	86	87
Poultry	94	87	91	88	86	84	89	96	92	93	95	92

¹ AMINODat® 6.1

Dried Distillers Grain with Solubles (DDGS)

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Region	n	STAT	Crude Protein	Crude Fat	Starch	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
All Regions	1,624	Mean (%)	28.62	8.18	3.91	1.08	4.80	6.85	0.53	0.52	1.07	0.85	1.04	0.23	1.31	1.02	3.03	1.32	0.73	1.35
		SD	1.76	0.79	1.78	0.52	0.38	0.53	0.04	0.04	0.08	0.07	0.06	0.02	0.11	0.07	0.22	0.09	0.05	0.09
		CV (%)	6.15	9.66	45.54	47.63	7.84	7.74	8.07	7.16	7.12	8.33	5.79	7.54	8.22	6.79	7.26	6.74	6.60	6.99
		Min (%)	20.17	5.50	0.70	0.20	2.60	5.10	0.35	0.35	0.72	0.41	0.72	0.16	0.73	0.65	2.16	0.88	0.50	0.90
		Max (%)	35.62	12.60	9.40	5.00	6.60	9.90	0.66	0.63	1.33	1.12	1.29	0.30	1.85	1.28	3.90	1.70	0.92	1.69

Crop Year	n	STAT	Crude Protein	Crude Fat	Starch	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
2018	1,687	Mean (%)	27.28	8.81	4.87	1.36	4.58	6.96	0.51	0.51	1.03	0.80	1.00	0.21	1.18	0.97	3.02	1.30	0.72	1.29
2019	2,745	Mean (%)	27.23	8.81	4.55	1.23	4.81	7.15	0.52	0.51	1.03	0.81	1.01	0.22	1.22	0.98	3.02	1.30	0.72	1.30
2020	1,952	Mean (%)	28.08	8.68	3.93	1.17	4.74	6.93	0.51	0.51	1.03	0.81	1.02	0.23	1.25	0.99	3.04	1.30	0.72	1.32
2021	2,533	Mean (%)	28.53	8.39	4.07	1.10	4.77	6.83	0.53	0.52	1.06	0.84	1.04	0.22	1.26	1.01	3.09	1.32	0.73	1.35
2022	1,624	Mean (%)	28.62	8.18	3.91	1.08	4.80	6.85	0.53	0.52	1.07	0.85	1.04	0.23	1.31	1.02	3.03	1.32	0.73	1.35

Dry matter of DDGS is standardized at 88%.

		Digestibility Coefficients ¹ (%)											
		MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
Swine		83	75	76	63	72	76	81	78	85	77	79	82
Poultry		83	78	81	61	69	81	80	77	84	75	71	78

¹ AMINODat® 6.1

Soybean Meal (SBM)

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Region	n	STAT	Crude Protein	Crude Fat	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
All Regions	423	Mean (%)	46.12	2.26	10.86	6.50	3.82	0.61	0.65	1.26	2.83	1.79	0.63	3.32	2.09	3.49	2.19	1.20	2.34
		SD	0.93	0.47	0.58	0.21	0.49	0.01	0.02	0.03	0.05	0.04	0.01	0.07	0.05	0.08	0.04	0.02	0.06
		CV (%)	2.02	20.81	5.34	3.27	12.73	2.12	2.47	2.14	1.83	1.97	1.99	2.19	2.33	2.15	2.02	1.80	2.39
		Min (%)	40.59	1.30	9.00	6.10	3.00	0.52	0.55	1.10	2.46	1.55	0.55	2.85	1.80	2.99	1.91	1.05	2.01
		Max (%)	48.83	4.00	11.90	8.00	7.70	0.64	0.70	1.35	3.00	1.88	0.67	3.51	2.23	3.69	2.30	1.25	2.50
Western Corn belt (IA, KS, MN, MO, NE, SD)	206	Mean (%)	45.94	2.16	0.62	6.46	3.79	0.61	0.65	1.26	2.83	1.78	0.63	3.31	2.08	3.48	2.18	1.19	2.32
		SD	0.69	0.39	0.13	0.11	0.44	0.01	0.01	0.02	0.04	0.03	0.01	0.06	0.03	0.05	0.03	0.02	0.04
		CV (%)	1.50	17.90	20.75	1.76	11.54	1.78	1.78	1.65	1.49	1.44	1.59	1.79	1.66	1.56	1.48	1.47	1.63
		Min (%)	42.78	1.40	0.40	6.20	3.00	0.56	0.60	1.16	2.66	1.67	0.58	3.06	1.93	3.23	2.03	1.12	2.16
		Max (%)	47.61	4.00	1.30	6.80	5.40	0.64	0.69	1.32	2.93	1.84	0.66	3.45	2.17	3.61	2.26	1.24	2.42
Eastern Corn Belt (IL, IN, WI, OH)	102	Mean (%)	45.92	2.29	0.57	6.56	3.92	0.61	0.64	1.25	2.82	1.78	0.63	3.31	2.09	3.48	2.18	1.19	2.33
		SD	0.85	0.45	0.17	0.28	0.36	0.01	0.02	0.03	0.05	0.03	0.01	0.07	0.05	0.07	0.04	0.02	0.05
		CV (%)	1.85	19.74	29.72	4.25	9.22	2.22	2.88	2.47	1.79	1.85	2.01	2.01	2.20	1.94	1.85	1.73	2.15
		Min (%)	43.31	1.30	0.30	6.20	3.10	0.56	0.58	1.14	2.65	1.66	0.59	3.07	1.94	3.23	2.05	1.13	2.14
		Max (%)	48.44	4.00	1.70	7.80	5.50	0.64	0.70	1.35	3.00	1.87	0.67	3.51	2.22	3.65	2.30	1.25	2.47
Midsouth (AR, KY, MS)	57	Mean (%)	46.91	2.25	0.53	6.40	3.59	0.61	0.65	1.27	2.86	1.81	0.64	3.37	2.14	3.56	2.23	1.21	2.39
		SD	0.89	0.53	0.10	0.11	0.28	0.01	0.01	0.02	0.04	0.03	0.01	0.07	0.05	0.07	0.04	0.02	0.05
		CV (%)	1.89	23.73	19.53	1.72	7.66	1.49	1.57	1.44	1.42	1.67	1.48	2.11	2.14	1.89	1.81	1.53	2.27
		Min (%)	45.10	1.30	0.30	6.20	3.10	0.59	0.61	1.23	2.69	1.75	0.62	3.21	2.05	3.42	2.15	1.17	2.29
		Max (%)	48.83	3.30	0.70	6.60	4.30	0.63	0.67	1.30	2.94	1.88	0.66	3.49	2.23	3.69	2.30	1.25	2.50
Southeast (AL, GA, NC)	46	Mean (%)	46.47	2.47	0.56	6.57	4.03	0.60	0.64	1.25	2.82	1.79	0.63	3.34	2.11	3.52	2.20	1.19	2.37
		SD	1.20	0.57	0.13	0.21	0.66	0.01	0.02	0.03	0.07	0.05	0.02	0.09	0.06	0.10	0.06	0.03	0.07
		CV (%)	2.59	23.15	23.24	3.24	16.38	2.41	2.85	2.55	2.42	2.69	2.53	2.66	2.92	2.87	2.68	2.21	3.04
		Min (%)	43.71	1.40	0.30	6.10	3.00	0.56	0.59	1.17	2.67	1.69	0.59	3.13	1.98	3.29	2.06	1.13	2.22
		Max (%)	48.28	3.90	0.90	6.90	6.10	0.63	0.67	1.30	2.93	1.86	0.66	3.48	2.21	3.68	2.29	1.23	2.48
East Coast (PA, MD)	12	Mean (%)	45.71	3.05	0.54	7.01	3.90	0.60	0.62	1.23	2.77	1.75	0.63	3.29	2.05	3.44	2.15	1.17	2.29
		SD	1.73	0.10	0.05	0.35	1.26	0.02	0.03	0.05	0.10	0.07	0.03	0.15	0.08	0.15	0.08	0.04	0.10
		CV (%)	3.78	3.28	9.51	5.03	32.27	4.18	4.84	4.11	3.71	3.89	4.31	4.56	4.06	4.25	3.84	3.59	4.17
		Min (%)	40.59	2.90	0.50	6.60	3.20	0.52	0.55	1.10	2.46	1.55	0.55	2.85	1.80	2.99	1.91	1.05	2.01
		Max (%)	46.75	3.20	0.60	8.00	7.70	0.61	0.65	1.28	2.83	1.80	0.64	3.39	2.10	3.52	2.21	1.20	2.36

Crop Year	n	STAT	Crude Protein	Crude Fat	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
2018	218	Mean (%)	46.98	2.16	9.96	6.62	3.77	0.62	0.67	1.28	2.90	1.82	0.64	3.41	2.12	3.55	2.23	1.21	2.38
2019	366	Mean (%)	46.66	2.15	10.11	6.40	3.88	0.62	0.66	1.28	2.86	1.80	0.63	3.38	2.10	3.52	2.21	1.20	2.35
2020	351	Mean (%)	46.20	2.46	10.16	6.33	3.98	0.61	0.66	1.26	2.81	1.79	0.63	3.34	2.08	3.49	2.19	1.19	2.34
2021	400	Mean (%)	46.63	2.25	10.36	6.66	3.77	0.61	0.66	1.27	2.85	1.81	0.63	3.39	2.12	3.53	2.21	1.20	2.37
2022	423	Mean (%)	46.12	2.26	10.86	6.50	3.82	0.61	0.65	1.26	2.83	1.79	0.63	3.32	2.09	3.49	2.19	1.20	2.34

Dry matter of soybean meal is standardized at 88%.

	Digestibility Coefficients ¹ (%)											
	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
Swine	91	85	88	90	87	89	96	90	89	90	91	90
Poultry	90	78	84	89	83	89	91	87	87	86	89	88

¹ AMINODat® 6.1

Soybean Expeller

AMINONIR®

Region	n	STAT	Crude Protein	Crude Fat	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
All Regions	549	Mean (%)	41.37	8.28	8.95	5.93	5.13	0.55	0.61	1.16	2.57	1.59	0.56	3.05	1.86	3.09	1.95	1.08	2.08
		SD	1.45	0.83	0.70	0.34	0.53	0.02	0.02	0.04	0.08	0.05	0.02	0.11	0.07	0.11	0.06	0.04	0.07
		CV (%)	3.51	10.00	7.83	5.66	10.34	3.56	3.32	3.29	3.00	3.39	3.40	3.63	3.52	3.58	3.28	3.45	3.40
		Min (%)	36.73	5.50	5.70	5.40	3.20	0.45	0.49	0.93	2.28	1.41	0.49	2.60	1.66	2.78	1.74	0.94	1.85
		Max (%)	45.83	11.80	11.00	7.40	7.20	0.63	0.68	1.27	2.81	1.76	0.62	3.46	2.09	3.45	2.15	1.20	2.30

Crop Year	n	STAT	Crude Protein	Crude Fat	Sugar	Ash	Crude Fiber	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
2022	549	Mean (%)	41.37	8.28	8.95	5.93	5.13	0.55	0.61	1.16	2.57	1.59	0.56	3.05	1.86	3.09	1.95	1.08	2.08

Dry matter of soybean expeller is standardized at 88 %.

	Digestibility Coefficients ¹ (%)											
	MET	CYS	M+C	LYS	THR	TRP	ARG	ILE	LEU	VAL	HIS	PHE
Swine	90	83	86	89	86	87	93	88	87	87	90	89
Poultry	91	82	86	90	85	89	93	89	89	88	92	89

¹ AMINODat® 6.1

Soy products and DDGS quality report

AMINONIR®

Processing condition of SBM and DDGS can be assessed by measuring the Protein Dispersibility Index (PDI), protein solubility in KOH, trypsin inhibitor activity, reactive lysine, and reactive lysine/lysine ratio. Evonik has added to its near-infrared spectroscopy (NIRS) portfolio a service, based on those traditional laboratory assays, that predicts the quality of heat-exposed soy products and corn-based DDGS—AMINONIR® RED 2.0. Moreover, the Processing Condition Indicator (PCI) is an Evonik-created parameter that incorporates all parameters aforementioned to provide an overall picture of the quality of the processed raw material. However, reactive lysine is the parameter that has more weight in the estimation of PCI. Reactive lysine is not involved in a Maillard reaction and is available to the animal. For SBM, PCI values between 12 and 14 are optimal, and for DDGS, PCI values equal to or greater than 14 are optimal. This report was developed using the parameter measured in AMINONIR® RED 2.0 from SBM, soybean expeller and DDGS samples scanned during 2022.

Material	N Obs	Variable	N	Mean	Std Dev	CV	Minimum	Maximum
DDGS, Corn	1,546	Protein Dispersibility Index (PDI)	1,546	18.1	4.2	23.4	7.9	36.4
		Protein Solubility in KOH	1,546	29.1	4.2	14.4	15.2	43.4
		Reactive Lysine	1,546	0.6	0.1	12.2	0.2	0.8
		Reactive Lysine/Lysine Ratio	1,546	72.4	5.1	7.1	45.2	89.7
		Processing Conditions Indicator (PCI)	1,546	12.7	1.3	10.3	6.0	16.2
Soybean Meal	422	Protein Solubility in KOH	422	79.0	2.5	3.2	61.4	89.8
		Trypsin Inhibitor Activity	422	3.2	0.5	15.3	1.8	5.8
		Reactive Lysine	422	2.5	0.1	2.3	2.1	2.6
		Reactive Lysine/Lysine Ratio	422	88.6	0.7	0.8	83.0	90.4
		Processing Conditions Indicator (PCI)	422	14.4	1.0	7.2	11.0	19.8
Soybean Expeller	537	Protein Solubility in KOH	535	82.4	3.9	4.7	57.8	96.4
		Trypsin Inhibitor Activity	535	6.9	0.8	11.5	2.8	10.1
		Reactive Lysine	537	2.3	0.1	4.5	2.0	2.7
		Reactive Lysine/Lysine ratio	521	89.9	1.5	1.7	81.7	94.0
		Processing Conditions Indicator (PCI)	521	16.4	1.7	10.1	10.0	22.2

Unit of Protein Solubility in KOH is %.
 Unit of Reactive Lysine is %.
 Unit of Reactive Lysine/Lysine Ratio is %

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