

## 2015 Feed Composition Table

All values except dry matter (DM) are shown on a DM basis.

FEEDSTUFF	ENERGY					PROTEIN		FIBER											
	DM %	TDN %	NE <sub>m</sub>	NE <sub>g</sub> (Mcal/cwt.)	NE <sub>l</sub>	CP %	UIP %	CF %	ADF %	NDF %	eNDF %	EE %	Ash %	Ca %	P %	K %	Cl %	S %	Zn ppm
Alfalfa cubes	91	57	57	25	57	18	30	29	36	46	40	2.0	11	1.30	0.23	1.9	0.37	0.33	20
Alfalfa, dehydrated, 17% CP	92	61	62	31	61	19	60	26	34	45	6	3.0	11	1.42	0.25	2.5	0.45	0.28	21
Alfalfa, fresh	24	61	62	31	61	19	18	27	34	46	41	3.0	9	1.35	0.27	2.6	0.40	0.29	18
Alfalfa hay, early bloom	90	59	59	28	59	19	20	28	35	45	92	2.5	8	1.41	0.26	2.5	0.38	0.28	22
Alfalfa hay, midbloom	89	58	58	26	58	17	23	30	36	47	92	2.3	9	1.40	0.24	2.0	0.38	0.27	24
Alfalfa hay, full bloom	88	54	54	20	54	16	25	34	40	52	92	2.0	8	1.20	0.23	1.7	0.37	0.25	23
Alfalfa hay, mature	88	50	50	12	49	13	30	38	45	59	92	1.3	8	1.18	0.19	1.5	0.35	0.21	23
Alfalfa seed screenings	91	84	92	61	87	34		13	15			10.7	6	0.30	0.67				
Alfalfa silage	30	55	55	21	55	18	19	28	37	49	82	3.0	9	1.40	0.29	2.6	0.41	0.29	26
Alfalfa silage, wilted	39	58	58	26	58	18	22	28	37	49	82	3.0	9	1.40	0.29	2.6	0.41	0.29	26
Alfalfa leaf meal	89	60	60	30	60	26	15	16	24	34	35	3.0	10	2.88	0.34	2.2		0.32	39
Alfalfa stems	89	47	47	7	46	11	44	44	51	68	100	1.3	6	0.90	0.18	2.5			
Almond hulls	89	56	56	23	56	3	60	16	29	36	100	3.1	7	0.24	0.10	2.0	0.03	0.07	20
Ammonium chloride	99	0	0	0	0	163	0	0	0	0	0	0.0		0.00	0.00	0.0	66.00	0.00	0
Ammonium sulfate	99	0	0	0	0	132	0	0	0	0	0	0.0						24.15	
Apples	17	70	73	44	71	3	10	7	9	25	10	2.2	2	0.06	0.60	0.8			
Apple pomace, wet	20	68	70	41	69	5	10	18	27	36	27	5.2	3	0.13	0.12	0.5		0.04	11
Apple pomace, dried	89	67	69	40	68	5	15	18	28	38	29	5.2	3	0.13	0.12	0.5		0.04	11
Artichoke tops (Jerusalem)	27	61	62	31	61	6		18	30	41	40	1.1	10	1.62	0.11	1.4			
Avocado seed meal	91	52	52	16	51	20		19	24			1.2	16						
Bahiagrass hay	90	53	53	18	53	6	37	32	41	72	98	1.8	7	0.47	0.20	1.4		0.21	
Bakery product, dried	90	90	100	68	94	11	30	3	9	30	0	11.5	4	0.16	0.27	0.4	2.25	0.15	33
Bananas	24	84	92	61	87	4		4	5			0.8	3	0.03	0.11	1.5			8
Barley hay	90	57	57	25	57	9		28	37	65	98	2.1	8	0.30	0.28	1.6		0.19	25
Barley silage	35	59	58	26	58	12	22	34	37	58	61	3.0	9	0.46	0.30	2.4		0.22	28
Barley silage, mature	35	58	58	26	58	12	25	30	34	50	61	3.5	9	0.30	0.20	1.5		0.15	25
Barley straw	90	44	44	1	43	4	70	42	55	78	100	1.9	7	0.32	0.08	2.2	0.67	0.16	7
Barley grain	89	84	92	61	87	12	28	5	7	20	34	2.1	3	0.06	0.38	0.6	0.18	0.16	23
Barley grain, steam-flaked	85	90	100	70	100	12	39	5	7	20	30	2.1	3	0.06	0.35	0.6	0.18	0.16	23
Barley grain, steam-rolled	86	84	92	61	87	12	38	5	7	20	27	2.1	3	0.06	0.41	0.6	0.18	0.17	30
Barley grain, 2-row	88	84	92	61	87	12		5	8	20	34	2.2	3	0.06	0.34	0.5	0.18	0.17	16
Barley grain, 6-row	87	84	92	61	87	11		6	8	20	34	2.2	3	0.05	0.36	0.5	0.18	0.15	14
Barley grain lightweight. (42-44 pounds/bushel)	88	78	83	54	80	13	30	9	12	30	34	2.3	4						
Barley feed, pearl byproduct	90	74	78	49	76	15	25	12	15			3.9	5	0.05	0.45	0.7		0.06	
Barley bran	91	59	59	28	59	12	28	21	27	36	6	4.3	7						
Barley grain screenings	89	71	74	46	73	12		9	11			2.6	4	0.35	0.33	0.9		0.15	
Beans, navy, cull	90	84	92	61	87	24	25	5	8	20	0	1.4	5	0.15	0.60	1.4	0.06	0.26	45
Beans, pinto	90	75	90	60	86	25	25	5	6	7	0	1.5	5	0.14	0.43	1.1	0.06	0.22	25
Beet pulp, wet	17	77	82	53	79	9	35	20	25	45	30	0.7	5	0.65	0.08	0.9	0.40	0.22	21
Beet pulp, dried	91	76	81	52	78	9	44	21	26	46	33	0.7	5	0.65	0.08	0.9	0.40	0.22	21
Beet pulp, wet with molasses	24	77	82	53	79	11	25	16	21	39	33	0.6	6	0.60	0.10	1.8		0.42	11
Beet pulp, dried with molasses	92	77	82	53	79	11	34	17	23	40	33	0.6	6	0.60	0.10	1.8		0.42	11
Beet foot (sugar)	23	80	86	56	83	4		5	7	16		0.4	3						
Beet tops (sugar)	19	58	58	26	58	14		11	14	25	41	1.3	24	1.10	0.22	5.2	0.20	0.45	20
Beet top silage	25	52	52	16	51	12		12				2.0	32	1.38	0.22	5.7		0.57	20
Bermudagrass coastal, dehydrated	90	62	63	33	63	16	40	26	29	40	10	3.8	7	0.40	0.25	1.8	0.72	0.23	18
Bermudagrass coastal hay	89	56	56	23	56	10	15	30	36	73	98	2.1	6	0.47	0.21	1.5	0.70	0.22	16
Bermudagrass hay	89	53	53	18	53	10	15	29	37	72	98	1.9	8	0.46	0.20	1.5	0.70	0.25	31
Bermudagrass silage	26	50	50	12	49	10	14	28	35	71	48	1.9	8	0.46	0.20	1.5	0.72	0.25	31
Birdsfoot trefoil, fresh	22	66	68	38	67	21	20	21	31	47	41	4.4	9	1.78	0.25	2.6		0.25	31
Birdsfoot trefoil hay	89	57	57	25	57	16	22	31	38	50	92	2.2	8	1.73	0.24	1.8		0.25	28
Biuret	99	0	0	0	0	248	0	0	0	0	0	0.0	0	0.00	0.00	0.0	0.00	0.00	0
Blood meal, swine/poultry	91	66	68	38	67	92	82	1	2	10	0	1.4	3	0.32	0.28	0.2	0.30	0.70	22
Bluegrass, Kentucky, fresh, early bloom	36	69	71	43	70	15	20	27	32	60	41	3.9	7	0.37	0.30	1.9	0.42	0.19	25
Bluegrass straw	93	45	3	44	6		40	50	78	90	1.1	6	0.20	0.10					
Bluestem, fresh mature	61	50	50	12	49	6		34				2.5	5	0.40	0.12	0.8		0.05	28

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Bonemeal, steamed, swine/poultry	95	100	27	0	11	13		1	0	0	0	11.6	77	27.00	12.74	0.2		2.50	290
Bread byproduct	68	90	100	68	94	14	24	1	2	3	0	3.0	3	0.10	0.18	0.2	0.76	0.15	40
Brewers grains, wet	23	85	93	62	88	26	52	13	21	45	18	7.5	4	0.30	0.58	0.1	0.15	0.32	78
Brewers grains, dried	92	84	92	61	87	25	54	14	24	49	18	7.5	4	0.30	0.58	0.1	0.15	0.32	78
Brewers yeast, dried	94	79	85	55	81	48		3				1.0	7	0.10	1.56	1.8		0.41	41
Bromegrass, fresh immature	30	64	65	36	65	15	12	28	33	54	40	4.1	10	0.45	0.34	2.3		0.21	20
Bromegrass hay	89	55	55	21	55	10	20	35	41	66	98	2.3	9	0.40	0.23	1.9	0.40	0.19	19
Bromegrass haylage	35	57	57	25	57	11	22	36	44	69	61	2.5	8	0.38	0.30	2.0		0.20	19
Buckwheat grain	88	75	79	50	77	12		13	17			2.8	2	0.11	0.36	0.5	0.05	0.16	10
Buttermilk, dried	92	88	98	65	91	34	0	5	0	0	0	5.0	10	1.44	1.00	0.9		0.09	44
Cactus, prickly pear	23	61	62	31	62	5		16	20	28		2.1	18	4.00	0.10	1.5		0.20	
Calcium carbonate	99	0	0	0	0	0		0	0	0	0	0.0	99	38.50	0.04	0.1		0.00	0
Canarygrass hay	91	53	53	18	53	9	26	32	34	67	98	2.7	8	0.38	0.25	2.7		0.14	18
Canola meal, solv. ext.	91	71	74	46	73	40	29	12	19	27	23	2.7	8	0.70	1.12	1.2	0.07	0.72	63
Carrot pulp	14	62	63	33	63	6		19	23	40	0	7.8	9						
Carrot root, fresh	12	83	90	60	86	10		9	11	20	0	1.4	10	0.55	0.32	2.5	0.50	0.17	
Carrot tops	16	73	77	48	75	13		18	23	45	41	3.8	15	1.94	0.19	1.9			
Cattle manure, dried	92	38	40	0	36	15		35	42	55	0	2.5	14	1.15	1.20	0.6		1.78	240
Cheatgrass, fresh immature	21	68	70	41	69	16		23				2.7	10	0.60	0.28				
Citrus pulp, dried	90	78	83	54	80	7	38	13	20	21	33	2.9	7	1.81	0.12	0.8	0.04	0.08	14
Clover, ladino, fresh	19	69	71	43	70	25	20	14	33	35	41	4.8	11	1.27	0.38	2.4		0.20	20
Clover, ladino hay	90	61	62	31	61	21	25	22	32	36	92	2.0	9	1.35	0.32	2.4	0.30	0.20	17
Clover, red, fresh	24	64	65	36	65	18	21	24	33	44	41	4.0	9	1.70	0.30	2.0	0.60	0.17	23
Clover, red, hay	88	55	55	21	55	15	28	30	39	51	92	2.5	8	1.50	0.25	1.7	0.32	0.17	17
Clover, sweet, hay	91	53	53	18	53	16	30	30	38	50	92	2.4	9	1.27	0.25	1.8	0.37	0.46	
Coconut meal, mech. ext.	92	76	81	52	78	21	56	13	21	56	23	6.8	7	0.40	0.30	1.0	0.33	0.04	
Coffee grounds	88	20	36	0	16	13		41	68	77	10	15.0	2	0.10	0.08				
Corn, whole plant, pelleted	91	63	64	34	64	9	45	21	24	40	6	2.4	6	0.50	0.24	0.9		0.14	
Corn fodder	80	65	66	37	66	9	45	25	29	48	100	2.4	7	0.50	0.25	0.9	0.20	0.14	
Corn stover, mature (stalks)	80	54	54	20	54	5	30	35	43	70	100	1.3	7	0.45	0.15	1.2	0.30	0.14	22
Corn silage, milk stage	26	65	66	37	66	8	18	26	32	54	60	2.8	6	0.40	0.27	1.6		0.11	20
Corn silage, mature, well-eared	34	72	75	47	74	8	28	21	27	46	70	3.1	5	0.28	0.23	1.1	0.20	0.13	22
Corn silage, sweet corn	24	65	66	37	66	11		20	32	57	60	5.0	5	0.24	0.26	1.2	0.17	0.16	39
Corn grain, whole	88	88	98	65	91	9	58	2	3	10	60	4.2	2	0.02	0.30	0.4	0.05	0.14	19
Corn grain, rolled	88	88	98	65	91	9	54	2	3	10	34	4.2	2	0.02	0.30	0.4	0.05	0.14	19
Corn grain, steam-flaked	85	93	104	71	97	9	59	2	3	9	40	4.1	2	0.02	0.27	0.4	0.05	0.14	18
Corn grain, high-moisture	74	93	104	71	97	10	42	2	3	9	0	4.0	2	0.02	0.30	0.4	0.06	0.14	20
Corn grain, high-oil	88	91	102	69	95	8	54	2	3	8	60	6.9	2	0.01	0.30	0.3	0.05	0.13	18
Corn grain, high-lysine	92	87	96	64	90	12	58	4	4	11	60	4.4	2	0.03	0.24	0.4	0.05	0.11	18
Corn and cob meal	87	82	89	59	85	9	52	9	11	26	56	3.7	2	0.06	0.27	0.5	0.05	0.13	16
Corn cobs	90	48	48	9	47	3	70	36	39	88	56	0.6	2	0.12	0.04	0.8		0.27	5
Corn screenings	87	87	96	64	90	9	52	3	4	10	20	3.8	2	0.04	0.25	0.3	0.05	0.11	16
Corn bran	91	76	81	52	78	11		10	17	51	0	6.3	3	0.04	0.15	0.1	0.13	0.08	18
Corn germ meal	90	74	78	49	76	27	50	11	20	50	20	3.0	3	0.03	0.46	0.5	0.03	0.26	78
Corn germ, full-fat	93	135	198	160	198	12	55	6	11	36	20	44.9	2	0.02	0.28	0.1	0.02	0.17	60
Corn gluten feed	90	80	86	56	83	23	28	10	12	37	36	3.2	8	0.14	0.88	1.2	0.25	0.55	80
Corn gluten meal, 41% CP	86	56	83	62	88	46	63	5	9	30	23	3.2	4	0.13	0.55	0.2	0.07	0.62	35
Corn gluten meal, 60% CP	91	89	99	67	93	67	60	3	7	10	23	2.4	4	0.06	0.51	0.2	0.10	0.89	39
Corn cannery waste	29	68	70	41	69	8	15	28	36	59	0	3.0	5	0.10	0.29	1.0		0.13	25
Cottonseed, whole	91	93	104	71	97	23	32	26	38	47	100	19.8	4	0.15	0.60	1.1	0.06	0.24	33
Cottonseed, whole, delinted	90	95	107	73	99	24	39	19	28	40	100	22.9	5	0.12	0.54	1.2		0.22	36
Cottonseed, whole, extruded	92	87	98	67	91	26	50	32	44	53	33	9.5	5	0.17	0.68	1.3		0.24	38
Cotton gin trash (burrs)	91	42	43	0	40	9		35	50	70	100	2.0	14	1.40	0.18	1.9		0.14	25
Cottonseed hulls	90	45	45	3	44	4	48	48	71	89	100	1.7	3	0.15	0.08	1.0	0.02	0.06	16
Cottonseed meal, solv. ext., 41% CP	90	77	82	53	79	46	42	13	20	28	23	1.6	7	0.21	1.20	1.6	0.05	0.44	71
Cottonseed meal, mech. ext., 41% CP	92	79	85	55	81	46	50	13	19	31	23	5.0	7	0.21	1.18	1.6	0.05	0.39	64

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Crab waste meal	91	29	37	0	30	32	65	11	13			3.0	43	15.00	1.88	0.5	1.63	0.27	107
Crambe meal, solv. ext.	91	81	88	58	84	31	45	25	35	47	23	1.4	8	1.27	0.86	1.1	0.70	1.26	44
Crambe meal, mech. ext.	92	88	98	65	91	28	50	24	33	42	25	17.0	7	1.22	0.78	1.0	0.65	1.18	41
Cranberry pulp meal	88	49	49	11	48	7		26	47	54	33	15.7	2						
Crawfish waste meal	94	25	36	0	29	35	74	12	15				42	13.10	0.85				
Curacao phosphate	99	0	0	0	0	0		0	0	0	0	0.0	95	34.00	15.00				
Defluorinated phosphate	99	0	0	0	0	0		0	0	0	0	0.0	95	32.60	18.07	1.0			100
Diammonium phosphate	98	0	0	0	0	115	0	0	0	0	0	0.0	35	0.52	20.41	0.0		2.16	
Dicalcium phosphate	96	0	0	0	0	0		0	0	0	0	0.0	94	22.00	18.65	0.1		1.00	70
Distillers grain, barley	90	75	79	50	77	30	56	16	20	44	4	8.5	5	0.10	0.70	1.0	0.20	0.60	95
Distillers grain, corn, dry	91	95	107	73	99	30	58	8	16	44	4	9.5	4	0.15	0.67	1.0	0.18	0.43	50
Distillers grain, corn, wet	36	96	109	74	100	30	47	8	16	44	4	9.5	4	0.09	0.75	0.9	0.14	0.70	65
Distillers grain, corn with solubles	91	96	109	74	100	31	55	9	14	30	4	10.8	4	0.09	0.75	0.9	0.14	0.70	65
Distillers grain, corn with solubles, low-oil	90	92	103	70	96	31	55	10	15	31	4	7.4	5	0.21	0.80	0.9	0.18	0.70	86
Distillers dried solubles	93	87	96	64	91	32	40	4	7	22	4	13.0	8	0.35	1.20	1.8	0.28	1.10	91
Distillers corn stillage	7	92	103	70	96	22	55	8	10	21	0	8.1	5	0.14	0.72	0.2		0.60	60
Distillers grain, sorghum, dry	91	84	92	61	87	33	62	13	20	44	4	10.0	4	0.20	0.68	0.3		0.50	50
Distillers grain, sorghum, wet	35	86	95	63	89	33	55	13	19	43	4	10.0	4	0.20	0.68	0.3		0.50	50
Distillers grain, sorghum with solubles	92	85	93	62	88	33	53	12	18	42	4	10.0	4	0.23	0.70	0.5		0.70	55
Elephant (napier) grass hay, chopped	92	55	55	21	54	9		24	46	63	85	2.0	10	0.35	0.30	1.3		0.10	
Fat, animal, poultry, vegetable	99	195	285	230	285	0		0	0	0	0	99.0	0	0.00	0.00	0.0			
Feather meal, hydrolyzed	93	67	69	40	68	87	68	1	14	42	23	7.0	3	0.48	0.45	0.1	0.20	1.82	90
Fescue, KY 31, fresh	29	64	65	36	65	15	20	25	32	64	40	5.5	9	0.48	0.37	2.5		0.18	22
Fescue, KY 31, hay, early bloom	88	60	60	30	60	18	22	25	31	64	98	6.6	8	0.48	0.36	2.6		0.27	24
Fescue, KY 31, hay, mature	88	52	52	16	51	11	26	30	42	73	98	5.0	6	0.45	0.26	1.7		0.14	22
Fescue (red) straw	94	43	44	0	41	4		41				1.1	6	0.00	0.06				
Fish meal	90	74	78	49	76	66	60	1	2	12	10	9.0	20	5.55	3.15	0.7	0.76	0.80	130
Flaxseed hulls	91	38	40	0	36	9		32	39	50	98	1.5	10						
Garbage, municipal, cooked	23	80	86	56	83	16		9	50	59	30	20.0	10	1.20	0.43	0.6	0.67		
Glycerol (glycerin)	88	90	100	68	94	0	0	0	0	0	0	0.0	6				4.00		
Grain screenings	90	65	66	37	66	14		14				5.5	9	0.25	0.34				30
Grain dust	92	73	77	48	75	10		11				2.2	10	0.30	0.18				42
Grape pomace, stemless	91	40	42	0	38	12	45	32	46	54	34	7.6	9	0.55	0.07	0.6	0.01		24
Grass hay	88	58	58	26	58	10	30	33	41	63	98	3.0	6	0.60	0.21	2.0		0.20	28
Grass silage	30	61	62	31	61	11	24	32	39	60	61	3.4	8	0.70	0.24	2.1		0.22	29
Guar meal	90	72	75	47	74	39	34	16				3.9	5						
Hominy feed	89	89	99	67	93	11	48	6	7	19	9	5.8	2	0.03	0.48	0.5	0.06	0.12	27
Hop leaves	37	49	49	11	48	15		15				3.6	35	2.80	0.64				
Hop vine silage	30	53	53	18	53	15		21	24			3.1	20	3.30	0.37	1.8		0.22	44
Hops, spent	89	35	39	0	33	23		26	30			4.6	7	1.60	0.60				
Kelp, dried	91	32	38	0	29	7		7	10			0.5	39	2.72	0.31				
Kenaf hay	92	48	48	9	47	10		31	44	56	98	2.9	12						
Kochia, fresh	29	55	55	21	55	16		23				1.2	18	1.10	0.30				
Kochia hay	90	53	53	18	53	14		27				1.7	14	1.00	0.20				
Kudzu hay	90	54	54	20	54	16		33				2.6	7	3.00	0.23				
Lespedeza, fresh early bloom	25	60	60	30	60	16	50	32				2.0	10	1.20	0.24	1.1		0.21	
Lespedeza hay	92	54	54	20	54	14	60	30				3.0	7	1.10	0.22	1.0		0.19	29
Limestone, ground	98	0	0	0	0	0		0	0	0	0	0.0	98	34.00	0.02			0.03	
Limestone, dolomitic, ground	99	0	0	0	0	0		0	0	0	0	0.0	98	22.30	0.04	0.4			
Linseed meal, solv. ext.	91	77	82	53	79	39	36	10	17	26	23	1.9	7	0.43	0.91	1.5	0.04	0.52	65
Linseed meal, mech. ext.	91	82	89	59	85	37	40	10	17	24	23	6.0	6	0.42	0.90	1.4	0.04	0.46	59
Meadow hay	90	50	50	12	49	7	23	33	44	70	98	2.5	9	0.61	0.18	1.6		0.17	24
Meat meal, swine/poultry	93	71	74	46	73	56	64	2	7	48	0	10.5	24	9.00	4.42	0.5	1.27	0.48	190
Meat and bonemeal, swine/poultry	93	72	75	47	74	56	24	1	5	34	0	10.0	29	13.50	6.50				
Milk, dry, skim	94	87	96	64	90	36	0	0	0	0	0	0.9	8	1.36	1.09	1.7	0.96	0.34	41

# 2015 Feed Composition Table

FEEDSTUFF	ENERGY					PROTEIN		FIBER											
	DM %	TDN %	NE <sub>m</sub>	NE <sub>g</sub> (Mcal/cwt.)	NE <sub>l</sub>	CP %	UIP %	CF %	ADF %	NDF %	eNDF %	EE %	Ash %	Ca %	P %	K %	Cl %	S %	Zn ppm
Mint slug silage	27	55	55	21	55	14		24				1.8	16	1.10	0.57				
Molasses, beet	77	75	79	50	77	8	0	0	0	0	0	0.2	12	0.14	0.03	6.0	1.64	0.60	18
Molasses, cane	77	74	78	49	76	6	0	0	0	0	0	0.5	14	0.95	0.09	4.2	2.30	0.68	15
Molasses, cane, dried	94	74	78	49	76	9	0	2	3	7	0	0.3	14	1.10	0.15	3.6	3.00		30
Molasses, cond. fermentation solubles	43	69	71	43	70	16	0	0	0	0	0	1.0	26	2.12	0.14	7.5	2.73	0.93	30
Molasses, citrus	65	75	79	50	77	9	0	0	0	0	0	0.3	8	1.84	0.15	0.2	0.11	0.23	137
Molasses, wood, hemicellulose	61	70	73	44	71	1	0	1	2	4	0	0.6	7	1.10	0.10	0.1		0.05	
Monoammonium phosphate	98	0	0	0	0	70	0	0	0	0	0	0.0	24	0.30	24.70	0.0		1.42	81
Mono-dicalcium phosphate	97	0	0	0	0	0		0	0	0	0	0.0	94	16.70	21.10	0.1		1.20	70
Oat hay	90	54	54	20	54	10	25	31	39	63	98	2.3	8	0.40	0.27	1.6	0.42	0.21	28
Oat silage	35	60	60	30	60	12	21	31	39	59	61	3.2	10	0.34	0.30	2.4	0.50	0.25	27
Oat straw	91	48	48	9	47	4	40	41	48	73	98	2.3	8	0.24	0.07	2.5	0.78	0.22	6
Oat grain	89	76	81	52	78	13	18	11	15	28	34	5.0	4	0.05	0.41	0.5	0.11	0.20	40
Oat grain, steam-flaked	84	88	98	65	91	13	26	11	15	30	32	4.9	4	0.05	0.37	0.5	0.11	0.20	40
Oat groats	91	91	102	69	95	18	15	3				6.6	2	0.08	0.47	0.4	0.10	0.20	
Oat middlings	90	91	102	69	95	16	20	4	6			6.0	3	0.07	0.48	0.5		0.23	
Oat mill byproduct	89	33	38	0	30	7		27	37			2.4	6	0.13	0.22	0.6		0.24	
Oat hulls	93	38	40	0	36	4	25	33	41	75	90	1.6	7	0.16	0.15	0.6	0.08	0.14	31
Orange pulp, dried	89	79	85	55	81	9		9	16	20	33	1.8	4	0.71	0.11	0.6		0.05	
Orchardgrass, fresh, early bloom	24	65	66	37	66	14	23	30	32	54	41	4.0	9	0.33	0.39	2.7	0.08	0.20	21
Orchardgrass hay	88	59	59	28	59	10	27	34	40	67	98	3.3	8	0.32	0.30	2.6	0.41	0.20	26
Pea vine hay	89	59	59	28	59	11		32	50	62	92	2.0	7	1.25	0.24	1.3		0.20	20
Pea vine silage	25	58	58	26	58	16		29	44	55	61	3.3	8	1.25	0.28	1.6		0.29	32
Pea vine straw	89	51	51	14	50	7		41	49	72	98	1.4	7	0.75	0.13	1.1		0.15	
Peas, cull	88	85	93	62	88	23	22	7	9	12	0	1.4	4	0.14	0.46	1.1	0.06	0.26	30
Peanut hulls	91	22	36	0	18	7		63	65	74	98	1.5	5	0.20	0.07	0.9			
Peanut meal, solv. ext.	91	77	82	53	79	51	27	9	16	27	23	2.5	6	0.26	0.62	1.1	0.03	0.30	38
Peanut skins	92	0	0	0	0	17		13	20	28	0	22.0	3	0.19	0.20				
Pearl millet grain	87	82	89	59	85	13		2	6	18	34	4.5	3	0.03	0.36	0.5			
Pineapple greenchop	17	47	47	7	46	8		24	35	64	41	2.4	7	0.28	0.08				
Pineapple bran	89	71	74	46	73	5		20	33	66	20	1.5	3	0.26	0.12				
Pineapple presscake	21	71	74	46	73	5		24	35	69	20	0.8	3	0.25	0.09				
Potato vine silage	15	59	59	28	59	15		26				3.7	19	2.10	0.29	4.0		0.37	
Potatoes, cull	21	80	86	56	83	10	0	2	3	4	0	0.4	5	0.03	0.24	2.2	0.30	0.09	
Potato waste, wet	14	82	89	59	85	7	0	9	11	18	0	1.5	3	0.16	0.25	1.2	0.36	0.11	12
Potato waste, dried	89	85	93	62	88	8	0	7	9	15	0	0.5	5	0.16	0.25	1.2	0.39	0.11	12
Potato waste, wet, with lime	17	80	86	56	83	5	0	10	12	16	0	0.3	9	4.20	0.18				
Potato waste, filter cake	14	77	82	53	79	5	0	2				7.7	3	0.10	0.19	0.2			
Poultry byproduct meal	93	79	85	55	81	62	49	2				14.5	17	4.00	2.25	0.5	0.58	0.56	129
Poultry manure, dried	89	38	40	0	36	28	22	13	15	35	0	2.1	33	10.20	2.80	2.3	1.05	0.20	520
Prairie hay	91	50	50	12	49	7	30	34	47	67	98	2.0	8	0.40	0.15	1.1	0.06	0.06	34
Pumpkins, cull	11	80	86	56	83	15		14	21	30	0	8.9	9	0.24	0.43	3.3			
Rice straw	91	40	42	0	38	4		38	47	72	100	1.4	13	0.23	0.08	1.2		0.11	
Rice straw, ammoniated	87	45	45	3	44	9		39	53	68	100	1.3	12	0.25	0.08	1.1		0.11	
Rice grain	89	79	85	55	81	8	30	10	12	16	34	1.9	5	0.07	0.32	0.4	0.09	0.05	17
Rice polishings	90	90	100	68	94	14		4	5			14.0	9	0.05	1.34	1.2	0.12	0.19	28
Rice bran	91	71	74	46	73	14	30	13	18	24	0	16.0	11	0.07	1.70	1.8	0.09	0.19	40
Rice hulls	92	13	35	0	8	3	45	44	70	81	90	0.9	20	0.12	0.07	0.5	0.08	0.08	24
Rice mill byproduct	91	39	41	0	37	7		32	50	60	0	5.7	19	0.25	0.48	2.2		0.30	31
Rye grass hay	90	58	58	26	58	10	30	33	38	65	98	3.3	8	0.45	0.30	2.2		0.18	27
Rye grass silage	32	59	59	28	59	14	25	22	37	59	61	3.3	8	0.43	0.38	2.9	0.73	0.23	29
Rye straw	89	44	44	1	43	4		44	55	71	100	1.5	6	0.24	0.09	1.0	0.24	0.11	
Rye grain	89	80	86	56	83	14	20	3	9	19	34	2.5	3	0.07	0.55	0.5	0.03	0.17	33
Safflower meal, solv. ext.	91	56	56	23	56	24		33	41	57	36	1.3	6	0.35	0.79	0.9	0.21	0.23	65
Safflower meal dehulled, solv. ext.	91	75	79	50	77	47		11	20	27	30	0.8	7	0.38	1.50	1.2	0.18	0.22	36
Safflower hulls	91	14	35	0	34	4		58	73	90	100	3.7	2						
Sagebrush, fresh	50	50	50	12	49	13		25	30	38		9.2	10	1.00	0.25			0.22	
Sainfoin hay	88	61	62	31	62	14	60	24				3.1	9						



# 2015 Feed Composition Table

FEEDSTUFF	ENERGY					PROTEIN		FIBER				MINERALS							
	DM %	TDN %	NE <sub>m</sub>	NE <sub>g</sub>	NE <sub>l</sub>	CP %	UIP %	CF %	ADF %	NDF %	eNDF %	EE %	Ash %	Ca %	P %	K %	Cl %	S %	Zn ppm
Shrimp waste meal	90	48	48	9	47	50	60	11				5.5	25	8.50	1.75		1.15		
Sodium tripolyphosphate	96	0	0	0	0	0		0	0	0	0	0.0	96	0.00	25.98	0.0		0.00	
Sorghum stover	87	54	54	20	54	5		33	41	65	100	1.8	10	0.50	0.12	1.2			
Sorghum silage	32	59	59	28	59	9	25	27	38	59	70	2.7	6	0.48	0.21	1.7	0.45	0.11	30
Sorghum grain (milo), ground	89	82	89	59	85	11	55	3	7	17	5	3.1	2	0.03	0.32	0.4	0.10	0.12	17
Sorghum grain (milo), flaked	82	90	100	68	94	11	62	3	7	17	38	3.1	2	0.03	0.28	0.4	0.10	0.12	17
Soybean hay	89	52	52	16	51	16		33	40	55	92	3.5	8	1.28	0.29	1.0	0.15	0.24	24
Soybean straw	88	42	43	0	40	5		44	54	70	100	1.4	6	1.59	0.06	0.6		0.26	
Soybeans, whole	88	92	103	70	96	41	28	8	11	15	100	18.8	5	0.27	0.64	1.9	0.03	0.34	56
Soybeans, whole, extruded	88	93	104	71	97	40	35	9	11	15	100	18.8	5	0.27	0.64	2.0	0.03	0.34	56
Soybeans, whole, roasted	88	93	104	71	97	40	48	9	11	15	100	18.8	5	0.27	0.64	2.0	0.03	0.34	56
Soybean hulls	89	74	78	49	76	12	25	40	51	65	28	1.7	5	0.55	0.20	1.3	0.02	0.11	30
Soybean meal, solv. ext., 44% CP	89	84	92	61	87	49	35	7	10	15	23	1.5	7	0.36	0.70	2.2	0.07	0.41	62
Soybean meal, solv. ext., 49% CP	89	87	96	64	90	54	33	4	6	10	23	1.1	7	0.35	0.75	2.3	0.08	0.47	61
Soybean mill feed	90	50	50	12	49	15		36	46			1.9	6	0.46	0.19	1.7		0.07	
Spelt grain	88	75	79	50	77	13	27	10	17	21	34	2.1	4	0.04	0.40	0.4		0.15	47
Sudangrass, fresh immature	18	70	73	44	71	17		23	29	55	41	3.9	9	0.46	0.36	2.0		0.11	24
Sudangrass hay	88	57	57	25	57	9	30	36	43	67	98	1.8	10	0.50	0.22	2.2	0.80	0.12	26
Sudangrass silage	31	58	58	26	58	10	28	30	42	64	61	3.1	10	0.58	0.27	2.4	0.52	0.14	29
Sunflower meal, solv. ext.	91	64	65	36	65	39	27	20	22	36	23	2.0	7	0.42	1.00	1.1	0.15	0.37	70
Sunflower meal with hulls	91	57	57	25	57	32	32	27	33	45	37	1.9	7	0.39	1.01	1.1		0.31	80
Sunflower seed hulls	90	40	42	0	38	4	65	52	63	73	90	2.2	3	0.00	0.11	0.2		0.19	200
Sugarcane bagasse	91	39	41	0	37	1		49	60	86	100	0.6	4	0.90	0.29	0.5		0.10	
Tapioca meal, cassava byproduct	89	82	89	59	85	1		5	8	34		0.8	3	0.03	0.05				
Timothy, fresh, pre-bloom	26	64	65	36	65	11	20	31	36	59	41	3.8	7	0.40	0.28	1.9	0.57	0.15	28
Timothy hay, early bloom	88	59	59	28	59	11	22	32	39	63	98	2.7	6	0.58	0.26	1.9	0.51	0.21	30
Timothy hay, full bloom	88	57	57	25	57	8	25	34	40	65	98	2.6	5	0.43	0.20	1.8	0.62	0.13	25
Timothy silage	34	59	59	28	59	10	23	34	45	70	61	3.4	7	0.50	0.27	1.7		0.15	
Tomatoes	6	69	71	43	70	16		9	11			4.0	6	0.14	0.35	4.2			
Tomato pomace, dried	92	64	65	36	65	23		26	50	55	34	10.6	6	0.43	0.59	3.6			
Triticale hay	90	56	56	23	56	10		34	41	69	98			0.30	0.26	2.3			25
Triticale silage	34	58	58	26	58	14		30	39	56	61	3.6		0.58	0.34	2.7		0.28	36
Triticale grain	89	85	93	62	88	14	25	4	5	22	34	2.4	2	0.07	0.39	0.5		0.17	37
Turnip tops (purple)	18	68	70	41	69	18		10	13			2.6	14	3.10	0.40	3.0	1.80	0.27	
Turnip roots	9	86	95	63	89	12	0	11	34	44	40	1.6	9	0.65	0.31	3.1	0.65	0.43	40
Urea, 46%N	99	0	0	0	0	288	0	0	0	0	0	0.0	0	0.00	0.00	0.0	0.00	0.00	0
Vetch hay	89	58	58	26	58	18	14	30	33	48	92	1.8	8	1.25	0.34	2.4		0.13	
Wheat, fresh, pasture	21	71	74	46	73	20	16	18	30	50	41	4.0	13	0.35	0.36	3.1	0.67	0.22	
Wheat hay	90	57	57	25	57	9	25	29	38	66	98	2.0	8	0.21	0.22	1.4	0.50	0.19	23
Wheat silage	33	59	59	28	59	12	21	28	37	62	61	3.2	8	0.40	0.28	2.1	0.50	0.21	27
Wheat straw	91	43	44	0	41	3	60	43	57	81	98	1.8	8	0.17	0.06	1.3	0.32	0.17	6
Wheat straw, ammoniated	85	50	50	12	49	9	25	40	55	76	98	1.5	9	0.15	0.05	1.3	0.30	0.16	6
Wheat grain	89	88	98	65	91	15	23	3	4	14	0	2.8	2	0.06	0.48	0.5	0.09	0.18	48
Wheat grain, hard	89	88	98	65	91	14	28	3	6	14	0	2.0	2	0.05	0.43	0.5		0.16	45
Wheat grain, soft	89	88	98	65	91	12	23	3	6	12	0	2.0	2	0.05	0.41	0.4		0.16	40
Wheat grain, steam-flaked	85	91	102	69	95	14	29	3	4	12	0	2.3	2	0.05	0.39	0.4		0.15	40
Wheat grain, sprouted	86	88	98	65	91	12	18	3	4	13	0	2.0	2	0.04	0.36	0.4		0.17	45
Wheat bran	89	70	73	44	71	17	28	11	14	46	4	4.4	7	0.13	1.32	1.4	0.05	0.24	96
Wheat middlings	89	75	79	50	77	17	22	9	11	38	2	4.7	5	0.14	1.02	1.2	0.05	0.20	100
Wheat mill run	90	76	81	52	78	17	28	9	12	37	0	4.5	6	0.11	1.10	1.2	0.07	0.22	90
Wheat shorts	89	78	83	54	80	19	25	8	10	30	0	5.3	5	0.10	0.93	1.1	0.08	0.20	118
Wheatgrass, crested, fresh, early bloom	37	60	60	30	60	11	22	26	28	50	41	1.6	7	0.46	0.32	2.4			
Wheatgrass, crested, fresh, full bloom	50	55	55	21	55	10	25	33	36	65	41	1.6	7	0.39	0.28	2.1			
Wheatgrass, crested, hay	92	54	54	20	54	10	28	33	36	65	98	2.4	7	0.33	0.20	2.0			32
Whey, dried	94	82	89	59	85	14	15	0	0	0	0	0.9	10	0.98	0.88	1.3	1.20	0.92	10
Yeast, brewer's	92	79	85	55	81	47	30	3	4		0	0.9	7	0.13	1.49	1.8			