

FEED \$ENSE

Mid-Atlantic Edition

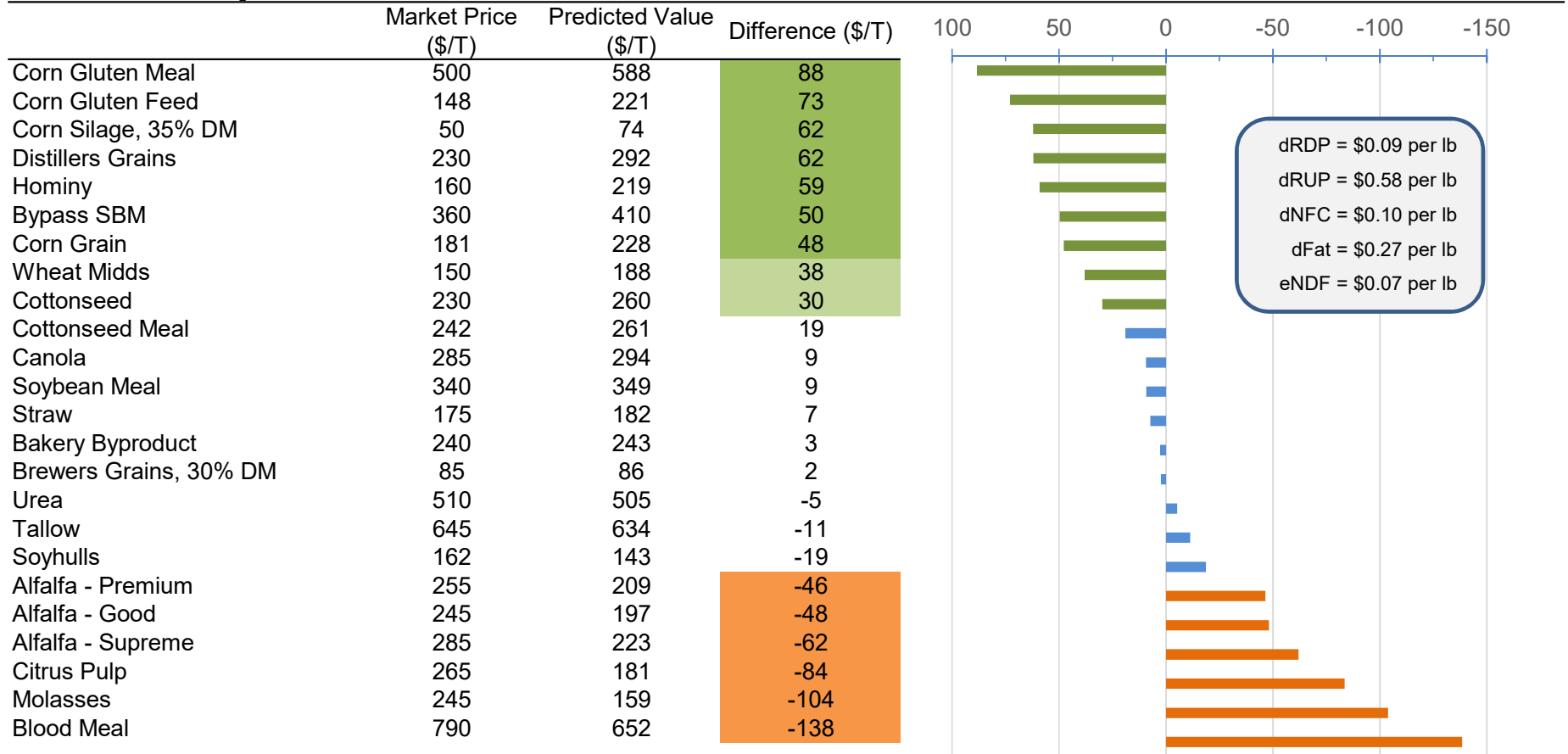
1-Yr Ingredient Price Change (\$/T)

	Aug-18	Aug-19	1-Yr Graph
Bakery Byproduct	195	240	
Barley	182	211	
Citrus Pulp	265	265	
Corn Grain	179	181	
Cottonseed	220	230	
Hominy	200	160	
Molasses	240	245	
Soyhulls	163	162	
Tallow	525	645	
Wheat Midds	140	150	
Brewers Grains, 30% DM	85	85	
Blood Meal	920	790	
Canola	317	285	
Corn Gluten Feed	165	148	
Corn Gluten Meal	575	500	
Cottonseed Meal	342	242	
Distillers Grains	185	230	
Soybean Meal	356	340	
Bypass SBM	376	360	
Urea	410	510	
Alfalfa - Supreme	300	285	
Alfalfa - Premium	260	255	
Alfalfa - Good	230	245	
Corn Silage, 35% DM	50	50	
Straw	140	175	

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Global Nutrient Analysis



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Component Nutrient Analyses

<i>Carbohydrate Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Corn Silage, 35% DM	50	85	89
Citrus Pulp	265	316	51
Molasses	245	260	19
Hominy	160	161	1
Corn Grain	181	182	1
Alfalfa - Good	245	231	-14
Soyhulls	162	142	-20
Alfalfa - Premium	255	225	-30
Wheat Midds	150	119	-31
Bakery Byproduct	240	183	-57
Alfalfa - Supreme	285	218	-67

per lb
 Starch = \$0.10
 Sugar = \$0.16
 Sol Fiber = \$0.30
 eNDF = \$0.14

<i>Protein Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Corn Gluten Meal	500	616	116
Bypass SBM	360	391	31
Cottonseed Meal	242	249	7
Distillers Grains	230	233	3
Urea	510	513	3
Corn Gluten Feed	148	130	-18
Canola	285	263	-22
Brewers Grains, 30% DM	85	76	-26
Soybean Meal	340	312	-28
Blood Meal	790	717	-73
Cottonseed	230	156	-74

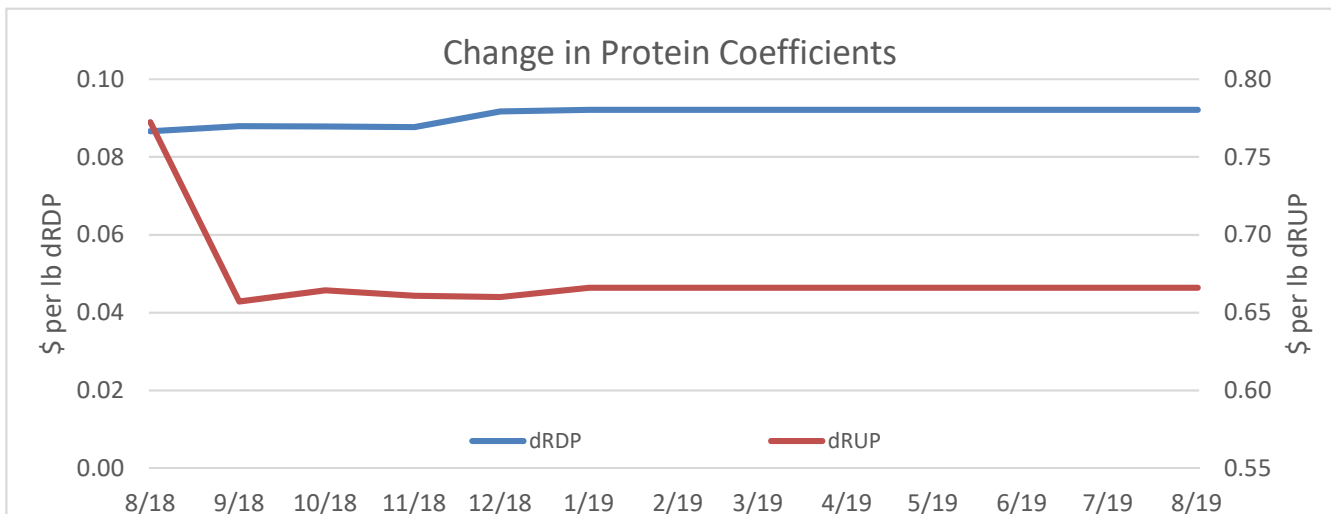
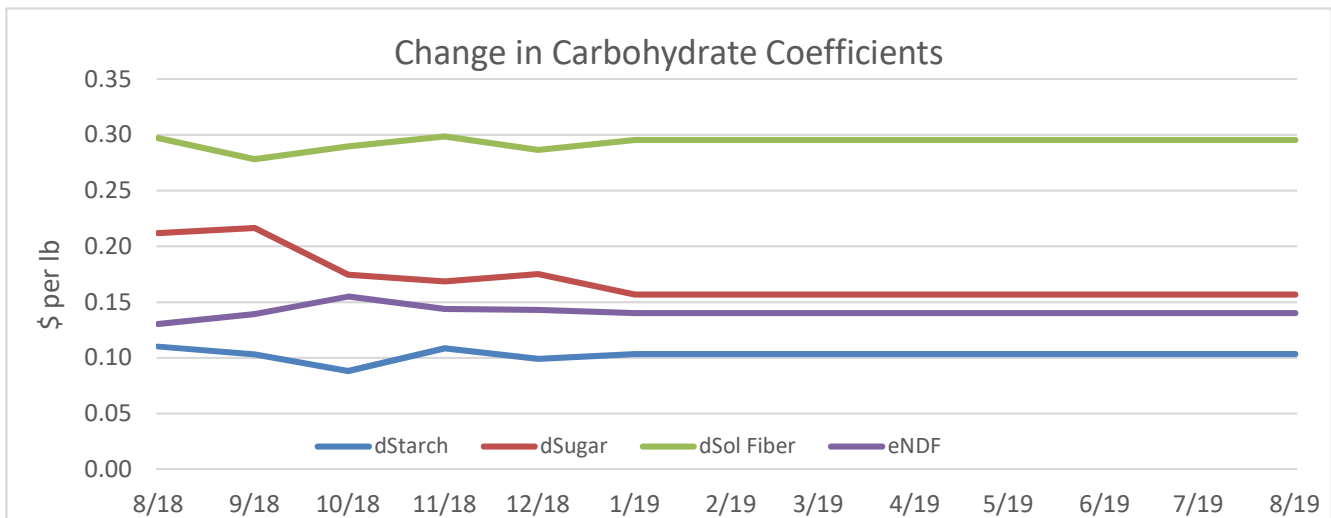
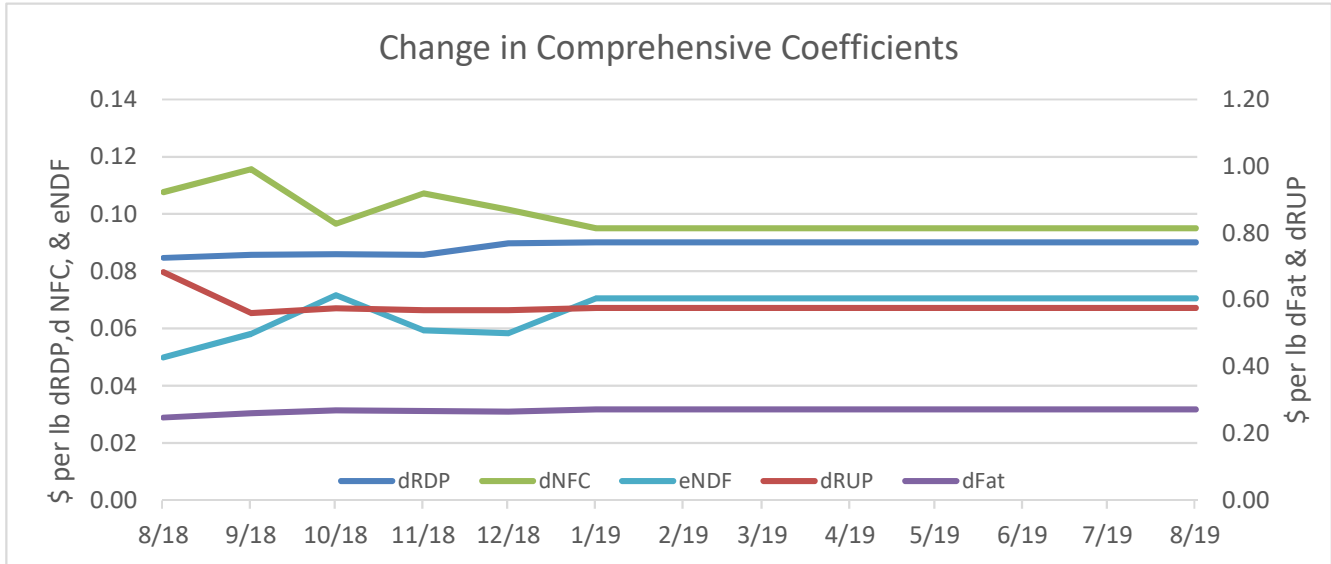
per lb
 dRDP = \$0.09
 dRUP = \$0.67

<i>Fiber Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Soyhulls	162	321	159
Corn Silage, 35% DM	50	81	80
Straw	175	226	51
Corn Gluten Feed	148	148	0
Wheat Midds	150	96	-54
Alfalfa - Good	245	150	-95
Cottonseed	230	134	-96
Distillers Grains	230	127	-103
Brewers Grains, 30% DM	85	45	-120
Citrus Pulp	265	120	-145

per lb
 eNDF = \$0.07
 dNDF = \$0.27

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Non-Forage Purchased Feed Costs

A ration supporting 90 lbs milk at 3.9% fat and 3.2% protein was modeled in CNCPS at 56 lbs DMI. The ration was composed of 60% forage using 45% corn silage and 15% mostly legume forage. Composition of the forages were based on samples (+30,000) submitted to a commercial lab during 2018.

To complement the forages, grains, byproducts, minerals, vitamins, etc made up the remaining 40% of DM. The major ingredients of the starch and protein mix were ground corn (39.5%), canola meal (21.0%), bypass SBM (20.7%), soyhulls (14.8%), blood meal (3.6%), Mepron® (2.2%) and urea (2.2%). The remaining 3.5% of DM was composed of bypass fat, minerals, vitamins, and additives.

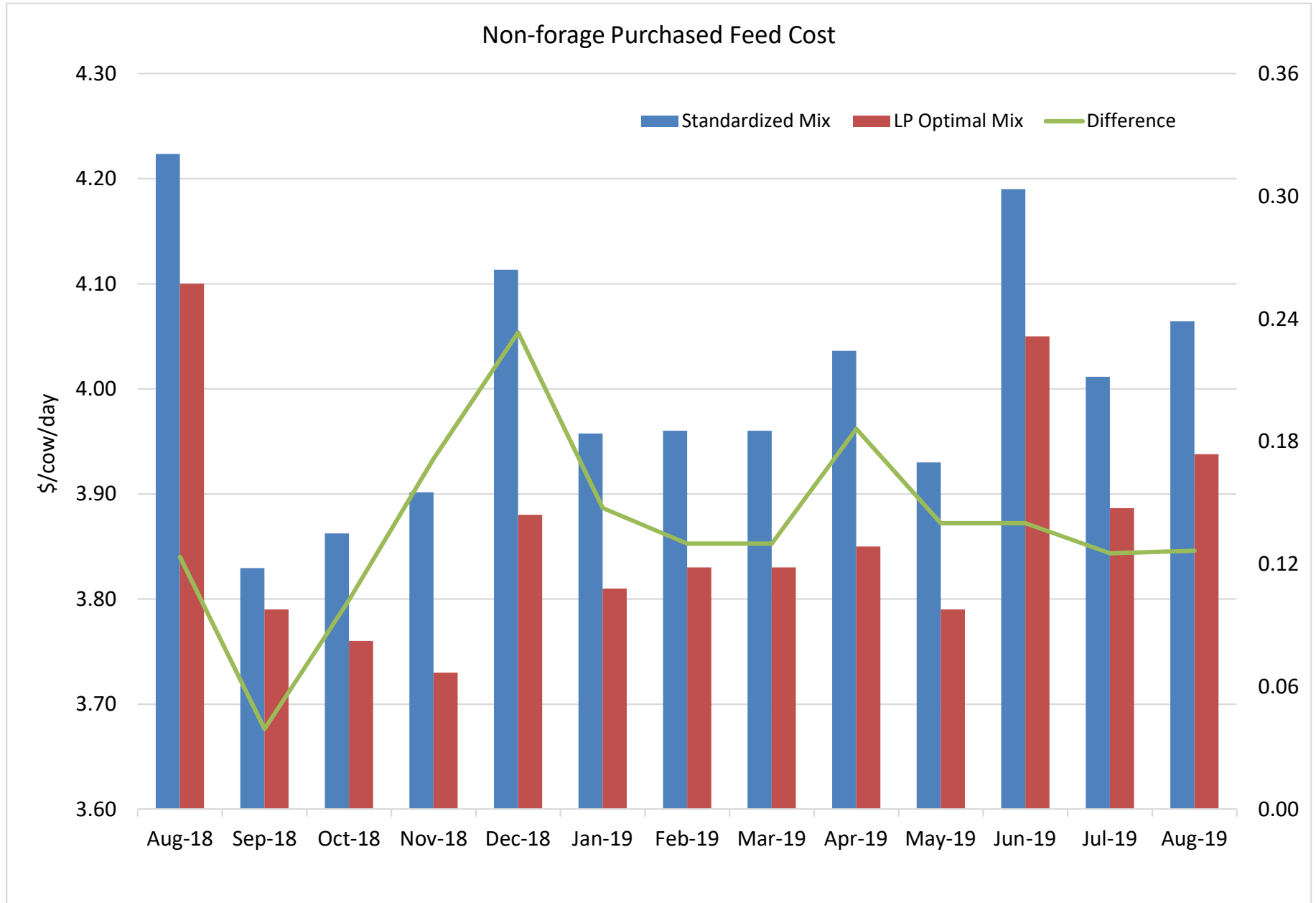
The nutrient composition (% DM) of the starch and protein mix, which will be referred to as the Standardized Mix, is 11.6% RDP, 13.5% digestible RUP, 28.4% starch, 5.5% sugar, 4.8% fat, 0.36% mMet, 0.81% mLys, and 0.30% mHis. Simple linear programming was used to find the optimal or minimal cost mix subject to the nutrient composition of the Standardized Mix using all the non-forage feed ingredients in Feed \$ense. The optimal mix will be referred to as the LP Optimal Mix.

Page 6 of Feed \$ense shows the changes in the Standardized Mix cost over the last 13 months which peaked at \$4.22/cow/day a year ago in August 2018. The lowest costs were last fall and since Sep, the 23¢/cow/day increase has been driven by the increase in the price of all standardized ingredients. On average, the LP Optimal Mix was 14¢/cow/day less than the Standardized Mix. In some months, such as Sep, there was little difference between the Standardized and LP Optimal Mixes.

The feeds that were pulled in that reduced cost were typically feeds that are undervalued in Feed \$ense. This is an illustration of the usefulness of the simple ranking in Feed \$ense. A 14¢/cow/day savings is very optimistic but savings of 5-7¢/cow/day may be achievable if undervalued feedstuffs fit in the ration. Use of undervalued feedstuffs may reduce ration cost, but value is only one of several factors that should be considered when evaluating the inclusion of a new ingredient. The most important rule is never sacrifice IOFC when attempting to reduce feed cost.

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Historical Undervalue/Overvalue of Feedstuffs (\$/T)

<i>Global Analysis</i>	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
Alfalfa - Good	-47	-56	-62	-67	-65	-58	-72	-72	-68	-66	-61	-41	-48
Alfalfa - Premium	-57	-64	-81	-77	-68	-58	-67	-67	-63	-60	-64	-54	-46
Alfalfa - Supreme	-80	-80	-88	-89	-75	-71	-76	-81	-91	-76	-70	-78	-62
Bakery Byproduct	69	68	66	48	56	38	43	43	48	30	35	7	3
Blood Meal	-175	-78	-53	-66	-71	-61	-79	-89	-103	-166	-156	-104	-138
Brewers Grains, 30% DM	47	20	13	14	13	17	11	10	14	-2	-1	-1	2
Bypass SBM	99	90	75	75	77	85	73	74	76	81	74	38	50
Canola	1	21	2	-35	-37	-24	-19	-19	-35	-4	-15	-7	9
Citrus Pulp	-81	-77	-71	-86	-80	-88	-82	-83	-83	-85	-80	-71	-84
Corn Gluten Feed	52	44	36	43	39	40	42	42	50	62	64	58	73
Corn Gluten Meal	79	-10	-31	-9	-12	-15	-19	-11	12	82	82	70	88
Corn Grain	63	75	83	63	29	43	51	56	52	50	33	47	48
Corn Silage, 35% DM	44	53	53	43	42	46	49	49	48	52	53	56	62
Cottonseed	58	50	68	104	99	54	75	88	90	36	31	20	30
Cottonseed Meal	-39	-66	-32	-21	-1	-43	37	37	34	14	14	16	19
Distillers Grains	106	80	79	79	79	91	107	110	104	125	122	69	62
Hominy	17	16	34	53	70	57	63	62	62	47	52	63	59
Molasses	-150	-139	-141	-104	-95	-84	-104	-102	-104	-112	-106	-97	-104
Soybean Meal	29	36	24	19	25	29	21	25	25	36	29	1	9
Soyhulls	-19	-4	20	-9	-20	-17	-27	-47	-44	-24	-23	-23	-19
Straw	11	22	23	20	13	27	27	28	25	35	33	28	7
Tallow	-35	-27	-30	-35	-35	-27	-37	-40	-40	-16	-16	-10	-11
Urea	-5	-1	0	0	-2	0	-4	-4	-4	-7	-5	-2	-5
Wheat Midds	73	64	56	72	56	33	35	35	36	19	22	39	38

<i>Carbohydrate Analysis</i>	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
Alfalfa - Good	0	-9	-9	-8	-11	-11	-17	-13	-9	-16	-15	-2	-14
Alfalfa - Premium	-35	-39	-51	-41	-37	-32	-34	-31	-27	-29	-37	-34	-30
Alfalfa - Supreme	-81	-76	-80	-75	-65	-66	-64	-65	-76	-69	-65	-80	-67
Bakery Byproduct	1	-1	-5	-31	-22	-38	-30	-33	-28	-29	-25	-56	-57
Citrus Pulp	63	60	58	54	53	51	56	59	60	54	56	55	51
Corn Grain	10	15	12	0	-21	4	-2	1	-1	2	-10	-2	1
Corn Silage, 35% DM	87	88	91	86	87	87	95	96	95	92	93	89	89
Hominy	-52	-55	-46	-20	7	-4	-6	-9	-8	-12	-3	4	1
Molasses	-5	-3	1	9	5	13	9	10	8	9	7	18	19
Soyhulls	-21	-3	22	-1	-15	-14	-20	-38	-35	-18	-18	-22	-20
Wheat Midds	-17	-23	-34	-16	-29	-50	-49	-50	-50	-47	-43	-30	-31

<i>Protein Analysis</i>	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
Blood Meal	-100	3	29	9	6	16	-1	-12	-26	-108	-97	-39	-73
Brewers Grains, 30% DM	4	-25	-33	-31	-32	-29	-34	-37	-34	-28	-28	-29	-26
Bypass SBM	71	61	45	47	48	58	45	45	47	63	55	19	31
Canola	-35	-18	-38	-72	-75	-61	-56	-50	-66	-34	-46	-40	-22
Corn Gluten Feed	-32	-47	-55	-40	-45	-43	-44	-45	-35	-22	-22	-31	-18
Corn Gluten Meal	110	23	3	23	20	19	14	21	45	105	106	96	116
Cottonseed	-49	-68	-55	-20	-20	-76	-51	-42	-40	-62	-66	-76	-74
Cottonseed Meal	-69	-98	-65	-53	-33	-75	5	3	0	2	2	4	7
Distillers Grains	66	37	36	39	38	35	50	52	45	71	66	10	3
Soybean Meal	-10	-5	-17	-16	-13	-5	-15	-11	-12	1	-7	-37	-28
Urea	4	9	10	9	7	10	5	4	4	-1	1	6	3

<i>Fiber Analysis</i>	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
Alfalfa - Good	-92	-100	-107	-113	-109	-100	-116	-118	-114	-114	-109	-93	-95
Brewers Grains, 30% DM	-121	-126	-133	-129	-125	-122	-122	-117	-117	-127	-126	-119	-120
Citrus Pulp	-148	-151	-148	-144	-141	-138	-138	-134	-135	-141	-141	-136	-145
Corn Gluten Feed	-32	-35	-44	-30	-31	-27	-25	-22	-14	-10	-10	-15	0
Corn Silage, 35% DM	67	67	63	58	60	70	68	69	67	68	68	68	80
Cottonseed	-99	-98	-81	-52	-53	-103	-76	-68	-69	-90	-95	-107	-96
Distillers Grains	-57	-61	-62	-57	-53	-69	-49	-39	-49	-39	-43	-91	-103
Soyhulls	152	161	171	152	152	160	150	139	142	143	144	159	159
Straw	65	69	68	57	55	69	67	64	61	71	71	64	51
Wheat Midds	-46	-53	-64	-36	-53	-71	-71	-68	-68	-69	-68	-54	-54

FEED \$ENSE MARGINS

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