

FEED \$ENSE

Mid-Atlantic Edition

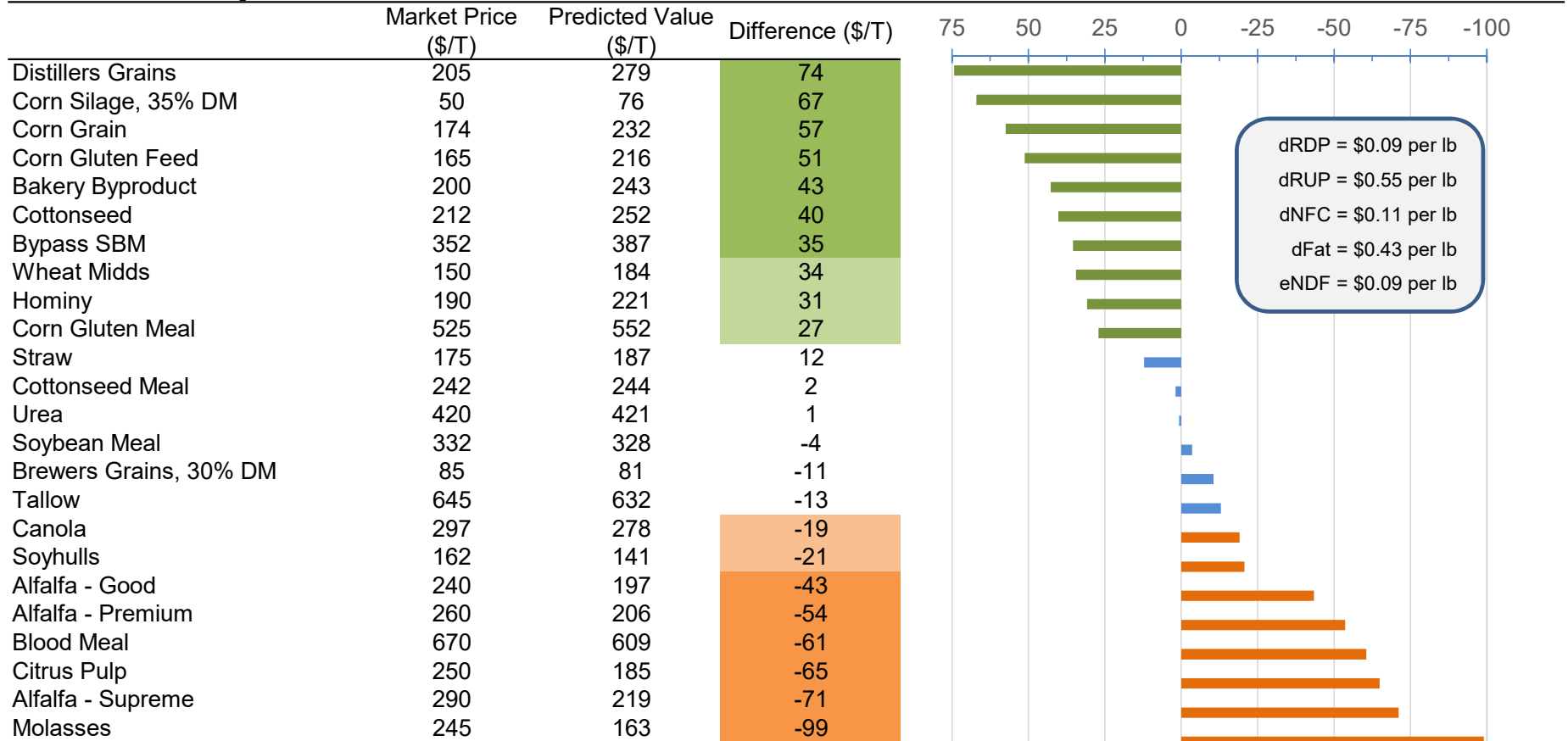
1-Yr Ingredient Price Change (\$/T)

	Sep-18	Sep-19	1-Yr Graph
Bakery Byproduct	189	200	
Barley	182	218	
Citrus Pulp	265	250	
Corn Grain	170	174	
Cottonseed	220	212	
Hominy	200	190	
Molasses	238	245	
Soyhulls	128	162	
Tallow	545	645	
Wheat Midds	143	150	
Brewers Grains, 30% DM	85	85	
Blood Meal	720	670	
Canola	269	297	
Corn Gluten Feed	165	165	
Corn Gluten Meal	580	525	
Cottonseed Meal	342	242	
Distillers Grains	185	205	
Soybean Meal	316	332	
Bypass SBM	336	352	
Urea	410	420	
Alfalfa - Supreme	295	290	
Alfalfa - Premium	265	260	
Alfalfa - Good	240	240	
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	86	92
Citrus Pulp	250	307	57
Corn Grain	174	181	7
Molasses	245	250	6
Alfalfa - Good	240	232	-8
Soyhulls	162	141	-21
Bakery Byproduct	200	178	-22
Hominy	190	161	-29
Wheat Midds	150	118	-32
Alfalfa - Premium	260	225	-35
Alfalfa - Supreme	290	216	-74

per lb
Starch = \$0.11
Sugar = \$0.18
Sol Fiber = \$0.28
eNDF = \$0.15

<i>Protein Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Corn Gluten Meal	525	581	56
Bypass SBM	352	368	16
Distillers Grains	205	219	14
Urea	420	429	9
Blood Meal	670	678	8
Cottonseed Meal	242	231	-11
Brewers Grains, 30% DM	85	72	-39
Soybean Meal	332	290	-42
Corn Gluten Feed	165	121	-44
Canola	297	245	-52
Cottonseed	212	146	-66

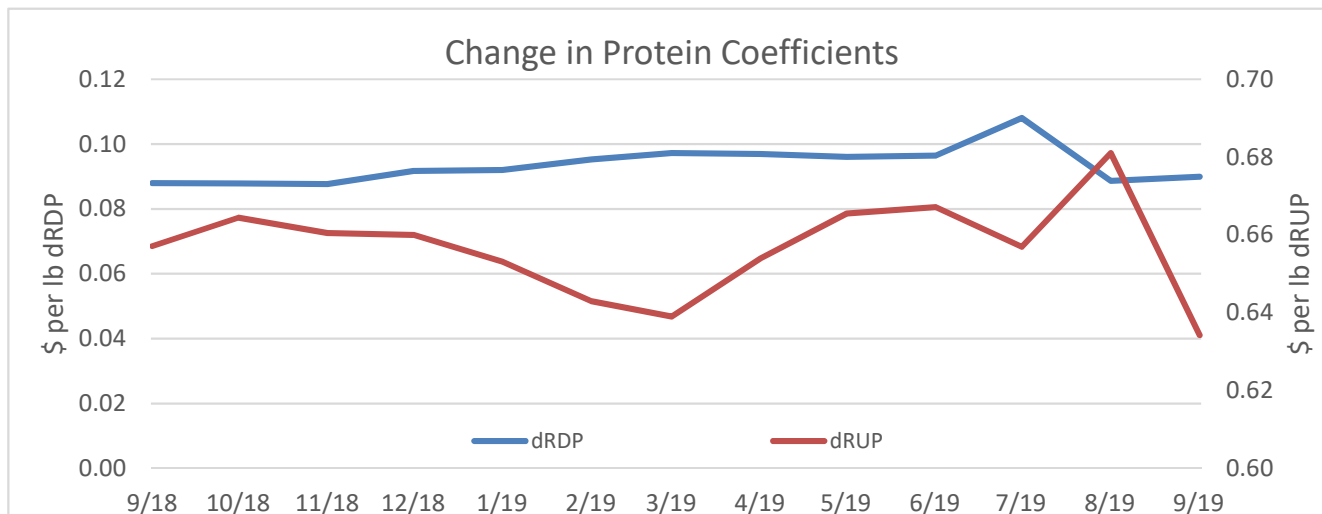
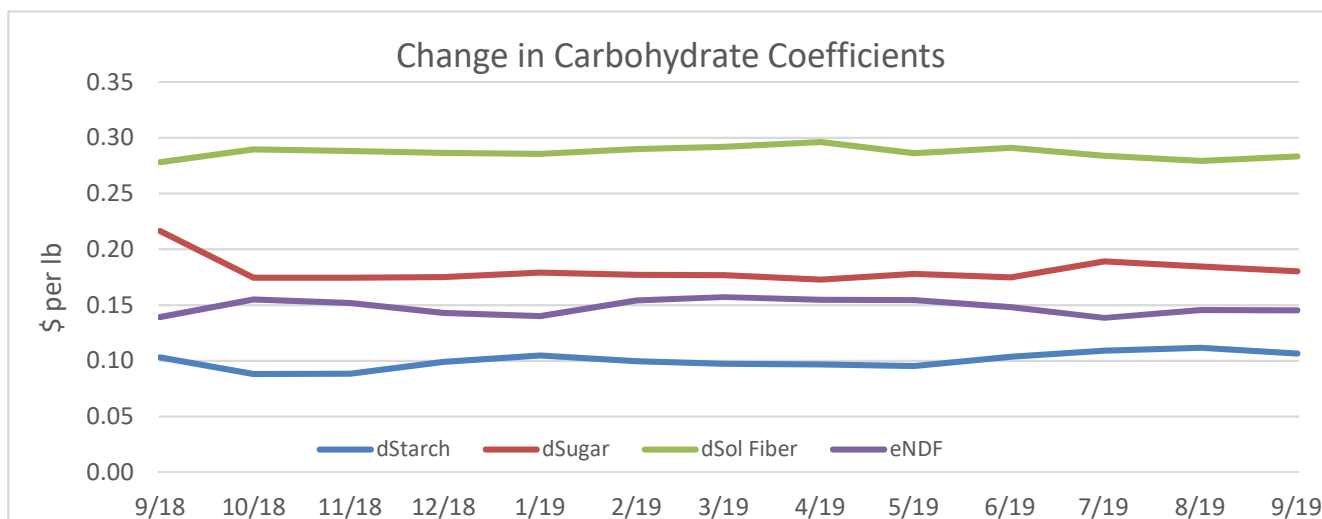
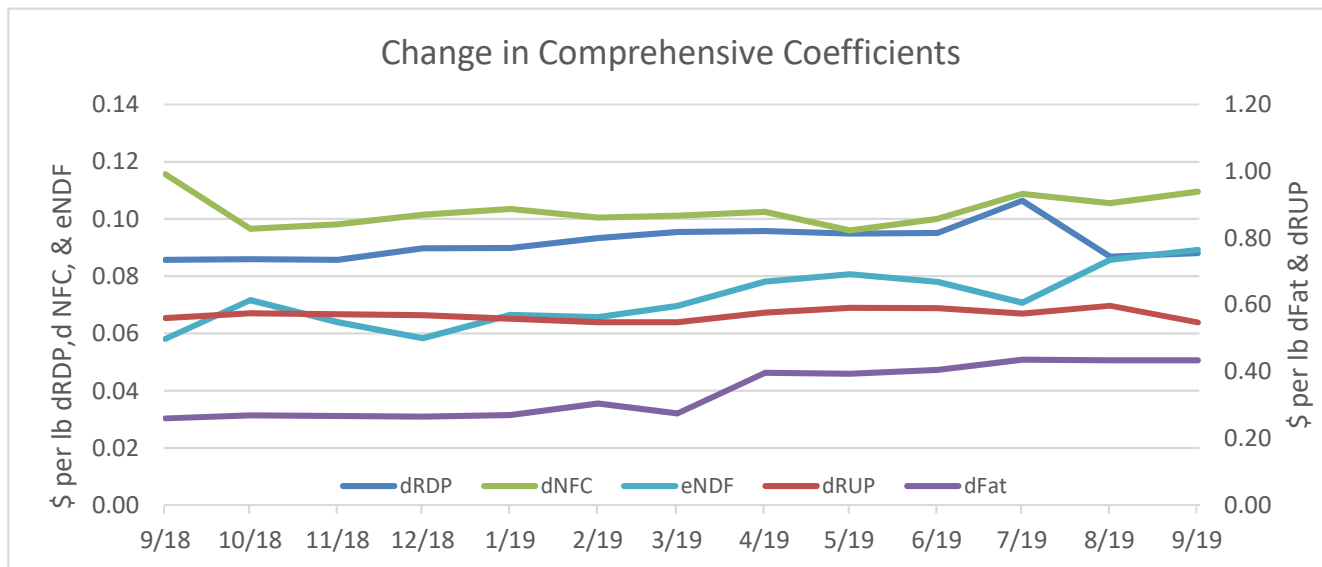
per lb
dRDP = \$0.09
dRUP = \$0.63

<i>Fiber Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Soyhulls	162	315	153
Corn Silage, 35% DM	50	80	77
Straw	175	222	47
Corn Gluten Feed	165	145	-20
Wheat Midds	150	94	-56
Distillers Grains	205	125	-80
Cottonseed	212	131	-81
Alfalfa - Good	240	148	-92
Brewers Grains, 30% DM	85	44	-123
Citrus Pulp	250	118	-132

per lb
eNDF = \$0.08
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.

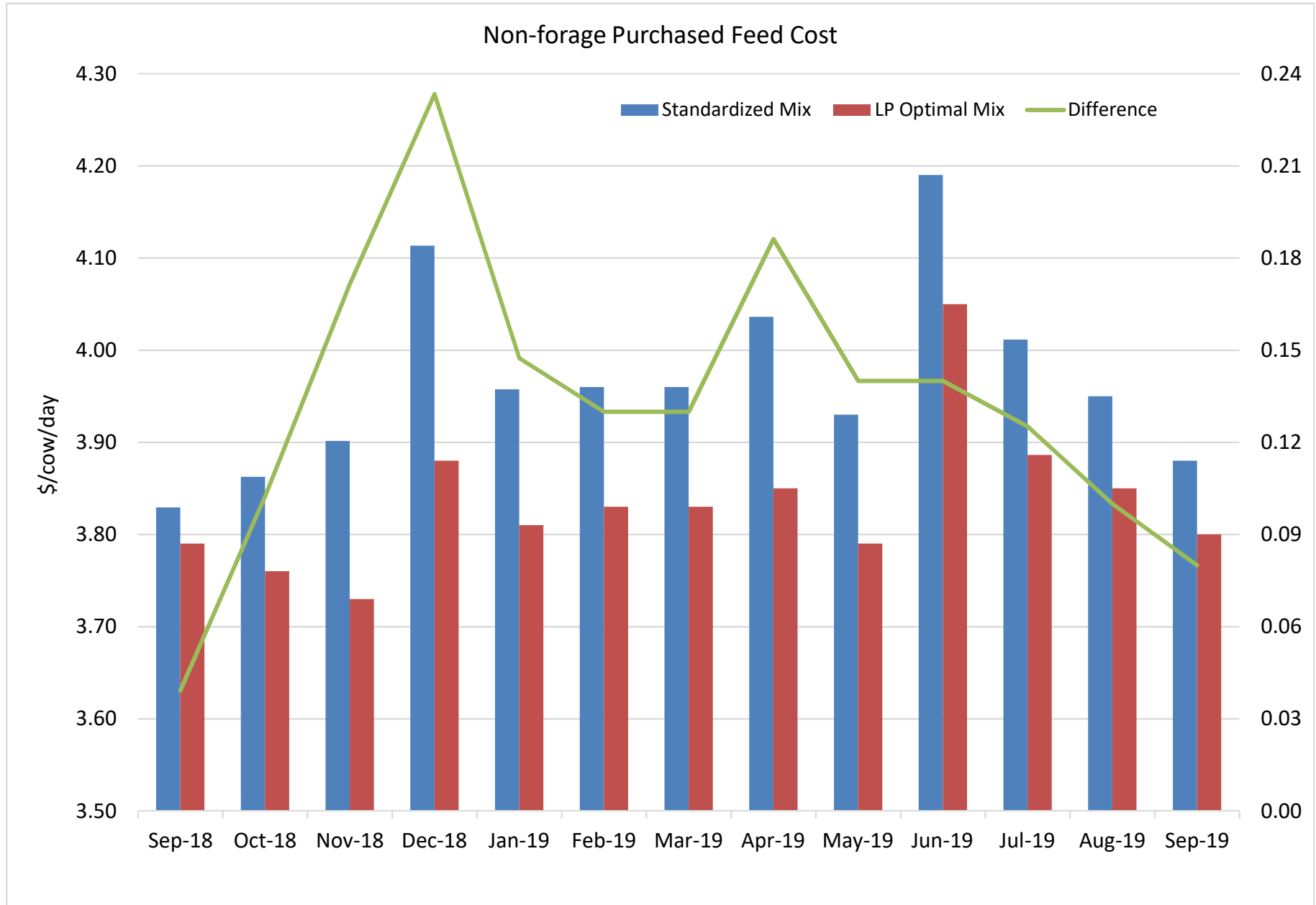
The nutrient composition (% DM) of the starch and protein mix, which will be referred to as the Standardized Mix, is 11.6% RDP, 13.5% digestible RUP, 28.4% starch, 5.5% sugar, 4.8% fat, 0.36% mMet, 0.81% mLys, and 0.30% mHis. Simple linear programming was used to find the optimal or minimal cost mix 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 reached a high in Jun. For the most recent month, the Standardized Mix is \$3.88/cow/day which is a decrease of 7¢/cow/day from the previous month. On average, the LP Optimal Mix was 13¢/cow/day less than the Standardized Mix. In some months, such as Sep '18 and Sep '19, 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 13¢/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>	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Alfalfa - Good	-56	-62	-67	-65	-58	-72	-72	-68	-66	-61	-41	-48	-43
Alfalfa - Premium	-64	-81	-77	-68	-58	-67	-67	-63	-60	-64	-54	-46	-54
Alfalfa - Supreme	-80	-88	-89	-75	-71	-76	-81	-91	-76	-70	-78	-62	-71
Bakery Byproduct	68	66	48	56	38	43	43	48	30	35	7	3	43
Blood Meal	-78	-53	-66	-71	-61	-79	-89	-103	-166	-156	-104	-138	-61
Brewers Grains, 30% DM	20	13	14	13	17	11	10	14	-2	-1	-1	2	-11
Bypass SBM	90	75	75	77	85	73	74	76	81	74	38	50	35
Canola	21	2	-35	-37	-24	-19	-19	-35	-4	-15	-7	9	-19
Citrus Pulp	-77	-71	-86	-80	-88	-82	-83	-83	-85	-80	-71	-84	-65
Corn Gluten Feed	44	36	43	39	40	42	42	50	62	64	58	73	51
Corn Gluten Meal	-10	-31	-9	-12	-15	-19	-11	12	82	82	70	88	27
Corn Grain	75	83	63	29	43	51	56	52	50	33	47	48	57
Corn Silage, 35% DM	53	53	43	42	46	49	49	48	52	53	56	62	67
Cottonseed	50	68	104	99	54	75	88	90	36	31	20	30	40
Cottonseed Meal	-66	-32	-21	-1	-43	37	37	34	14	14	16	19	2
Distillers Grains	80	79	79	79	91	107	110	104	125	122	69	62	74
Hominy	16	34	53	70	57	63	62	62	47	52	63	59	31
Molasses	-139	-141	-104	-95	-84	-104	-102	-104	-112	-106	-97	-104	-99
Soybean Meal	36	24	19	25	29	21	25	25	36	29	1	9	-4
Soyhulls	-4	20	-9	-20	-17	-27	-47	-44	-24	-23	-23	-19	-21
Straw	22	23	20	13	27	27	28	25	35	33	28	7	12
Tallow	-27	-30	-35	-35	-27	-37	-40	-40	-16	-16	-10	-11	-13
Urea	-1	0	0	-2	0	-4	-4	-4	-7	-5	-2	-5	1
Wheat Midds	64	56	72	56	33	35	35	36	19	22	39	38	34

<i>Carbohydrate Analysis</i>	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Alfalfa - Good	-9	-9	-8	-11	-11	-17	-13	-9	-16	-15	-2	-14	-8
Alfalfa - Premium	-39	-51	-41	-37	-32	-34	-31	-27	-29	-37	-34	-30	-35
Alfalfa - Supreme	-76	-80	-75	-65	-66	-64	-65	-76	-69	-65	-80	-67	-74
Bakery Byproduct	-1	-5	-31	-22	-38	-30	-33	-28	-29	-25	-56	-57	-22
Citrus Pulp	60	58	54	53	51	56	59	60	54	56	55	51	57
Corn Grain	15	12	0	-21	4	-2	1	-1	2	-10	-2	1	7
Corn Silage, 35% DM	88	91	86	87	87	95	96	95	92	93	89	89	92
Hominy	-55	-46	-20	7	-4	-6	-9	-8	-12	-3	4	1	-29
Molasses	-3	1	9	5	13	9	10	8	9	7	18	19	6
Soyhulls	-3	22	-1	-15	-14	-20	-38	-35	-18	-18	-22	-20	-21
Wheat Midds	-23	-34	-16	-29	-50	-49	-50	-50	-47	-43	-30	-31	-32

<i>Protein Analysis</i>	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Blood Meal	3	29	9	6	16	-1	-12	-26	-108	-97	-39	-73	8
Brewers Grains, 30% DM	-25	-33	-31	-32	-29	-34	-37	-34	-28	-28	-29	-26	-39
Bypass SBM	61	45	47	48	58	45	45	47	63	55	19	31	16
Canola	-18	-38	-72	-75	-61	-56	-50	-66	-34	-46	-40	-22	-52
Corn Gluten Feed	-47	-55	-40	-45	-43	-44	-45	-35	-22	-22	-31	-18	-44
Corn Gluten Meal	23	3	23	20	19	14	21	45	105	106	96	116	56
Cottonseed	-68	-55	-20	-20	-76	-51	-42	-40	-62	-66	-76	-74	-66
Cottonseed Meal	-98	-65	-53	-33	-75	5	3	0	2	2	4	7	-11
Distillers Grains	37	36	39	38	35	50	52	45	71	66	10	3	14
Soybean Meal	-5	-17	-16	-13	-5	-15	-11	-12	1	-7	-37	-28	-42
Urea	9	10	9	7	10	5	4	4	-1	1	6	3	9

<i>Fiber Analysis</i>	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Alfalfa - Good	-100	-107	-113	-109	-100	-116	-118	-114	-114	-109	-93	-95	-92
Brewers Grains, 30% DM	-126	-133	-129	-125	-122	-122	-117	-117	-127	-126	-119	-120	-123
Citrus Pulp	-151	-148	-144	-141	-138	-138	-134	-135	-141	-141	-136	-145	-132
Corn Gluten Feed	-35	-44	-30	-31	-27	-25	-22	-14	-10	-10	-15	0	-20
Corn Silage, 35% DM	67	63	58	60	70	68	69	67	68	68	68	80	77
Cottonseed	-98	-81	-52	-53	-103	-76	-68	-69	-90	-95	-107	-96	-81
Distillers Grains	-61	-62	-57	-53	-69	-49	-39	-49	-39	-43	-91	-103	-80
Soyhulls	161	171	152	152	160	150	139	142	143	144	159	159	153
Straw	69	68	57	55	69	67	64	61	71	71	64	51	47
Wheat Midds	-53	-64	-36	-53	-71	-71	-68	-68	-69	-68	-54	-54	-56

FEED \$ENSE MARGINS

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