

# FEED \$ENSE

## Midwest Edition

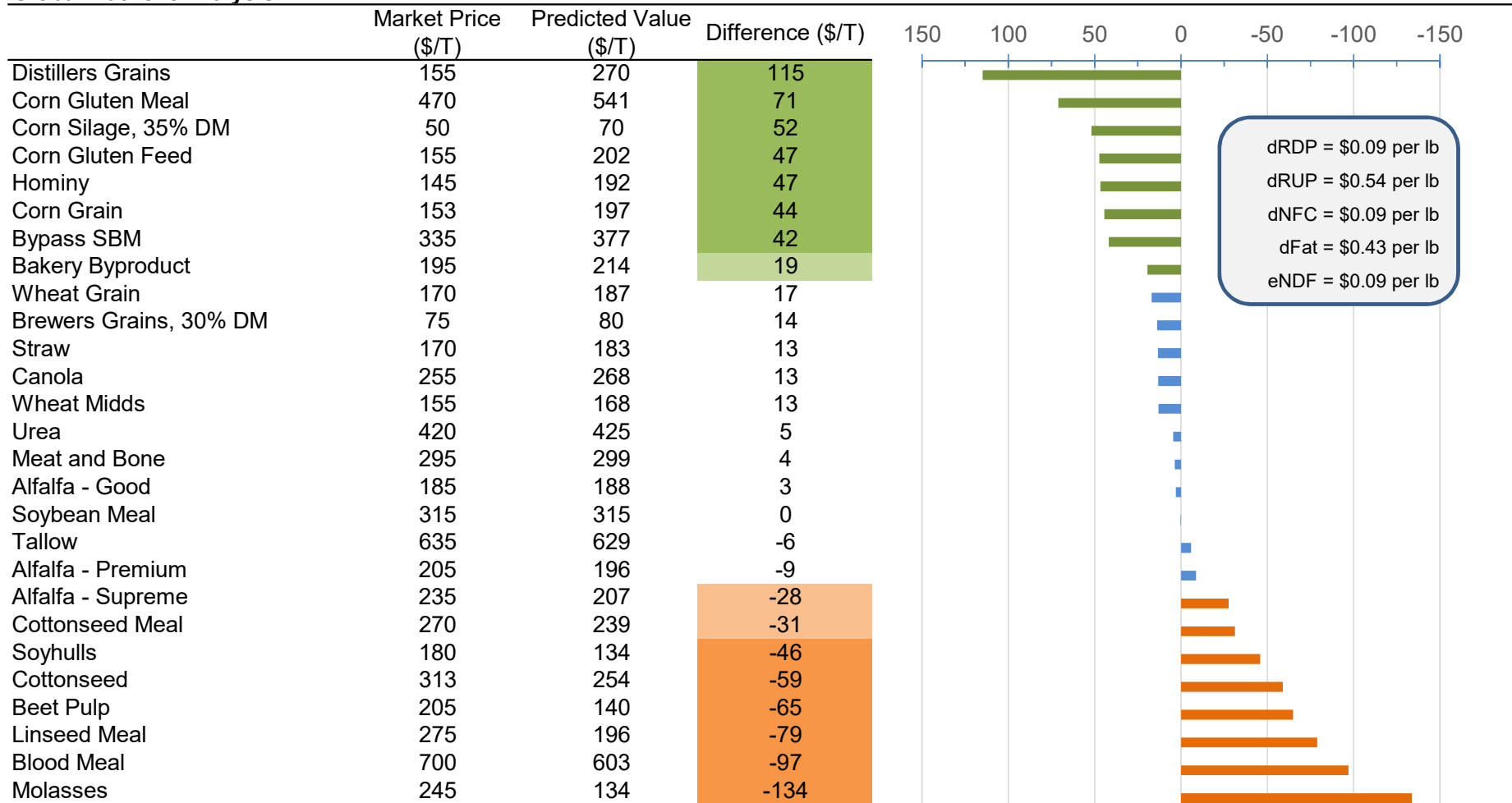
### 1-Yr Ingredient Price Change (\$/T)

	Sep-18	Sep-19	1-Yr Graph
Bakery Byproduct	175	195	
Beet Pulp	210	205	
Corn Grain	140	153	
Cottonseed	245	313	
Hominy	113	145	
Molasses	238	245	
Soyhulls	135	180	
Wheat Grain	183	170	
Wheat Midds	135	155	
Tallow	535	635	
Blood Meal	625	700	
Brewers Grains, 30% DM	75	75	
Canola	227	255	
Corn Gluten Feed	158	155	
Corn Gluten Meal	523	470	
Cottonseed Meal	320	270	
Distillers Grains	147	155	
Linseed Meal	300	275	
Meat and Bone	305	295	
Soybean Meal	302	315	
Bypass SBM	312	325	
Urea	410	420	
Alfalfa - Supreme	240	235	
Alfalfa - Premium	210	205	
Alfalfa - Good	185	185	
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	70	51
Beet Pulp	205	241	36
Corn Grain	153	172	19
Molasses	245	255	12
Alfalfa - Good	185	197	12
Hominy	145	152	7
Alfalfa - Premium	205	196	-9
Bakery Byproduct	195	176	-19
Wheat Grain	170	150	-20
Alfalfa - Supreme	235	192	-43
Wheat Midds	155	110	-45
Soyhulls	180	125	-55

per lb  
 Starch = \$0.10  
 Sugar = \$0.18  
 Sol Fiber = \$0.29  
 eNDF = \$0.10

<i>Protein Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Corn Gluten Meal	470	557	87
Distillers Grains	155	211	56
Meat and Bone	295	329	34
Bypass SBM	335	354	19
Urea	420	432	12
Brewers Grains, 30% DM	75	69	-18
Canola	255	236	-19
Soybean Meal	315	280	-35
Corn Gluten Feed	155	117	-38
Cottonseed Meal	270	223	-47
Blood Meal	700	650	-50
Linseed Meal	275	161	-114

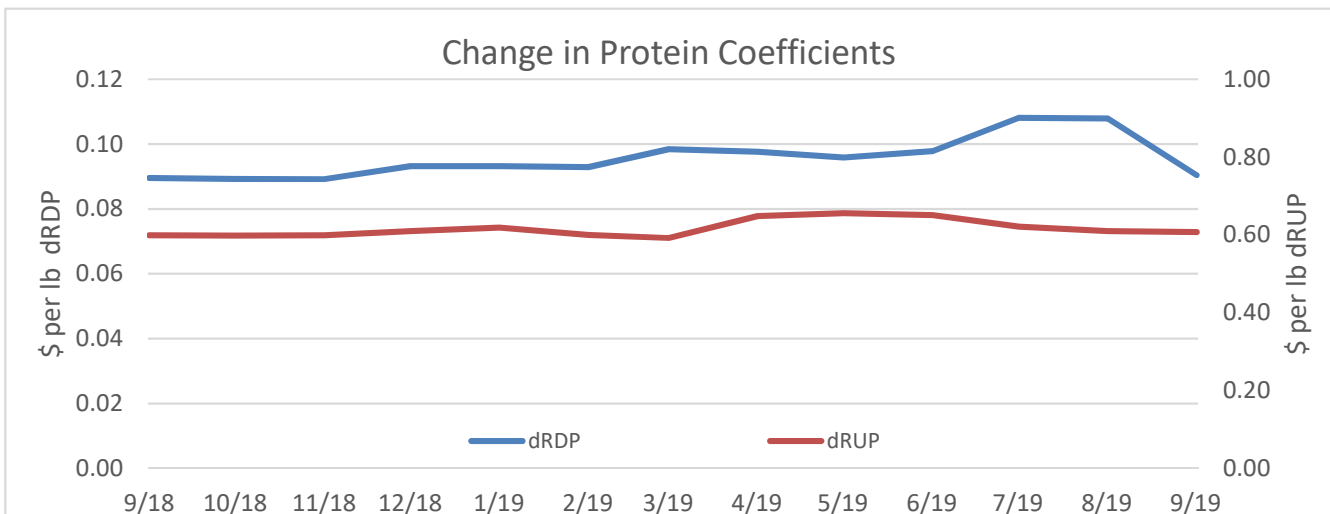
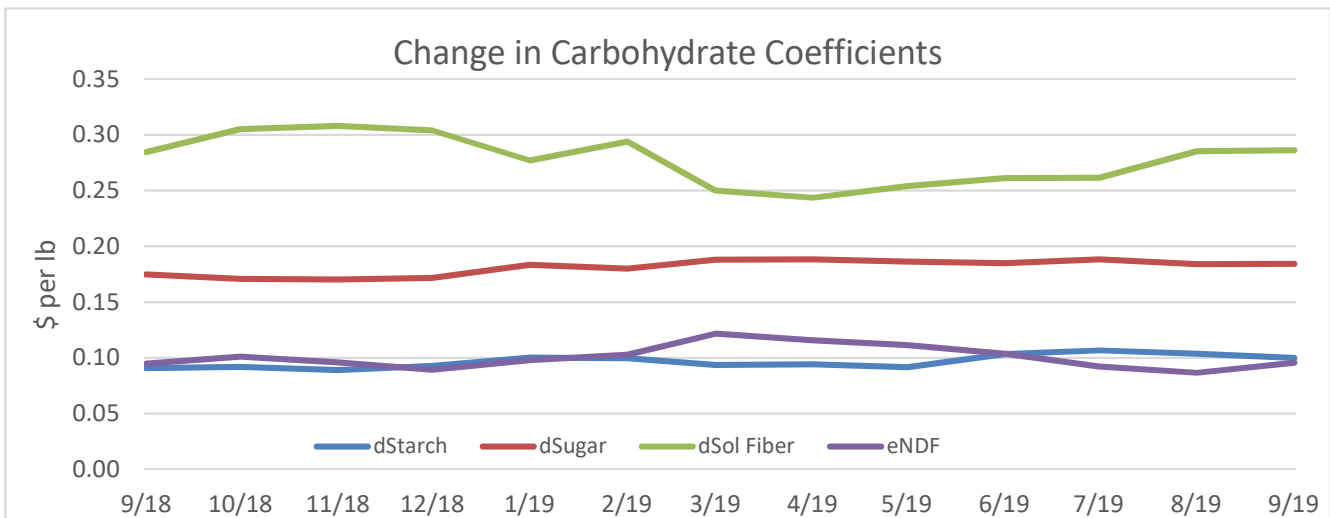
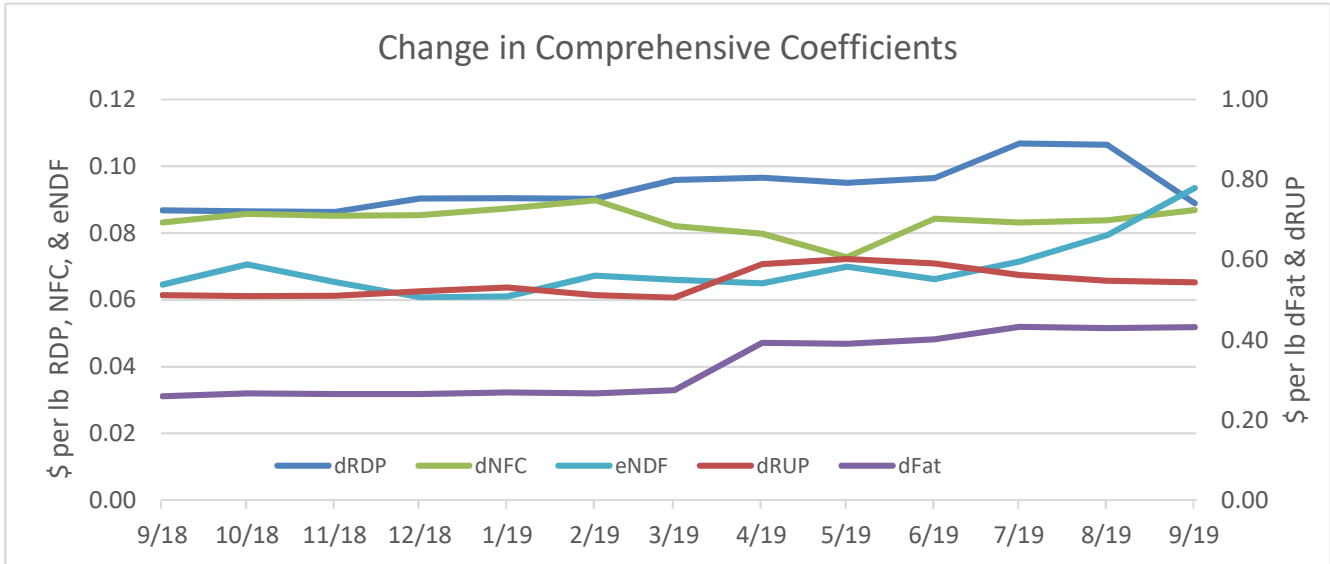
per lb  
 dRDP = \$0.09  
 dRUP = \$0.61

<i>Fiber Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Soyhulls	180	278	98
Corn Silage, 35% DM	50	78	72
Straw	170	232	62
Corn Gluten Feed	155	133	-22
Alfalfa - Good	185	152	-33
Beet Pulp	205	165	-40
Distillers Grains	155	108	-47
Brewers Grains, 30% DM	75	38	-110
Cottonseed	313	134	-179

per lb  
 eNDF = \$0.11  
 dNDF = \$0.22

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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.

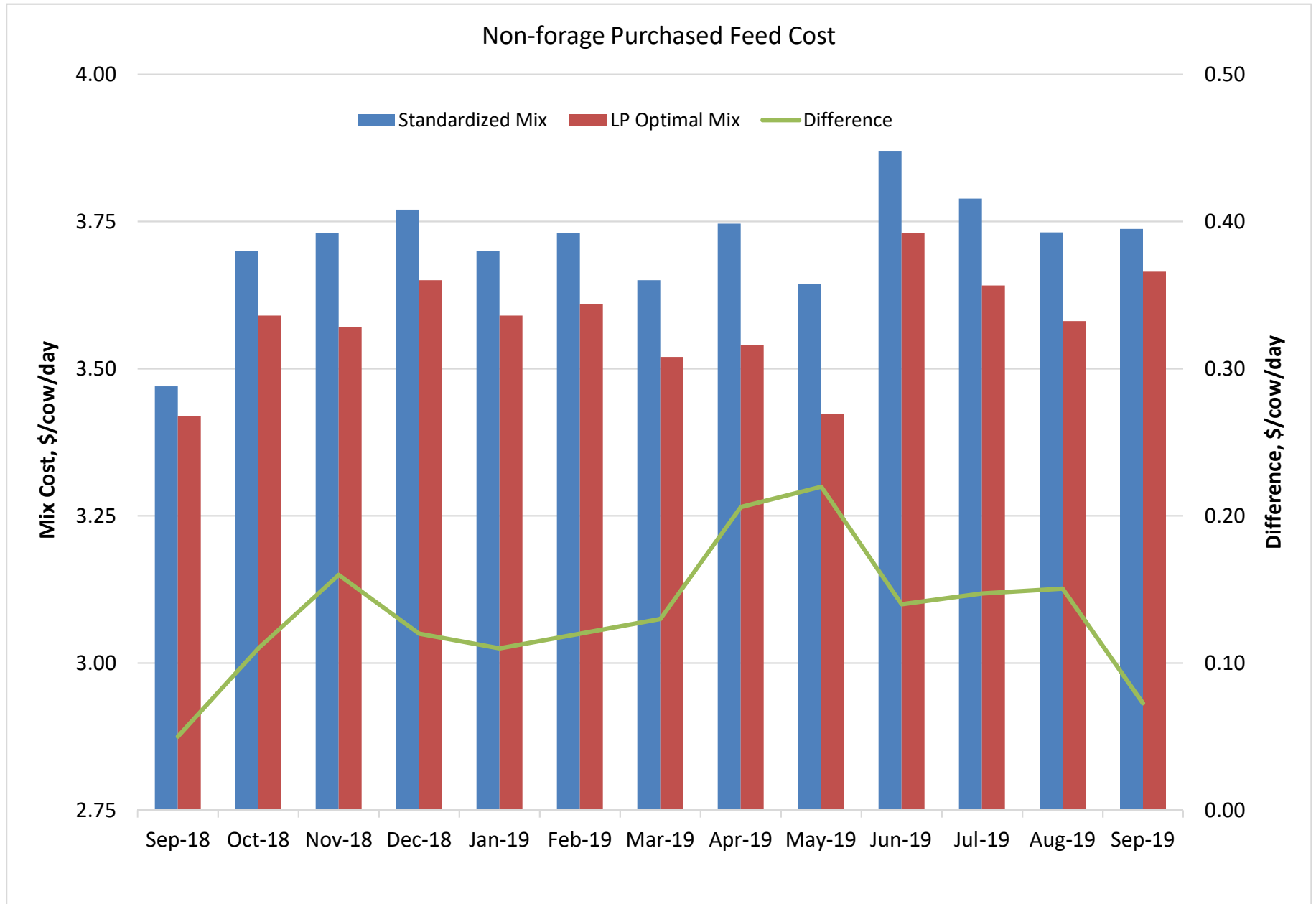
The nutrient composition (% DM) of the starch and protein mix, which will be referred to as the Standardized Mix, is 11.6% RDP, 13.5% digestible RUP, 28.4% starch, 5.5% sugar, 4.8% fat, 0.36% mMet, 0.81% mLys, and 0.3% mHis. Simple linear programming was used to find the optimal or minimal cost subject 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. Except for a dip last September, purchased feed costs have averaged \$3.71/cow/day. For the most recent month, the Standardized Mix is \$3.74/cow/day which is an increase of 1¢/cow/day from the previous month. Since peaking in Jun, feed costs have steadily declined. On average, the LP Optimal Mix was 13¢/cow/day less than the Standardized Mix with much of the difference occurring this spring. In some months, such as Sep of '18 and '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 5-6¢/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
Alfalfa - Good	-20	-20	-24	-20	-20	-29	-33	-31	-30	-23	0	-10
Alfalfa - Premium	-32	-42	-36	-26	-20	-26	-30	-26	-23	-25	-14	-10
Alfalfa - Supreme	-52	-52	-50	-35	-33	-35	-45	-54	-38	-31	-39	-27
Bakery Byproduct	42	43	43	44	30	37	32	39	21	31	19	18
Beet Pulp	-82	-84	-90	-89	-72	-75	-52	-53	-61	-54	-53	-73
Blood Meal	-59	-61	-61	-48	-69	-58	-88	-165	-238	-181	-149	-154
Brewers Grains, 30% DM	20	22	21	25	34	24	22	36	26	22	20	15
Bypass SBM	49	38	37	26	57	43	53	68	88	46	61	67
Canola	29	7	-18	-16	3	4	1	-4	32	17	21	30
Corn Gluten Feed	30	29	30	28	33	37	32	43	56	59	50	62
Corn Gluten Meal	-10	-8	-7	-21	-8	-33	-14	40	133	129	107	104
Corn Grain	52	42	47	51	51	49	43	37	31	21	18	17
Corn Silage, 35% DM	28	35	31	28	26	36	30	23	25	31	35	41
Cottonseed	15	21	37	26	20	10	27	30	-20	-27	-76	-34
Cottonseed Meal	-71	-41	-26	-21	-47	-27	-25	-19	-16	-20	-21	-25
Distillers Grains	111	110	107	98	96	106	100	118	136	132	123	112
Hominy	81	87	89	85	77	85	76	75	61	53	54	54
Linseed Meal	-58	-25	-21	8	-18	-7	7	-35	-73	-72	-71	-74
Meat & Bone Meal	34	44	44	51	41	66	72	106	59	30	-7	-14
Molasses	-129	-125	-126	-125	-107	-123	-132	-138	-147	-134	-137	-136
Soybean Meal	2	-9	-10	-21	4	-2	9	16	39	1	22	30
Soyhulls	-10	-52	-55	-54	-53	-61	-44	-24	2	-17	-6	-9
Straw	17	25	18	14	14	23	19	11	18	19	24	-3
Tallow	-21	-27	-30	-29	-22	-26	-30	-35	-12	-11	-5	-9
Urea	5	3	3	2	2	1	-2	-4	-6	0	0	-2
Wheat Grain	-5	1	3	6	1	7	20	18	23	16	9	19
Wheat Midds	44	47	51	22	-18	-10	-14	-12	-33	12	14	13

<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
Alfalfa - Good	9	15	12	11	10	4	4	5	-3	0	11	0
Alfalfa - Premium	-17	-21	-13	-8	-7	-8	-12	-10	-12	-18	-16	-10
Alfalfa - Supreme	-51	-45	-42	-32	-36	-32	-43	-55	-47	-43	-58	-43
Bakery Byproduct	-10	-13	-14	-12	-26	-16	-16	-10	-11	-6	-15	-17
Beet Pulp	28	38	34	31	34	37	40	39	31	36	35	30
Corn Grain	19	9	10	18	29	19	12	9	9	0	3	0
Corn Silage, 35% DM	44	53	47	44	53	57	62	60	54	56	50	47
Hominy	28	33	33	31	31	34	25	26	24	17	23	21
Molasses	8	8	8	8	16	12	13	11	12	8	11	11
Soyhulls	-12	-49	-51	-54	-56	-61	-46	-28	-4	-24	-18	-18
Wheat Grain	-46	-41	-42	-36	-29	-32	-18	-17	-12	-17	-19	-12
Wheat Midds	-31	-29	-25	-54	-93	-84	-89	-89	-91	-46	-44	-44

<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
Blood Meal	16	15	16	28	4	18	-14	-92	-199	-137	-106	-108
Brewers Grains, 30% DM	-21	-21	-21	-17	-9	-20	-22	-7	-2	-6	-11	-15
Bypass SBM	27	15	15	4	34	19	30	46	69	26	39	46
Canola	-2	-26	-50	-48	-29	-30	-23	-27	4	-12	-10	0
Corn Gluten Feed	-43	-48	-45	-45	-38	-42	-42	-27	-14	-16	-27	-17
Corn Gluten Meal	27	29	31	16	27	2	22	76	146	144	121	120
Cottonseed Meal	-100	-71	-55	-50	-77	-58	-56	-50	-30	-33	-35	-39
Distillers Grains	61	58	56	47	45	52	47	67	84	78	65	55
Linseed Meal	-141	-111	-106	-77	-102	-94	-79	-119	-101	-103	-104	-106
Meat & Bone Meal	20	29	30	36	24	51	54	86	85	59	22	16
Soybean Meal	-25	-38	-38	-49	-23	-33	-19	-10	9	-32	-12	-3
Urea	18	16	16	15	14	14	10	7	-2	6	6	5

<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
Alfalfa - Good	-54	-58	-62	-56	-54	-65	-67	-63	-64	-59	-34	-43
Beet Pulp	-56	-44	-47	-45	-29	-37	-19	-27	-47	-40	-41	-57
Brewers Grains, 30% DM	-118	-106	-105	-104	-106	-105	-113	-119	-125	-121	-122	-119
Corn Gluten Feed	-37	-33	-30	-32	-30	-26	-33	-29	-23	-20	-29	-13
Corn Silage, 35% DM	48	55	52	53	54	58	53	49	50	52	57	64
Cottonseed	-129	-128	-111	-121	-133	-135	-122	-126	-144	-149	-198	-153
Distillers Grains	-46	-38	-39	-50	-63	-43	-55	-55	-50	-47	-56	-61
Soyhulls	122	103	104	107	103	97	98	105	117	107	117	119
Straw	63	63	57	58	62	68	66	66	73	72	81	55

# FEED \$ENSE MARGINS

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