

# FEED \$ENSE

## Mid-Atlantic Edition

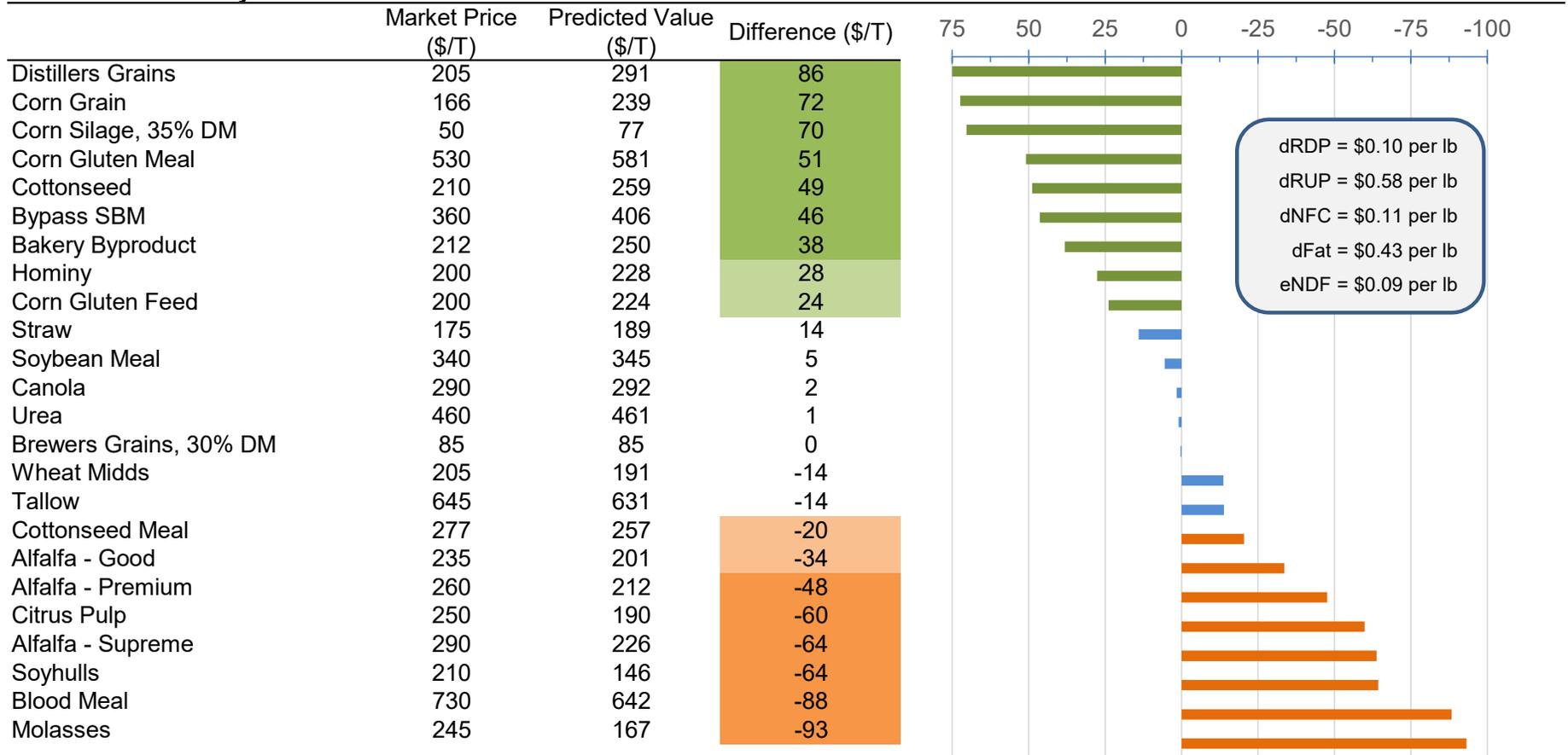
### 1-Yr Ingredient Price Change (\$/T)

	Jan-19	Jan-20	1-Yr Graph
Bakery Byproduct	204	212	
Barley	182	230	
Citrus Pulp	255	250	
Corn Grain	184	166	
Cottonseed	224	210	
Hominy	160	200	
Molasses	242	245	
Soyhulls	155	210	
Tallow	565	645	
Wheat Midds	165	205	
Brewers Grains, 30% DM	85	85	
Blood Meal	670	730	
Canola	310	290	
Corn Gluten Feed	170	200	
Corn Gluten Meal	586	530	
Cottonseed Meal	262	277	
Distillers Grains	195	205	
Soybean Meal	320	340	
Bypass SBM	340	360	
Urea	430	460	
Alfalfa - Supreme	280	290	
Alfalfa - Premium	255	260	
Alfalfa - Good	240	235	
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	89	101
Citrus Pulp	250	315	65
Corn Grain	166	193	27
Molasses	245	252	8
Alfalfa - Good	235	237	2
Bakery Byproduct	212	185	-27
Hominy	200	170	-30
Alfalfa - Premium	260	230	-30
Soyhulls	210	145	-65
Alfalfa - Supreme	290	222	-68
Wheat Midds	205	124	-81

per lb  
 Starch = \$0.11  
 Sugar = \$0.18  
 Sol Fiber = \$0.29  
 eNDF = \$0.15

<i>Protein Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Corn Gluten Meal	530	608	78
Bypass SBM	360	386	26
Distillers Grains	205	230	25
Urea	460	469	9
Blood Meal	730	709	-21
Brewers Grains, 30% DM	85	75	-29
Canola	290	258	-32
Cottonseed Meal	277	243	-34
Soybean Meal	340	305	-35
Cottonseed	210	153	-57
Corn Gluten Feed	200	128	-72

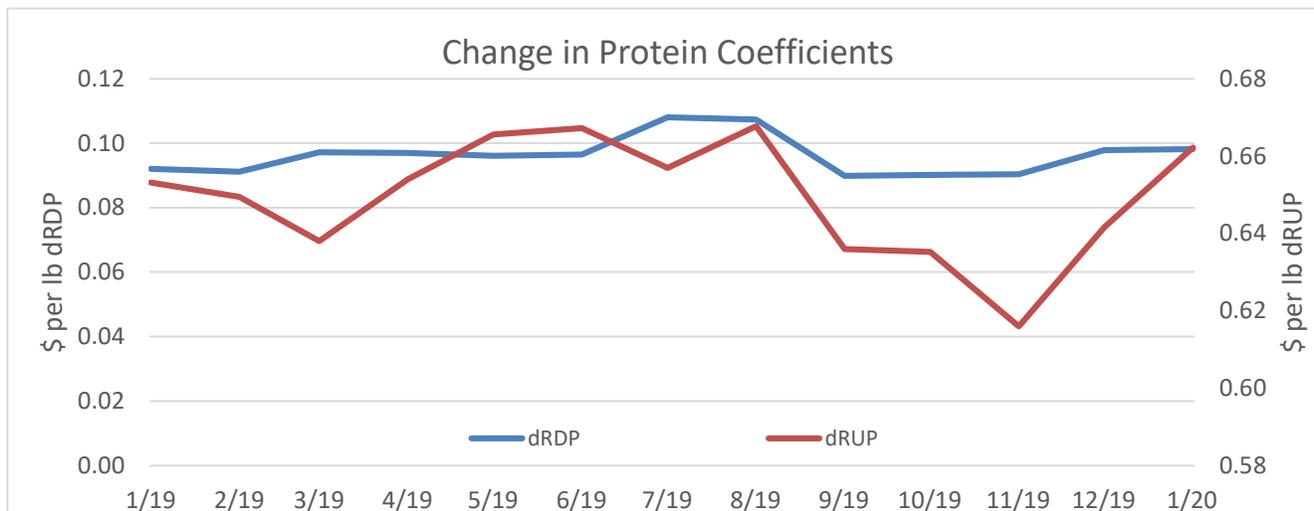
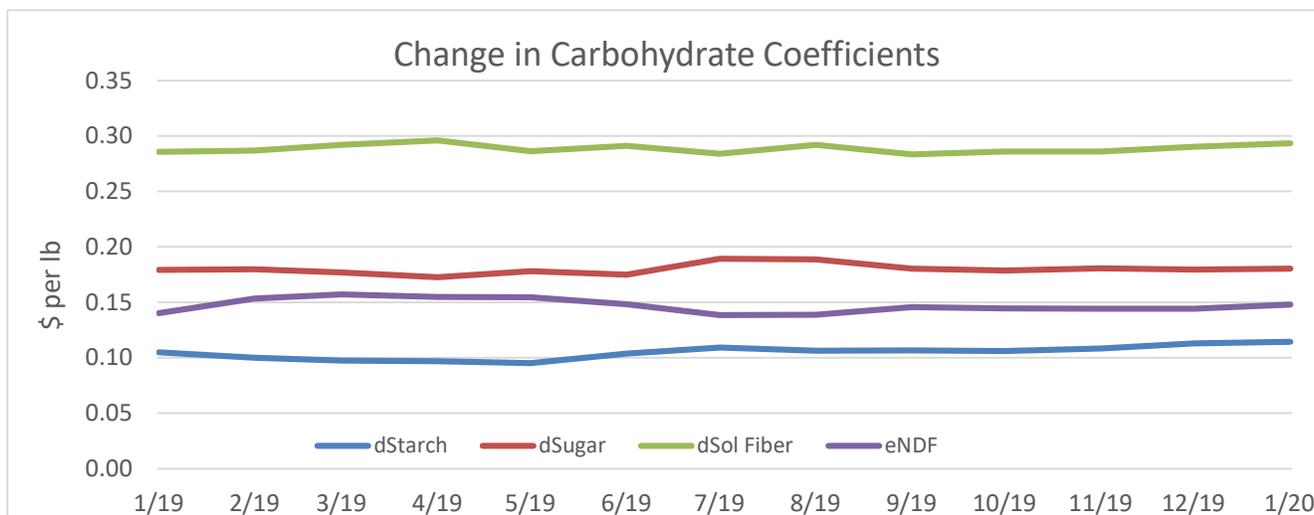
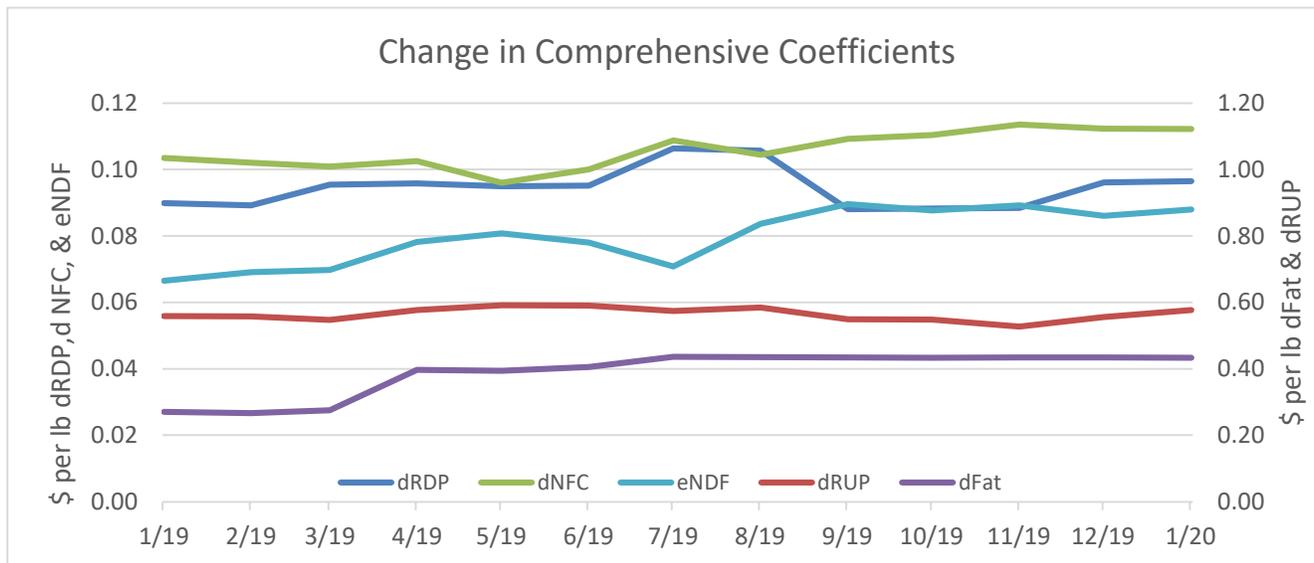
per lb  
 dRDP = \$0.10  
 dRUP = \$0.66

<i>Fiber Analysis</i>	Market Price (\$/T)	Predicted Value (\$/T)	Difference (\$/T)
Soyhulls	210	357	147
Corn Silage, 35% DM	50	83	86
Straw	175	218	43
Corn Gluten Feed	200	160	-40
Distillers Grains	205	144	-61
Cottonseed	210	132	-78
Alfalfa - Good	235	148	-87
Wheat Midds	205	106	-99
Brewers Grains, 30% DM	85	51	-103
Citrus Pulp	250	133	-117

per lb  
 eNDF = \$0.06  
 dNDF = \$0.31

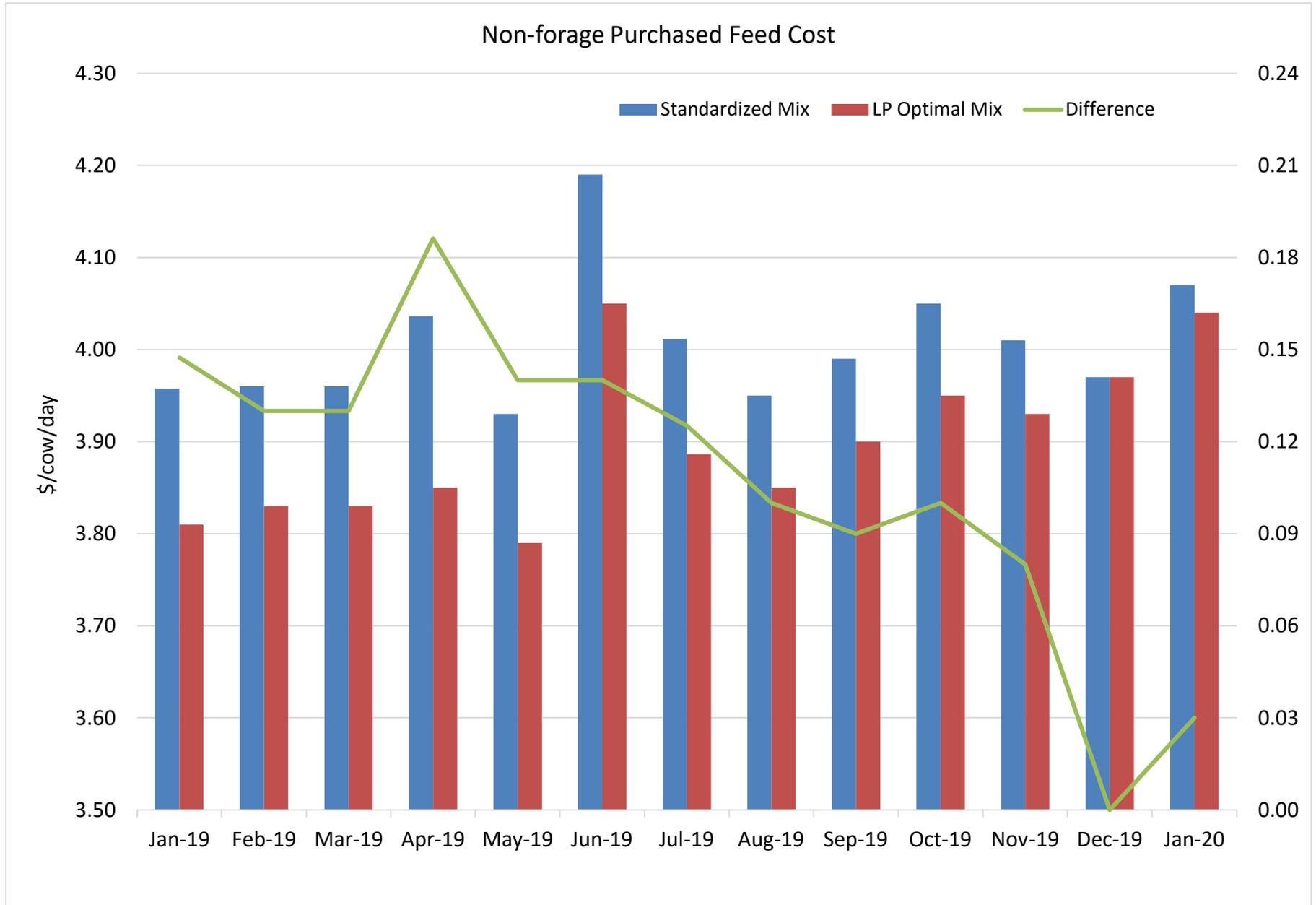
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### Historical Undervalue/Overvalue of Feedstuffs (\$/T)

<i>Global Analysis</i>	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Alfalfa - Good	-58	-72	-72	-68	-66	-61	-41	-48	-43	-44	-43	-37	-34
Alfalfa - Premium	-58	-67	-67	-63	-60	-64	-54	-46	-54	-44	-44	-46	-48
Alfalfa - Supreme	-71	-76	-81	-91	-76	-70	-78	-62	-71	-76	-67	-63	-64
Bakery Byproduct	38	43	43	48	30	35	7	3	43	49	37	42	38
Blood Meal	-61	-79	-89	-103	-166	-156	-104	-138	-61	-50	-31	-60	-88
Brewers Grains, 30% DM	17	11	10	14	-2	-1	-1	2	-11	-10	-16	-7	0
Bypass SBM	85	73	74	76	81	74	38	50	35	22	25	45	46
Canola	-24	-19	-19	-35	-4	-15	-7	9	-19	-22	-12	14	2
Citrus Pulp	-88	-82	-83	-83	-85	-80	-71	-84	-65	-64	-61	-62	-60
Corn Gluten Feed	40	42	42	50	62	64	58	73	51	50	47	35	24
Corn Gluten Meal	-15	-19	-11	12	82	82	70	88	27	22	2	7	51
Corn Grain	43	51	56	52	50	33	47	48	57	56	59	67	72
Corn Silage, 35% DM	46	49	49	48	52	53	56	62	67	67	69	68	70
Cottonseed	54	75	88	90	36	31	20	30	40	46	43	48	49
Cottonseed Meal	-43	37	37	34	14	14	16	19	2	12	-3	8	-20
Distillers Grains	91	107	110	104	125	122	69	62	74	80	74	69	86
Hominy	57	63	62	62	47	52	63	59	31	37	39	25	28
Molasses	-84	-104	-102	-104	-112	-106	-97	-104	-99	-98	-93	-94	-93
Soybean Meal	29	21	25	25	36	29	1	9	-4	-17	-10	7	5
Soyhulls	-17	-27	-47	-44	-24	-23	-23	-19	-21	-29	-49	-57	-64
Straw	27	27	28	25	35	33	28	7	12	11	13	11	14
Tallow	-27	-37	-40	-40	-16	-16	-10	-11	-13	-14	-13	-14	-14
Urea	0	-4	-4	-4	-7	-5	-2	-5	1	2	2	-1	1
Wheat Midds	33	35	35	36	19	22	39	38	34	30	30	3	-14

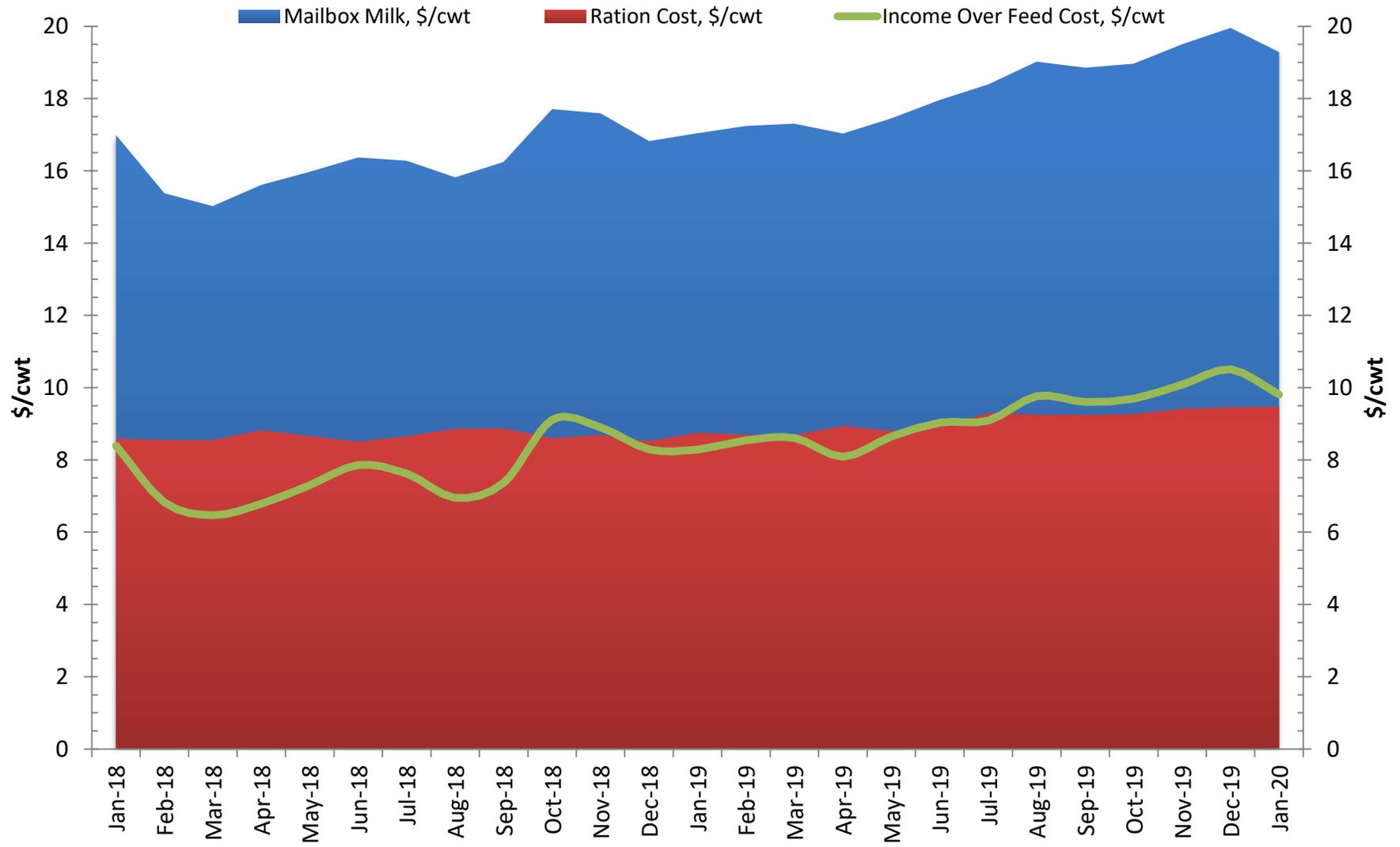
<i>Carbohydrate Analysis</i>	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Alfalfa - Good	-11	-17	-13	-9	-16	-15	-2	-14	-8	-9	-8	-2	2
Alfalfa - Premium	-32	-34	-31	-27	-29	-37	-34	-30	-35	-25	-25	-29	-30
Alfalfa - Supreme	-66	-64	-65	-76	-69	-65	-80	-67	-74	-79	-68	-67	-68
Bakery Byproduct	-38	-30	-33	-28	-29	-25	-56	-57	-22	-18	-28	-22	-27
Citrus Pulp	51	56	59	60	54	56	55	51	57	58	59	62	65
Corn Grain	4	-2	1	-1	2	-10	-2	1	7	4	6	21	27
Corn Silage, 35% DM	87	95	96	95	92	93	89	89	92	92	93	96	101
Hominy	-4	-6	-9	-8	-12	-3	4	1	-29	-25	-22	-32	-30
Molasses	13	9	10	8	9	7	18	19	6	4	7	6	8
Soyhulls	-14	-20	-38	-35	-18	-18	-22	-20	-21	-29	-49	-57	-65
Wheat Midds	-50	-49	-50	-50	-47	-43	-30	-31	-32	-37	-36	-63	-81

<i>Protein Analysis</i>	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Blood Meal	16	-1	-12	-26	-108	-97	-39	-73	8	19	39	7	-21
Brewers Grains, 30% DM	-29	-34	-37	-34	-28	-28	-29	-26	-39	-39	-45	-36	-29
Bypass SBM	58	45	45	47	63	55	19	31	16	3	5	24	26
Canola	-61	-56	-50	-66	-34	-46	-40	-22	-52	-54	-46	-20	-32
Corn Gluten Feed	-43	-44	-45	-35	-22	-22	-31	-18	-44	-44	-51	-61	-72
Corn Gluten Meal	19	14	21	45	105	106	96	116	56	51	31	35	78
Cottonseed	-76	-51	-42	-40	-62	-66	-76	-74	-66	-59	-63	-56	-57
Cottonseed Meal	-75	5	3	0	2	2	4	7	-11	0	-16	-5	-34
Distillers Grains	35	50	52	45	71	66	10	3	14	20	14	8	25
Soybean Meal	-5	-15	-11	-12	1	-7	-37	-28	-42	-55	-50	-33	-35
Urea	10	5	4	4	-1	1	6	3	9	10	11	7	9

<i>Fiber Analysis</i>	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Alfalfa - Good	-100	-116	-118	-114	-114	-109	-93	-95	-92	-93	-93	-89	-87
Brewers Grains, 30% DM	-122	-122	-117	-117	-127	-126	-119	-120	-123	-121	-115	-107	-103
Citrus Pulp	-138	-138	-134	-135	-141	-141	-136	-145	-132	-131	-127	-121	-117
Corn Gluten Feed	-27	-25	-22	-14	-10	-10	-15	0	-20	-20	-19	-29	-40
Corn Silage, 35% DM	70	68	69	67	68	68	68	80	77	77	79	82	86
Cottonseed	-103	-76	-68	-69	-90	-95	-107	-96	-81	-74	-74	-75	-78
Distillers Grains	-69	-49	-39	-49	-39	-43	-91	-103	-80	-73	-68	-75	-61
Soyhulls	160	150	139	142	143	144	159	159	153	149	140	148	147
Straw	69	67	64	61	71	71	64	51	47	45	44	42	43
Wheat Midds	-71	-71	-68	-68	-69	-68	-54	-54	-56	-60	-56	-81	-99

# FEED \$ENSE MARGINS

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### Nutrient Values Eliminate Guesswork

Since feed is the single largest expense for a dairy, Feed Components has developed a method of evaluating the value of feedstuffs, taking both cost and available nutrient content into account. Nutrient values are derived using the composition and weekly market prices for a basket of feeds available in the region. We calculate predicted values for a set of ration components and metabolizable nutrients using regression analysis of retrospective weekly prices. When nutrient values are combined with the composition of a feed we arrive at a relative economic value of the ingredient.

Table 1 shows how the predicted value of soybean meal is calculated using nutrient values, with a net result of \$378 per ton delivered. When compared to the current market price of \$370 per ton, this feed is valued \$8/T more than its market price and is considered a “neutral” buy.

Table 1. Calculating the predicted value of soybean meal.

	dRDP	dRUP	dNFC	dFat	eNDF	
Amount, lbs/T	545	380	546	52	43	
Value, \$ per lb	x 0.08	x 0.76	x 0.06	x 0.21	x 0.04	
	43.60	288.80	32.76	10.92	1.72	= \$378/T

The first page of the report shows the price for the most recent week and the price one year ago. The second page of the report shows the most recent valuation of feedstuffs. Feeds are sorted from “best” buy to “worst” buy, where this difference is calculated by subtracting the market price from the predicted value. Ranking is more important than the absolute difference and this ranking incorporates a margin of error. Differences that lie within  $\pm 1$  standard deviation (SD) are considered neutral buys or the predicted value is equivalent to market price. Light (+1 SD) and dark (+2 SD) green indicate the predicted value is greater than market price. Light (-1 SD) and dark (-2 SD) orange indicate the predicted value is less than market price. The undervalued, neutrally valued, or overvalued predicted differences are also shown graphically on the right-hand side of Page 2 along with the coefficients.

Page 3 contains the analyses for carbohydrates, proteins, and fiber. The top table contains an analysis of carbohydrate feeds where value is predicted using starch, sugar, soluble fiber, and eNDF. The middle table contains an analysis of protein feeds where we predict value using RDP and digestible RUP. And the bottom table contains the analysis of fiber where value is predicted using eNDF and digestible NDF. The coefficients or values for the carbohydrate, protein, and fiber fractions are to the right of each the table.

Page 5 shows the cost difference between a standardized grain mix and an optimal mix derived through linear programming (LP Optimal Mix). The standardized grain mix contains ground corn (39.5%), canola meal (21.0%), bypass SBM (20.7%), soyhulls (14.8%), blood meal (3.6%), Mepron® (2.2%) urea (2.2%), and bypass fat, minerals, vitamins, and additives (3.5%) which complements a 60% forage ration supporting 90 lbs milk.