



Alliance Nutrition®

# Nutrient Guidelines for Dairy Calves and Heifers

## Standard Rate of Growth



DairySolutions®  
Improving your bottom line.

	AGE								
	1-2 Mo.	2-3 Mo.	4-6 Mo.	7-9 Mo.	10-12 Mo.	13-15 Mo.	16-18 Mo.	19-21 Mo.	22-24 Mo.
Crude Protein, %	20.0	18.0	16.5	15.3	14.4	14.1	13.8	13.5	15.0
SIP, % of CP	20-30	25-30	25-35	25-35	30-40	30-40	30-40	30-40	30-40
RDP, % of CP	60-65	60-65	60-65	60-70	60-70	65-75	65-80	65-80	65-80
RUP, % of CP	35-40	35-40	35-40	30-40	30-40	25-35	20-35	20-35	20-35
CP to ME ratio, g/1 Mcal	70	65	65	63	63	62	61	60	66
Metabolizable Energy, Mcal/kg	2.85	2.75	2.55	2.45	2.40	2.35	2.30	2.25	2.25
NE Gain, Mcal/lb <sup>a</sup>	0.576	0.542	0.474	0.438	0.420	0.402	0.384	0.365	0.365
NDF, min., %	18	20	23	27	30	35	35	35	35
ADF, min., %	10	12	16	18	19	19	19	19	19
NFC, %	40-55	40-50	35-50	32-45	30-40	25-40	25-40	25-40	25-40
Calcium, %	0.70	0.68	0.64	0.60	0.55	0.55	0.55	0.55	0.55
Phosphorus, %	0.40	0.38	0.36	0.34	0.33	0.33	0.32	0.31	0.30
Magnesium, %	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Potassium, %	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Sulfur, %	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20
Salt, %	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30
Sodium, %	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15	0.10-0.15
Chloride, %	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25	0.20-0.25
Manganese, ppm (added)	60	60	60	60	60	60	60	60	60
Copper, ppm (added)	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
Zinc, ppm (added)	60	60	60	60	60	60	60	60	60
Iron, ppm	50	50	50	50	50	50	50	50	50
Selenium, ppm (added)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Cobalt, ppm (added) <sup>b</sup>	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Iodine, ppm (added)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

<sup>a</sup>Energy density: Decrease energy level by 5%, if feeding an ionophore and increase energy level by as much as 15% if under cold or environmental stress.

<sup>b</sup>Supplied as 75% elemental cobalt and 25% cobalt glucoheptonate.



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### AGE

	1-2 Mo.	2-3 Mo.	4-6 Mo.	7-9 Mo.	10-12 Mo.	13-15 Mo.	16-18 Mo.	19-21 Mo.	22-24 Mo.
Vitamin A, IU/lb DM (added)	3000	3000	3000	3600	3600	3600	3600	4800	4800
Vitamin D, IU/lb DM (added)	500	500	500	600	600	600	600	800	800
Vitamin E, IU/lb DM (added)	35	38	45	38	30	26	23	20	36
Approx. Concentrate, % DM	70-95	70-90	55-80	35-45	20-35	15-30	15-25	15-25	15-25
Approx. Forage DMI, % BW	0.4	0.6	1.0	1.5	1.7	1.7	1.8	1.8	1.8
<b>Large Breed:</b>									
DMI, % BW	3.0	3.1	2.6	2.6	2.5	2.3	2.2	2.2	2.1
DMI, lb	4.7	6.5	8.8	13.0	17.0	19.6	22.2	25.6	27.7
Avg. BW, lb	140	210	340	500	680	850	1010	1165	1325
Avg. Daily Gain, lb	1.60	1.80	1.80	1.80	1.95	1.80	1.75	1.75	1.75
Rumensin®*, mg/d	45	60	90	140	190	200	200	200	200
Bovatec®*, mg/d	70	100	145	150-200	150-200	150-200	150-200	150-200	150-200
Deccox®*, mg/d	40	50	75	115	-	-	-	-	-
GAINPRO®*, mg/d	-	-	-	20-40	20-40	20-40	20-40	20-40	20-40
<b>Small Breed:</b>									
DMI, % BW	2.8	2.9	2.6	2.5	2.4	2.3	2.2	2.1	2.1
DMI, lb	3.1	4.2	6.0	9.0	11.0	12.9	14.5	16.0	17.9
Avg. BW, lb	110	145	230	360	460	560	660	760	850
Avg. Daily Gain, lb	1.10	1.20	1.40	1.40	1.20	1.10	0.95	0.95	0.95
Rumensin, mg/d	30	40	65	100	130	160	185	200	200
Bovatec, mg/d	50	70	105	150-200	150-200	150-200	150-200	150-200	150-200
Deccox, mg/d	25	35	55	85	-	-	-	-	-
GAINPRO®*, mg/d	-	-	-	-	20-40	20-40	20-40	20-40	20-40

\*Not trade names of ADM.