



## VI.2. Feed Resources - Availability vs. Requirement

**TABLE VI.2.1: District-wise Dry Matter (DM) Availability, Requirement and Balance**

Districts	Available/ Required/ Balance	Dry Matter Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Amritsar	Available	1,229.4	2,899.0	1,681.1	1,652.4	1,652.4	1,606.9	1,663.4
	Required	4,237.4	3,512.1	1,644.9	1,417.4	1,223.1	1,056.9	914.7
	Balance	-3,008.0	-613.1	36.2	234.9	429.3	550.0	748.7
Barnala	Available			883.2	980.8	980.8		
	Required			686.0	686.0	686.1	686.1	686.2
	Balance			197.2	294.8	294.8		
Bathinda	Available	783.9	1,857.3	1,976.2	2,157.6	2,157.6	2,062.3	2,153.0
	Required	1,278.9	1,477.4	1,307.6	1,281.5	1,258.4	1,238.3	1,221.0
	Balance	-495.0	379.9	668.6	876.1	899.1	824.0	931.9
Faridkot	Available	3,404.2	982.1	1,092.0	1,249.6	1,249.6	1,146.0	1,217.5
	Required	816.7	680.0	616.2	608.5	601.8	595.9	590.7
	Balance	2,587.5	302.1	475.8	641.0	647.8	550.1	626.7
Fatehgarh Sahib	Available	1,845.0	901.2	896.7	957.4	957.4	1,015.5	971.7
	Required	924.4	847.0	821.0	819.5	819.7	821.7	825.5
	Balance	920.6	54.2	75.7	138.0	137.7	193.8	146.1
Firozpur	Available	1,266.9	3,409.9	3,868.1	4,216.1	4,216.1	3,412.7	3,601.7
	Required	2,961.8	2,099.1	2,079.8	2,093.6	2,113.5	2,139.7	2,172.7
	Balance	-1,694.9	1,310.8	1,788.3	2,122.5	2,102.6	1,273.0	1,429.0
Gurdaspur	Available	1,627.4	1,897.6	2,061.1	2,122.2	2,122.2	2,074.9	2,148.8
	Required	2,339.5	2,092.4	1,729.1	1,665.8	1,608.5	1,557.0	1,511.0
	Balance	-712.1	-194.8	332.0	456.4	513.7	518.0	637.8
Hoshiarpur	Available	999.3	1,311.9	1,532.6	1,667.2	1,667.2	1,754.8	1,847.8
	Required	1,591.6	1,577.7	1,289.9	1,247.6	1,209.1	1,174.2	1,142.6
	Balance	-592.3	-265.8	242.7	419.6	458.1	580.6	705.2
Jalandhar	Available	2,600.8	1,722.4	1,662.3	1,779.3	1,779.3	1,838.2	1,834.7
	Required	2,329.0	1,879.4	1,276.9	1,189.6	1,109.7	1,036.5	969.4
	Balance	271.8	-157.0	385.4	589.7	669.6	801.7	865.4
Kapurthala	Available	949.8	1,133.0	1,141.9	1,187.9	1,187.9	1,198.3	1,223.4
	Required	945.0	896.9	735.0	709.4	685.5	663.5	643.0
	Balance	4.8	236.1	406.8	478.5	502.4	534.9	580.4



Districts	Available/ Required/ Balance	Dry Matter Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Ludhiana	Available	1,080.0	2,806.2	2,857.6	2,891.1	2,891.1	3,051.6	3,024.3
	Required	3,448.1	2,973.5	2,660.3	2,620.2	2,585.9	2,558.1	2,537.3
	Balance	-2,368.1	-167.3	197.2	271.0	305.2	493.5	487.0
Mansa	Available	847.3	1,275.4	1,341.0	1,442.7	1,442.7	1,409.9	1,504.2
	Required	1,129.9	1,176.9	960.6	928.1	898.7	872.3	848.7
	Balance	-282.6	98.5	380.3	514.6	543.9	537.6	655.5
Moga	Available	576.4	1,655.6	1,972.0	2,229.3	2,229.3	1,993.1	2,014.4
	Required	1,026.9	1,260.8	1,216.3	1,213.5	1,213.7	1,217.5	1,225.2
	Balance	-450.5	394.8	755.6	1,015.9	1,015.6	775.7	789.2
Patiala	Available	3,812.6	2,531.2	2,664.1	2,704.5	2,704.5	2,630.9	2,523.6
	Required	2,327.0	2,304.9	1,667.5	1,571.3	1,483.6	1,403.7	1,331.2
	Balance	1,485.6	226.3	996.6	1,133.2	1,220.9	1,227.2	1,192.5
Rupnagar (Ropar)	Available		707.6	633.8	673.6	673.6	695.4	719.6
	Required		1,244.0	736.6	667.5	606.1	551.4	502.5
	Balance		-536.4	-102.8	6.1	67.5	144.0	217.1
Sangrur	Available		3,977.8	4,179.5	3,246.6	3,246.6	3,239.1	3,289.6
	Required		3,396.8	2,181.0	2,016.5	1,868.4	1,735.0	1,614.9
	Balance		581.0	1,998.5	1,230.1	1,378.2	1,504.1	1,674.7
SAS Nagar (Mohali)	Available			259.9	274.9	274.9		
	Required			704.5	704.5	704.5	704.5	704.4
	Balance			-444.6	-429.6	-429.6		
SBS Nagar (Nawanshahr)	Available	762.7	683.8	839.8	838.7	838.7	850.2	882.3
	Required	998.5	735.3	626.1	610.2	596.5	585.0	576.0
	Balance	-235.8	-51.5	213.7	228.5	242.2	265.2	306.3
Muktsar	Available	2,581.2	1,466.6	1,607.4	1,868.1	1,868.1	1,763.8	1,811.8
	Required	560.9	1,101.6	855.1	821.2	791.0	764.1	740.2
	Balance	2,020.3	365.0	752.3	1,046.9	1,077.1	999.7	1,071.6
Tarn Taran	Available			860.2	1,058.6	1,058.6		
	Required			1,418.0	1,418.0	1,418.1	1,418.2	1,418.2
	Balance			-557.8	-359.5	-359.5		

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.



## VI.2. Feed Resources - Availability vs. Requirement

**TABLE VI.2.2: District-wise Crude Protein (CP) Availability, Requirement and Balance**

Districts	Available/ Required/ Balance	Crude Protein Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Amritsar	Available	218.4	626.4	338.4	333.7	333.7	325.1	340.1
	Required	417.8	358.7	167.6	144.4	124.5	107.6	93.1
	Balance	-199.4	267.7	170.8	189.3	209.1	217.5	247.0
Barnala	Available			202.0	227.7	227.7		
	Required			68.3	68.3	68.3	68.3	68.3
	Balance			133.8	159.4	159.4		
Bathinda	Available	178.1	457.5	570.9	607.5	607.5	566.9	583.5
	Required	127.6	150.6	132.5	129.7	127.1	124.8	122.8
	Balance	50.4	306.9	438.4	477.8	480.4	442.1	460.6
Faridkot	Available	797.3	206.0	251.5	277.1	277.1	248.6	264.8
	Required	80.6	70.1	62.2	61.3	60.4	59.6	58.9
	Balance	716.7	135.9	189.3	215.8	216.7	189.0	205.9
Fatehgarh Sahib	Available	362.3	182.7	179.2	192.9	192.9	207.4	200.2
	Required	93.7	86.5	81.8	81.5	81.3	81.2	81.3
	Balance	268.6	96.3	97.3	111.4	111.6	126.1	118.9
Firozpur	Available	189.0	705.1	863.1	911.7	911.7	790.2	833.9
	Required	296.5	209.7	209.3	211.0	213.3	216.2	219.9
	Balance	-107.5	495.4	653.7	700.7	698.4	573.9	614.0
Gurdaspur	Available	295.2	371.1	407.2	419.0	419.0	412.4	423.3
	Required	233.4	215.6	186.1	180.2	175.0	170.4	166.4
	Balance	61.9	155.5	221.1	238.8	244.0	242.0	256.9
Hoshiarpur	Available	196.4	203.0	213.3	234.7	234.7	255.4	278.3
	Required	159.6	160.3	130.9	126.5	122.5	118.8	115.4
	Balance	36.8	42.7	82.5	108.2	112.2	136.6	162.9
Jalandhar	Available	532.8	332.6	318.7	341.5	341.5	357.1	360.5
	Required	234.9	196.5	130.9	121.6	113.0	105.2	98.0
	Balance	297.9	136.2	187.8	219.9	228.4	251.9	262.4
Kapurthala	Available	283.4	259.5	223.7	234.5	234.5	234.8	242.3
	Required	94.3	92.7	74.9	72.1	69.4	66.9	64.6
	Balance	189.1	166.9	148.8	162.4	165.1	167.9	177.7



Districts	Available/ Required/ Balance	Crude Protein Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Ludhiana	Available	259.4	564.6	578.9	584.9	584.9	619.2	619.6
	Required	351.2	300.2	266.7	262.4	258.7	255.5	253.0
	Balance	-91.7	264.3	312.1	322.5	326.3	363.8	366.6
Mansa	Available	298.5	299.1	366.6	383.4	383.4	364.1	394.4
	Required	110.2	119.2	95.2	91.6	88.3	85.3	82.6
	Balance	188.2	179.8	271.4	291.9	295.1	278.8	311.8
Moga	Available	114.4	338.8	386.2	448.0	448.0	410.5	420.3
	Required	100.8	127.1	123.0	122.9	123.1	123.7	124.7
	Balance	13.6	211.8	263.3	325.1	324.9	286.8	295.6
Patiala	Available	798.8	522.1	544.1	552.4	552.4	534.6	519.3
	Required	232.5	233.5	169.6	160.0	151.2	143.3	136.1
	Balance	566.3	288.6	374.5	392.4	401.2	391.4	383.2
Rupnagar (Ropar)	Available		128.5	101.3	102.9	102.9	116.2	114.9
	Required		123.8	73.7	66.8	60.6	55.1	50.2
	Balance		4.7	27.6	36.2	42.3	61.1	64.8
Sangrur	Available		845.2	895.1	677.0	677.0	674.5	691.5
	Required		346.1	219.1	202.4	187.3	173.8	161.6
	Balance		499.1	676.0	474.6	489.6	500.7	529.9
SAS Nagar (Mohali)	Available			52.2	56.1	56.1		
	Required			69.7	69.7	69.7	69.7	69.7
	Balance			-17.5	-13.6	-13.6		
SBS Nagar (Nawanshahr)	Available	128.7	119.7	142.1	141.8	141.8	149.6	157.5
	Required	98.5	74.6	63.4	61.7	60.3	59.0	58.0
	Balance	30.2	45.0	78.7	80.1	81.6	90.6	99.5
Muktsar	Available	503.3	345.0	460.2	491.6	491.6	454.7	450.9
	Required	56.2	114.5	88.6	85.0	81.7	78.8	76.2
	Balance	447.1	230.6	371.6	406.6	409.9	375.9	374.8
Tarn Taran	Available			72.7	229.6	229.6		
	Required			142.9	142.9	142.9	143.0	143.0
	Balance			-70.2	86.7	86.7		

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.



## VI.2. Feed Resources - Availability vs. Requirement

**TABLE VI.2.3: District-wise Total Digestive Nutrient (TDN) Availability, Requirement and Balance**

Districts	Available/ Required/ Balance	Total Digestive Nutrient Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Amritsar	Available	1,218.0	4,087.7	2,220.7	2,189.9	2,189.9	2,131.1	2,226.8
	Required	2,616.1	2,139.9	1,004.2	866.0	748.0	647.2	561.0
	Balance	-1,398.1	1,947.8	1,216.5	1,323.9	1,441.8	1,483.9	1,665.9
Barnala	Available			1,286.8	1,448.6	1,448.6		
	Required			420.7	420.7	420.8	420.8	420.9
	Balance			866.1	1,027.8	1,027.8		
Bathinda	Available	1,165.0	2,356.6	2,404.8	2,691.9	2,691.9	2,538.5	2,727.4
	Required	793.1	902.4	803.3	788.2	775.0	763.6	753.9
	Balance	371.9	1,454.2	1,601.4	1,903.7	1,916.9	1,774.9	1,973.6
Faridkot	Available	4,406.6	1,309.1	1,408.2	1,650.6	1,650.6	1,509.8	1,636.8
	Required	512.1	417.7	378.0	373.6	370.0	366.8	364.2
	Balance	3,894.4	891.5	1,030.2	1,277.0	1,280.7	1,143.0	1,272.6
Fatehgarh Sahib	Available	2,398.9	1,204.7	1,181.3	1,267.8	1,267.8	1,365.1	1,316.2
	Required	565.4	514.8	505.9	506.7	508.7	512.1	516.7
	Balance	1,833.6	690.0	675.4	761.2	759.1	853.0	799.5
Firozpur	Available	1,275.5	4,106.4	4,517.6	5,118.6	5,118.6	4,426.4	4,760.7
	Required	1,837.8	1,300.3	1,289.2	1,298.9	1,312.7	1,330.5	1,352.8
	Balance	-562.3	2,806.1	3,228.4	3,819.6	3,805.9	3,095.9	3,407.9
Gurdaspur	Available	1,965.8	2,463.4	2,665.7	2,742.8	2,742.8	2,706.2	2,782.8
	Required	1,445.8	1,284.8	1,079.3	1,042.3	1,009.2	979.8	953.9
	Balance	519.9	1,178.6	1,586.4	1,700.5	1,733.6	1,726.4	1,828.9
Hoshiarpur	Available	1,293.0	1,368.8	1,417.1	1,564.3	1,564.3	1,697.7	1,840.2
	Required	996.6	973.0	795.9	771.1	749.0	729.2	711.5
	Balance	296.4	395.8	621.2	793.2	815.3	968.6	1,128.6
Jalandhar	Available	3,479.8	2,206.0	2,097.3	2,249.1	2,249.1	2,355.0	2,371.0
	Required	1,433.2	1,143.9	777.5	725.5	677.9	634.4	594.5
	Balance	2,046.7	1,062.1	1,319.8	1,523.6	1,571.2	1,720.6	1,776.4
Kapurthala	Available	1,365.2	1,419.3	1,472.5	1,542.0	1,542.0	1,550.3	1,598.2
	Required	590.3	544.1	449.3	434.6	421.0	408.5	397.0
	Balance	774.9	875.2	1,023.2	1,107.5	1,121.0	1,141.9	1,201.2



Districts	Available/ Required/ Balance	Total Digestive Nutrient Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Ludhiana	Available	1,596.3	3,723.4	3,795.6	3,840.2	3,840.2	4,066.0	4,065.4
	Required	2,107.2	1,807.9	1,617.1	1,594.7	1,576.4	1,562.4	1,553.1
	Balance	-510.9	1,915.5	2,178.6	2,245.4	2,263.7	2,503.6	2,512.3
Mansa	Available	1,174.5	1,648.9	1,671.7	1,847.9	1,847.9	1,794.0	1,945.4
	Required	704.0	719.2	589.4	570.5	553.8	539.0	526.0
	Balance	470.5	929.7	1,082.3	1,277.4	1,294.1	1,255.1	1,419.3
Moga	Available	760.9	2,215.3	2,489.7	2,878.4	2,878.4	2,674.3	2,742.2
	Required	644.7	776.2	747.2	745.4	745.8	748.5	754.0
	Balance	116.1	1,439.1	1,742.4	2,133.0	2,132.6	1,925.8	1,988.2
Patiala	Available	5,097.1	3,423.4	3,572.9	3,626.1	3,626.1	3,516.5	3,402.6
	Required	1,430.5	1,400.4	1,013.5	956.0	903.9	856.7	814.2
	Balance	3,666.5	2,023.0	2,559.4	2,670.1	2,722.2	2,659.7	2,588.4
Rupnagar (Ropar)	Available		852.7	673.4	685.7	685.7	768.7	762.5
	Required		752.0	446.7	405.7	369.4	337.0	308.2
	Balance		100.7	226.7	280.0	316.4	431.7	454.3
Sangrur	Available		5,473.7	5,699.1	4,364.1	4,364.1	4,339.2	4,473.6
	Required		2,070.5	1,335.3	1,238.3	1,151.2	1,073.0	1,002.7
	Balance		3,403.2	4,363.8	3,125.8	3,212.8	3,266.2	3,470.9
SAS Nagar (Mohali)	Available			337.0	361.8	361.8		
	Required			424.5	424.5	424.4	424.4	424.4
	Balance			-87.5	-62.7	-62.7		
SBS Nagar (Nawanshahr)	Available	860.4	800.9	940.7	940.7	940.7	989.3	1,040.3
	Required	619.3	446.4	380.3	371.4	363.8	357.8	353.4
	Balance	241.0	354.5	560.4	569.3	576.8	631.4	686.9
Muktsar	Available	3,313.0	1,894.2	1,940.5	2,358.8	2,358.8	2,271.8	2,357.3
	Required	356.0	675.5	528.2	508.5	491.2	476.0	462.6
	Balance	2,957.0	1,218.7	1,412.3	1,850.3	1,867.6	1,795.8	1,894.6
Tarn Taran	Available			472.6	1,469.8	1,469.8		
	Required			860.9	860.9	861.0	861.0	861.1
	Balance			-388.3	608.8	608.8		

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.



## VI.2. Feed Resources - Availability vs. Requirement

**TABLE VI.2.4: Availability, Requirement and Surplus/Deficit of Feed Nutrients**

(’000 MT)

Year	Dry Matter			Crude Protein			Total Digestible Nutrients		
	Availability	Requirement	Deficit/ Surplus	Availability	Requirement	Deficit/ Surplus	Availability	Requirement	Deficit/ Surplus
1997	24,367	26,916	-2,549	5,156	2,688	2,468	31,370	16,652	14,718
2003	31,218	29,258	1,960	6,506	2,980	3,526	40,554	17,870	22,684
2007	34,011	25,212	8,799	7,167	2,556	4,611	42,265	15,446	26,819
2008	35,199	24,290	10,909	7,448	2,462	4,986	44,839	14,904	29,935
2009	35,199	23,482	11,717	7,448	2,379	5,069	44,839	14,433	30,406
2010	32,138	22,780	9,358	6,731	2,306	4,425	40,808	14,029	26,779
2011	32,826	22,175	10,651	6,905	2,244	4,661	42,157	13,686	28,471

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.



