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EZLCF™ Rapid Formulation System ***Licensed to:*** Least Cost Formulations (757) 467-0954 **As of:** 28-May-06 ***Version:*** **2.3**

MATERIAL DATA TABLE

Material Description	Attribute 1 Cost $/lb	Attribute 2 Fat %	Attribute 3 Moisture %	Attribute 4 Protein %	Attribute 5 Salt %	Attribute 6 AW %	Attribute 7 LCFBind	Attribute 8 LCFColor	Attribute 9 MeatFlav	Attribute 10 Frozen %	Attribute 11 Beef %	Attribute 12 Pork %	Attribute 13 Chicken %	Attribute 14 Turkey %	Attribute 15 Nitrite ppm
Bf fresh 50% lean trim	$ 0.3800	50.00	38.80	10.90	0.00	-4.80	12.30	19.00	5.00		100.00				
Bf fresh 85% lean trim	$ 0.9400	15.00	65.90	18.40	0.00	-7.70	24.40	38.60	8.21		100.00				
Bf fresh 90% lean trim	$ 0.9800	10.00	69.80	19.50	0.00	-8.20	25.00	39.00	8.01		100.00				
Bf fresh FC bull meat	$ 1.1400	8.20	70.80	20.20	0.00	-10.00	30.00	46.50	9.82		100.00				
Bf froz head meat	$ 0.6500	12.26	68.00	19.11	0.00	-8.46	7.80	26.40	5.35	100.00	100.00				
Ck fresh MSM 15%	$ 0.2200	13.39	68.12	14.99	2.00	8.16	19.90	13.00	2.08				98.04		153.19
Ck fresh MSM 22%	$ 0.1700	20.63	63.76	12.47	2.00	13.88	18.00	12.00	1.70				98.04		153.19
Pk fresh 42% trim	$ 0.2800	54.12	35.81	9.58	0.00	-2.51	11.70	9.00	3.57			100.00			
Pk fresh 72% trim	$ 0.4300	27.07	57.07	15.28	0.00	-4.05	19.30	16.60	3.89			100.00			
Pk froz cheek meat	$ 0.4900	16.31	65.80	17.70	0.00	-5.00	7.80	28.70	5.88	100.00		100.00			
Pk froz hearts	$ 0.3200	6.08	77.58	15.53	0.00	15.45	6.10	32.30	5.32	100.00					
Pk froz livers	$ 0.1600	4.00	71.18	21.47	0.00	-14.71	2.10	49.40	10.81	100.00					
Tk fresh MSM 20%	$ 0.1900	19.60	64.90	14.70	0.00	6.10	20.00	20.00	3.50					100.00	
						0.00									
						0.00									
						0.00									
						0.00									
						0.00									
						0.00									
						0.00									
Non-block materials:															
Water-TAP	$ 0.0010	0.00	100.00	0.00	0.00	100.00	0.00								
Salt	$ 0.0450	0.00	0.00	0.00	100.00	0.00	0.00								
Sodium tripolyphosphate	$ 0.6500	0.00	0.00	0.00	0.00	0.00	7.00								
Modern cure, 6.25%	$ 0.4500	0.00	0.00	0.00	93.75	0.00	0.00								62500.00
Spice, general, grnd	$ 0.6300	10.00	8.00	12.00	0.00	-40.00	0.00								
Corn syrup, liquid	$ 0.1500	0.00	20.00	0.00	0.00	20.00	6.00								
Dextrose	$ 0.2400	0.00	8.00	0.00	0.00	8.00	0.00								
Starter culture	$ 2.0000	0.72	3.96	35.10	0.00	-136.44	0.00								
						0.00									
						0.00									
						0.00									
						0.00									
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EZLCF™ Rapid Formulation System **Solve** **Licensed to:** Least Cost Formulations (757) 467-0954 **As of:** 28-May-06

PRODUCT SPECIFICATION FOR: Pork, Water, Beef Frank **Status:** **Optimum** **Cost** **$0.2885**

Material Description	Free to Change?	Weight lbs	% GW	Cost to use $/lb	Cost $/lb	Fat %	Moisture %	Protein %	Salt %	AW %	LCFBind	LCFColor	MeatFlav	Frozen %	Beef %	Pork %	Chicken %	Turkey %	Nitrite ppm
Minimum		2,000.00				27.00					13.00				4.50				150.00
Maximum		2,000.00				27.00				12.00									150.00
Bf fresh 50% lean trim	y	81.90	4.10%	$ -	$ 0.3800	50.00	38.80	10.90	0.00	-4.80	12.30	19.00	5.00	0.00	100.00	0.00	0.00	0.00	0.00
Bf fresh 85% lean trim	y	-		$ 0.6200	$ 0.9400	15.00	65.90	18.40	0.00	-7.70	24.40	38.60	8.21	0.00	100.00	0.00	0.00	0.00	0.00
Bf fresh 90% lean trim	y	-		$ 0.6300	$ 0.9800	10.00	69.80	19.50	0.00	-8.20	25.00	39.00	8.01	0.00	100.00	0.00	0.00	0.00	0.00
Bf fresh FC bull meat	y	-		$ 0.7300	$ 1.1400	8.20	70.80	20.20	0.00	-10.00	30.00	46.50	9.82	0.00	100.00	0.00	0.00	0.00	0.00
Bf froz head meat	y	-		$ 0.2900	$ 0.6500	12.26	68.00	19.11	0.00	-8.46	7.80	26.40	5.35	100.00	100.00	0.00	0.00	0.00	0.00
Ck fresh MSM 15%				$ -	$ 0.2200	13.39	68.12	14.99	2.00	8.16	19.90	13.00	2.08	0.00	0.00	0.00	98.04	0.00	153.19
Ck fresh MSM 22%				$ -	$ 0.1700	20.63	63.76	12.47	2.00	13.88	18.00	12.00	1.70	0.00	0.00	0.00	98.04	0.00	153.19
Pk fresh 42% trim	y	360.78	18.04%	$ -	$ 0.2800	54.12	35.81	9.58	0.00	-2.51	11.70	9.00	3.57	0.00	0.00	100.00	0.00	0.00	0.00
Pk fresh 72% trim	y	927.96	46.40%	$ -	$ 0.4300	27.07	57.07	15.28	0.00	-4.05	19.30	16.60	3.89	0.00	0.00	100.00	0.00	0.00	0.00
Pk froz cheek meat		-		$ -	$ 0.4900	16.31	65.80	17.70	0.00	-5.00	7.80	28.70	5.88	100.00	0.00	100.00	0.00	0.00	0.00
Pk froz hearts		-		$ -	$ 0.3200	6.08	77.58	15.53	0.00	15.45	6.10	32.30	5.32	100.00	0.00	0.00	0.00	0.00	0.00
Pk froz livers		-		$ -	$ 0.1600	4.00	71.18	21.47	0.00	-14.71	2.10	49.40	10.81	100.00	0.00	0.00	0.00	0.00	0.00
Tk fresh MSM 20%		-		$ -	$ 0.1900	19.60	64.90	14.70	0.00	6.10	20.00	20.00	3.50	0.00	0.00	0.00	0.00	100.00	0.00
		-		$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-		$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-		$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Block Weight		**1,370.63**	**68.53%**		**$ 0.3875**	**35.56**	**50.38**	**13.52**	**0.00**	**-3.69**	**16.88**	**14.74**	**3.87**	**0.00**	**5.98**	**94.02**	**0.00**	**0.00**	**0.00**
Water-TAP	y	448.97	22.45%	$ -	$ 0.0010	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Salt	y	50.03	2.50%	$ -	$ 0.0450	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sodium tripolyphosphate		6.00	0.30%	$ -	$ 0.6500	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Modern cure, 6.25%	y	4.37	0.22%	$ -	$ 0.4500	0.00	0.00	0.00	93.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62500.00
Spice, general, grnd		40.00	2.00%	$ -	$ 0.6300	10.00	8.00	12.00	0.00	-40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Corn syrup, liquid		80.00	4.00%	$ -	$ 0.1500	0.00	20.00	0.00	0.00	20.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dextrose				$ -	$ 0.2400	0.00	8.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Starter culture				$ -	$ 2.0000	0.72	3.96	35.10	0.00	-136.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				$ -	$ -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Weight		**2,000.00**	**100.00%**		**$ 0.2885**	**24.57**	**57.94**	**9.50**	**2.71**	**19.92**	**11.83**	**10.10**	**2.65**	**0.00**	**4.10**	**64.44**	**0.00**	**0.00**	**136.50**
Shrink loss		180.00	9.00%		$ -	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finished Weight		**1,820.00**	**91.00%**		**$ 0.3170**	**27.00**	**53.78**	**10.44**	**2.97**	**12.00**	**13.00**	**11.10**	**2.92**	**0.00**	**4.50**	**70.81**	**0.00**	**0.00**	**150.00**

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INSTRUCTIONS FOR USE OF EZLcf™: **Licensed to:** Least Cost Formulations (757) 467-0954

1. Enter data for raw materials in MATERIALS worksheet.
2. In general, you may only change information which is shown in blue type.
3. The "Attribute" columns copy to product formulation worksheets and can be referenced in formulation.
4. The "User" columns can be used to store other information or formulas in the Materials worksheet, but do not appear on Product worksheets.
5. On the PRODUCT worksheet, enter limits on total weight ("GW") and on attributes needed.
6. Enter MIN or MAX value or both.
7. If MIN=MAX, the attribute or GW will be forced to the value specified.
8. If you wish no MIN or no MAX value, delete the value so the cell is empty.
9. You may enter a SHRINK loss for each product in the % GW column where specified. You may also partition the loss to each attribute by entering a shrink factor in the shrink loss row. Usually this factor is 1.0 for moisture.
10. Enter "y" or "Y" beside each material which you want to allow to change to meet requirements. If a material with weight specified does not have "y" or "Y" given, its weight will be fixed.
11. If you do not enter "y" or "Y" under "Free to change?", then the material will be forced to the weight specified in the "Weight" column, or ignored if the "Weight" column entry is null (deleted).

OUTPUTS:

1. "Cost to Use" is the cost needed for a non-used material to be used.
2. "Weight" is the weight of each material used in the formula.

COMMENTS:

1. Materials are arbitrarily divided into "Block" and "Non-block" for your convenience.
2. GW = gross weight, or the total weight of all materials present.
3. Materials on the MATERIALS worksheet are common to all products.
4. You can rename the worksheets if you choose.
5. You can copy a product sheet to make a new product, using Edit|Move or copy Sheet.
6. You can save the EZLcf workbook under a different name to create a backup or make another Materials/Product set.