

Cobb Shipping Service

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Comparison of Corn Syrup (CCDS), Whey and molasses sugar blend

Part 1

This fall producers and nutritionists will be making choices regarding purchased liquid products to complement their feeding ration. Prices, nutritional content, ease of handling and stability are factors that will influence their decisions. This article is part 1 of a two part article to help with those decisions.

Three commonly used liquid include corn syrup (correct name is corn condensed distillers solubles or CCDS), condensed whey and molasses sugar blends. Each of these products has a place in the right ration. The nutrition profiles on a dry matter basis are compared in table 1. Please note that these products are purchased on an “as is” basis and they vary in dry matter and moisture content. Also please note that the nutrition content of CCDS and whey will vary between plants and between loads from the same plant. Molasses based sugar blends will have a consistent content to meet tag guarantee. CCDS is available from plants that process corn into alcohol and whey is available from plants that process milk into cheese. Please note that the nutrient content of whey and CCDS will vary between plants depending on process and within a plant.

CCDS is low in dry matter but high in protein fat. Condensed whey is low in dry matter and protein but high in sugar and salt and ash. Cane molasses based sugar blends are higher in dry matter than the other two but low in protein and fat and high in sugar. In addition, molasses based blends are high in sucrose sugar vs. whey that is high in lactose. Research has shown that rumen bacteria can utilize sucrose better than lactose. One important distinction to point out is that true corn syrup is a byproduct from plants that due wet corn milling. The true corn syrup is the Karol Syrup available in store. True corn syrup is high in sucrose sugar and is used in Westway sugar blends.

Cobb Shipping can provide whey CCDS or cane molasses blends.

Table 1. Comparison of whey, CCDS and Westway Super Sugar 60/40 on a dry matter percentage basis

	Whey	CCDS	Super Sugar 60/40
Dry Matter	35	31	60
Crude Protein	12.7	27.26	3.3
Calcium	1.2	.14	.75
Phosphorus	.8	.93	.66
Potassium	1.28	1.3	3.43
Sulfur	1.1	.91	.54
Ash	21.4	4.75	12.6
TDN	81	74.3	84
N.E.L. MCal/LB	.98	.84	.66
N.E.G. MCal.LB	.68	.58	.65
N.E.M MCal./Lb/LB	1.01	.87	.7
Total Sugars as Invert	60	3.9	66.7