

Average Dry Matter Percentages for Various Livestock Feeds

The following information is provided as a reference for organic ruminant livestock producers for the purposes of completing the Dry Matter Intake Calculation forms. Bear in mind that all feed sources must be certified organic and verified as compliant with the National Organic Program Final Rule by OCIA.

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Alfalfa (cubes, dehy)	90.2	91.3	90	UC Cooperative Extension
Alfalfa (cubes, sun-dried)	91.6			UC Cooperative Extension
Alfalfa (green chop-fall)	42.9	56.7	21.1	UC Cooperative Extension
Alfalfa (green chop-summer)	27.1			UC Cooperative Extension
Alfalfa (hay)	90.2	94.3	84.1	UC Cooperative Extension
Alfalfa (silage)	29.7	40.1	24.8	UC Cooperative Extension
Alfalfa cubes	91			Beef Magazine 2009
Alfalfa Cubes	90.1	92.3	89.6	Dairy One
Alfalfa Dehydrated 17% CP	92			Beef Magazine 2009
Alfalfa Fresh	24			Beef Magazine 2009
Alfalfa Hay Early Bloom	90			Beef Magazine 2009
Alfalfa Hay Full Bloom	88			Beef Magazine 2009
Alfalfa Hay Mature	88			Beef Magazine 2009
Alfalfa Hay Midbloom	89			Beef Magazine 2009
Alfalfa Leaf Meal	89			Beef Magazine 2009
Alfalfa Pellets	91	92.5	89.3	Dairy One
Alfalfa Seed Screenings	91			Beef Magazine 2009
Alfalfa Silage	30			Beef Magazine 2009
Alfalfa Silage Wilted	39			Beef Magazine 2009
Alfalfa Stems	89			Beef Magazine 2009
Alfalfa/Grass (hay)	84.9	85.6	83.7	UC Cooperative Extension
Almond Hulls	89			Beef Magazine 2009
Almond Hulls	87.7	96.1	85	UC Cooperative Extension
Almond Meal	90.9			UC Cooperative Extension
Almond Skins (ensiled)	29.8			UC Cooperative Extension
Almond Skins (fresh)	47.9			UC Cooperative Extension
Apple (pulp, wet)	16.5			UC Cooperative Extension
Apple Pomace Dried	89			Beef Magazine 2009
Apple Pomace Wet	20			Beef Magazine 2009
Artichoke Tops (Jerusalem)	27			Beef Magazine 2009
Avacado Seed Meal	91			Beef Magazine 2009
Bahiagrass Hay	90			Beef Magazine 2009
Bakery Product Dried	90			Beef Magazine 2009
Bakery Waste	91.9			UC Cooperative Extension
Barley (grain)	90.4	91	89.3	UC Cooperative Extension
Barley Feed Pear Byproduct	90			Beef Magazine 2009
Barley Grain	89			Beef Magazine 2009
Barley Grain-2 row	87			Beef Magazine 2009
Barley Grain-6 row	87			Beef Magazine 2009
Barley Grain Lt. Wt. (42-44 lb./bu.)	88			Beef Magazine 2009
Barley Grain Screenings	89			Beef Magazine 2009

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Barley Grain Steam Flaked	85			Beef Magazine 2009
Barley Grain Steam Rolled	86			Beef Magazine 2009
Barley Hay	90			Beef Magazine 2009
Barley Hay	91.3	93	89.7	Dairy One
Barley Silage	35			Beef Magazine 2009
Barley Silage	38.5	56.6	20.4	Dairy One
Barley Silage Mature	35			Beef Magazine 2009
Barley Straw	90			Beef Magazine 2009
Barley Straw	90			Beef Magazine 2009
Beans (lima, dry)	90.7			UC Cooperative Extension
Beans Navy Cull	90			Beef Magazine 2009
Beet pulp (pellets, dehy)	91.7	92.8	89.7	UC Cooperative Extension
Beet pulp (shreds, dehy)	91.3	94	87.8	UC Cooperative Extension
Beet Pulp Dried	91			Beef Magazine 2009
Beet Pulp Dried with Molasses	92			Beef Magazine 2009
Beet Pulp Wet	17			Beef Magazine 2009
Beet Pulp Wet with Molasses	24			Beef Magazine 2009
Beet Top Silage	24			Beef Magazine 2009
Beet Tops (Sugar)	20			Beef Magazine 2009
Bermuda grass (hay)	63.3			UC Cooperative Extension
Bermuda grass (seed screenings)	91.4	94.3	87.9	UC Cooperative Extension
Bermuda Grass Hay	93.1	94.4	91.8	Dairy One
Bermuda Grass Silage	38.6	50.3	26.8	Dairy One
Bermudagrass Coastal Dehydrated	90			Beef Magazine 2009
Bermudagrass Coastal Hay	89			Beef Magazine 2009
Bermudagrass Hay	89			Beef Magazine 2009
Bermudagrass Silage	26			Beef Magazine 2009
Birdsfoot Trefoil Fresh	22			Beef Magazine 2009
Birdsfoot Trefoil Hay	89			Beef Magazine 2009
Bluegrass KY Fresh Early Bloom	36			Beef Magazine 2009
Bluegrass Straw	93			Beef Magazine 2009
Bluestem Fresh Mature	61			Beef Magazine 2009
Brandy (pulp, wet)	29.5			UC Cooperative Extension
Brassica Forage	33.4	67	0	Dairy One
Bread Byproduct	68			Beef Magazine 2009
Brewer's Grains	93.2	95.8	90.6	Dairy One
Brewer's Grains (wet)	27.3	26.4	28.2	UC Cooperative Extension
Brewer's Grains Dried	92			Beef Magazine 2009
Brewer's Grains Wet	23			Beef Magazine 2009
Brewer's Yeast Dried	94			Beef Magazine 2009
Bromegrass Fresh Immature	30			Beef Magazine 2009
Bromegrass Hay	89			Beef Magazine 2009
Bromegrass Haylage	35			Beef Magazine 2009
Buckwheat Grain	88			Beef Magazine 2009
Buttermilk Dried	92			Beef Magazine 2009
Cactus	26			Beef Magazine 2009
Calcium Carbonate	99			Beef Magazine 2009

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Canarygrass Hay	91			Beef Magazine 2009
Canola Meal	90.9	93.1	88.6	Dairy One
Canola Meal Solvent	90			Beef Magazine 2009
Canola Pellets (38% CP, solvent)	89.6	91.2	86.5	UC Cooperative Extension
Carrot Pulp	14			Beef Magazine 2009
Carrot Root Fresh	12			Beef Magazine 2009
Carrot Tops	16			Beef Magazine 2009
Carrots (fresh, tubers/pulp)	11	12.5	9.9	UC Cooperative Extension
Cheatgrass Fresh Immature	21			Beef Magazine 2009
Citrus Pulp (dehy pellets)	90.4	92.5	88.3	UC Cooperative Extension
Citrus Pulp Wet	22.9	33.4	18	UC Cooperative Extension
Citrus Pulp Dried	90			Beef Magazine 2009
Clover Ladino Fresh	19			Beef Magazine 2009
Clover Ladino Hay	90			Beef Magazine 2009
Clover Red Fresh	24			Beef Magazine 2009
Clover Red Hay	88			Beef Magazine 2009
Clover Sweet Hay	91			Beef Magazine 2009
Coconut (shreds, dry)	97.1			Beef Magazine 2009
Coconut Meal	92			Beef Magazine 2009
Coffee (beans, whole)	46.8	48.7	44.9	UC Cooperative Extension
Coffee Grounds	88			Beef Magazine 2009
Corn & Cob Meal	87			Beef Magazine 2009
Corn (earlage)	76.5	92.8	60.1	UC Cooperative Extension
Corn (germ meal)	89.1	91.4	89.5	UC Cooperative Extension
Corn (gluten feed pellets)	91.6			UC Cooperative Extension
Corn (gluten feed, dehy)	91.3			UC Cooperative Extension
Corn (gluten feed, wet)	89.8	47.7	42.1	UC Cooperative Extension
Corn (grain, flaked)	87.4	90.9	85.7	UC Cooperative Extension
Corn (hominy feed)	90	91.4	87.9	UC Cooperative Extension
Corn (silage)	29.5	34.4	19.3	UC Cooperative Extension
Corn Bran	91			Beef Magazine 2009
Corn Cannery Waste	29			Beef Magazine 2009
Corn Cobs	90			Beef Magazine 2009
Corn Fodder	80			Beef Magazine 2009
Corn Forage	37.6	54.4	20.9	Dairy One
Corn Germ (dehydrated; Dakota Gold)	94.7	94.9	94	UC Cooperative Extension
Corn Gluten Feed	90			Beef Magazine 2009
Corn Gluten Meal	91.4	93.5	89.3	Dairy One
Corn Gluten Meal 41% CP	91			Beef Magazine 2009
Corn Gluten Meal 60% CP	91			Beef Magazine 2009
Corn Grain High Moisture	74			Beef Magazine 2009
Corn Grain High Oil	88			Beef Magazine 2009
Corn Grain Hi-Lysine	92			Beef Magazine 2009
Corn Grain Rolled	88			Beef Magazine 2009
Corn Grain Steam Flaked	85			Beef Magazine 2009
Corn Grain Whole	88			Beef Magazine 2009

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Corn Screenings	86			Beef Magazine 2009
Corn Silage	33.8	44.5	23.2	Dairy One
Corn Silage Mature Well Eared	34			Beef Magazine 2009
Corn Silage Milk Stage	26			Beef Magazine 2009
Corn Silage Sweet Corn	24			Beef Magazine 2009
Corn Stover Mature (stalks)	80			Beef Magazine 2009
Corn Whole Plant Pelleted	91			Beef Magazine 2009
Cotton (hulls, seed)	92.8	93.5	91.5	UC Cooperative Extension
Cotton (meal, solvent)	89.6			UC Cooperative Extension
Cotton (seed, pima with lint)	93.3	94.8	92.1	UC Cooperative Extension
Cotton (seed, upland with lint)	92.7	96.4	95	UC Cooperative Extension
Cotton Gin Trash (burrs)	91			Beef Magazine 2009
Cottonseed Hulls	90			Beef Magazine 2009
Cottonseed Meal	91	93	89	Dairy One
Cottonseed Meal, Mech. 41% CP	92			Beef Magazine 2009
Cottonseed Meal, Solvent 41% CP	90			Beef Magazine 2009
Cottonseed Whole	91			Beef Magazine 2009
Cottonseed Whole, Delinted	90			Beef Magazine 2009
Cottonseed Whole, Extruded	92			Beef Magazine 2009
Crab Waste Meal	91			Beef Magazine 2009
Crambe Meal, Mech.	92			Beef Magazine 2009
Crambe Meal, Solvent	91			Beef Magazine 2009
Cranberry Pulp Meal	88			Beef Magazine 2009
Crawfish Waste Meal	94			Beef Magazine 2009
Distillers Corn Stillage	7			Beef Magazine 2009
Distillers Dried Grains (high protein; Dakota Gold)	93.9	94.7	93.2	UC Cooperative Extension
Distillers Dried Grains (soluble, raw starch hydrolysis; Dakota Gold)	90.3	96.1	95.7	UC Cooperative Extension
Distillers Dried Grains (solubles; Dakota Gold)	91.2	91.9	89.6	UC Cooperative Extension
Distillers Dried Grains (soluble; Dakota Gold)	88.2	89.7	87.4	UC Cooperative Extension
Distillers Dried Solubles	93			Beef Magazine 2009
Distillers Grain Barley	90			Beef Magazine 2009
Distillers Grain Corn with Solubles	90			Beef Magazine 2009
Distillers Grain Corn, dried	91			Beef Magazine 2009
Distillers Grain Corn, wet	36			Beef Magazine 2009
Distillers Grain Sorghum with Solubles	92			Beef Magazine 2009
Distillers Grain Sorghum, dry	91			Beef Magazine 2009
Distillers Grain Sorghum, wet	35			Beef Magazine 2009
Distillers Grains (dehy/corn/w soluble; various sources)	89.7	92	87	UC Cooperative Extension
Distillers Grains Wet	25			Beef Magazine 2009
Elephant (Napier) Grass Hay, Chopped	92			Beef Magazine 2009
Fescue Hay	94			UC Cooperative Extension
Fescue (red) straw	94			Beef Magazine 2009
Fescue KY 31 fresh	29			Beef Magazine 2009

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Fescue KY 31 Hay Early Bloom	88			Beef Magazine 2009
Fescue KY 31 Hay Mature	88			Beef Magazine 2009
Fish Meal	90			Beef Magazine 2009
Flaxseed	91.4	93.5	89.2	Dairy One
Grain Dust	92			Beef Magazine 2009
Grain Screenings	920			Beef Magazine 2009
Grain Screenings	82.6			UC Cooperative Extension
Grape (pomace)	93.4			UC Cooperative Extension
Grape Pomace Stemless	91			Beef Magazine 2009
Grass (fresh, spring)	18.1			UC Cooperative Extension
Grass (Kleingrass)	92.6			UC Cooperative Extension
Grass (undefined, silage)	26.4			UC Cooperative Extension
Grass Forage	46.5	76.4	16.6	Dairy One
Grass Hay	88			Beef Magazine 2009
Grass Hay	91.6	93.3	90.6	Dairy One
Grass Silage	30			Beef Magazine 2009
Grass Silage	39.5	55.4	23.6	Dairy One
Guar Meal	90			Beef Magazine 2009
High Moisture Ear Corn	63.7	72.5	54.9	Dairy One
High Moisture Shelled Corn	72	78.6	65.3	Dairy One
Hominy Feed	90			Beef Magazine 2009
Hop Leaves	37			Beef Magazine 2009
Hop Vine Silage	30			Beef Magazine 2009
Hops, Spent	89			Beef Magazine 2009
Jojoba (meal)	93.6			UC Cooperative Extension
Kelp Dried	91			Beef Magazine 2009
Kenaf Hay	92			Beef Magazine 2009
Kochia Fresh	29			Beef Magazine 2009
Kochia Hay	90			Beef Magazine 2009
Kudzu Hay	90			Beef Magazine 2009
Legume Hay	90.8	92.5	89.4	Dairy One
Legume Silage	40.2	52.5	27.9	Dairy One
Lespedeza Fresh Early Bloom	25			Beef Magazine 2009
Lespedeza Hay	92			Beef Magazine 2009
Limestone Dolomitic Ground	99			Beef Magazine 2009
Limestone Ground	98			Beef Magazine 2009
Linseed (meal, solvent)	91.8			UC Cooperative Extension
Linseed Meal Solvent	91			Beef Magazine 2009
Meadow Hay	90			Beef Magazine 2009
Milk, Dry, Skim	94			Beef Magazine 2009
Millet	83.1	92.1	74.2	Dairy One
Millet Hay	91.8	93.1	90.4	Dairy One
Mint Slug Silage	27			Beef Magazine 2009
MMG Hay	91.4	92.8	90.1	Dairy One
MMG Pasture Forage	50.1	83.2	16.9	Dairy One
MMG Silage	38.2	50.5	26.1	Dairy One
MML Hay	90.5	92.2	88.7	Dairy One

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
MML Pasture Forage	52.6	87.5	17.6	Dairy One
MML Silage	38.6	49	28.2	Dairy One
Molasses Beet	77			Beef Magazine 2009
Molasses Cane	77			Beef Magazine 2009
Molasses Cane Dried	94			Beef Magazine 2009
Molasses Citrus	65			Beef Magazine 2009
Molasses Wood, Hemicellulose	61			Beef Magazine 2009
Molasses, Cond. Fermentation Solubles	43			Beef Magazine 2009
Oat (hay)	90.4	93.5	90.6	UC Cooperative Extension
Oat (straw)	92.5			UC Cooperative Extension
Oat (whole crop, silage)	3.6	9.9	58.2	UC Cooperative Extension
Oat Forage	40.3	67.5	13.1	Dairy One
Oat Grain	89			Beef Magazine 2009
Oat Grain, Steam Flaked	84			Beef Magazine 2009
Oat Groats	91			Beef Magazine 2009
Oat Hay	90			Beef Magazine 2009
Oat Hay	90.9	92.4	89.5	Dairy One
Oat Hulls	93			Beef Magazine 2009
Oat Middlings	90			Beef Magazine 2009
Oat Mill Byproduct	89			Beef Magazine 2009
Oat Silage	35			Beef Magazine 2009
Oat Silage	36	51.7	20.3	Dairy One
Oat Straw	91			Beef Magazine 2009
Oats	90.5	92.3	88.6	Dairy One
Orange Pulp Dried	89			
Orchardgrass Fresh Early Bloom	24			Beef Magazine 2009
Orchardgrass Hay	88			Beef Magazine 2009
Palm Kernal Meal	92.2			UC Cooperative Extension
Pea Straw	89			Beef Magazine 2009
Pea Vine Hay	89			Beef Magazine 2009
Pea Vine Silage	25			Beef Magazine 2009
Peanut Hulls	91			Beef Magazine 2009
Peanut Meal Solvent	91			Beef Magazine 2009
Peanut Skins	92			Beef Magazine 2009
Pearl Millet Grain	87			Beef Magazine 2009
Peas Cull	89			Beef Magazine 2009
Pineapple Bran	89			Beef Magazine 2009
Pineapple Greenchop	17			Beef Magazine 2009
Pineapple Presscake	21			Beef Magazine 2009
Pistachio Meal	92.2			UC Cooperative Extension
Potato Vine Silage	15			Beef Magazine 2009
Potato Waste Dried	89			Beef Magazine 2009
Potato Waste Filter Cake	14			Beef Magazine 2009
Potato Waste Wet	14			Beef Magazine 2009
Potato Waste Wet with Lime	17			Beef Magazine 2009
Potatoes Cull	21			Beef Magazine 2009

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Prairie Hay	91			Beef Magazine 2009
Prunes (flesh)	67.5			UC Cooperative Extension
Prunes (pits)	84.8			UC Cooperative Extension
Pumpkins Cull	10			Beef Magazine 2009
Raisins (tailings)	92.2			UC Cooperative Extension
Rapini	91.9	92.1	91.8	UC Cooperative Extension
Rice (bran)	90.9			UC Cooperative Extension
Rice (grain, paddy)	87.9			UC Cooperative Extension
Rice (grain, whole)	87.6			UC Cooperative Extension
Rice (polishing)	90.3			UC Cooperative Extension
Rice Bran	91			Beef Magazine 2009
Rice Bran	91.1	93.1	89.1	Dairy One
Rice Grain	89			Beef Magazine 2009
Rice Hulls	92			Beef Magazine 2009
Rice Mill Byproduct	91			Beef Magazine 2009
Rice Polishings	90			Beef Magazine 2009
Rice Straw	91			Beef Magazine 2009
Rice straw (hay)	92.6	94.3	90.7	UC Cooperative Extension
Rice straw (silage)	37.8	43	34.4	UC Cooperative Extension
Rye (whole crop, silage)	24.1			UC Cooperative Extension
Rye Forage	42.6	71.5	13.9	Dairy One
Rye Grain	89			
Rye Grass Hay	90			Beef Magazine 2009
Rye Grass Silage	32			Beef Magazine 2009
Rye Hay	91.6	93.2	90.1	Dairy One
Rye Silage	39.6	58.7	20.6	Dairy One
Rye Straw	89			Beef Magazine 2009
Ryegrass (pellets, screenings)	93.2			UC Cooperative Extension
Ryegrass (silage)	27.7	29.4	26	UC Cooperative Extension
Safflower (meal, solvent)	94.4			UC Cooperative Extension
Safflower Meal	94.9	97.7	92.2	Dairy One
Safflower Meal Dehulled Solvent	91			Beef Magazine 2009
Safflower Meal Solvent	91			Beef Magazine 2009
Sagebrush Fresh	50			Beef Magazine 2009
Sanfoin Hay	88			Beef Magazine 2009
Shelled Corn	89.7	93	86.4	Dairy One
Shrimp Waste Meal	90			Beef Magazine 2009
Small Grain Forage	69	100	38	Dairy One
Small Grain Silage	39.7	60.2	19.3	Dairy One
Sorghum Grain (milo) Ground	89			Beef Magazine 2009
Sorghum Silage	32			Beef Magazine 2009
Sorghum Stover	87			Beef Magazine 2009
Sorghum Grain (milo) flaked	82			Beef Magazine 2009
Soy (hulls, pellets)	92			UC Cooperative Extension
Soy (hulls, screenings)	87.6			UC Cooperative Extension
Soy (meal, solvent)	91.3	93.4	89.1	UC Cooperative Extension
Soy Byproduct	42.9	67.7	18.2	Dairy One

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Soybean Hay	89			Beef Magazine 2009
Soybean Hulls	90			Beef Magazine 2009
Soybean Hulls	91.1	92.8	89.2	Dairy One
Soybean Meal Solvent 44% CP	91			Beef Magazine 2009
Soybean Meal Solvent 49% CP	91			Beef Magazine 2009
Soybean Mill Feed	90			Beef Magazine 2009
Soybean Straw	88			Beef Magazine 2009
Soybeans	92.2	94.8	89.6	Dairy One
Soybeans Whole	88			Beef Magazine 2009
Soybeans Whole Extruded	88			Beef Magazine 2009
Soybeans Whole Roasted	88			Beef Magazine 2009
Spelt Grain	88			Beef Magazine 2009
Steamed Flaked Corn	87.7	92.2	83.3	Dairy One
Sudan Grass	37.2	70	7.6	Dairy One
Sudan Grass Hay	92.7	94.1	91.3	Dairy One
Sudan Grass Silage	32.4	46	18.9	Dairy One
Sudangrass Fresh Immature	18			Beef Magazine 2009
Sudangrass Hay		88		Beef Magazine 2009
Sudangrass Silage	31			Beef Magazine 2009
Sugar Cane Bagesse	91			Beef Magazine 2009
Sunflower Seed Hulls	90			Beef Magazine 2009
Sunflower Seed Meal Solvent	92			Beef Magazine 2009
Sunflower Seed Meal with Hulls	91			Beef Magazine 2009
Tapioca Meal ⁸	89			Beef Magazine 2009
Timothy Fresh Pre-bloom	26			Beef Magazine 2009
Timothy Fresh Early bloom	88			Beef Magazine 2009
Timothy Hay Full Bloom	88			Beef Magazine 2009
Timothy Silage	34			Beef Magazine 2009
Tomato Pomace Dried	92			Beef Magazine 2009
Triticale	89.5	91.7	87.3	Dairy One
Triticale Forage	36.1	64.3	7.8	Dairy One
Triticale Grain	89			Beef Magazine 2009
Triticale Hay	90			Beef Magazine 2009
Triticale Hay	91.1	92.7	89.5	Dairy One
Triticale Silage	34			Beef Magazine 2009
Triticale Silage	34.3	47.7	21.1	Dairy One
Turnip Roots	9			Beef Magazine 2009
Turnip Tops (Purple)	18			Beef Magazine 2009
Vetch Hay	89			Beef Magazine 2009
Wet Brewer's Grains	26	32.3	19.2	Dairy One
Wet Corn Gluten Feed	42.3	50.5	34.1	Dairy One
Wheat	88.9	90.6	87.1	Dairy One
Wheat (hay)	91.3			UC Cooperative Extension
Wheat (straw)	92.3	92.8	91.3	UC Cooperative Extension
Wheat (whole crop, silage)	31.6	41.5	21.6	UC Cooperative Extension
Wheat Bran	89			Beef Magazine 2009
Wheat Forage	44.4	69.6	19.2	Dairy One

Feed Type	Average Dry Matter %	High End	Low End	Source of Data
Wheat Fresh, Pasture	21			Beef Magazine 2009
Wheat Grain	89			Beef Magazine 2009
Wheat Grain Hard	89			Beef Magazine 2009
Wheat Grain Soft	89			Beef Magazine 2009
Wheat Grain Sprouted	86			Beef Magazine 2009
Wheat Grain Steam Flaked	85			Beef Magazine 2009
Wheat Hay	90			Beef Magazine 2009
Wheat Hay	90.9	92.6	89.3	Dairy One
Wheat Middlings	89			Beef Magazine 2009
Wheat Mill Run	90			Beef Magazine 2009
Wheat Shorts	89			Beef Magazine 2009
Wheat Silage	33			Beef Magazine 2009
Wheat Straw	91			Beef Magazine 2009
Wheatgrass Crested Fresh Early Bloom	37			Beef Magazine 2009
Wheatgrass Crested Fresh Full Bloom	50			Beef Magazine 2009
Wheatgrass Crested Hay	92			Beef Magazine 2009
Whey Dried	94			Beef Magazine 2009

References:

UC Cooperative Extension:

www.animalscience.ucdavis.edu/faculty/robinson/Projects/pdf/Assays_2009_06.pdf

Beef Magazine's 2009 Feed Composition Tables:

Beefmagazine.com/nutrition/feed-composition-tables/0301-feed-composition-tables_3/

Feed Composition Library, Dairy One:

www.dairyone.com/Forage/FeedComp