

New Nutrient Data

USDA's SR24 provides major update of beef and pork nutrient data.

by **ROSALIE MARION BLISS**,
ARS information staff

Federal rules published in 2010 require specific meat and poultry products to carry new nutrition information starting March 1, 2012. The USDA Food Safety and Inspection Service (FSIS) announced that the new rules will make important nutrition information readily available to consumers on 40 of the most popular cuts of meat and poultry. Two timely data sets provided by the Agricultural Research Service's Nutrient Data Laboratory (NDL) in Beltsville, Md., are being used by the beef and pork industries to provide the new "Nutrition Facts" labels for their products.

Previously, NDL researchers, in collaboration with representatives of the beef and pork industries and various universities, conducted several studies

designed to update and expand the available nutrient data on current beef and pork cuts and products. The results led to a major update of beef and pork nutrient data in the USDA National Nutrient Database for Standard Reference Release 24. Called "SR24" for short, the database is the major authoritative source of information about U.S. food composition. The study results have also been incorporated into two downloadable data sets.

SR24 includes more than 7,500 food items and is managed by NDL, which is part of the ARS Beltsville Human Nutrition Research Center. NDL is headed by research leader Joanne Holden.

"Providing new nutrient data for fresh meat products is important, since animal husbandry practices and industry procedures change and improve over time, resulting in changes in nutrient content," says Holden. "The beef and pork industries have been working closely with

NDL and will be using the NDL beef and pork nutrient data sets generated through the collaborations for the new meat nutrient-labeling purposes."

Under the new

rule, packages of single-ingredient meat cuts, ground meat and poultry will have to carry the "Nutrition Facts" panels. Previously, few ground-meat retailers voluntarily provided their own meat labels.

In addition, nutrition information for single-ingredient cuts — as provided at the butcher case at grocery stores — will be displayed for consumers on a poster near the butcher counter point-of-purchase.

"Nutrition Facts" labels on foods help consumers follow the recommendations in the "Dietary Guidelines for Americans," which are issued every five years by the USDA and the Department of Health and Human Services.

"We started working with the National Pork Board on studies that allowed us to update nutrient data on pork in 2005," says Juhi Williams, a nutritionist at NDL specializing in meat and poultry.

Starting in March 2012, federal rules will require specific meat cuts, like this beef top sirloin steak, to carry nutritional facts information from data developed by scientists at the ARS Nutrient Data Laboratory in Beltsville, Md.



PHOTO COURTESY THE BEEF CHECKOFF

Nutritional value by cut and USDA quality grade, comparing 100 g (3.5 oz.) cooked (lean only)

Nutrient Name	Unit	Bottom round, 0" fat		Top Sirloin, 1/8" trim		Tenderloin, 1/8" trim		Flank steak, 0" fat		Tri-tip roast, 0" fat		Top blade, 0" fat		Mock tender steak, 0" fat		Brisket, 0" fat		Beef shortribs, 0" fat	
		Grilled		Broiled		Broiled		Broiled		Roasted		Grilled		Braised		Braised		Braised	
		Select	Choice	Select	Choice	Select	Choice	Select	Choice	Select	Choice	Select	Choice	Select	Choice	Select	Choice	Select	Choice
Water	g	66	63	65	63	63	62	66	64	66	64	62	62	61	59	60	59	59	56
Energy	Kcal	166	191	170	187	194	206	178	194	179	193	212	228	181	197	198	212	224	250
Calories from fat	Kcal	47	75	45	60	70	82	58	75	63	88	104	122	49	63	53	73	109	135
Protein	g	28	27	29	30	29	29	28	28	27	26	25	25	33	34	34	33	29	29
Total lipid (fat)	g	5	8	5	7	8	9	6	8	7	10	12	14	5	7	6	8	12	15
Ash	g	1.20	1.14	1.20	1.20	1.20	1.10	1.13	1.07	1.09	1.06	0.93	0.94	1.69	1.62	0.99	1.10	0.93	0.90
Carbohydrate, by difference	g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fiber, total dietary	g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugars, total	g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcium, Ca	mg	4.8	4.9	21.1	16.6	21.1	16.0	20.0	15.2	19.6	14.5	5.5	6.2	14.9	14.6	17.2	14.1	14.0	14.0
Iron, Fe	mg	3.1	2.9	1.8	2.0	1.8	2.0	1.7	1.8	1.7	1.8	3.1	2.8	3.3	3.5	2.9	2.8	3.2	3.2
Sodium, Na	mg	60	57	62	61	62	59	59	56	58	54	76	78	70	67	56	52	75	75
Vitamin C, total ascorbic acid	mg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vitamin A	IU	0	0	0	0	0	0	0	0	0	0	0	0	7	5	0	0	0	0
Fatty acids, total saturated	g	1.7	3.0	1.9	2.6	3.0	3.5	2.7	3.5	2.5	3.5	4.4	5.4	2.2	2.7	2.2	3.1	5.8	7.0
Fatty acids, total trans	g	0.15	0.24									0.49	0.52	0.28	0.28			0.69	0.84
Cholesterol	mg	75	78	77	81	83	85	76	80	76	80	83	83	117	113	102	99	108	102
Magnesium, Mg	mg	26	25	25	25	25	24	24	23	24	22	24	23	23	23	23	21	23	23
Phosphorus, P	mg	237	232	238	231	238	223	226	211	222	202	211	199	239	240	214	198	209	200
Potassium, K	mg	368	361	386	369	386	358	365	338	359	324	333	317	298	315	279	256	308	264
Zinc, Zn	mg	5.7	4.8	5.4	5.6	5.4	5.4	5.1	5.1	5.0	4.9	9.6	8.8	10.8	11.0	8.4	7.6	12.3	12.0
Selenium, Se	mcg	41	45	37	34	37	33	35	31	34	30	39	37	41	38	39	32	36	33
Thiamin	mg	0.08	0.06	0.08	0.07	0.08	0.08	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.09	0.07	0.07	0.10	0.10
Riboflavin	mg	0.24	0.20	0.16	0.14	0.15	0.15	0.15	0.14	0.14	0.13	0.38	0.25	0.29	0.29	0.21	0.22	0.28	0.26
Niacin	mg	8.1	7.3	8.6	7.8	8.5	8.6	8.2	8.2	7.9	7.8	4.1	3.7	3.9	3.9	4.9	4.9	3.7	3.5
Pantothenic acid	mg	0.85	0.76	0.58	0.52	0.57	0.57	0.55	0.55	0.54	0.52	1.07	0.88	0.93	0.93	0.67	0.64	0.87	0.80
Vitamin B ₆	mg	0.66	0.68	0.65	0.55	0.64	0.6	0.62	0.58	0.6	0.55	0.41	0.38	0.41	0.38	0.31	0.32	0.33	0.29
Vitamin B ₁₂	mcg	4.4	3.8	1.4	1.6	1.4	1.8	1.3	1.7	1.3	1.6	6.2	5.7	4.5	4.4	2.3	2.5	3.7	4.1



Nutrient Data Laboratory scientists review the revised USDA nutrient data sets for fresh pork and beef. From left to right are chemist Kristine Patterson, nutritionists Juhi Williams and Marybeth Duvall, and supervisory nutritionist Joanne Holden.

the specific cuts identified by FSIS labeling regulations for fresh, single-ingredient meats and ground-meat products.

The beef and pork data sets are available online as both a PDF file and as a Microsoft Excel spreadsheet. Retailers and industry users can download the data sets, free of charge, onto a computer hard drive and use the data in conjunction with other software programs.

The “USDA Nutrient Data Set for Retail Beef Cuts, Release 2.0” can be accessed at www.ars.usda.gov/services/docs.htm?docid=18961.

The “USDA Nutrient Data Set for Fresh Pork, Release 2.0” can be accessed at www.ars.usda.gov/services/docs.htm?docid=13467.

Other single-ingredient, raw-meat products to be updated with new

“Nutrition Facts” labels include lamb, chicken and turkey.



Editor’s Note: This research supports the USDA priority of ensuring food safety and is part of Human Nutrition, an ARS national program (#107) described at www.nps.ars.usda.gov. “Nutrient Data in Time for the New Year” was published in the January 2012 issue of Agricultural Research magazine.

“We determined new nutrient-composition data, both raw and cooked, for nine fresh pork cuts — shoulder blade steak, tenderloin roast, top loin chop, top loin roast, sirloin roast, loin chop, rib chop, country-style ribs and spare ribs,” says Williams. “We also studied fresh ground pork at various fat levels.”

NDL chemist Kristine Patterson and nutritionists Seema Bhagwat and Marybeth Duvall also worked on a study sponsored by the National Cattlemen’s Beef Association (NCBA) to determine the nutrient composition of 13 raw and cooked retail beef cuts with fat trim levels representative of current retail cuts.

“This provided analytical data that had not previously been available in SR on beef cuts such as top loin steak, ribeye, top and bottom round, chuck, and brisket,” says Patterson.

Like the familiar “Nutrition Facts” labels on other foods, those on ground meats will include the number of calories and the amount of saturated fat, cholesterol, total fat, protein, sodium, total carbohydrates, vitamin A, vitamin C, calcium and iron.

“The nutrition information for the ground-meat packages and for the butcher-counter posters is based on the NDL data sets,” says Amy Cifelli, NCBA’s nutrient database improvement project manager. Additionally, any ground product that lists a lean percentage statement, such as “83% lean,” on its label will also list its fat percentage, making it easier for consumers to understand the amounts of lean protein and fat in their purchase.

“NCBA is developing a web-based program that will help beef retailers produce the required “Nutrition Facts” labels and information,” says Cifelli. “And we are using the NDL meat data sets in the program.”

The USDA FSIS rules were announced in a *Federal Register* notice. FSIS is the public health agency responsible for ensuring that the nation’s commercial supply of meat, poultry and egg products is safe and correctly labeled and packaged.

The data sets for retail cuts of beef and pork provide retailers with easier access to the most accurate beef and pork nutrient data for the purpose of both on-pack and butcher-counter-posted nutrition labeling. The data sets focus on