

What's on a Food Label?

Julie Albrecht, PhD, RD
Carol Schwarz, MS, RD
Alice Henneman, MS, RDN

University of Nebraska–Lincoln Extension
food.unl.edu

For more information, email
carol.schwarz@unl.edu

Updated August 22, 2019



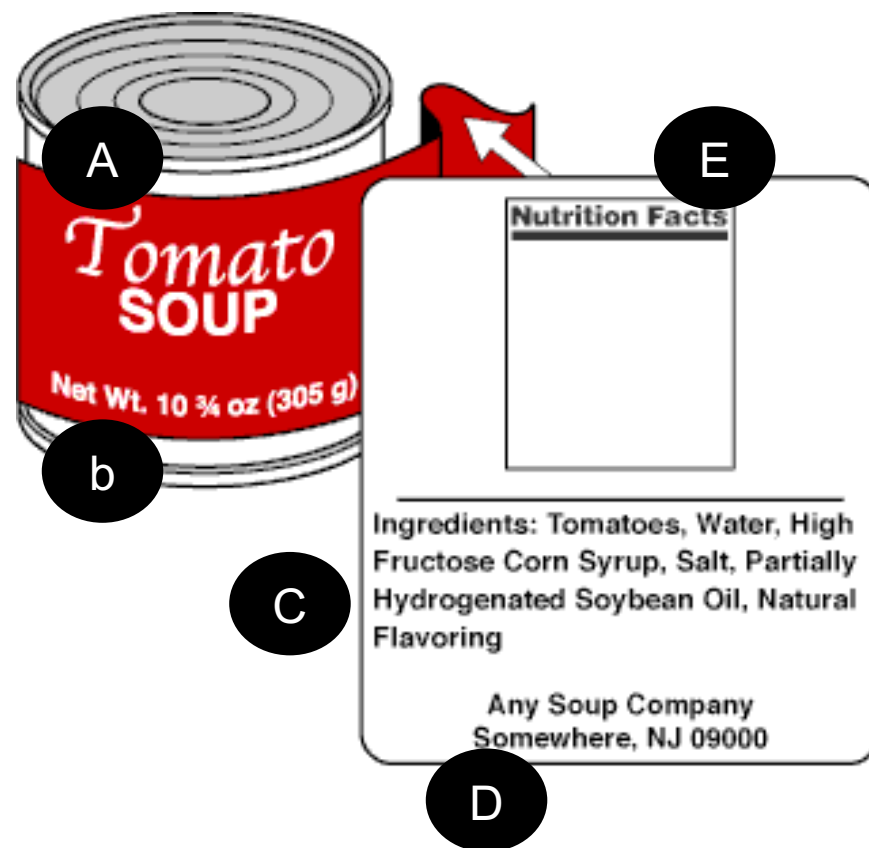
Confused about food labels?



Here's what
you need to
know ...

Required Information on All Food Labels

- A. A statement of identity
- B. A net weight or contents statement
- C. An ingredient statement
- D. A statement that gives the name and place of business of the product's manufacturer, packer, or distributor
- E. The Nutrition Facts label



Statement of Identity

- Describes the product
- Common name of the food



What is the statement of identity for these products?



Image source: National Cancer Institute / Renee Comet (Photographer)



What is the statement of identity for these products?



cream
cheese



granola
bars

Net Weight or Contents Statement

The edible product
is listed:

- By weight,
volume or
numerical count
- In English and
metric units



Find the Net Weight



Image source: Photo by Alice Henneman

Find the
Net Weight



Image source: Photo by Alice Henneman

Ingredient Statement

Ingredients are listed:

- Below the Nutrition Facts panel
- By common name in descending order by weight



Which of these ingredient statements lists sugar as its largest ingredient by weight?

Ingredients: wheat flour, whole oat flour, corn syrup, sugar, soybean and palm oil ...

Ingredients: sugar, whole grain corn flour, wheat flour, whole oat flour, oat fiber, soluble corn fiber, vegetable oil ...

Ingredients: water, vegetable oils, sugar, vinegar, modified starch, wheat starch, salt ...

Which of these ingredient statements lists sugar as its largest ingredient by weight?

Ingredients: wheat flour, whole oat flour, corn syrup, sugar, soybean and palm oil ...

Ingredients: sugar, whole grain corn flour, wheat flour, whole oat flour, oat fiber, soluble corn fiber, vegetable oil ...

Ingredients: water, vegetable oils, sugar, vinegar, modified starch, wheat starch, salt ...

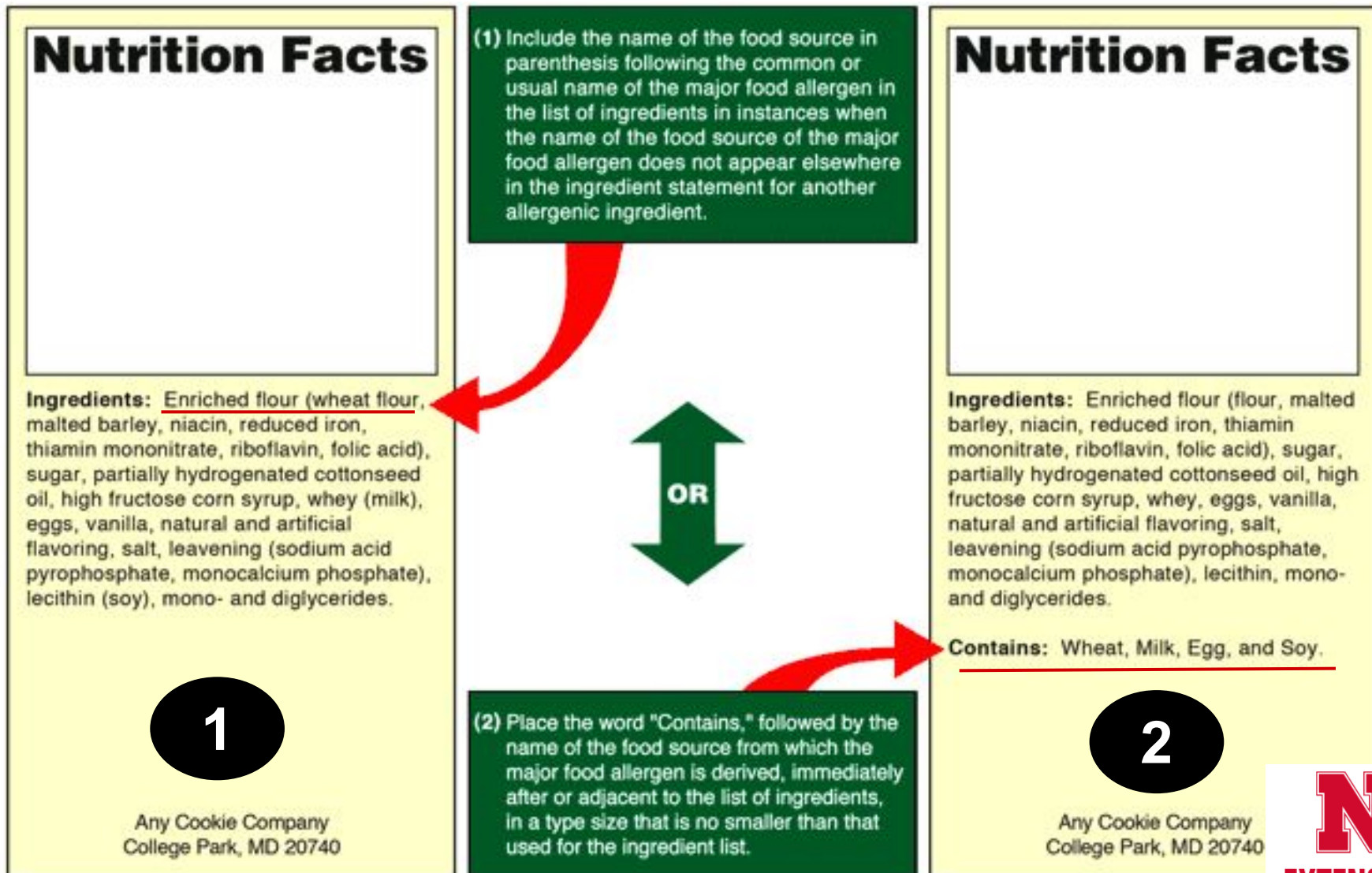
Ingredient Statement & Allergen Labeling

Eight allergens must
be identified:

- Eggs
- Milk
- Wheat
- Soy
- Peanuts
- Type of Tree nuts
- Type of Fish
- Type of Shellfish



Two Ways of Labeling Allergens



Find the Allergen

Source of example: Jennifer Miner, Canadian Food Inspection Agency at FSIS Public Meeting on Allergens

Within the **ingredients** list:

1

Ingredients: apples, pie crust [flour (wheat), shortening, liquid albumen (egg), salt], sugar, flour lemon juice, whole milk, cinnamon. May contain pecans.

Using a **contains** statement:

2

Ingredients: apples, pie crust [flour, shortening, liquid albumen, salt], sugar, flour lemon juice, whole milk, cinnamon.

Contains: Wheat, Egg, Milk. May contain pecans.

Find the Allergen

Source of example: Jennifer Miner, Canadian Food Inspection Agency at FSIS Public Meeting on Allergens

Within the **ingredients** list:

1

Ingredients: apples, pie crust [flour (wheat), shortening, liquid albumen (egg), salt], sugar, flour lemon juice, whole milk, cinnamon.

May contain pecans.

Using a **contains** statement:

2

Ingredients: apples, pie crust [flour, shortening, liquid albumen, salt], sugar, flour lemon juice, whole milk, cinnamon.

Contains: Wheat, Egg, Milk.
May contain pecans.

Statement with Name and Place of Business

The statement
can be of the
product's:

- Manufacturer
- Packer or
- Distributor

BRAN, SUGAR, BROWN SUGAR SYRUP, CONTAINS 2% OR LESS OF SALT, MALTED BARLEY SYRUP.

VITAMINS AND MINERALS: POTASSIUM CHLORIDE, NIACINAMIDE, ZINC OXIDE, REDUCED IRON, VITAMIN A PALMITATE, PYRIDOXINE HYDROCHLORIDE (VITAMIN B₆), RIBOFLAVIN (VITAMIN B₂), THIAMIN MONONITRATE (VITAMIN B₁), FOLIC ACID, VITAMIN D, VITAMIN B₁₂.

CONTAINS: WHEAT

DISTRIBUTED BY HY-VEE, INC.
WEST DES MOINES, IA 50266

SATISFACTION GUARANTEED
CALL 1-800-289-8343

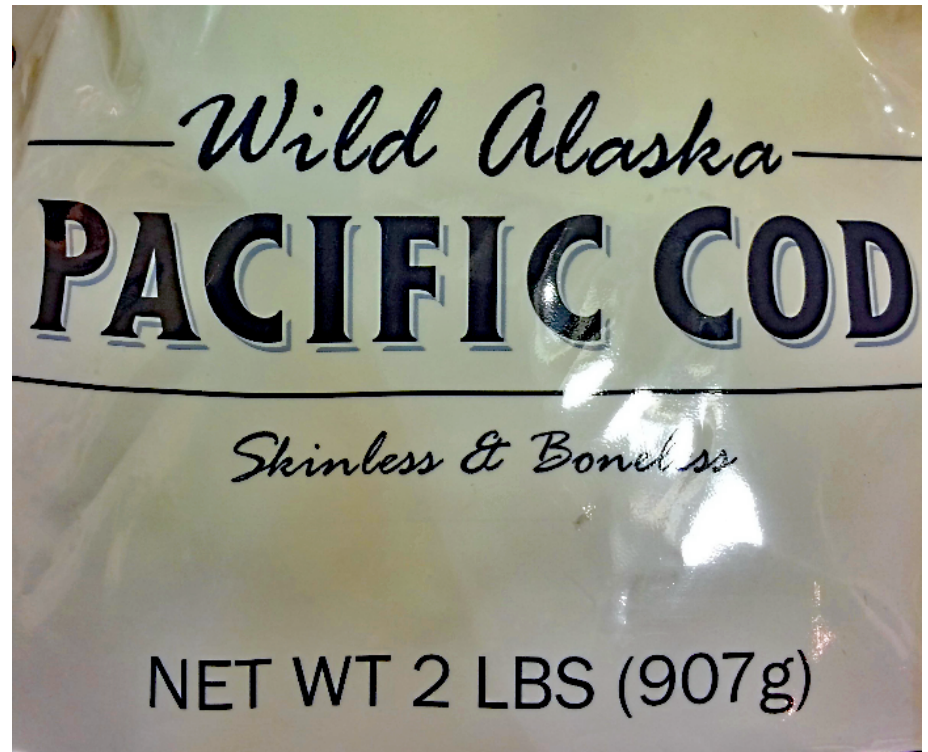
distributor:
HY-VEE

Country of Origin

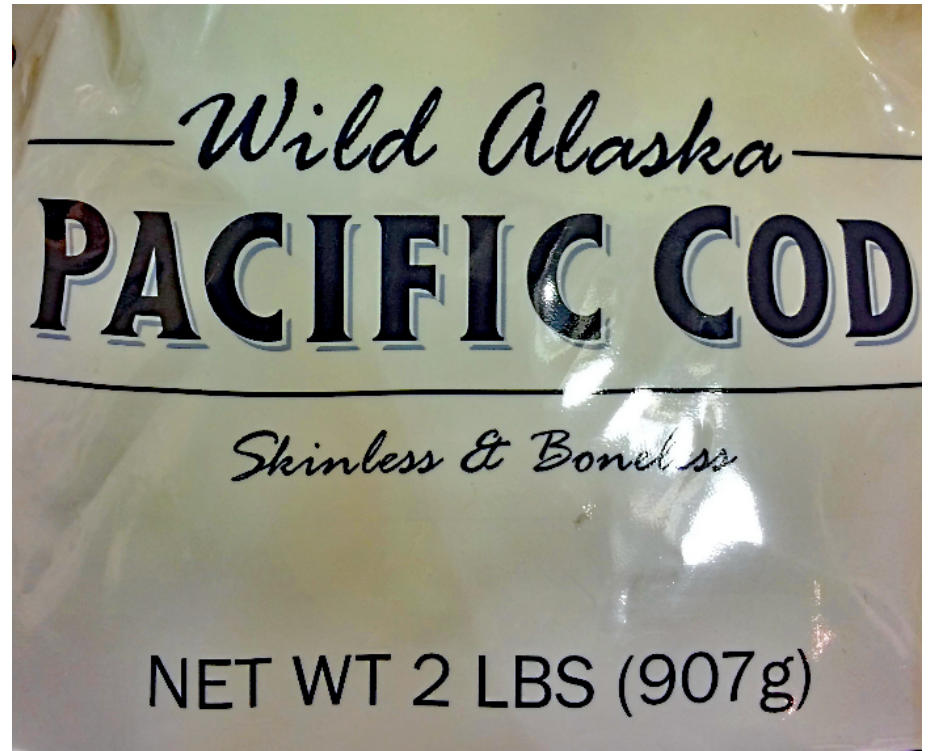
Required by U.S. Customs and Border Protection for imported foods



What is the country of origin on this label?



What is the country of origin on this label?



Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories **230**

% Daily Value*

Total Fat 8g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

Includes 10g Added Sugars **20%**

Protein 3g

Vitamin D 2mcg **10%**

Calcium 260mg **20%**

Iron 8mg **45%**

Potassium 235mg **6%**

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



The Facts about the Nutrition Facts Label

Interpreting the Updated Labels

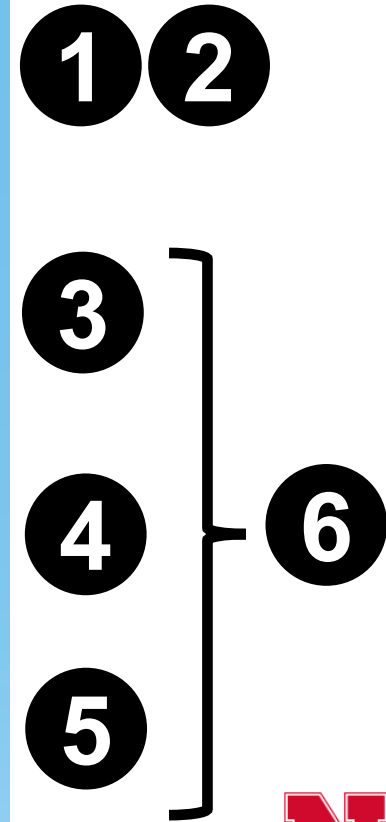
Nutrition Facts Label

Original Label

Nutrition Facts			
Serving Size 2/3 cup (55g)			
Servings Per Container About 8			
Amount Per Serving			
Calories 230	Calories from Fat 72		
		% Daily Value*	
Total Fat 8g			12%
Saturated Fat 1g			5%
Trans Fat 0g			
Cholesterol 0mg			0%
Sodium 160mg			7%
Total Carbohydrate 37g			12%
Dietary Fiber 4g			16%
Sugars 1g			
Protein 3g			
Vitamin A			10%
Vitamin C			8%
Calcium			20%
Iron			45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

New Label

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	



Nutrition Facts Label Changes

Servings:
larger,
bolder type

New:
added sugars

Change
in nutrients
required

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

— Serving sizes updated

— Calories: larger type

— Updated daily values

— Actual amounts declared

— New footnote

WHY the changes?

- New science is available to help consumers make decisions about food
- Daily values updated to the 2015-2020 Dietary Guidelines

Serving size based on what people actually eat

Added sugars are listed – Americans are consuming too much sugar

Vitamin D and Potassium are added – many do not get enough

Serving Size Changes

What's considered a single serving has changed in the decades since the original nutrition label was created. So now serving sizes will be more realistic to reflect how much people typically eat at one time.

CURRENT SERVING SIZE

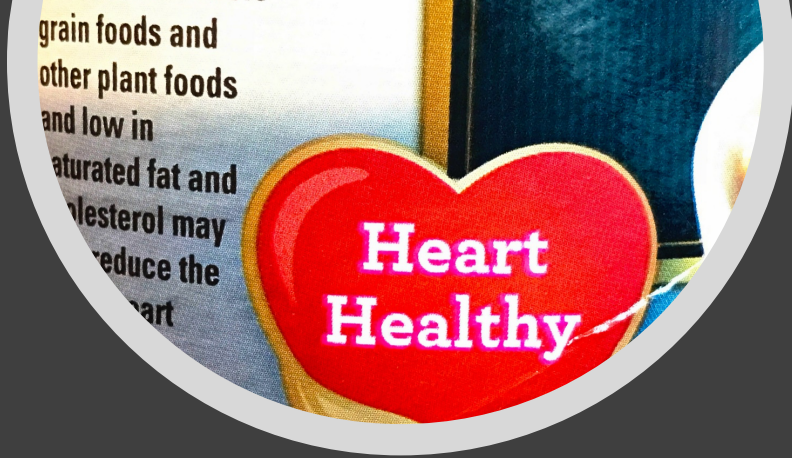


NEW SERVING SIZE



Labeling Single-Serving Packages





Sorting out “Nutrient Content Claims, “Health Claims” and Other Claims on Food Labels



Nutrient Content Claims

On labels, the terms used to describe nutrients in foods have approved definitions.



Sample Nutrient Content Claims

Calorie free	less than 5 calories per serving
Reduced calorie	at least 25% fewer calories than regular version
Low calorie	40 calories or less per serving
Fat free	less than 0.5 grams fat per serving (trans or saturated)
Reduced fat	at least 25% less fat than regular version
Low fat	3 grams or less of fat per serving

Sample Nutrient Content Claims

Sugar free	less than 5 calories per serving
Reduced sugar	at least 25% less sugar than regular version
No added sugar	no sugars added during processing or packing, including ingredients that contain sugar such as juice or dry fruit
Sodium free	less than 5 mg of sodium per serving
Reduced sodium	at least 25% less sodium than regular version
Low sodium	140 mg or less sodium per serving
Light/Lite	1/3 fewer calories or 50% less fat than regular version

Sample Nutrient Content Claims

High, rich in, excellent source of:

20% or more of Daily Value

Good source of, contains, provides:

10% to 19% of Daily Value

More, enriched, fortified, added:

10% or more of Daily Value

Some Additional Nutrition-Related Label Terms

Gluten Free, Without Gluten, Free of Gluten, or No Gluten: Foods cannot contain wheat, rye, barley or cross breeds of these grains (2014)

Healthy: Current guidance by FDA is that manufacturers can use the term on foods that meet one of these definitions): Food not low in total fat but has fat profile of mostly mono and polyunsaturated fats OR contains at least 10% of the Daily Value of potassium or Vitamin D per reference amount commonly consumed.

Natural: Currently no definition

Label Examples: Natural, Healthy, Gluten Free



Which Label Does NOT Have a Government “Definition”?



Which Label Does NOT Have a Government “Definition”?



Image source: Photo by Alice Henneman; illustration by Vicki Jedlicka

Health Claims

1

A Health Claim describes a relationship between a food, food component or dietary supplement AND a reduced risk for a specific disease or health condition.

2

Health Claims are based on extensive research.

“Authorized” Health Claims

- There must be significant scientific agreement (SSA) among qualified experts that the claim is supported by the totality of publicly available scientific evidence for a substance/disease relationship.
- The authorized health must contain the elements of a substance and a disease or health-related condition.

Examples of “Authorized” Health Claims

- “Diets low in *sodium* may reduce the risk of high blood pressure, a disease associated with many factors.”
- “Healthful diets with adequate folate may reduce a woman's risk of having a child with a brain or spinal cord birth defect.”
- “Development of cancer depends on many factors. Eating a diet low in fat and high in fruits and vegetables, foods that are low in fat and may contain vitamin A, vitamin C, and dietary fiber, may reduce your risk of some cancers. Oranges, a food low in fat, are a good source of fiber and vitamin C.”

“Qualified” Health Claims

- Qualified health claims (QHCs) are supported by scientific evidence, but do not meet the more rigorous “significant scientific agreement” standard required for an authorized health claim.
- They must be accompanied by a disclaimer or other qualifying language to accurately communicate to consumers the level of scientific evidence supporting the claim.

Examples of “Qualified” Health Claims

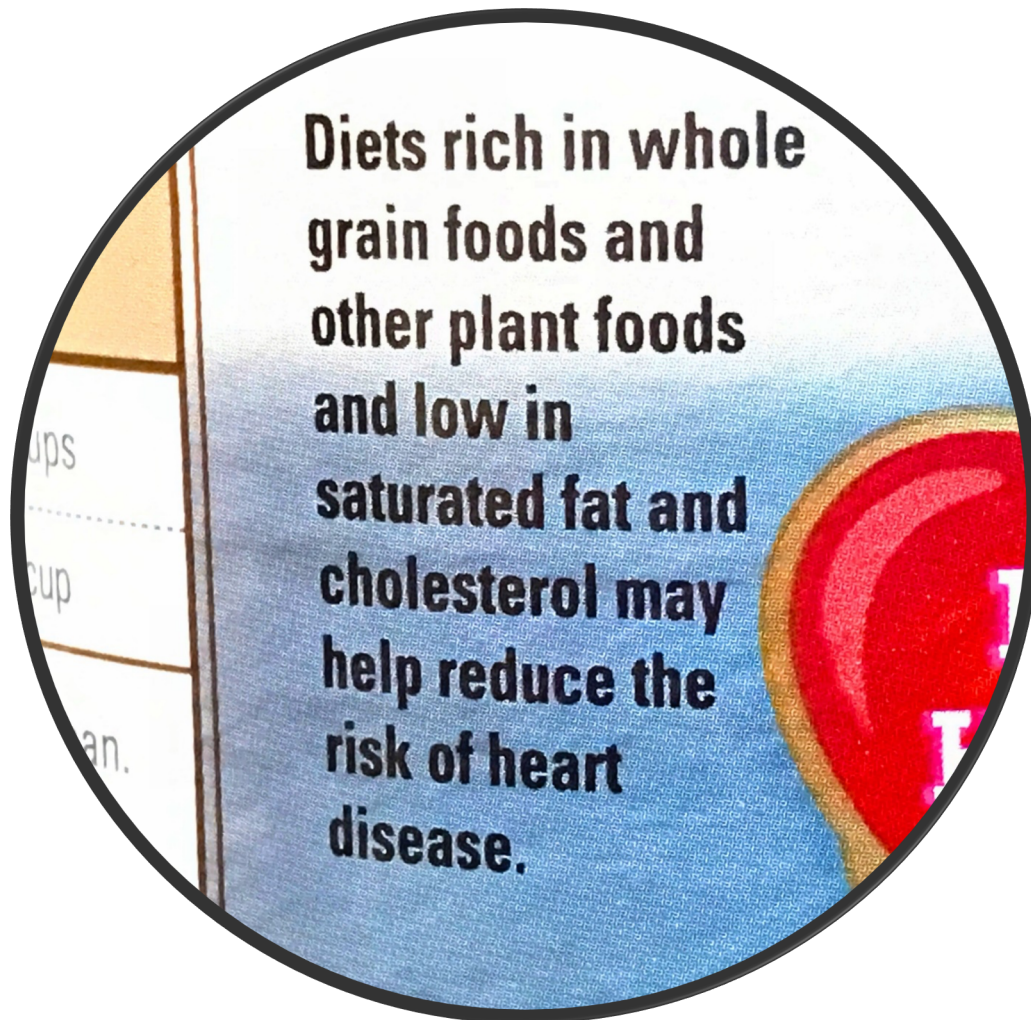
- “Scientific evidence suggests, but does not prove, that whole grains (three servings or 48 grams per day), as part of a low saturated fat, low cholesterol diet, may reduce the risk of diabetes mellitus type 2.”
- “Supportive but not conclusive scientific evidence suggests that daily consumption of about 1½ tablespoons (20 grams) of oils containing high levels of oleic acid, may reduce the risk of coronary heart disease. To achieve this possible benefit, oleic acid-containing oils should replace fats and oils higher in saturated fat and not increase the total number of calories you eat in a day. One serving of [x] oil provides [x] grams of oleic acid (which is [x] grams of monounsaturated fatty acid).”

Is This an “Authorized” or a “Qualified” Health Claim and Why?



Image source: Photo by Alice Henneman

Is This an “Authorized” or a “Qualified” Health Claim and Why?



Authorized
health
claim

Image source: Photo by Alice Henneman

Is This an “Authorized” or a “Qualified” Health Claim and Why?



Image source: Photo by Alice Henneman

Is This an “Authorized” or a “Qualified” Health Claim and Why?



Authorized
health
claim

Is This an “Authorized” or a “Qualified” Health Claim and Why?

LIMITED AND NOT CONCLUSIVE SCIENTIFIC EVIDENCE SUGGESTS THAT EATING ABOUT 1-1/2 TBSP (19 GRAMS) OF CANOLA OIL DAILY MAY REDUCE THE RISK OF CORONARY HEART DISEASE DUE TO THE UNSATURATED FAT CONTENT IN CANOLA OIL. TO ACHIEVE THIS POSSIBLE BENEFIT, CANOLA OIL IS TO REPLACE A SIMILAR AMOUNT OF SATURATED FAT AND NOT INCREASE THE TOTAL NUMBER OF CALORIES YOU EAT IN A DAY.

Image source: Photo by Alice Henneman

Is This an “Authorized” or a “Qualified” Health Claim and Why?

LIMITED AND NOT CONCLUSIVE SCIENTIFIC EVIDENCE SUGGESTS THAT EATING ABOUT 1-1/2 TBSP (19 GRAMS) OF CANOLA OIL DAILY MAY REDUCE THE RISK OF CORONARY HEART DISEASE DUE TO THE UNSATURATED FAT CONTENT IN CANOLA OIL. TO ACHIEVE THIS POSSIBLE BENEFIT, CANOLA OIL IS TO REPLACE A SIMILAR AMOUNT OF SATURATED FAT AND NOT INCREASE THE TOTAL NUMBER OF CALORIES YOU EAT IN A DAY.

Qualified
Health
Claim

Image source: Photo by Alice Henneman

Other Label Statements...

- “No hormones added” or “raised without hormones”
- “GMO Free”



Image source: USDA/SNAP-Ed

Hormone Free

- “Free of hormones” or “hormone free”
VS. “No hormones added” or “raised without hormones”
- Anything that is or has been alive contains hormones, including plants!

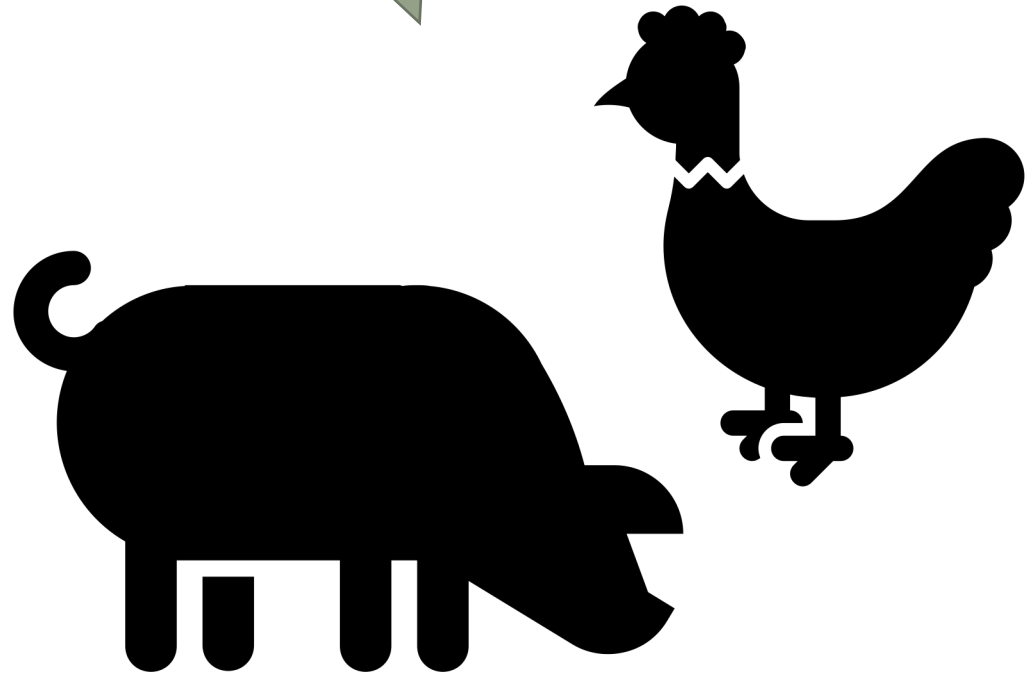


Is there anything in this photo that is “hormone free”?

Pork and Poultry

- Added hormones aren't allowed by USDA in pork and poultry.
- A claim of “no hormones added” on pork or poultry must be followed by the statement, “Federal regulations prohibit the use of hormones.”

We have hormones but no “added” hormones



GMO-Free

- Are you paying extra for a food when none of its ingredients contained GMOs in the first place?
- Which banana is **NOT** a GMO food?



GMO-Free
labeling



No GMO
labeling

**Neither of
them are
GMO foods
and never
have been**



GMO-Free



**No GMO
labeling**

GMO Foods in United States

Currently available ...

- Corn (field and sweet)
- Soybeans
- Cotton
- Canola
- Alfalfa
- Sugar beets
- Papaya (Hawaiian)
- Squash
- Arctic Apples

More information ...

- Arctic Apples (first available in some areas by 2017 with market presence growing yearly)
- NOTE: Not all versions of all these foods are genetically engineered.
- Before being placed on the market, genetically modified foods must be approved by the Food and Drug Administration, the USDA and the Environmental Protection Agency

Food Date Labels: What Do They Mean?



BEST BY
MAR 2022

Image source: Photo by Alice Henneman



- Label confusion contributes to food waste.
- 84% of consumers in a 2016 study by Johns Hopkins discarded food near the package date at least occasionally.

Label Dates on Foods (Voluntary Except for Infant Formula)



A "Use-By" date is the last date recommended for the use of the product while at peak quality. It is not a safety date except for when used on infant formula.



A "Sell-By" date tells the store how long to display the product for sale for inventory management. It is not a safety date.

BEST IF USED BY

10 NOV 07

A "Best if Used By/Before" date indicates when a product will be of best flavor or quality. It is not a purchase or safety date.

Information source: USDA/FSIS. <http://bit.ly/213GO32> | Graphic created by Alice Henneman

Movement to Less Confusing Date Labels*

H.R. 3981, referred to as the “Food Date Labeling Act of 2019,” was introduced (July 25, 2019) to establish requirements for quality and discard dates that may voluntarily be used in food packaging. Terms under consideration are:

- “BEST If Used By” or “BB” to designate a “quality” date.
- “USE By” or “UB” would designate a discard date for foods that the producer, manufacturer, distributor, or retailer advises the product not be consumed.

NOTE: This Act shall only apply to food products that are labeled on or after the date following the final passage of the bill.

A required “Use by” date is currently (and will continue to be) used on infant formulas. The date is selected by the manufacturer based on tests and other information to inform retailers and consumers that the formula:

- will contain no less than the amount of nutrient declared on the label, and
- will be of acceptable quality until that declared date.

Image source: Pixabay.com





Proper Storage

- After the date passes, the product may not be the best quality, but the product may still be safe, wholesome and of good quality, if handled properly.
- Store refrigerated foods at 40⁰ F or below.
- Consider the following canned food guidelines...

Storing Commercial Canned Foods (in a Cool Dry Place, Below 85°F)

High-acid foods keep 12 to 18 months.

Examples: juices (tomato, orange, lemon, lime and grapefruit); tomatoes; grapefruit, pineapple, apples and apple products, mixed fruit, peaches, pears, plums, all berries, pickles, sauerkraut and foods treated with vinegar-based sauces or dressings like German potato salad and sauerbraten

Image source: USDA/FSIS



Storing of Commercial Canned Foods (in a Cool Dry Place, Below 85°F)

Low-acid foods keep 2 to 5 years.

Examples: meat and poultry, stews, soups (except tomato), spaghetti (noodle and pasta) products, potatoes, corn, carrots, spinach, beans, beets, peas, pumpkin





Canned Food Safety: Dented Cans

- A small dent in a can that is in otherwise good shape should be safe.
- Discard deeply dented cans (a dent you can lay your finger into).
- A sharp dent on either the top or side seam can damage the seam and let bacteria enter. Discard!
- When in doubt, throw it out!



Canned Food Safety: Rusted Cans

- Discard heavily rusted cans. They can have tiny holes in them allowing bacteria to enter.
- Surface rust that you can remove by rubbing with your finger or a paper towel isn't serious and can be kept.
- If there is any rust inside, do not eat the food! Rust isn't safe to eat.



Don't Use
Bulging or
Leaking Cans!

Storing Frozen Foods

Food stored constantly at 0°F will always be safe. Only the quality suffers with lengthy freezer storage.



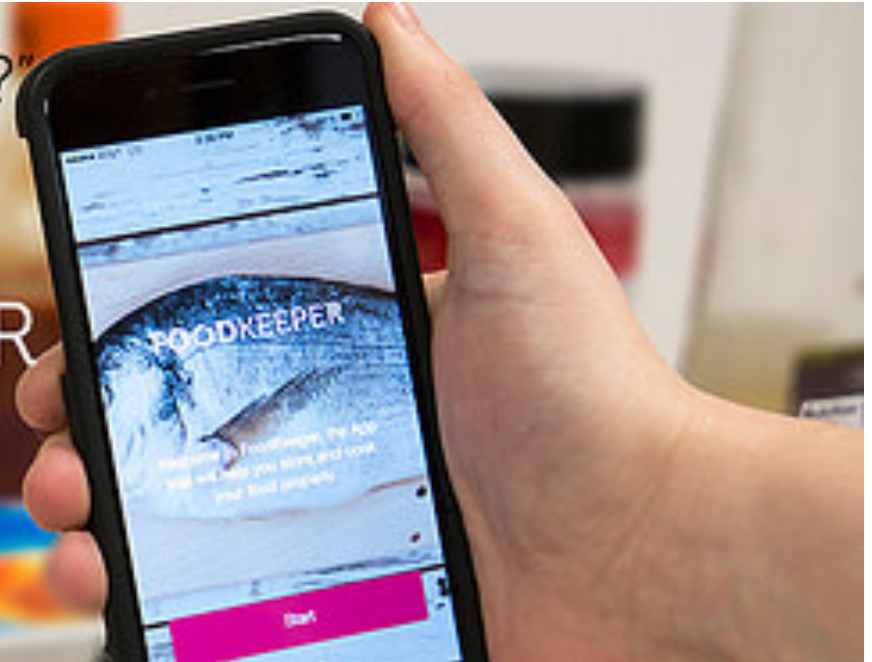
Storing Raw Eggs in the Shell

- Eggs cartons may contain a “Sell-By” or “EXP” date so retailers don’t keep them on the shelves past a certain date. Though not federally required, they may be state required in some areas.
- After eggs are purchased, they will maintain their best quality for about 3 weeks beyond the expiration or sell by date.
- Refrigerate eggs in original carton in coldest part of refrigerator (40°F or below), not the door due to loss of coolness from repeated opening of the door.

Food Storage App

"Are these leftovers still good?"
There's an app for that.

FOODKEEPER





**In conclusion,
become an able
label reader!**



General reference

U.S. Department of Health and Human Services, Food and Drug Administration. A Food Labeling Guide. (2013) at <https://www.fda.gov/media/81606/download>





Questions?

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture.

University of Nebraska–Lincoln Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.

Reference to commercial products or trade names is made with the understanding that no discrimination is intended of those not mentioned and no endorsement by University of Nebraska–Lincoln Extension is implied for those mentioned.