

“CHOOSE ORGANIC”




CORNUCOPIA
INSTITUTE

NATURAL VERSUS ORGANIC SERIES

BREAD

SARA LEE’S EARTHGRAINS® VERSUS ORGANIC

	EARTHGRAINS® BREAD WITH “ECO- GRAIN™” “100% NATURAL”	ORGANIC BREAD (ANY BRAND) 
REDUCE FERTILIZER APPLICATIONS TO THE MINIMUM NECESSARY TO CREATE HEALTHY PLANT GROWTH	✓	✓
NO SYNTHETIC FERTILIZERS*	✗	✓
NO TOXIC PESTICIDES, HERBICIDES OR FUNGICIDES*	✗	✓
IMPROVE SOIL HEALTH*	✗	✓
PROTECT BIODIVERSITY*	✗	✓
NO CHEMICAL SOLVENTS USED IN PROCESSING*	✗	✓
NO GENETIC ENGINEERING*	✗	✓
ALL CLAIMS INDEPENDENTLY VERIFIED BY ANNUAL THIRD-PARTY INSPECTIONS BY USDA-ACCREDITED CERTIFIERS*	✗	✓

* REQUIRED BY FEDERAL LAW (ORGANIC FOOD PRODUCTION ACT OF 1990; SEE 7 CFR 205)

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THE REAL DIFFERENCES

“100% NATURAL” VERSUS ORGANIC

Eco-Grain™, used in Sara Lee’s “100% Natural” EarthGrains® bread, claims to be “more sustainable,” and grown using farming methods that have “advantages over organic farming.” Whatever the self-promoted benefits of Eco-Grain™ might be, the most astounding aspect of Sara Lee’s marketing campaign is that only 20% of EarthGrains® 24-ounce bread loaves contain EcoGrain™. Other EarthGrains® bread products contain 0% Eco-Grain™.

The table above, and summaries below, reveal the real differences between “**100% Natural**” EarthGrains® bread and any brand of organic bread bearing the **USDA Certified Organic** seal.

SYNTHETIC FERTILIZERS

- **ECO-GRAIN FARMERS** use “precision agriculture” when applying synthetic, petroleum-based fertilizers to their fields. By using precision agriculture, they achieve an estimated 15% reduction in the use of synthetic fertilizer. Since only 20% of EarthGrains wheat is “Eco-Grain™,” the total reduction in fertilizer use for EarthGrains bread amounts to a mere 3%.
- **ORGANIC FARMERS** are required by law to use non-synthetic, non-petroleum based fertilizers. Instead, they build long-term soil health through applying naturally derived fertilizers, composting, crop rotation, and cover cropping. This leads to a 100% reduction in synthetic fertilizer use.

ENVIRONMENTAL EFFECTS OF SYNTHETIC FERTILIZER USE:

- Surface and groundwater pollution¹
- “Dead zones” in marine habitat (including streams, rivers and the Gulf of Mexico below the Mississippi River)²
- Air pollution; including contributions to global climate change³

	A LOAF OF EARTHGRAINS™ (CONTAINS 80% CONVENTIONAL WHEAT, 20% “ECO-GRAIN™” WHEAT)	A LOAF OF ORGANIC BREAD (CONTAINS 100% ORGANIC GRAINS)
REDUCTION IN SYNTHETIC FERTILIZER USE	3%	100%

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PESTICIDE USE

- **CONVENTIONAL WHEAT GROWERS**, such as those growing wheat for EarthGrains bread, commonly use toxic and environmentally hazardous pesticides such as 2,4-dichlorophenoxyacetic acid (2,4-D) and 4-chloro-2-methylphenoxyacetic acid (MCPA).^{4 5}
- **ORGANIC FARMERS** are required by law to eliminate their use of toxic pesticides such as 2,4-D, MCPA or similar commonly used pesticides. Organic wheat farmers use alternative pest control methods, primarily crop rotations, to protect their crops from pests.

ENVIRONMENTAL EFFECTS OF THE PESTICIDE 2,4-D:

- Potential risks to wildlife, biodiversity and water quality⁶

PUBLIC HEALTH EFFECTS OF THE PESTICIDE 2,4-D:

- Soft tissue sarcoma⁷ and malignant lymphoma⁸
- Increased cancer mortality⁹
- Birth defects¹⁰
 - Defects of the respiratory system
 - Defects of the circulatory system
 - Defects of the musculo-skeletal system, like clubfoot, fused digits and extra digits.

SOIL FERTILITY

- Sara Lee claims that its “Eco-Grain™” farmers are “stewards of the land.” Yet these **CONVENTIONAL EARTHGRAINS FARMERS** still apply synthetic, petroleum-based fertilizers to their land every year to maintain high yields, instead of building the long-term health of their soil.
- **ORGANIC FARMERS** are required by law to build soil fertility in ecological ways. They use cover crops, crop rotation and composting to sustain healthy farmland. Research shows that these organic methods substantially increase soil fertility,¹¹ increase diversity of beneficial soil microorganisms,¹² and reduce soil erosion.¹³

BIODIVERSITY

- Sara Lee claims that **ECO-GRAIN FARMERS** are “kind to the environment,” yet their use of conventional, monoculture farming practices

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do nothing to improve biodiversity. Studies have shown that organic farming methods benefit wildlife around farms, especially birds.¹⁴

- Research shows that biodiversity tends to be greater on **ORGANIC FARMS** than on conventional farms.¹⁵ Organic producers are mandated by law to protect diverse biological systems on their farms.

CHEMICAL SOLVENTS

- **EARTHGRAINS “100% NATURAL” BREAD** contains conventional soy ingredients, like soy oil, soy flour and soy lecithin. These ingredients are almost universally processed with a chemical solvent, hexane. Food processors are the country’s major contributors to air pollution from hexane, which leads to the formation of smog, a serious public health hazard. It is highly explosive and has caused serious injuries and deaths to workers in food plants.
- **ORGANIC** bakers use expeller-pressed oils instead of hexane-extracted oils and flours. They are prohibited from using chemical solvents such as hexane, with the exception of *some* soy lecithin that is unavailable in organic form. Organic consumers should check the label of organic bread to ensure that, if “soy lecithin” is used, it is “organic soy lecithin.”

HEXANE IS:

- A byproduct of gasoline refining
- A neurotoxin potentially affecting the health of workers
- Classified by the Environmental Protection Agency as a “hazardous air pollutant”

GENETIC ENGINEERING

- **EARTHGRAINS “100% NATURAL”** bread uses conventional soy ingredients. The vast majority, 92%, of non-organic soybeans grown in the United States are genetically engineered. Bakers like Sara Lee are not required to disclose the use of genetically engineered ingredients (as is required in Europe), and are permitted use the “100% Natural” label even if genetically engineered ingredients are present.
- Federal law prohibits **ORGANIC BAKERS** from using any genetically engineered ingredients.

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- ² National Oceanic and Atmospheric Administration (2008) "NOAA Predicts Largest Gulf of Mexico "Dead Zone" on Record." *Science Daily*. July 16, 2008. Available online at <http://www.sciencedaily.com/releases/2008/07/080715114149.htm>
- ³ Kramer SB, Reganold JP, Brendan JD et al (2006) Reduced nitrate leaching and enhanced denitrifier activity and efficiency in organically fertilized soils. *Proc Natl Acad Sci* 103: 4522-4527.
- ⁴ 2,4-D is the fourth most common herbicide used in the United States, with approximately 30 million pounds of the active ingredient applied to farmland. See: http://www.epa.gov/oppbead1/pestsales/01pestsales/usage2001_2.htm#3_6
- ⁵ In a study of four wheat-growing states (North Dakota, South Dakota, Montana and Minnesota), an EPA researcher found that farmers applied 2,4-D and MCPA to 88% of wheat fields. See: Schreinemachers, D (2003) Birth malformations and other adverse perinatal outcomes in four US wheat-producing states. *Environmental Health Perspectives* 111(9): 1259-1264.
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- ⁸ ibid
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- ¹⁰ Schreinemachers, DM. (2003) Birth Malformations and Other Adverse Perinatal Outcomes in Four U.S. Wheat - Producing States. *Environmental Health Perspectives* 111:1259-1264.
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- ¹² Oehl F, Sieverding E, Mader P et al. (2004) Impact of long-term conventional and organic farming on the diversity of arbuscular mycorrhizal fungi. *Oecologia* 138: 574-583.
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- ¹³ Pimentel D, Hepperly P, Hansen J et al. (2005) Environmental, energetic, and economic comparisons of organic and conventional farming systems. *Bioscience* 55: 573-582.
- ¹⁴ Bengtsson J, Ahnstrom J, Weibull A. (2005) The effects of organic agriculture on biodiversity and abundance: a meta-analysis. *Journal of Applied Ecology* 42: 261-269
- ¹⁵ Hole DG, Perkins AJ, Wilson JD et al. (2005) Does organic farming benefit biodiversity? *Biological Conservation* 122: 113-130.