

Derived from barley, an ancient grain, malt extract carries a modern message about nutrition, making it ...

More than Sweet

by Laurie Gorton

Every ingredient must earn its place in today's bakery formulas. For example, just being a sweetener may not be enough. But if that sweetener is also a source of antioxidants, essential amino acids, vitamins and minerals and is made with whole grains ... well, that's another story. And it's a good one that malt can tell consumers.

On a gram-for-gram basis, malt's antioxidants rank five times higher than those in broccoli. Because the extract is made from malted barley and water only, this non-GMO, minimally processed, clean-label ingredient qualifies as the perfect complement for whole grain foods. It carries many essential vitamins, minerals and amino acids. It is a "good" source of dietary silicon, B vitamins, magnesium, manganese and selenium. The dark brown liquid extract functions as a natural colorant, and it masks bitter notes and enhances nut, savory and chocolate flavors. Oh, yes, it also provides sugars and other nutrients to fuel the yeast that leavens baked foods.

"Because malt extract is derived from whole grains, I like to call it a 'nutritious sugar,'" said Jim Kappas, vice-president, sales and marketing, Malt Products Corp. He compared its potential appeal to the whole grains message that has recently transformed the baking industry.

Although used by bakers since ancient times, recent years have seen malt taken out of formulations for cost-reduction purposes. But as a source of fermentable carbohydrates and natural enzymes and colorants, it can restore artisan quality to foods, reduce oven times and enhance the chew and crust qualities of hearth breads. The nutritional benefits count as an extra.

"The sprouting and malting process makes the nutrition in malt extracts more bioavailable than in the whole grains themselves," Mr. Kappas said. "Of course, it's a story that our grandparents knew but has somehow gotten lost over the decades."

Thanks to craft brewing's recent resurgence, more people know about malt, and most recognize this ingredient as intrinsically nutritious. Now, there's science to prove it.

The company recently had the antioxidant properties of malt extract measured by Jin Ji, PhD, chief technology officer of Brunswick Laboratories, using an oxygen radical absorbance capacity (ORAC) assay. Results found that it contributes protection against several types of radical groups, with highest efficiency against singlet oxygen and hydroxyl radicals. It also possesses activity against peroxy radicals and superoxide anions.

Jeff Casper, technical consultant and principal of Mill City Food Solutions and former Cargill scientist, oversaw this project. "Barley contains significant amounts of natural phytochemical antioxidants in the form of phenolic compounds," he said. "These are the same compounds that are associated with whole-grain health. Many of these compounds, including ferulic acid, have been shown to have antioxidant capacity in the body.

"For the benefits of these compounds to be fully realized in the body, they need to be easily absorbed," Mr. Casper continued. "The sprouting and malting process releases these compounds from the fibers in which they are bound in the husk and aleurone layer of the seed, making them soluble and bioavailable. Also, the malting process releases bound minerals, increasing their bioavailability."

Under the Food and Drug Administration's new labeling rules, malt is considered an "added sugar" to be disclosed on the Nutrition Facts Panel. Yet the sugar is mostly maltose and less than 1% fructose.

Mr. Kappas noted that Malt Products malt extracts are made at the company's Dayton, OH, plant. All are GRAS and kosher, and the extracts are non-GMO certified. The company offers organic styles certified by Oregon Tilth. For specs detailing malt extract, visit www.maltproducts.com. •

Malt extract benefits the color and flavor of bread ... as well as its antioxidant and phytonutrient content.

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MALT PRODUCTS CORPORATION

Product List All Natural Sweeteners

MALT

LIQUID - Nondiastatic Malt

Malt Extract, #102 - Golden
Malt Extract, #103 - Rich Brown
Malt Syrup, #100 - Golden
Malt Syrup, #101 - Rich Brown

LIQUID - Diastatic Malt - active enzymes

#100D - Golden - 20° Lintner
#100HD - Golden - 60° Lintner
Malt Extract - 60° Lintner

SPRAY DRIED MALT

Malt Extract - Golden, Amber
Malt Powder, #87 - Light
Malt Powder, #87DK - Medium
Extra Sweet Malt Powder, #107 - Light

DRY - Diastatic Malt - active enzymes

#89DP - 20° or 60° Lintner
(A blend of malted barley flour, wheat flour, and dextrose...
an excellent dough enhancer.)
Malted Barley Flour - 160° - 220° Lintner

SPECIALTY PRODUCTS

Black Malt, dry or liquid (a natural colorant)
Bagel Best Malt™, (Specially blended malt for bagels)
Pizza Perfect Malt™, (Specially blended malt for pizza crusts)
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Caramel Color

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TAPIOCA SYRUP

30, 42, 60DE

AGAVE

Agave Nectar

OAT SYRUP

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Corn Syrups 25, 42, 60DE
High Fructose Corn Syrup 42, 55
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#530 - Dark Brown Hue

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