



Ancient & Heirloom Grains

FLOURS, SEEDS AND BLENDS



▶ NUTRITIONAL
value and distinctive
flavor profiles

▶ GLOBAL STORY,
culinary and
consumer appeal

▶ HIGH-QUALITY
selection and consistent
supply reliability





What's Old Is New Again.

The latest wave to hit whole grain innovation is ancient.

Ardent Mills opens the door to a whole new era of product development. Together, we can write a new whole grain history. As today's consumer palate continues to evolve and populations seek more adventurous eating experiences, Ancient & Heirloom Grains serve as a key enabler to deliver on these trends. As your trusted source, Ardent Mills is your partner to bring these inspirational, storied grains to your mainstream and artisan customers.

For millennia, civilizations cultivated these unique staple grains for their nutritional value and distinctive taste. From the ancient Andes to West Africa, early communities not only cherished these valuable seeds as part of their culture, but celebrated them as symbols of a way of life. Our line of individual Ancient & Heirloom Grains seeds and flours, and multigrain blends, brings that excitement, unique flavor and great-tasting whole grain nutrition to today's most popular foods—from breads and pizza crusts to breakfast cereals and snacks.

Ardent Mills Ancient & Heirloom Grains Combine Millennia Of Tradition With 21st-Century Functionality.



Meet growing consumer demand for global grains with premodern appeal



Extensive sourcing networks to ensure quality and supply consistency



Offering a full line of organic flours, seeds, mixes and blends



Our Ancient Grains are naturally gluten-free



Distinctive flavor profiles inspiring the next generation of whole grain development



Customization to meet your needs and functionality across a wide range of applications

ANCIENT & HEIRLOOM GRAINS: FLOURS, SEEDS AND BLENDS

Ancient Grains — Certified Gluten-free. Organic available.

AMARANTH



Very small, light-colored grain with an appealing mild flavor. Native to the Americas and prized by the Aztec civilization – it is a dietary staple, as well as a revered symbol of the culture. Amaranth

flour works well in a variety of applications, such as baked goods, pasta and RTE cereals.

TEFF



Tiny, ivory-colored grain whose lightly sweet, molasses-like flavor is compatible with other grain flours. A foundation of the Ethiopian diet and a principal source of nutrition for its people. Ideal for use in

flatbreads, waffle and pancake mixes, breads, cookies and other applications. Both brown and ivory teff available.

SORGHUM



Medium-sized round grain with a mild, lightly sweet taste that melds well with other flavors. Originated in Africa, today it's the fifth most important cereal crop in the world. Highly versatile – sorghum can be

used in extruded snacks, flaked cereals, formulated into baked goods and even brewed into beer.

MILLET



Small, pale, yellow round grain with a mild flavor that's ideal for blending with the flours of other grains. A staple in India and common in Africa, millet was domesticated more than 4,000

years ago from a wild West African grass. Whole grain millet flour works well in applications including pasta and flatbreads.

QUINOA



Small, light-colored, round grain with an unmistakably nutty, earthy flavor. Indigenous to South America, where the Incas praised it as the "mother of all grains." Lively flavor complements breakfast cereals,

pizza, artisan-style breads and more.

BUCKWHEAT



Although many think it is a type of wheat, buckwheat is actually a pseudo grain that is related to rhubarb. Buckwheat seeds are triangular and have a dark hull that has a rich grainy flavor and

traditionally has been used in pancakes and soba noodles.

Heirloom Wheats

ORGANIC SPELT



Long pointed almond-shaped, with a sweet, nutty flavor. Cultivated by ancient civilizations both in Europe and the Middle East thousands of years ago. Can be used as an alternative to rice or oatmeal.

Excellent for use in muffins, waffles, pancakes and bread. Contains wheat.

RYE



Similar appearance to wheat but longer and more slender, varying in color from yellowish brown to gray-green. It is a favorite in traditional European-style rye breads and well suited for use in specialty applications

such as pumpernickel and multigrain products. This premium-quality whole grain rye flour, available in fine and coarse granulations, delivers authentic rye flavor, wholesome appearance and dense, moist texture. Contains wheat.

TRITICALE



Among the largest of common cereal grains with a golden brown color, triticale is a hybrid of wheat and rye that is a little more than a century old. With a subtle rye flavor and balanced sweetness, triticale is well

suiting for use in a variety of baked items and ideal for sweet and savory pastry applications. Contains wheat.

There's a lot more to learn – and love – about these unique grains.

Blends

Gluten-Free 5-Grain Blend

This 100% whole grain gluten-free flour features a unique blend of five Ancient Grains: amaranth, millet, quinoa, sorghum and teff. Use it to develop gluten-free foods and baked goods, or blend it with other functional flours to develop multigrain blends that capture the heirloom heritage of these grains.

Gluten-Free All Purpose Multigrain Flour

This blend features five Ancient Grains flours long prized for their whole grain nutrition: amaranth, millet, quinoa, sorghum and teff. The result is an all-purpose, multigrain flour that delivers the nutrition, functionality and main-stream taste and texture it takes to develop winning gluten-free products.

Custom Multigrain Blends

Let us work with you to develop the perfect blend for your application based upon our leading portfolio of refined flours and innovative whole grains. From complete mixes to gluten-free blends, we've got solutions for any challenge. Contact your account representative to learn more.



Applications

BREADS & ROLLS

PASTAS

WRAPS & TORTILLAS

CEREALS

CAKES & DESSERTS

PIZZA CRUSTS

DRY MIXES

COOKIES & CRACKERS

SNACKS

BARs

COATINGS

ANCIENT & HEIRLOOM GRAINS: FLOURS, SEEDS AND BLENDS

SPECIFICATIONS

Physical Properties: Amaranth, millet, quinoa, sorghum, teff, buckwheat, organic spelt, rye and triticale are available individually as whole grain flours, as well as in whole grain multigrain blends, and blends with refined flour. Flour products are dry, free-flowing powders that are light tan in color.

This is not a ready-to-eat food and must be thoroughly cooked before eating.

Storage: Store in a clean, cool and dry area away from strong odors. Recommended storage conditions are $\leq 75^{\circ}\text{F}$ and $\leq 50\%$ humidity.

Shelf Life: Shelf life varies per product. 180 days for flour and 365 days for whole ancient grain seeds.

Kosher Certified: Rabbinical authority: KOF-K.
Kosher certification: Parve.



Organic and Gluten-free Certification

Packaging: Available in 50-lb, multi-wall paper bags, totes, bulk, retail, club and store brand options.

INGREDIENT DECLARATIONS

• **Ancient Grains 5-Grain Whole Grain Flour:**
Whole grain flour (amaranth, quinoa, millet, sorghum, teff)

• **Ancient Grains:**
Amaranth, quinoa, millet, sorghum, buckwheat, teff

• **Organic Spelt Flour:**
Organic spelt (wheat) flour

• **Rye Flour:**
Rye flour

• **Triticale Flour:**
Triticale flour

Our Ancient & Heirloom Grains are Non-GMO ingredients.



ANCIENT & HEIRLOOM GRAINS NUTRITIONAL DATA

| <i>Reported on a 100g basis, unless noted</i> | Amaranth, Whole Grain | Millet, Whole Grain | Quinoa, Whole Grain | Sorghum, Whole Grain | Teff, Whole Grain | Light Buckwheat Flour | Organic Whole Grain Spelt Flour | Dark Rye Flour | Triticale Whole Grain Flour | Gluten-Free 5-Grain Blend Flour | All-Purpose Refined Wheat Flour |
|---|-----------------------|---------------------|---------------------|----------------------|-------------------|-----------------------|---------------------------------|----------------|-----------------------------|---------------------------------|---------------------------------|
| Moisture | 9.8 | 8.7 | 9.3 | 12.4 | 12.01 | 11.15 | NA | NA | NA | 10.77 | NA |
| Calories, kcal | 374 | 378 | 374 | 329 | 356 | 335 | 338 | 325 | 338 | 369.85 | 363.4 |
| Protein | 14.5 | 11 | 13.1 | 10.62 | 10.4 | 12.62 | 14 | 15.91 | 13.18 | 11.79 | 11.03 |
| Carbohydrates | 66.2 | 72.9 | 68.9 | 72.09 | 72.67 | 70.59 | 70.19 | 68.63 | 73.14 | 70.43 | 74.81 |
| Dietary Fiber | 9.3 | 8.5 | 5.9 | 6.7 | 7.42 | 10 | 10.7 | 23.8 | 14.6 | 6.05 | 2.52 |
| Soluble Fiber | NA | NA | NA | NA | 1.25 | NA | NA | NA | NA | NA | NA |
| Total Sugars | 1.9 | 1.4 | 2.5 | 2.53 | 1.25 | 2.6 | 6.82 | 2.31 | 0 | 1.73 | 0.78 |
| Fat | 6.51 | 4.22 | 5.8 | 3.46 | 2.68 | 3.10 | 2.43 | 2.22 | 1.81 | 5.03 | 1.26 |
| Saturated Fat | 1.66 | 0.72 | 0.59 | 0.61 | 0.62 | 0.68 | 0.41 | 0.27 | 0.32 | 0.79 | 0.22 |
| Monounsaturated Fat | 1.43 | 0.77 | 1.54 | 1.31 | 0.68 | 0.95 | 0.45 | 0.28 | 0.18 | 1.26 | 0.13 |
| Polyunsaturated Fat | 2.89 | 2.13 | 2.35 | 1.56 | 1.26 | 0.95 | 1.26 | 1.05 | 0.79 | 2.45 | 0.62 |
| Trans Fat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cholesterol, mg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vitamin A - IU | 0 | 0 | 0 | 0 | 0 | NA | 10 | 11 | 0 | 4.25 | 0 |
| Thiamin, mg | NA | NA | NA | 0.33 | 0.59 | 0.42 | 0.36 | 0.32 | 0.38 | 0.31 | 0.16 |
| Riboflavin, mg | NA | NA | NA | 0.1 | 0.13 | 0.19 | 0.11 | 0.25 | 0.13 | 0.17 | 0.06 |
| Niacin, mg | NA | NA | NA | 3.69 | 1.12 | 6.15 | 6.84 | 4.27 | 2.86 | 3.25 | 1.22 |
| Vitamin B6, mg | NA | NA | NA | 0.44 | 0.25 | 0.58 | NA | NA | NA | 0.45 | NA |
| Vitamin C, mg | 0 | 0 | 0 | 0 | 0 | NA | 0 | 0 | 0 | 1.19 | 0 |
| Vitamin E, mg | NA | NA | NA | 0.21 | 0.21 | 0.32 | NA | NA | NA | 1.01 | NA |
| Folate, mcg | NA | NA | NA | 20 | 47.47 | 54 | 45 | 33 | 74 | 79.09 | 29 |
| Pantothenic Acid, mg | NA | NA | NA | 0.37 | 1.04 | NA | NA | NA | NA | 1.01 | NA |
| Calcium, mg | 153 | 8 | 60 | 13 | 158.9 | 41 | 27 | 37 | 35 | 64.1 | 18 |
| Copper, mg | NA | NA | NA | 0.28 | 0.65 | NA | NA | NA | NA | 0.49 | NA |
| Iron, mg | 7.6 | 3 | 9.25 | 3.36 | 6.04 | 4.06 | 4.44 | 4.97 | 2.59 | 4.96 | 1.22 |
| Magnesium, mg | NA | NA | NA | 165 | 171.6 | 251 | NA | NA | NA | 172.36 | NA |
| Manganese, mg | NA | NA | NA | 1.61 | 8.33 | NA | NA | NA | NA | 2.27 | NA |
| Phosphorus, mg | NA | NA | NA | 289 | 419.6 | 337 | NA | NA | NA | 395.99 | NA |
| Potassium, mg | 366 | 195 | 740 | 442.4 | 442.4 | 577 | NA | NA | NA | 405.86 | NA |
| Selenium, mcg | NA | NA | NA | 12.2 | 2.63 | NA | NA | NA | NA | 17.34 | NA |
| Sodium, mg | 21 | 5 | 21 | 6 | 6 | 3 | 8 | 2 | 2 | 4.4 | 2 |
| Zinc, mg | NA | NA | NA | 1.67 | 4.44 | 3.12 | NA | NA | NA | 2.6 | NA |

For more information, samples, or to order, contact your Ardent Mills account manager, visit ardentmills.com or call 800-851-9618.



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