



# A baker's hero: Vital wheat gluten

**Affordable, functional and label-friendly**

Gluten is a true superhero when it comes to the bakery. You can count strength, elasticity and binding properties among the wheat protein's many superpowers. If only all breads required the same amount – and every wheat crop produced flour with consistent gluten content.

To compensate for this variability, bakers once stocked multiple grades of flour, matching protein content to each application's requirement. "Not only was it a space-management headache, but higher protein flours also typically carried a hefty premium," recalls Brian Walker, a 40-year veteran of the baking industry. Then, vital wheat gluten upended the practice.

"It simplified inventory management, enabling bakers to get by with a single grade of flour," he explains. "They could use their standard flour for baseline products and have the flexibility to use vital wheat gluten to bump protein levels when needed."

### The streamlined system offered two key benefits:

1. Cost savings
2. More efficient use of limited ingredient-storage space

## Functional factors

Fast-forward to today, and vital wheat gluten remains a bakery champion – bringing unparalleled functional properties to bread formulas. The unique protein improves dough texture and elasticity, contributes to crumb structure and bread volume, is a great binder and even extends shelf life, thanks to its water-holding ability.

All that functionality arises from the two main proteins that comprise gluten: Glutenin and gliadin. Together, this dynamic duo gives bread doughs their viscoelastic properties – in other words, their ability to be simultaneously stretched and shaped – attributes that serve as the basis for gas retention in breads.

Once developed properly through hydration and mixing, gluten goes to work. Its stretchy nature means it inflates to accommodate gas produced during yeast fermentation, yet it's strong enough to retain that gas without breaking. As a result, adding vital wheat gluten to bread formulas delivers improved oven spring and break, results in higher bread volumes and gives texture a big boost, improving crumb structure and chewiness.

## Clean credentials

Those attributes alone affirm the ingredient's superhero status, but in recent years, bakers have championed vital wheat gluten for its label-friendly credentials, too.

"For years, bakers relied on dough strengtheners with unfamiliar names," Walker explains. "When consumers started paying attention to ingredient statements, some of those chemical-sounding names became a real turn-off."

Because vital wheat gluten offers some of the same functionality, bakers now lean on it (often in combination with enzymes) to simplify ingredient statements and bring label-friendly strength to their doughs.

## Machinability matters

Beyond its direct contributions to the finished bread loaf, vital wheat gluten also streamlines product handling and machining, key considerations for high-speed bakeries. It improves mixing tolerance, helps smooth out the dough and decreases stickiness, attributes that make transfers through the various systems in a modern bakery a snap.

Then there's the consistency factor. Vital wheat gluten allows bakers to produce uniform finished products, even during crop years when wheat protein levels are low or variable. Often, it's also the first adjustment when problems arise. "If the dough isn't running right or not holding the water, adding more vital wheat gluten may be the easiest remedy," Walker notes.

He considers vital wheat gluten a must for many bread applications, including breakfast, high-fiber, whole-wheat and multigrain breads. "Anytime there are a lot of inclusions, you're placing a significant load on the dough, or using a lower-protein flour, vital wheat gluten is likely a good investment," he says.

Given the popularity of plant proteins, it's also an easy way to ramp up the protein content of baked goods. Delivering 75% protein on a dry basis, vital wheat gluten stands as one of the more affordable plant-sourced proteins. Whether for protein-fortified bread or bagels, vital wheat gluten may bring added nutrition to a range of baked goods and snacks.

**"With benefits that span mixing, dough handling, loaf volume, finished product quality, nutrition and clean-label goals, few ingredients do more to support the bread-making process," Walker concludes. That's a lot of heavy lifting from a single ingredient — no wonder it's attained hero status among bakers worldwide.**

## NEW SUPPLY PARTNER

Vital wheat gluten already has a lot going for it. Now Cargill – the world's largest supplier of the ingredient – is bringing its decades of experience directly to North American customers. In recent years, Cargill customers in the U.S., Canada and Mexico contracted vital wheat gluten through joint-venture partner Ardent Mills. Beginning in fall 2022, this bakery mainstay returns to Cargill's North American portfolio. The change will be seamless for customers — they'll receive the same quality product with the added advantage of greater access to Cargill's vast technical resources.

Learn more about vital wheat gluten, together with Cargill's full portfolio of plant-based proteins, at [cargill.com/plant-protein](https://cargill.com/plant-protein).

