



Novozymes BioniQ®

– wettable powder inoculant for multiple crops

Product features

Three biological actives join forces for stronger roots, greater nutrient availability and better yield

BioniQ® is an inoculant that aids in improved nutrient and moisture uptake and phosphate availability. It also increases yield potential in corn, sorghum, canola, all wheat, oats, mustard, barley, rye and a range of other crops.

The *Penicillium bilaiae* fungus helps release bound mineral forms of soil and fertilizer phosphate, making it more readily available for the plant to use. While, the biologicals *Bacillus amyloliquefaciens* and *Trichoderma virens* help increase availability and uptake of nitrogen, phosphate, and potassium, which supports root and shoot growth.

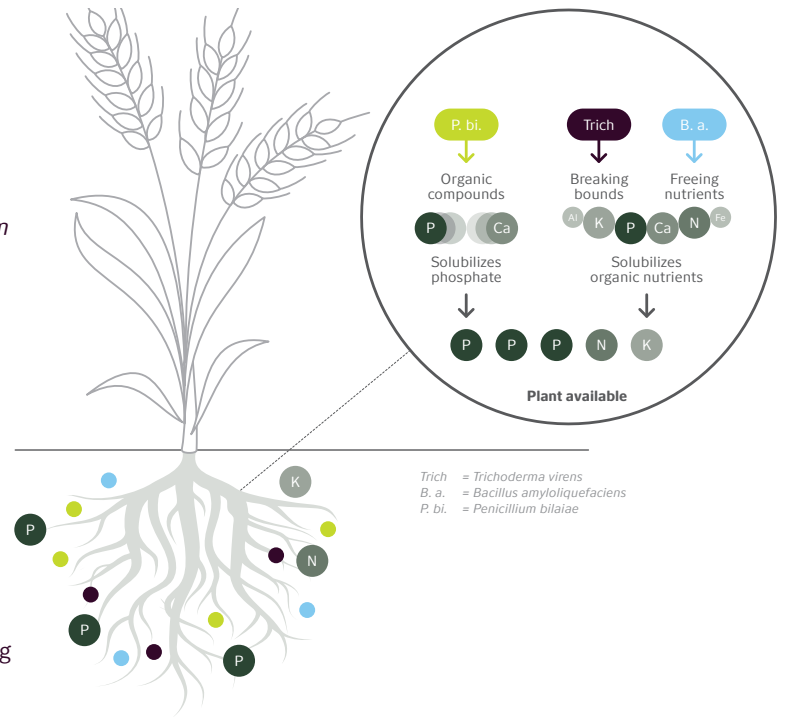
Features & benefits

Benefits of BioniQ®

- Encourages root growth and shoot development
- Enhances N, P, K availability
- Increases efficiency of P use
- Improves yield potential
- Supports early vigor
- Improves stress tolerance

How BioniQ® works

BioniQ® employs multiple modes of action to increase crops' access to soil nutrients. It contains three biologicals: *Penicillium bilaiae*, *Bacillus amyloliquefaciens* and *Trichoderma virens*. *Penicillium bilaiae* helps release bound mineral forms of soil and fertilizer phosphate. That makes it more readily available for the plant to use. *Bacillus amyloliquefaciens* and *Trichoderma virens* help increase availability and uptake of nitrogen, phosphate, and potassium. That supports root and shoot growth in corn, sorghum, canola, wheat, oats, mustard, barley, rye and a range of other crops.



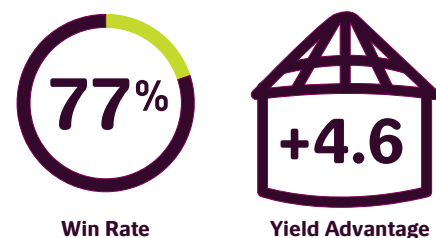
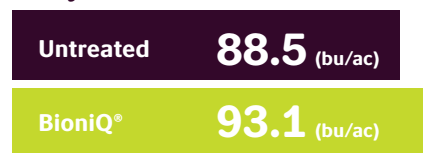
Product performance

The performance of BioniQ® was tested under real farm growing conditions, using real farm practices in the BioAdvantage® Trial (BAT) program of on-farm trials. This summary data represents trials on 35 locations in Western Canada from 2017 to 2020*.

*As November 2, 2020

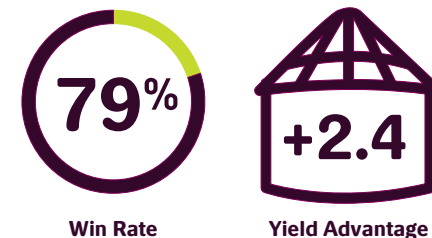
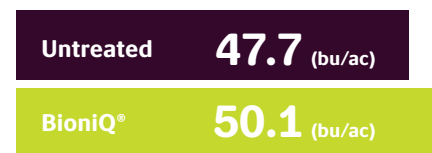
BioAdvantage® Trial

Barley



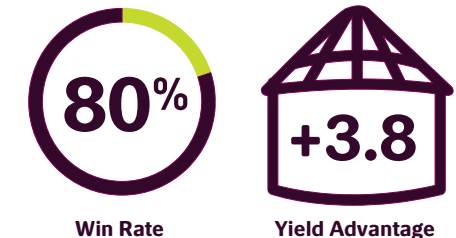
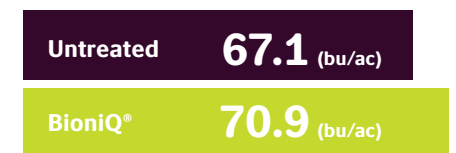
Source: Results were collected from 13 farmer conducted, large-scale, side-by-side BioAdvantage Trials in Western Canada from 2017-2020.

Canola



Source: Results were collected from 69 farmer conducted, large-scale, side-by-side BioAdvantage Trials in Western Canada from 2017-2020.

Wheat



Source: Results were collected from 39 farmer conducted, large-scale, side-by-side BioAdvantage Trials in Western Canada from 2017-2020.

BioniQ® average yield	Untreated average yield	Average yield advantage	Win rate
70.9 bu/ac	67.1 bu/ac	+3.8 bu/ac	80%

Active ingredients

Powder A: 7.2x10⁸ cfu/g *Penicillium bilaiae*.

Powder B: 7.3x10⁸ viable cfu/g *Bacillus amyloliquefaciens* and 2.2x10⁷ cfu/g *Trichoderma virens*.

On-seed application rates and bare seed planting windows

783 g co-pack			
Crop	Seed inoculated by one 783 g co-pack	Approx. water volume	Planting window (bare seed)
Barley	5,445 kg (12,000 lb, 250 bu)	42 litres (9.0 US gal)	60 days
Canola/mustard	227 kg (500 lb, 10 bu)	5 litres (1.3 US gal)	60 days
Oats	3,857 kg (8,500 lb, 250 bu)	24 litres (6.3 US gal)	60 days
Rye	6,352 kg (14,000 lb, 250 bu)	39 litres (10.3 US gal)	60 days
Wheat	6,818 kg (15,000 lb, 250 bu)	42 litres (11.1 US gal)	60 days
Sorghum	790 kg (1,750 lb, 31 bu)	10 litres (2.6 US gal)	60 days
Corn	860 kg (1,900 lb, 34 bu)	12 litres (3.2 US gal)	60 days

To learn more visit us at [novozymes.com/bioag](https://www.novozymes.com/bioag) or call your local retailer.

About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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