

BioniQ™ wettable powder

nutrient-solubilizing inoculant for

corn, sorghum, canola,
all wheat, oats, mustard,
barley and rye

Extended Label

Microbial seed inoculant for improved nutrient availability

CONTAINS NONPLANT FOOD INGREDIENTS

Active Powder A:

ACTIVE: 7.2×10^8 cfu/g *Penicillium bilaiae*

INERT: wettable powder

Active Powder B:

ACTIVE: 7.3×10^8 viable cfu/g *Bacillus amyloliquefaciens*

2.2×10^7 cfu/g *Trichoderma virens*

INERT: wettable powder

How it Works

The active ingredients in BioniQ™ wettable powder are the bacteria *Bacillus amyloliquefaciens*, and the soil fungi *Penicillium bilaiae* and *Trichoderma virens*. *Penicillium bilaiae* makes less available residual soil phosphate immediately available for crop use. *Bacillus amyloliquefaciens* and *Trichoderma virens* can increase the availability and uptake of certain important plant nutrients. Increased nutrient availability may lead to an increase in yield response. BioniQ™ is not a fungicide and it will not replace your standard fungicide seed treatment.

How to Apply

Open package only when ready to use. Use before expiration date. Apply this product only as specified on this label. Reference the specified application rate to determine the proper amount needed for seed.

On-seed treatment:

Inoculate seed on-farm by adding and thoroughly mixing the entire contents of both Active Powder A (333 g) and Active Powder B (450 g) in the appropriate amount of water (refer to Table 1) prior to or during seeding.

BioniQ™ can be applied utilizing commercial on seed application equipment. Applicators used previously for pesticides should be triple rinsed before being used for BioniQ™ application.

When applying BioniQ™ wettable powder with other seed treatment products:

Novozymes BioAg Limited strongly recommends a SIMULTANEOUS APPLICATION USING SEPARATE TANKS/NOZZLES (also called wet sequential application) – where the other seed treatment components and BioniQ products are mixed in separate premix tanks and sprayed wet onto the seed at the same time (simultaneous application).

Seed treatment compatibility: Although BioniQ™ is compatible with many fungicide and/or insecticide seed treatment products, on-seed and in-tank survival of BioniQ™ may be significantly reduced by using a common tank mix application method and must be applied within 2 hours. Do not apply with seed treatment formulations containing high levels of Zinc or Copper. BioniQ™ has not been tested with all possible seed treatment combinations.

For a list of compatible seed treatments, contact Novozymes BioAg Limited at 1-888-744-5662.

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Table 1: On-seed application rates and bare seed planting windows

BioniQ 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)	34 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, 50 units)	12 litres (3.2 US gal)	60 days

Applicators and Other Handlers

The active ingredients in BioniQ™ are *Penicillium bilaiae*, *Bacillus amyloliquefaciens* and *Trichoderma virens* spores. Eye or skin contact, inhalation, or ingestion should be avoided. Do not eat, drink or smoke when using this product. Wear standard protective clothing and equipment including gloves and safety glasses. Ensure adequate ventilation. Where exposure through inhalation may occur, use respiratory protective equipment. This product contains microorganisms that may have the potential to provoke sensitizing reactions; use appropriate personal protective equipment (PPE) to reduce exposure. Sensitized individuals should wear a NIOSH-approved respirator. In case of contact with skin or eyes, immediately flush exposed areas with plenty of water. Get medical attention if irritation occurs. Wash thoroughly after handling. If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

Storage and Disposal

BioniQ™ wettable powder contains live spores of the naturally occurring fungi *Penicillium bilaiae* and *Trichoderma virens* and the naturally occurring bacteria *Bacillus amyloliquefaciens*, which may be damaged when exposed to high temperatures or contact with water for more than 4 hours. The live organisms contained in BioniQ™ wettable powder require specific storage conditions to ensure viability and product performance.

To maintain product viability:

- Store unopened containers of BioniQ™ wettable powder in a dry cool place (less than 20 °C or 68 °F) away from sunlight and heat sources. Store locked up.
- Minimize temperature fluctuations.
- Avoid freeze/thaw cycles.
- Use before the expiration date. The expiration date is valid for unopened containers stored according to conditions listed above.
- Keep out of reach of children.

Unused BioniQ™ and seed to which BioniQ™ has been applied should be disposed of in accordance with applicable Federal, State/provincial, and local requirements. Seed treated with BioniQ™ wettable powder should not be used for food, feed, or oil purposes.

Information regarding the contents and levels of metals in this product is available on the internet at: <http://www.aapfco.org/metals.html>

Limited Warranty

The Seller warrants that this product conforms to the specifications set out on this label. The Seller makes no other warranty expressed or implied as to product viability or performance since product storage, use and growing conditions are beyond the Seller's control. Seller's guarantee is limited to the terms set out on the label and subject thereto. Buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition. If this product does not perform as warranted above, and to the extent consistent with applicable law, customer's sole remedy for breach of warranty shall be replacement of the product or refund of the purchase price paid, at the option of the Seller.

EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESSED REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESSED OR IMPLIED WARRANTY OR GUARANTEE TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, INCLUDING ANY OTHER EXPRESSED OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO.