



Benefis Supreme, ME

microemulsion

imazalil 50 g/l + tebuconazole 30 g/l + mefenoxam 20 g/l

Fungicidal seed treatment for cereal and soybean seeds in the NANOformulation

Advantages:

- Unique effect against root rots of various aetiologies with a lower active substance concentration
- Wide spectrum of action and high efficacy under conditions of high infection load
- The best protection of seeds from both inside and outside ensured by the NANOformulation
- Extended protection of seedlings
- Promotion of growth and formation of a well-developed root system resistant to stress factors
- Reduced toxic load on the agrocenosis

Action

Mode of action

The preparation contains three active ingredients (imazalil, tebuconazole and mefenoxam) that supplement each other and demonstrate pronounced synergy by ensuring high efficiency against seed-borne infections affecting crops at earlier development stages.

Imazalil belongs to imidazoles. It has a local systemic action and protects roots. It is highly effective against pathogens that cause root rots as well as pathogens that are resistant to benzimidazoles. It has a long-term effect against air-borne infections, such as powdery mildew (at early stages) and Pyrenophora. The effect of imazalil is based on inhibiting the synthesis of ergosterol which affects the permeability of pathogen cell membranes.

Tebuconazole is a third-generation triazole. It has a systemic translocating action. It has the broadest spectrum of action against phytopathogens, with protective, eradicating and curative properties. It is effective against surface and intraseed infections. It primarily accumulates in the rhizosphere, where it protects seedlings from pathogens transmitted through seeds and prevents air-borne infections. It ensures a quick effect. Tebuconazole inhibits the biosynthesis of ergosterol in pathogen cell membranes by suppressing C14 demethylation. The synthesis of D5-sterols also has an effect on metabolism, which distinguishes the active substance from other triazoles.

Mefenoxam, a phenylamide, has a systemic effect and spreads quickly in plants during growth. It protects roots and seedlings. It is effective against seed-borne and air-borne infections. It is extremely effective against pathogens that cause root rots.

Mefenoxam is an optically pure isomer of metalaxyl. The concentration of mefenoxam in the product is two times lower than in the reference seed treatment, while the biological efficacy remains high. It ensures that the toxic load on the agrocenosis is reduced.

Mefenoxam inhibits protein synthesis in fungi by suppressing ribosomal RNA synthesis.

Protective effect period

The biological effect lasts during the whole period from seed sprouting to tillering of cereal crops.

Rate of exposure

Rapid initial activity: the effect begins immediately upon seed treatment. The product penetrates the seedlings and spreads evenly throughout the plant during growth, protecting it from diseases later in the growth season.

Usage regulations

Crop	Harmful object	Product consumption rate, l/t	Working liquid consumption rate, l/t	Method, time, features of application	Waiting time, days (number of applications)
Spring and winter wheat	Stinking smut, dust-brand, Helminthosporium root rot, Fusarium root rot, seed mould, including Alternaria seed infection, powdery mildew (at early stages), etc.	0.6-0.8	10	Seed treatment immediately before sowing or in advance	-(1)
Winter wheat	Rhizoctonia radical rot, snow mould				
Spring barley, including brewing barley	Stinking smut, dust-brand, Helminthosporium root rot, Fusarium root rot, net blotch, seed mould, including Alternaria seed infection				
Soybean	Fusarium root rot, Fusarium wilt, Ascochyta blight, seed mould				

Compatibility with other pesticide

Compatible with insecticidal seed treatments and agrochemicals produced by Schelkovo Agrohimi used for treating seeds of cereal crops and soybeans.

Before large-scale application, chemical and biological compatibility with specific products at recommended doses must be verified.

General information

Chemical class

imidazoles, triazoles, phenylamides

Formulation

microemulsion

Hazard Class

2, highly hazardous substance

Shelf life

5 years

Storage temperature

-10 to +30°C

Package

5 L

Registrant

Schelkovo Agrohim JSC, Russia

Manufacturer

Schelkovo Agrohim JSC, Russia