



Polaris Quatro, SME

Suspension microemulsion

acetamiprid 150 g/l + prochloraz 100 g/l + tebuconazole 20 g/l + pyraclostrobin 15 g/l

A combination insectofungicidal seed treatment for cereal crop seeds in the innovative formulation

Advantages:

- Three-in-one: a complex-action product (protection from diseases + protection from pests + physiological effect for the crop)
- Is effective against the pathogens of snow mould, root rot of various aetiologies, Fusarium blight, Septoria blight
- Provides effective control of surface and soil-dwelling pests
- Promotes growth and development of strong and healthy roots
- Enhances productive tillering and green leaf effect
- Increases resistance to adverse soil and climatic conditions, including drought
- Is suitable for all sowing times, including late sowing

Action

Mode of action

Acetamiprid is a neonicotinoid with a contact enteric action and systemic activity. It effectively protects seeds, roots, rhizosphere and seedlings against soil-dwelling and surface pests by means of a rapid toxic effect. It ensures long-term protection by penetrating plant tissues as it grows. Acetamiprid blocks nicotinic acetylcholine receptors in the nervous system, thus interfering with the synaptic nerve impulse transmission, and the insect dies due to surexcitation.

Prochloraz is an imidazole. It has a pronounced contact and local systemic action. It eliminates fungal infection on the surface of seeds, which affects the seed cover and aleurone layer. It decontaminates the soil around the seedbed by means of long-term fungicidal activity. Prochloraz is a substance most effective against soil infections, including *Fusarium* spp. and *Microdochium nivale*. The mode of action involves inhibition of sterol biosynthesis in fungal cell membranes.

Tebuconazole is a third-generation triazole with the broadest spectrum of action against phytopathogens. It has a systemic translocating action, with protective, eradicating and curative properties. It is effective against surface and intraseed infections. It penetrates roots and seedlings as they grow and protects them from air-borne infections. It shows high mobility in plants and provides a quick onset of action.

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.

Pyraclostrobin is a strobilurin. It has a contact and in-depth action. It is securely attached to the treated surface and reliably protects the space around the seed. Some molecules get inside quickly, while others are released gradually and provide long-term protection. It is a potent antisporeulant that blocks the growth of mycelium. It inhibits mitochondrial respiration of fungal pathogens. As a result, it significantly reduces the cellular energy (ATP) required to maintain pathogen vital functions, ultimately leading to their death.

It works best as a preventive measure.

It actively influences the biological and physiological reactions of cereal crops, resulting in the green leaf effect, increased mass and improved grain quality.

Protective effect period

As a fungicide: from sprouting till stem elongation

As an insecticide: from seed sprouting till tillering

Rate of exposure

Quick initial activity: the effect starts immediately after the treatment of seeds. The product penetrates the seedlings and spreads evenly throughout plants during their growth and development, immediately blocking the disease. The death of pests occurs after contact with seeds or feeding on seedlings and plants.

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, Fusarium root rot, Helminthosporium root rot, Septoria blight, seed mould, powdery mildew	1.2-1.5	10	Seed treatment immediately before sowing or in advance	-(1)
	Corn flies, wireworms, flea beetles, aphids, leafhoppers				
Winter wheat	Snow mould, Cercospora crown rot				
	Ground beetle				

Spring and winter barley	Dust-brand, head smut, Helminthosporium root rot, Fusarium root rot, net blotch, seed mould, powdery mildew
	Corn flies, wireworms, flea beetles, aphids, leafhoppers
Winter barley	Snow mould
	Ground beetle

General information

Chemical class

neonicotinoids, imidazoles, triazoles, strobilurins

Transport and storage conditions

Keep the preparation in a room dedicated for pesticide storage. Storage temperature range - minus 10 °C to plus 30 °C

Shelf life

2 years.

Hazard class

Hazard class 2, high danger

Packing

5 liter PE container

Registrant

Schelkovo Agrohim , Russia

Manufacturer

Schelkovo Agrohim, Russia