



Orius (Tebuconazole)

Biological activity

ORIUS is a broad spectrum systemic triazole fungicide with a protective curative and eradicator activity.

The major targets of ORIUS activity include leaf and ear diseases of cereals, especially powdery mildew, yellow and brown rusts, Fusarium and Septoria on wheat, seed treatment control of emergence diseases of cereals, Sigatoka diseases in bananas, Botrytis, powdery mildew and black rot in vines, Cercospora, Puccinia and Rhizoctonia spp in groundnuts.

Mode of Action

ORIUS is absorbed rapidly into the vegetative parts of the plants by the leaves and stems and is translocated acropetally upward in the plants, protecting new growth. ORIUS is an ergosterol biosynthesis inhibitor at two distinct sites of action.

Compatibility

ORIUS is compatible with most fungicides, insecticides and adjuvants with the exception of strongly alkaline materials.

Formulations Available

ORIUS is available as emulsifiable concentrate (EC) and emulsion concentrate (EW) formulations.

Tolerances for Residues (US EPA) and Maximum Residue Limits (CODEX)

CROPS	CODEX mg/kg	EPA ppm
apples		0.03
banana		0.05
barley grain	0.2	0.05
barley forage		0.1
barley hay		0.1
barley straw, fodder, dry	10	0.1
cattle meat	0.05	
cattle, eddible offal	0.05	
cattle milk	0.01	
chicken meat, egg, offal	0.05	
cherries		4.0
grapes	2	5.00
lettuce, head, leaf	2	
oat grain		0.05
oat forage		0.1
oat hay		0.1
oat straw		0.1
dry bulb onion		2.0
peanuts	0.05	0.1
peanuts fodder	30	
peanuts hulls		4.0
pears		0.05
peach (incl. nectarine)		1.0
potato	0.2	
radish	0.1	
rape seed	0.05	
rye	0.05*	
rye straw, fodder	5	
summer squash	0.02	
tomatoes	0.2	
wheat grain	0.05	0.5
wheat forage	10	0.1
wheat hay		0.1
wheat straw, fodder, dry	10	0.1

* limit of detection

Ref.: Chemical Regulation Reporter 5/10/96, p. 316 Codex, March 1996, p. A1-165



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Diseases controlled by ORIUS

Crop	Common name	Latin name
<u>Cereals:</u> wheat barley oat rye	Rusts Powdery mildew Leaf scald Net blotch Wheat leaf Spot Septoria leaf Blotch Septoria leaf And Glume Blotch Ear disease complex	<i>Puccinia spp</i> <i>Erysiphe graminis</i> <i>Rhynchosporium secalis</i> <i>Pyrenophora teres</i> <i>Pyrenophora tritici-repentis</i> <i>Septoria tritici</i> <i>Septoria (Leptosphaeria) nodorum</i> <i>Fusarium spp</i>
Rice	Leaf and ear blight Rice blast Leaf scald	<i>Cochliobolus miyabeanus</i> <i>Pyricularia oryzae</i> <i>Rhynchosporium oryzae</i>
Sorghum	Head smut Covered kernel smut	<i>Sphacelotheca reiliana</i> <i>Sphacelotheca sorghi</i>
Peanuts	Sigatoka diseases Leaf spot Rust Rhizoctonia limb rot Southern blight/foot rot	<i>Mycosphaerella spp</i> <i>Cercospora arachidicola</i> <i>Puccinia spp</i> <i>Rhizoctonia solani</i> <i>Sclerotium rolfsii</i>
Banana	Sigatoka disease/black leaf Streak	<i>Mycosphaerella spp</i>
Soybean	Soybean rust Frogeye leaf spot Soybean leaf spot Stem rot/white mould	<i>Phakopsora pachyrhizi</i> <i>Cercospora sojina</i> <i>Septoria glycines</i> <i>Sclerotinia sclerotiorum</i>
Oilseed rape	Sclerotinia rot Ring spot Dark leaf spot/pod spot Light leaf spot Sclerotinia stem rot	<i>Sclerotinia sclerotiorum</i> <i>Mycosphaerella brassicicola</i> <i>Alternaria spp</i> <i>Pyrenopeziza brassicae</i> <i>Sclerotinia sclerotiorum</i>
Onion	Grey mould Leaf rust Storage rot	<i>Botrytis allii</i> <i>Puccinia allii</i> <i>Sclerotium cepivorum</i>
Asparagus	Purple spot Leaf spot	<i>Pleosporum herbarum</i> <i>stem phylum botuysum</i>
Sunflower	Grey mould Brown spot Rust	<i>Botrytis cinerea</i> <i>Diaporthe helianthi (Phomopsis helianthi)</i> <i>Puccinia helianthi</i>

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Crop	Common name	Latin name
Peas	Oidium	<i>Erysiphe pisi</i>
French bean Kidney bean	Rust	<i>Uromyces appendiculatus</i>
Rape	Gray mold Sclerotinia rot	<i>Alternaria spp.</i> <i>Botrytis cinerea</i> <i>Leptosphaeria maculans</i> <i>Mycosphaerella brassicicola</i> (<i>Asteromella brassicae</i>) <i>Pyrenopeziza brassicae</i> (<i>Cylindrosporium concentricum</i>) <i>Sclerotinia sclerotiorum</i>
Vegetables	Gray mould Rusts Powdery mildew White rot	<i>Botrytis spp</i> <i>Puccinia spp</i> <i>Erysiphe spp</i> <i>Sphaerotheca spp</i> <i>Sclerotium spp</i>
Tea	White blister blight	<i>Exobasidium vexans</i>
Vines	Vine powdery mildew Black rot Gray mould Vine downy mildew	<i>Uncinula necator</i> <i>Guignardia bidwellii</i> <i>Botrytis cinerea</i> <i>Plasmopara viticola</i>
Cotton	Rust	<i>Puccinia cacabata</i>
Fruits trees * (apple, peach, plum)	Brown rot Apple powdery mildew Powdery mildew Brown rust/blossom blight Scab	<i>Monilinia spp.</i> <i>Podosphaera leucotricha</i> <i>Sphaerotheca pannosa</i> <i>Tranzschelia spp.</i> <i>Venturia spp.</i>

Seed treatments controlled by ORIUS

Seed treatment	Disease Common Name	Latin Name
	Spot blotch	<i>Cochliobolus sativus</i>
	Leaf stripe	<i>Pyrenophora graminea</i>
	Net blotch	<i>Pyrenophora teres</i>
	Leaf stripe	<i>Pyrenophora avenae</i>
	Covered smut	<i>Ustilago hordei</i>
	Loose smut of barley	<i>Ustilago nuda f sp hordei</i>
	Loose smut of wheat	<i>Ustilago nuda f sp tritici</i>
	Loose smut of oats	<i>Ustilago avenae</i>
	Stalk smut of rye	<i>Urocystis occulta</i>
	Flag smut	<i>Urocystis agropyri</i>
	Head blight	<i>Fusarium spp</i>
	Seedling disease	<i>Septoria (Leptosphaeria) nodorum</i>
	Bunt	<i>Tilletia spp</i>
	Rusts	<i>Puccinia spp</i>

Rates and number of Applications

Rates and number of applications vary according to the target diseases and prevailing conditions. The following rates of application, based on active ingredients (A.I.) may be used as a guideline. Use product strictly as directed by instructions on product label.

Crop Application Rate (A.I.)		Remarks
Cereals foliar application	250-375 g/ha	
Seed treatments*	2-3 g/100 kg seed 5-25 g/100 kg seed	*alone or in mixture with imazalil or triazoxide control of rusts.
Rice	250-375 g/ha	250 g/ha (rice blast)
Sorghum	10-15 g/100 kg seed	
Peanuts	250-375 g/ha	max. 8 applications
Soybean	250-375 g/ha	2-3 applications
Oilseed rape	250-375 g/ha	2 applications
Onion	125-375 g/ha	
Rape	250-375 g/ha	For only one application, to be used the highest rate.
Asparagus	125-350 g/ha	
Sunflower	125-500 g/ha	
Sweet peas	188-250 g/ha	
French bean, kidney beans	150-200 g/ha	

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Crop Application Rate (A.I.)		Remarks
Rape	250-375 g/ha	For a single application, use the highest application rate.
Vegetable	150-200 g/ha	
Tea	25-75 g/ha	
Oines	125-375 g/ha	

Phytotoxicity

Not phytotoxic to the above mentioned crops, if used according to recommendations.

STOP! **All pesticides can be harmful to health and the environment if missued.
Read the label carefully and use only as directed.**