

DATA SHEET

TRICHONATIVA® BIOLOGICAL FUNGICIDE CONCENTRATED SUSPENSION (SC)

TRICHONATIVA® is a biological fungicide based on *Trichoderma spp.*, in concentrated suspension 1x10⁹ CFU/ml, with a broad spectrum of action on the fungi indicated in the instruction table, acting by competition, antibiosis and predation. It has a stimulating effect on growth in the indicated crops.

Biological fungicide based on conidia and mycelia of the Queule Strain of the *Trichoderma harzianum* fungus, the Sherwood Strain of the *Trichoderma virens* fungus and the Trailes Strain of the *Trichoderma parceramosum* fungus.

**SAG registration SAG N° 2587-O.
Authorized by SAG for use in National Organic Agriculture.**

Formulation:

COMPOSITION	(%w/w)
<i>Trichoderma harzianum</i> Queule strain*	1.217% w/v (12.17% g/l ≈ 12.17 g/kg)
<i>Trichoderma virens</i> cepa Sherwood**	1.217% w/v (12.17% g/l ≈ 12.17 g/kg)
<i>Trichoderma parceramosum</i> cepa Trailes***	1.217% w/v (12.17% g/l ≈ 12.17
co-formulants c.s.p.	100% W/V

*Contains a concentration of 3.3x10⁸ cfu/ml.

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INSTRUCTIONS FOR USE

Cultivation	Pathogens	Dose	Remarks
Apple tree	Gray rot (<i>Botrytis cinerea</i>)	100 ml/hL	Application (Botrytis and Alternaria) with 5% flower, full flower and petal drop (3 applications), wetting of 1000 – 2000 L/ha.
	Moldy Heart (<i>Alternaria alternata</i>)		
Fruit trees Apple, Pear, Stone (Cherry, Peach, Walnut and Hazelnut), Avocado, Olive, Citrus (Orange, Mandarin, Lemon and Grapefruit)	Root and neck rot (<i>Phytophthora cactorum</i> , <i>P. citricola</i> , <i>P. dreschleri</i> , <i>P. megasperma</i> , <i>P. citrophthora</i> , <i>P. cinnamomi</i> , <i>P. nicotianae</i> , <i>P. cryptogea</i>)	1.5 – 2 L/ha	Apply in budding and post-harvest, through irrigation or sprinkling to the soil (2 applications in the season). Use the lowest dose in plantations without symptoms and the highest dose in plantations with symptoms.
		5 ml/L	Immersion of all roots at the time of transplantation for 2 minutes. Curative applications: Injection into the soil with 5 ml/L, with sufficient volume of mixture to cover volume of roots.
Cherry tree	Gray rot (<i>Botrytis cinerea</i>)	150 ml/hL	Apply in full flower, fruit set and 5 days pre-harvest, through spraying, with wetting of 1000 to 1500 L/ha. A minimum of 2 applications per season is recommended.
Grapevine	Gray rot (<i>Botrytis cinerea</i>)	150 ml/hL	Foliar spraying in pre-flower, end of flower, squeeze cluster and paint (4 applications) and then based on predisposing conditions (maximum 2 applications). Using the lowest dose in trellis conduction system and the highest dose in vines. A maximum of 6 applications per season is recommended, with wetting of 1000 to 1200 L/ha.
Raspberry, Strawberry, Blueberry	Gray rot (<i>Botrytis cinerea</i>)	200 ml/hL	Foliar application according to conditions (maximum 4 applications), from flowering, every 7 days, with a minimum volume of 400 L/ha.
	Root and neck rot (<i>Phytophthora fragariae</i> , <i>P. citricola</i> , <i>P. citrophthora</i> , <i>P. megasperma</i> , <i>P. cryptogea</i> , <i>P. cactorum</i>) White rot (<i>Armillaria mellea</i>)	1.5 L/ha	Soil application by irrigation or drenching in root growth and full season (maximum 3 applications per season)
Blueberry	Wood diseases (<i>Fusicoccum sp.</i>)	100 ml/hL	Spray applications to foliage in leaf fall, recess and budding. Maximum 3 applications per season, use wetting from 200 to 600 L/ha.
	Gray rot (<i>Botrytis cinerea</i>)	150 ml/hL	Application through pre-flowering spraying, with wetting of 1000 L/ha. 1 application per season is recommended.
		100 – 300 ml/hL	In-line application of selection and packaging, the dose of 100 ml/hL is recommended for low incidence of disease and the dose of 300 ml/hL for high incidence of disease.
Pomegranate tree	Gray rot (<i>Botrytis cinerea</i>)	1-2 L/ha from 150 ml/hL	Foliar application with 50% flowering, setting and pre-harvest (1 or 2 days before harvest). Use the lowest dose with wetting up to 1000 L/ha and higher dose with higher wetting.
Papaya	<i>Phytophthora cactorum</i> , <i>Phytophthora capsici</i> , <i>Phytophthora nicotianae</i> , <i>Phytophthora megasperma</i> ,	1.5 – 2 L/ha	Application in budding and post-harvest, through irrigation or drainage to the soil. Use the dose lower than 1.5 L/ha in preventive case and the dose higher than 2 L/ha in the presence of symptoms in the crop.

	<i>Phytophthora fragariae</i> , <i>Phytophthora cryptogea</i>		A maximum of 3 applications per season is recommended
		5 ml/L	In transplanting, root immersion for 1 to 2 minutes. Root immersion or wetting of the bag. In immersion use the dose of 5 cc/L liter of water. A maximum of 3 applications per season is recommended.
Kiwi	Verticilosis (<i>Verticilium albo-atrum</i>)	10ml/L or 2 L/ha	Root immersion before planting, with a dose of 10 ml/L for 2 minutes. Post-planting, application by drenching 2 L/ha, with volumes of 5 L, mix per plant, and then in the first irrigation 2 L/ha. A maximum of 2 applications per season is recommended.
	White rot (<i>Sclerotinia sclerotiorum</i>)	150 ml/hL	Pre-harvest application through sprinkling with wetting of 1500 L/ha.
	Gray rot (<i>Botrytis cinerea</i>)	150 ml/hL	Pre-harvest application through sprinkling with wetting of 1500 L/ha.
	Wood diseases (<i>Chondrostereum purpureum</i>)	100 ml/hL	Applications of wood diseases immediately after pruning and with a second optional application in flowering, with wetting of 1000-1500 L/ha depending on phenological stage. A maximum of 2 applications per season is recommended.
Blackberry, Blackberry hybrid, Cramberry, Maqui, Sarsaparilla, Murtilla and Goldenberry.	Gray rot (<i>Botrytis cinerea</i>)	200 ml/hL	Foliar application according to conditions (maximum 4 applications), from flowering, every 7 days, with a minimum volume of 400 L/ha.
	Root and neck rot (<i>Phytophthora fragariae</i> , <i>P. citricola</i> , <i>P. citrophthora</i> , <i>P. megasperma</i> , <i>P. cryptogea</i> , <i>P. cactorum</i>)	1.5 L/ha	Soil application by irrigation or drenching at peak root growth and full season (maximum 3 applications per season)

Preparation of the mixture: Shake the container vigorously before use, fill the application equipment with half of the water to be used, empty the necessary amount of **Trichonativa®**, shake vigorously and then top with the desired amount of water. The preparation should be applied no later than 4 hours after preparation and kept in agitation.

Compatibility: Do not mix with other pesticides without first performing a compatibility test.

Incompatibility: Before mixing with other products, see compatibility list (WWW.BIONATIVA.CL).

Trichonativa® incompatibility: Not compatible with fungicides recommended for *Fusarium*, *Bacillus thuringiensis* or *Bacillus subtilis*.

Trichonativa® phytotoxicity: There is no phytotoxicity in the recommended crops. Do not apply this product to edible mushroom crops or substrates to be used on them. Do not apply in enclosed enclosures with the presence of these crops. Outdoors it is recommended to apply to a Distance of 20 meters from each edible mushroom crop or substrate to be used in them.

Waiting period: There are no waiting days.

Re-entry time to the treated area: It is possible to re-enter 2 hours after application, once the deposit has dried on the foliage, in the case of people. In animals, it does not apply, as these crops are not for animal consumption.

Storage: Trichonativa® should be stored at 4°C for a maximum of 3 months and 1 month at room temperature. Keep in its original container, with its respective label.

Non-toxic to bees, fish, mammals and aquatic organisms.

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Use in organic and biodynamic agriculture:

**Product suitable for use in Organic Agriculture in accordance with:
NOP Regulation and JAS Regulation.
Control ECOCERT F-32600.**



**Product suitable for use in organic agriculture in accordance with the
KIWA BCS regulation.**

**Product suitable for use in Biodynamic Agriculture in accordance with the DEMETER
International regulation.**

Authorized by SAG for use in National Organic Agriculture.

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