



A highly effective broad spectrum biofungicide for control of a wide range of rootzone diseases including *Fusarium oxysporum* and *Pythium* with some activity on foliar diseases

fargro®



T34 Biocontrol delivering results

T34 Biocontrol is a biofungicide for growing media treatments providing preventative control against a range of rootzone plant diseases including *Fusarium oxysporum* and *Pythium*, with some activity on foliar diseases. Trials have shown control of a wider range of plant diseases than those recorded on-label, including; *Phytophthora capsici*, *Rhizoctonia solani* and *Sclerotinia sclerotinium*.

T34 Biocontrol is a versatile plant protection product and can be applied as a drench, root dip, irrigation treatment or incorporated into growing media. T34 Biocontrol is approved for use on protected tomato, pepper, chilli, aubergine and carnation and has a range of Extension of Authorisations (EAMUs) that greatly extends its scope. Additional crops include; protected ornamentals, soft fruit, herbs and cucumber.

T34 Biocontrol contains the beneficial fungus *Trichoderma asperellum* strain T34. It controls preventatively with the fungus colonising the growing media and rootzones.

USE PLANT PROTECTION PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE. FURTHER PRODUCT INFORMATION INCLUDING WARNING PHRASES AND SYMBOLS IS INCLUDED ON THE LABEL OR PRODUCT MANUAL. INFORMATION PRESENTED HERE SHOULD NOT BE USED TO GUIDE THE USAGE OF THIS PRODUCT. PLEASE REFER TO THE PRODUCT LABEL AND TECHNICAL NOTES AVAILABLE FROM FARGRO FOR UP-TO-DATE RECOMMENDATIONS.

Providing
preventative
control against a
range of rootzone
plant diseases



Why use T34 Biocontrol?

- It is approved for the control of *Fusarium oxysporum* (*Fusarium wilt*) and *Pythium aphanidermatum*
- Delivers broad spectrum disease control across a range of root diseases
- Cost effective disease control
- Suitable as a primary control method within an IPM programme
- Leaves no chemical residues – and no harvest intervals
- Is an effective resistance management tool



T34 Biocontrol targets a broad spectrum of diseases

Preventing crop damage

These diseases of rootzone, stem and foliage can cause serious crop damage and in some cases leads to complete crop failure when left untreated.

Warm humid environments found in polythene tunnels and glasshouses can increase the likelihood of many of these diseases, with crops being particularly susceptible during plant propagation and as young plants.

- *Fusarium wilt* (*Fusarium oxysporum*)
- *Damping off* (*Pythium aphanidermatum*)

Trials have also demonstrated control of *Phytophthora capsici*, *Rhizoctonia solani* and *Sclerotinia sclerotinium*. And growing media treatment has reduced the following foliar diseases by induction of plant defence: *Pseudomonas syringae* pv. *lachrymans*, *P. syringae* pv. *tomato*.

How does T34 work?

T34 Biocontrol contains the naturally occurring beneficial fungus *Trichoderma asperellum* strain T34.

It works preventatively with the fungus colonising the growing media and rootzones. The fungus creates a physical barrier against the pathogen and as a result, plants may exhibit a positive growth response.

The fungus competes with pathogens for space and nutrients. Through a process of hyperparasitism T34 Biocontrol grows into and infects the sclerotia and hyphae of the fungal pathogen. It also induces plant resistance to foliar diseases.

For optimum control, apply T34 Biocontrol preventatively either through growing media incorporation or at the first sign of the disease.



Scanning electron micrograph of T34 conidia



How to prepare and apply T34 Biocontrol

This highly versatile biofungicide be applied to growing media by spray, growing media incorporation, through irrigation systems, via a gantry sprayer or by root dipping.

For more information about application and rates consult the product manual or email technical@fargro.co.uk



BIOFUNGICIDE PREPARATION

- Clean application equipment prior to use ensuring that no traces of previous pesticides remain.
- Dissolve T34 Biocontrol in a small amount of water and agitate ensuring product dispersion.
- Pre-mixing of the product is not required.
- Add the solution to the application tank with the total volume of water required, stirring continuously to ensure the product is thoroughly mixed.



Compost incorporation

T34 Biocontrol should be applied at a rate of 10g/ m³ of growing media prior to potting. Alternatively, it can be sprayed onto the surface of the substrate immediately after seed sowing or cutting insertion at a rate of 0.5g/m² assuming 5cm depth.

Irrigation of container grown crops

Drench at a rate of 10g/100L in 1000 1L pots or equivalent volume of growing media at potting. Alternatively apply twice at half rate one week apart.

Root dipping (for dianthus only)

Before planting dip the roots of the cutting for several hours or overnight in a solution of water with 0.01g of T34 Biocontrol in 1L of water.



Top tip : T34 Biocontrol can be drenched using a Dosatron, 100g mixed in 10L of water will treat 10,000 1L pots when applied at 1%



Getting the best result

T34 Biocontrol is most effective when used as a preventative treatment

For optimum effect T34 Biocontrol should be applied repeatedly during the life of the crop, beginning during plant propagation.

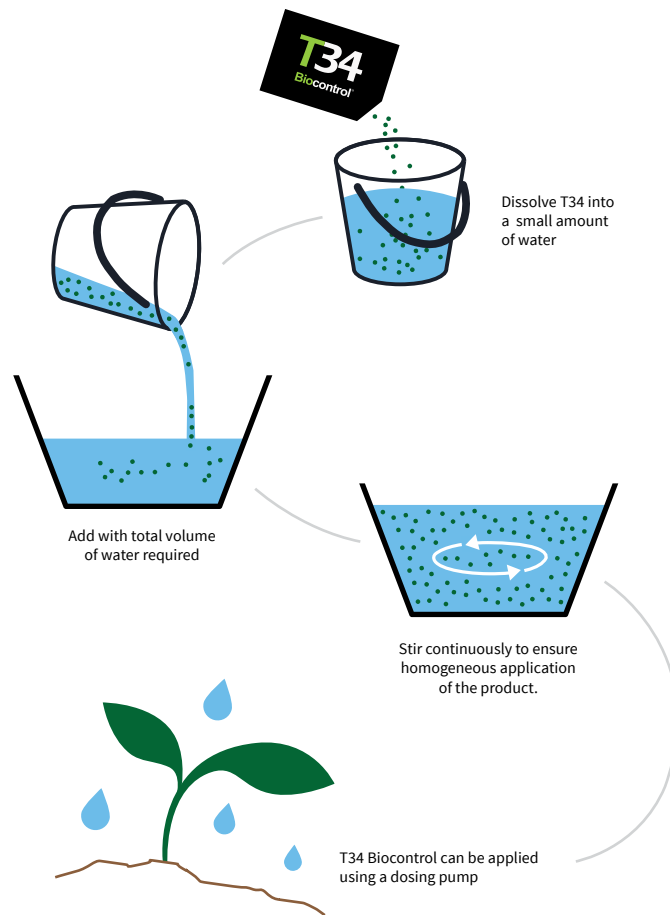


STORAGE TIPS

- Once opened the product can be stored for up to six months if the pack is re-sealed and kept at 4°C.
- To maximise shelf life store in a fridge at 4°C.
- When stored at 4°C T34 Biocontrol has a shelf life of two and a half years.
- Do not freeze.

For additional guidance consult the technical notes at www.fargro.co.uk

- Clean spray equipment prior to use ensuring that no traces of previous pesticides remain.
- Dissolve T34 Biocontrol in a small amount of water and agitate ensuring product dispersion.
- No pre-mixing of the product is required.
- Add the solution to the spray or irrigation tank with the total volume of water required, stirring continuously to ensure the product is thoroughly mixed.
- T34 Biocontrol can be applied using a dosing pump such as a dosatron. Agitation of the stock solution is recommended to prevent precipitation.
- T34 Biocontrol actively grows at temperatures between 15°C and 35°C, below 15°C growth is slowed.
- T34 Biocontrol is effective over a wide range of growing media types and pH levels.
- Limited trial work highlights compatibility with a number of active ingredients. Details of these results are included in the technical notes available on www.fargro.co.uk.



EXTENDING T34 BIOCONTROL USE ACROSS A RANGE OF CROPS

For a complete list of crops check
the following EAMUS

20161805, 20161808, 20161809, 20161810

These provide for the use of T34 Biocontrol in respect of crops or situations other than that included on the product label. No efficacy or phytotoxicity data have been assessed and as such the 'extension of use' is at all times done at the user's choosing, and the commercial risk entirely theirs.

Before use of any pesticide under an extension of authorisation, users must have a copy of the document, which is available for the UK from the HSE/CRD EAMU database.



An IPM Programme for the control of a range of rootzone and foliar diseases

Make T34 Biocontrol an essential part of your IPM programme

Biofungicide

Regular applications of T34 Biocontrol for the control of a range of rootzone and foliar diseases.



Monitoring

Crop walking weekly. Base control on level of disease observed.

Environmental Control

Apply timely and appropriate irrigation. Control airflow and manage plant spacing.



Hygiene

Maintain excellent hygiene levels throughout the year.

Integrated Pest Management Programme

For advice on including T34 Biocontrol in your IPM programme call our technical team on **01903 256 856**

MAPP No : 17290

Active Ingredient : 12% w/w *Trichoderma asperellum*, strain T34

Formulation Type : Wettable powder (WP)

Application Method : Foliar spray

Application Rate : 10g/m³ soil incorporation, 0.5g/m² immediately after sowing seeds or rooting cuttings, 0.01g/L irrigation after transplanting.

Crops : Aubergine (permanent protection with full enclosure), ornamental plant production (carnations *Dianthus* spp.), pepper and chilli (permanent protection with full enclosure), tomato (permanent protection with full enclosure).

Control : *Fusarium oxysporum* and *Pythium* species.

Pack Size : 250g / 500g



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Call : 01903 256 856 **Email :** technical@fargro.co.uk

Vinery Fields, Arundel Road (A27) Poling, Arundel, West Sussex BN18 9PY



www.fargro.co.uk



Approval Holder : Biocontrol Technologies S. L.,
Avda. Madrid, 215-217, estorol A,08014
Barcelona (Spain)
Tel +34-93-4091848/9

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By Appointment
To Her Majesty The Queen
Horticultural Sundriesmen