



BIOFUNGICIDE

Streptomyces strain K61

LALSTOP K61^{WP}

Broad spectrum disease controlling biofungicide

Fight effectively against root or base-rot diseases

LALSTOP K61 WP contains a high concentration of spores and mycelia of *Streptomyces* sp. K61, an actinobacterium with disease controlling properties present in certain soils.




 WETTABLE POWDER

MODES OF ACTION

The active bacteria *Streptomyces* K61 operates through several useful modes of action:

1 **COMPETITION:**
depriving pathogenic fungi of living space and nourishment by colonising plant roots.

Lettuce root colonised by Streptomyces K61 ▶



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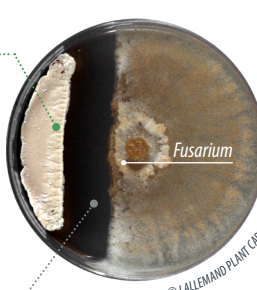
2 **HYPERPARASITISM:**
disrupting and destroying cell walls of plant pathogens.



◀ *Streptomyces K61 destroying cell walls of a pathogenic fungi*

3 **ANTAGONISM:**
producing metabolites that inhibit plant pathogens in a number of ways.

Antagonistic activity of Streptomyces K61 against Fusarium sp. (isolated from tomatoes) ▶



◀ *Zone of inhibition*

Streptomyces K61

Fusarium

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BENEFITS

- **Against a wide range of soil-borne plant pathogens** that cause damping-off, seedling death, crown-rot, base-rot, wilt and root-rot disease.

ADVANTAGES

- **Broad spectrum of use.**
- **Several modes of action:** low risk of resistance.
- **Persistence of action:** 3 weeks in the soil and growing media.
- **Environmental profile:**
 - without toxicological classification.
 - usable in organic farming and zero residue programmes.

APPROVED USES

Crops	Application type	Organism to be controlled	Dosage (product) per application	Maximum number of applications per cultivation type
Leafy vegetables (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	3
	Seed treatment		8 g/kg seed	1
Leguminous vegetables (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	3
	Seed treatment		8 g/kg seed	1
Fruiting vegetables (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	4
	Drip treatment		5 – 20 g per 1000 plants	4
	Seed treatment		5 g/kg seed	1
Cabbage crops (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	2
	Seed treatment		8 g/kg seed	1
Root and tuber vegetables (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	2
	Seed treatment		8 g/kg seed	1
Onion-like species (covered crop)	Seed treatment	Seed and soil fungi ⁽¹⁾	8 g/kg seed	1
Stem vegetables (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	2
	Seed treatment		8 g/kg seed	1
Aromatic spice crops (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	2
	Seed treatment		8 g/kg seed	1
Aromatic root crops (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.2 – 1.0 kg/ha	2
	Seed treatment		8 g/kg seed	1
Bulb and tuberous plants (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.1 – 1.0 kg/ha	4
	Pouring treatment (propagation and after transplanting)		Seed and soil fungi ⁽¹⁾	0.1 – 1.0 kg/ha
Potted plants (covered crop)	Drip treatment (after potting and transplanting)	2 – 10 g per 1000 plants		4
	Drip treatment rooted cuttings (propagation)	0.01% (10 gram product per 100 L water)		1
Cut flowers (covered crop)	Pouring treatment (propagation and after transplanting)	Seed and soil fungi ⁽¹⁾	0.1 – 1.0 kg/ha	4
	Drip treatment (after potting and transplanting)		2 – 10 g per 1000 plants	4
	Drip treatment rooted cuttings (propagation)		0.01% (10 gram product per 100 L water)	1

(1) Seed and soil fungi (*Fusarium* spp.), (*Pythium* spp.)

Conditions of application

In vegetable cultivation, a watering treatment with LALSTOP K61 WP is to be performed using 400 – 10,000 L water per ha and a drip treatment with 400 – 8,000 L wa per ha. In ornamental horticulture a watering treatment with LALSTOP K61 WP is to be carried out with 200 – 10,000 L water per ha.

Micro-organism may cause sensitizing reactions.

COMPATIBILITY

LALSTOP K61 WP is compatible with many chemical pesticides and can be used in Integrated Pest Management (IPM) programmes.

Ask your distributor before mixing with plant protection products.

Authorization holder: DANSTAR FERMENT A.G.

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CHARACTERISTICS

- **ACTIVE INGREDIENT:** 5×10^8 CFU*/g (25% w/w) of spores and mycelia of *Streptomyces* K61

*CFU: Colony Forming Unit. Unit of measure for living microorganisms able to multiply

- **FORMULATION:** wettable powder (WP)
- **PACKAGING:** 25 and 100 g
- **STORAGE:** 12 months in a cool and dry place below +8°C or 2 to 4 weeks at room temperature.
- **AUTHORIZATION N°:** 11708N.
- **Usable in organic production.**

USAGE RECOMMENDATIONS

The most efficient way to use LALSTOP K61 WP is preventatively. The active microorganism survives in the rhizosphere for several weeks protecting the crop against pathogens.

LALSTOP K61 WP powder is mainly used in the form of an aqueous suspension.

The application rate depends on whether LALSTOP K61 WP application will be made to a growing medium (soil, compost, other substrate) before sowing or repotting of crop plants or alternatively at a timing from sowing, transplanting or repotting of crop plants.

Dose rates for certain cropping situations in the Netherlands are not recommended to be lower than **200 g/ha** per application in greenhouses.

PREPARATION

Premix concentrate preparation



Mixing in spray tank

