



**FREDDY**<sup>®</sup>

**FREDDY**<sup>®</sup> active

## INTERRUPTION OF DORMANCY

### TABLE GRAPE - ACTINIDIA - CHERRY TREE



**STRENGTHS**



- ANTICIPATE VEGETATIVE AWAKENING AND EVEN OUT: BUDDING, FLOWERING AND FRUIT SET OF **TABLE GRAPES, KIWI AND CHERRY TREES**
- ANTICIPATE RIPENING AND HARVESTING
- REDUCE THE NUMBER OF BLIND BUDS
- STIMULATE THE PRODUCTION OF ENZYMES
- PROVIDE NITROGEN AND CALCIUM - MONO, DI, TRI, POLYSACCHARIDES - PROTEINS
- INCREASE THE NUMBER OF FLOWERS AND CLUSTERS



Freddy must always be associated with Freddy active



#### PACKAGE

Jerrycans 5 L (4x5)  
Jerrycans 20 L  
Tanks 1000 L



#### FREDDY and FREDDY active FEATURES

**FREDDY** is a powerful mineral fertiliser from **FERTENIA** research with a strong stimulating activity on plant physiology. Specifically designed for the **interruption of dormancy in table grapes, actinidia and cherries**, thanks to *aminocidal, terpenic and steroidal complexes*, nitrogen and calcium salts, it is able to naturally awaken the plants by acting on the tissues and activating the biochemical processes essential for physiological vegetative recovery.

**THE PRODUCT DETERMINES THE SATISFACTION OF CHILLING REQUIREMENT**, producing the following advantages: **it evens out and anticipates sprouting, flowering, fruit set, ripening and harvesting. Stimulates enzyme production.**

It increases the absorption of nitrogen, calcium and micronutrients. In table grapes, it anticipates ripening and reduces the number of blind buds, particularly in seedless varieties, leading to an increase in production per hectare and rejuvenation of the shoots thanks to the opening of inactive buds on the old wood. **FREDDY** is non-toxic to the operator.

**FREDDY active** is a nitrogenous fertiliser with a high calcium content to be **used in combination with FREDDY** to achieve the interruption of dormancy in cherry trees, vines and actinidia; it is also used to better support the increased enzyme activity of the plants.



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## PLANT AND BUD DORMANCY

**Bud dormancy.** In woody plants, dormancy is an important adaptive characteristic in cold climates. When a tree faces very cold temperatures in winter, it protects its meristems with perulae and temporarily interrupts bud growth. This response to cold temperatures requires a perception mechanism to detect environmental changes and a control system to transduce the perceived signal(s), triggering the developmental processes that lead to bud dormancy. ABA (Abscisic Acid) was originally indicated by P. Wareing in 1964 as the hormone that induces dormancy, but the ABA concentration of buds does not always correlate with the degree of dormancy. This discrepancy could emphasise the interactions between ABA and other hormones as part of a process in which bud dormancy and growth are regulated by the balance between growth inhibitors (ABA) and growth-inducing substances, e.g. cytokinins and gibberellins.

## DOSAGE AND METHOD OF USE FREDDY



### CROPS

### FOLIAR APPLICATION

<b>Cherry tree</b>	<b>Apply</b> (on brown) <b>in areas with less than 500/550 chilling hours (with temp. &lt;-7.0 °C)</b> 5-6 L (6-7 kg) per ha of solution - treat 60-50 days (± 6-7 days) before bud break. (± 6-7 days) before bud break. Water the branches well using no less than 10-15 ql/ha of solution, depending on the size of the plants. Add 6-7 L (8-10 kg) of <b>FREDDY active</b> per ha of final solution to FREDDY. <b>(E.g.: FREDDY 5 L + FREDDY active 7 L+ WATER 88 L)</b>
<b>Table grapes</b>	6-7 L (7-8 kg) per ha of solution - treat 55/60 days (± 5 days) before bud break. (± 5 days) before bud break, taking into account the possible anticipation of sprouting induced in awning crops. Wet the shoots well using no less than 500 L. of solution/ha and depending on the equipment used. Combine with <b>FREDDY 13-15 L (16-18 kg) of FREDDY active</b> per ha of final solution. <b>(E.g.: FREDDY 6 L + FREDDY active 15 L + WATER 79 L)</b>

<b>Kiwi</b>	6-7 L (7-8 kg) per ha of solution - treat 65/60 days (± 5 days) before bud break. (± 5 days) before bud break. Wet the shoots well using no less than 500 L of solution/ha and depending on the equipment used. Combine with <b>FREDDY 13-15 L (16-18 kg) of FREDDY active</b> per ha of final solution. <b>(E.g.: FREDDY 6 L + FREDDY active 15 L + WATER 79 L)</b>
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## DOSAGE AND METHOD OF USE FREDDY active



CROPS	APPLICATIONS TO BROWN ASSOCIATED WITH FREDDY	FOLIAR APPLICATION
<b>Cherry tree</b>	6-7 L / 100 L of solution	
<b>Table grapes</b>	13-15 L / 100 L of solution	
<b>Kiwi</b>	13-15 L / 100 L of solution	



IT IS RECOMMENDED TO DO A SECOND HALF DOSE (15-20 days before the start of flowering) adding 400-500 ml/ha of STIMOLO.  
DO NOT MIX WITH ANY OTHER PRODUCT, DO NOT EXCEED THE RECOMMENDED DOSES.

### FREDDY COMPOSITION

Total nitrogen (N)	16,1%
of which: Nitrate (N) nitrogen	7,0%
Ammonium nitrogen (N)	3,6%
Urea nitrogen (N) (low in biuret)	5,5%
Water-soluble calcium oxide (CaO)	6,0%

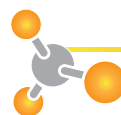
### FREDDY active COMPOSITION

Total nitrogen (N)	15,1%
of which: Nitrate (N) nitrogen	9,0%
Ammonium nitrogen (N)	5,0%
Urea nitrogen (N) (low in biuret)	1,1%
Water-soluble calcium oxide (CaO)	6,5%



### CHEMICAL-PHYSICAL PROPERTIES

Formulation: **liquid**  
Density: **1,341**  
pH (sol.1%): **3.5 ± 1**  
Conductivity (1‰) mS/cm 18°: **0.60**



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Formulation: **liquid**  
Density: **1,341**  
pH (sol.1%): **6.5 ± 1**  
Conductivity (1‰) mS/cm 18°: **0.60**