



# FOLI-ZYME

## COMBATTING PLANT STRESS



**Stoller**  
*Unleashing The Power Of Plants*



## PRODUCT PROFILE

### Analysis w/v

- > Total nitrogen (N) 15.0% as stabilised ammonium nitrogen
- > Soluble potassium (K) 3.0%
- > Calcium (Ca) 3.9%, added micronutrients: Zn, Mn, Fe, Cu, Mg, B, Mo, Co
- > Formulated with Stoller's proprietary co-factors

### Key Features

- > Highly available nutrients including calcium and other crop health nutrients
- > Foliar application
- > Widely compatible with nutrients and fungicides

### Key Benefits

- > Starts working straight away
- > Works, even when roots are stressed
- > Restores plant balance and growth in stress conditions

# > THE IMPACT OF STRESS ON PLANTS

Plant productivity and production is compromised by stress, usually from unfavourable weather conditions, pests and diseases and poor nutrition. Stress results in an accumulation of the stress related hormones: ethylene and abscisic acid.



> Bean plant treated with Foli-Zyme (left row), untreated bean plant (right row).

## FOLI-ZYME IS THE SOLUTION

Foli-Zyme is applied to trees, grapes, vegetables and other horticultural crops to enhance early growth or to restore healthy growth after a stress event.

Foli-Zyme helps reinstate growth after a stress event by providing a balanced source of nutrition and organic co-factors. This combination helps overcome the accumulation of stress hormones caused by a stress event and provides the internal conditions for a plant to resume healthy balanced growth.

The nutrients in Foli-Zyme will also help bud fruitfulness and new root growth in these stress situations.

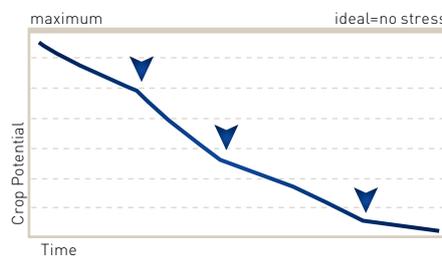
Foli-Zyme is generally applied to above ground plant parts but can be applied through the irrigation system as a soil treatment.

Plant growth will be slowed or completely stopped during periods of stress as a result of the accumulation of these hormones.

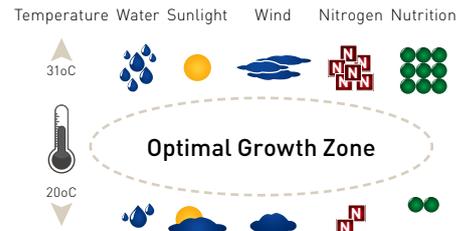
Growth will not resume until the stress response dissipates and the stress conditions have abated.

In addition to interrupted growth, a plant's response to stress is to shift the movement of sugars predominantly to the upper part of the plant (apical meristem) resulting in uncontrolled vegetative growth.

Excessive vegetative growth leads to weaker roots and decreases in number, size, uniformity and quality plant parts (fruit, seed, tubers etc).



Impact of stress on crop yield and quality



Stoller Australia has developed innovative crop health programs that combine nutrition and naturally occurring plant growth co-factors to support optimum growth and productivity even when adverse weather or other stress conditions occur.

Stoller's crop health programs consist of treatments to minimize the impact of stress, thereby facilitating the expression of a plant's full genetic potential in terms of maximising normal plant yields and quality.

Now producers can manage the things they can't see (inside the plant) and haven't been able to control (impact of Mother Nature) for increased crop yield and quality.



> LEFT Untreated capsicum plant. RIGHT Capsicum plant treated with Foli-Zyme.



# > RECOVERY PROGRAM

## Recovering crops from extreme stress events using Foli-Zyme

Extreme stress events like flooding, hail, excessive heat, spray drift or frost can damage tissue and have a devastating effect on crop growth and yields. The nutrients in Foli-Zyme will help fruitfulness and root growth in these situations.

Below is a simple strategy for recovery from extreme stress events using Stoller's Foli-Zyme, which will assist in a broad range of crops like vegetables, trees and vines.

## STEP ONE

Restore healthy growth by applying Stoller's BioForge at 1.2 litres per hectare with Stoller's WL Zinc Chelate at 2 litres per hectare. The BioForge will provide a nutrient boost and trigger new shoot growth. The zinc will remove limiting growth factors resulting from the stress and ensure adequate levels of this important nutrient. This application should be made as soon as possible after stress event.

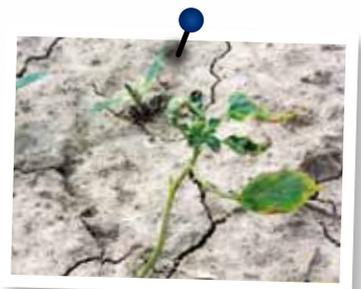
Crop	Analysis	Rate	Comments
Stoller's BioForge	Diformyl Urea N 2.5% K 3% with Co and Mo	1.2L/ha	Applied immediately after stress event with Zinc to provide a key feed for renewed growth.
Stoller's WL Zinc Chelate	Zn 11% S 5%	2L/ha	With BioForge to assist in regrowth.

## STEP TWO

Feed the new growth by providing a full nutrient spray for healthy tissue development. A foliar spray of Foli-Zyme at 5 litres per hectare is recommended. This application can be made 4–5 days after the step one treatment.

Crop	Analysis	Rate	Comments
Stoller's Foli-Zyme	N 15% K 3% Ca 4% With full range of trace elements	5L/ha	Applied 4–5 days after BioForge to feed new growth and promote normal healthy growth.

Note: Where there is poor irrigation or salt build up in the soil, a soil treatment with RootFeed or Aqua-Cal is the preferred option rather than foliar applied Foli-Zyme.



- > **TOP** Herbicide damaged plant.
- CENTRE** 4 days after applying Step One of the stress recovery program.
- BOTTOM** 5 days after completing the stress recovery program.



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## > USING FOLI-ZYME

Foli-Zyme is suitable for a variety of trees, plants and crops. Follow the directions on the label. The table below gives comments and typical rates for some popular crops.

Crop	Rate	Comments
Trees, fruit vines and nuts	5–9L/ha, 5–6 times annually beginning with delayed dormant spray. Spray intervals of 15 days are suggested for best results.	Avoid periods when fruit is extremely sensitive to spray damage.
Citrus	5–9L/ha, every 30 days.	Do not mix with petroleum spray oils or ammoniated copper compounds.
Grain and cotton crops	5–9L/ha.	Apply as required.
Field row crops, vegetables and potatoes	5–10L/ha, 10L/ha for potatoes. Commence applications when crop has 2–3 leaves or is 20 days old.	To supplement soil applied fertiliser, use a row directed spray. Continue sprays at 10–14 day intervals.
Lucerne	2.5–5L/ha.	Apply within seven days of cutting to enhance growth and dry matter.

Note: Removing limiting growth factors is important to achieve the best results from Foli-Zyme. Including Stoller's WL Zinc Chelate or ZM<sup>2</sup> at 3 litres per hectare with applications of Foli-Zyme is often recommended for optimum results. Stoller's WL Iron Chelate at 2 litres per hectare is recommended in iron deficient crops.



> LEFT Almond tree left untreated. RIGHT Almond tree treated with Foli-Zyme.



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