

## BETTER MANAGEMENT OF STRAWBERRY CROPS

### The Importance of Crop Nutrition during the Fruit Swelling Period

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Slow expansion and poor colouration are the most common problems of strawberries in winter. These issues are mainly caused by low temperature, insufficient illumination and under-performing root activity.

It is necessary therefore to remind growers, that although products such as hormones and other regulators play a role in fruit swelling and colouration, they often lead to malformed and hollow fruits, poor taste, poor storage resistance and greatly reduced commodity.

So, how can the strawberry fruit be made bigger and evenly coloured, and produce high-quality strawberries with higher commercial quality?



Healthy strawberry plants treated with RLF products

There are several important management strategies to be considered.

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### Temperature

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During the expansion period of the strawberry fruit, the temperature is required to be between 18°C to 25°C during the day and 8°C to 12°C during the night. If the humidity is too high, it can be ventilated at noon, however the air humidity should be kept below 60% - but pay attention to the principle of heat preservation first. If the temperature is too high, and the humidity is too high, the berries will be small and the quality will be poor. If the temperature is too low, the growth of the strawberries will be slow, and the berries will be easily frozen and the time to market will be delayed.

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### Illumination

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Insufficient illumination in winter will hinder the growth and development of strawberries. In the long run, it will cause strawberry growth retardation, slow fruit expansion, poor colouration and more potential for deformed fruits. So, when the illumination is insufficient in winter, plant supplement lamps can be used to fill the illumination every morning and evening, to ensure the daily light reaches approximately 10 hours each day throughout the strawberry flowering period.

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### Fertiliser and Water Management

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Pay attention to the use of all essential nutrient elements in fertilisation – large, medium and trace. The lack of nutrients such as phosphorus, potassium and calcium easily cause physiological white fruit. The berry cannot be coloured normally after fade at maturity. All, or part of the fruit surface is white or yellowish white with clear boundaries. Some white seeds are often surrounded by a circle of red. The diseased fruit is light, soft, and rots easily. Adequate potassium can promote fruit enlargement and colour change. Sufficient calcium can increase cell wall strength and thickness, increase fruit firmness and single fruit weight. It can also prolong storage and the fresh-keeping period.

### Precautions

In the fruit-bearing stage, less nitrogen-containing compound fertiliser or nitrogen fertiliser should be applied. Excessive nitrogen fertiliser tends to cause the growth of strawberry branches and leaves that are too vigorous, and the nutrients are all supplied to the leaves without turning to the fruits. This seriously affects the expansion of the fruit.

Strengthening the supply of phosphorus, zinc and boron nutrients can effectively prevent deformed fruit and increase fruit weight.

Because of the low ground temperature in winter, it is necessary to do a good job in root promotion to improve the ability of root absorption and consistent fertiliser supply from the soil. Fertigation with RLF **Plant Milk High-K** at 200 times dilution can provide available phosphorus and various trace elements for the root system, significantly improving root vigour of strawberry, and ensuring fruit expansion and maturity.



## The Swelling and Colouring Program for Strawberry

What follows is a suggested fully balanced, nutritional fertiliser program using RLF specialty crop nutrition fertilisers.

Method	Product	Usage
Leaf Spray	Potassium Boost	1:1000 times dilution
	Calcium Plus	
	PowerPK	
Root Fertigation	Plant Milk High-K	1:200 times dilution

### Purpose of application

To promote the expansion and uniform colouration, and to prevent premature aging of strawberries.

### Plant management

Remove the residual and diseased leaves in time and take them out of the garden to destroy or bury them deeply. Then remove the strawberry stolons in time to reduce the consumption of maternal nutrition.

## Information about the RLF Products Recommended

**Potassium Plus**  
Foliar Fertiliser

**K** Potassium

'plant repair therapy' – targeted, efficient and effective

Potassium Plus is a single element foliar fertiliser delivering high quality potassium to the plant through the leaf when a potassium plant disorder is recognised and established. Foliar application is the most efficient and effective way to deliver potassium to the plant as it bypasses the soil by delivering the remedy directly to the crop through the leaf.

Potassium Plus fixes plant potassium (K) deficiency which is caused by insufficient potassium in the soil, or created by more demand during new vegetative growth or yield build-up as in fruit bulking.

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**Calcium Plus 5**  
Foliar Fertiliser

**Ca** Calcium

'plant repair therapy' – targeted, efficient and effective.

Calcium Plus 5 is a foliar fertiliser delivering high quality calcium to the plant through the leaf when a calcium plant disorder is recognised and established. Foliar application is the most efficient and effective way to deliver calcium to the plant as it bypasses the soil by delivering the remedy directly to the crop through the leaf.

Calcium Plus 5 fixes plant calcium (Ca) deficiency which is caused by insufficient calcium in the soil, or created by low transpiration reducing calcium transport to the shoot and fruits.

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**0-10-35**  
N-P-K

**POWER PK 35**

High Concentration Phosphorus and Potassium Liquid for Injection, Fertigation and Foliar Application

**PowerPK35 RATE FOR FOLIAR APPLICATION**

PowerPK35 (L/ha)	1L	5L
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**PowerPK35** **P** **K**

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**Plant Milk**  
High-K

**N** Nitrogen **P** Phosphorus **K** Potassium **Mn** Manganese **Zn** Zinc **Cu** Copper

Plant Milk High-K is a specialised Fertigation or Irrigation fertiliser engineered to deliver a multi-spectrum fertiliser and nutrient package directly to the plant through irrigation or furrow (ground) injection. It is engineered to contain a high concentration, optimally balanced with three vital elements (N-P-K) plus three essential micro-nutrients in one single, stable solution.

Plant Milk High-K ensures greater plant protection, increased growth and improved yield qualities. This is a highly effective method of delivery of nutrient to the plant via the root structure.

Plant Milk High-K is high in available potassium (K).

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