

# THE BETTER CROP PROGRAM DEVELOPED FOR FARMERS AND GROWERS IN CHINA

## Part 05 | How to Prevent Greenhouse Grown Melons from Cracking

### INTRODUCTION

The RLF Nutrition Education Centre has written a series of articles to not only help educate the staff Teams who go into the field, but in terms that clearly explain the principles of crop nutrition and fertiliser management for farmers and growers all across China. We are replicating some of these programs in this Series of articles because the message is such an important one.

Crop production is complex and comprehensive, and this article looks specifically at the issue of **how to prevent watermelons, grown in the greenhouse, from cracking as they grow and expand.**

The growing season for watermelons grown in the greenhouse is the critical period in which the yield and quality of the fruit is determined.

Two of the main influences on the crop during this period are fertiliser management and changes in weather conditions. If improper management occurs, or severe climatic changes impact, the slow expansion and cracking of the melon, along with other problems become particularly obvious.

Many melon farmers are troubled during these events, so the RLF Technical Team analysed the situation and developed a program to solve the problems that occurred in the greenhouse during this period.



## Scientific fertiliser management is the key to high watermelon yield.

1. Choose varieties that do not crack easily.
2. During the melon setting period, initiate a controlled watering program that avoids sudden changes in the amount of water being applied. By changing from flood irrigation to drip irrigation can help control the amount of water used, as well as being a convenient way to administer crop nutrition fertiliser.
3. Manage the temperature in the greenhouse to avoid the temperatures being suddenly high or low.
4. Strengthen the management of both fertiliser and water to promote the average growth of fruits, and **do not** advocate using expansion agents.

Both high temperature and high humidity in the greenhouse are conducive to soil microorganisms' activity, and the nutrients in the soil transform quickly. The nutrient supply is sufficient for the early stage of growth, but deficiencies can develop in the later stages – therefore fertiliser management should be strengthened in the middle and late stage.

Based on years of experiments and demonstrations, RLF has launched its 'Better Watermelon' program. It is:

### Foliar spray to leaf with Calcium Plus and Potassium Plus.

At the melon setting stage, dilute at 1,500:1, and spray evenly on the foliar surface every 7-10 days, and repeat this for 2 – 3 times. The high absorption and utilisation rate prevents the melon from splitting, becoming hollow and preventing premature senescence of leaves.

### Fertigation with Plant Milk High-K.

Irrigating with 5 kg/mu in the melon period, and applying it once every 7-10 days. The product contains the required balance of all the large, medium and micronutrients required by chelating compound. This makes it easy to absorb, and can effectively promote watermelon expansion, improve the fruit shape and colour, increase sugar content and enhance the taste.

## AN EXAMPLE OF GROWING EXCELLENT WATERMELON

In Daxu Village, Luohe City, Henan Province, the local community made great efforts to develop the watermelon industry in recent years.

Now there are more than 200 planting greenhouses, with their produce being sold all over the country. The RLF 'Better Watermelon' program has been used locally for many years, and has been widely accepted by the melon farmers.

The local government has organised the annual watermelon harvest festival over many years, and there was a critical evaluation event during the festival. The rating of watermelons will be evaluated according to their sugar content, comprehensive flavour, along with other indicators.

The watermelons provided by the growers who used the RLF 'Better Watermelon' program are giant, had a thin skin and high sugar content, and they topped the evaluation processes many times.



Watermelon Evaluation Event in 2019





Grower who used the RLF program was awarded No 1 in the Evaluation Event in 2017



Grower (back), Retailer (middle) and RLF Technical Manager (front)



### RLF 'Better Watermelon' Program Users

Mr Liu, a watermelon farmer in Daxu Village, Henan Province, has used the RLF program for eight years and is a loyal user of the 'Better Watermelon' program. He said that after use, the leaves were dark green and thick, with high yields, increased sugar content and minor cracking issues.

Mr Liu said, "In the same greenhouse, half grown with other fertilisers, half with the RLF program, the RLF half grew better, were delicious and were very popular in the market."



Mr Liu with his produce

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