THE BETTER CROP PROGRAM DEVELOPED FOR FARMERS AND GROWERS IN CHINA

Part 08 | How to Plant and Prepare for Consistent Apple Growth Every Year

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 **planning and preparing for the cycle known to apple growers as the 'big and small year cycle'**.

Apple growers inevitably will experience 'big and small' years – this is a well-known phenomenon.

Generally speaking, when the yield of fruit trees in the current year is over 20% lower than that of the previous year's growth and yield, the phenomenon of 'big and small year' can be considered. A year with a lot of fruit is a 'big year', and a year with little or no fruit is a 'small year'. The frequent alternation of this cycle however will ultimately reduce the yield and quality of the apples and quickly lead to the weakening of the tree. This attracts aggravating diseases and insect pests and shortens the productive life of the apple trees.

'Big and small year' occurs because of issues such as climate and light. But the leading cause is improper field management with low nutrient supply to the flower buds during this stage of crop development.

- In the 'big year', most of the nutrients are absorbed and used by the fruit, which then reduces the nutrients available to the branches and this prevents the fruit tree from forming many flower buds the following year.
- In the 'small year', the number of apples is small, so the accumulation of nutrients in the branches will increase, which creates good conditions for the differentiation of flower buds. So, after a short year, the apple production will increase significantly, and then form the next 'big year'.

And so, the cycle continues.

SUGGESTED GENERAL MANAGEMENT MEASURES

1. **Strengthen the management of soil, fertiliser and water in the orchard.** Farmers need to pay more attention to balanced nutrition and timely irrigation.
2. **Reasonable shaping and trimming.** Farmers need to control the number of flower buds and promote the differentiation of flower buds through pruning in a 'big year'.
3. **Controlling the amount of fruit in a 'big year' lays the foundation for growth and fruit in the coming year.** In a 'small year', farmers need to leave more flower buds and undertake artificial auxiliary pollination, foliar spray the required nutrients and irrigate during the flowering period to keep flower and fruit.

THE RLF BETTER APPLE PROGRAM

For the problem of 'big and small years' in apple planting, the RLF Technical Team has conducted the **Better Apple Program** over a number of years.

By irrigating with RLF **Plant Milk High-K** and foliar spraying with RLF **Fruits and Veggies Plus** effectively solves the problem for apple growers.

The apple tree in the image is 38 years old – it was planted in 1983. In the past decade, a crop nutrition program using RLF Fruits and Veggies Plus and Plant Milk High-K has effectively solved the problem. The apple table light is good, colour-turning fast (which prevents the fruit trees from early ageing) and it has become the prized performer in grower Mr Zhang's orchard.

The **RLF Better Apple Program** has been promoted and used by apple growers in Yantai City, Shandong Province, for many years now and it has been widely praised and trusted by them.

According to the feedback received from the farmers, this crop nutrition program can effectively solve the problem of the 'big and small years', and achieve the uniform colour of apples as well as increased sugar content which plays a positive role in improving the quality of fruits and increasing the income of farmers.