

CROP NUTRITION BOOSTS IMPORTANT MEDICINAL PLANT CROP

How Fruits & Veggies Plus Ultra Foliar Benefited Pseudo-ginseng



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After years of field experimentation and market validation in a pseudo-ginseng planting area, the beneficial effects of **Fruits & Veggies Plus** on the crops has been proclaimed outstanding.



*The pseudo-ginseng treated with the RLF **Fruits & Veggies Plus***

A Recent Outstanding Trial

Let's follow a recent trial in Pingyuan Town, Yanshan County, Zhuang-Miao Autonomous Prefecture of Wenshan, Yunnan Province.

The following picture board tells the story.



Healthy and Vital

The pseudo-ginseng treated with the RLF Ultra Foliar **Fruits & Veggies Plus** has :

- ✓ neater seedlings
- ✓ greener leaf colour
- ✓ greater covering and strength of leaves
- ✓ reduced evidence of disease or insect pest attack
- ✓ stronger stems

In addition, there are no problems like fewer seedlings or root-rot with the pseudo-ginseng treated with the RLF **Fruits & Veggies Plus**.



RLF **Fruits & Veggies Plus** fully meets the 12 nutrients required by the pseudo-ginseng crops. It is a functional and flexible crop nutrition solution and solves many kinds of deficiencies and diseases experienced by these crops with only one use.

It can be sprayed with most pesticides to reduce the labor intensity and alleviates the damage of pesticides to the crops. Improving the level of resistance to disease to ensure greater yield and plant quality is a very valuable outcome in the eyes of the pseudo-ginseng farmers.

1 specific product with 12 essential nutrients

| | | | | | |
|-----------|------------|-----------|------------|-----------|-----------|
| N | P | K | S | Mg | B |
| Nitrogen | Phosphorus | Potassium | Sulphur | Magnesium | Boron |
| Cu | Fe | Mn | Mo | Zn | Co |
| Copper | Iron | Manganese | Molybdenum | Zinc | Cobalt |

As can be seen, the pseudo-ginseng treated with the RLF **Fruits & Veggies Plus** has :

- ✓ darker green colour
- ✓ flat leaves
- ✓ vigorous growth
- ✓ stout stems

And there are no symptoms of shrinkage associated with them.



The Importance of Pseudo-ginseng as a Medicinal Crop

Panax pseudoginseng is a species of the genus *Panax*. Common names include Pseudo-ginseng, Nepal ginseng and Himalayan ginseng. The word *panax* means 'cure-all' and the family of ginseng plants is one of the best-known of herbs. It is widely grown in China, and is also used widely in natural medicine therapies. It's primary use is as a hemostatic herb that both invigorates and builds blood. It is also used as a blood coagulation therapy.

The Importance of Balanced Crop Nutrition for Pseudo-ginseng

Generally speaking, in the pseudo-ginseng planting and growing areas, farmers attach great importance to the three major elements of nitrogen, phosphorus and potassium. But only a few pay attention to the minor or trace elements when growing the medicinal crop. Farmers have generally only been eager to replenish the trace and middle elements when the soil lacks an element that leads to the crop experiencing disease or displaying deficiency symptoms.

Balanced nutrition is a new concept of crop fertilisation for these traditional farmers, so education and encouraging demonstration crop experiments are important functions for the RLF staff team. To grow better pseudo-ginseng a balance of nutrient elements are needed for the crop. The minor and trace elements although low in dosage bring beneficial effects to the growth of pseudo-ginseng, so it is important for their role to be understood.

Let's look at some of them in more detail :

Ca

Calcium is an essential element for pseudo-ginseng. It exists in the cell wall in the form of calcium pectin, contributing to the polysaccharide deposition. This keeps the cell wall stable and improves resistance to diseases and insect attack. In addition, calcium also promotes more white roots and develops the root system to aid with the absorption of nutrients.

Mg

Magnesium is a major component of chlorophyll. A lack of magnesium will gradually bring problems of yellow leaves, low photosynthetic efficiency and low quality.

B

Boron promotes pollen germination and fertilisation and improves fruit growing. A pseudo-ginseng plant with sufficient boron can have advanced bolting stage (production of flowering stems), neat blooms, full red seeds and reduction in the number of empty shells. In addition, boron helps promote photosynthesis, speed up the production of photosynthetic products and increases chlorophyll content in leaves.

Zn

Zinc is a component of enzyme. It plays a role in photosynthesis, respiration, nitrogen metabolism, hormone synthesis, and the growth of pseudo-ginseng. Lobular disease is a major feature of zinc deficiency and pseudo-ginseng lacking of zinc can affect the growth of auxin causing smaller and a reduced number of flowers and poor quality of flowering.

Fe

Iron is mainly involved in the composition of various redox enzymes. And it can help the oxidation and reduction of cells. The pseudo-ginseng lacking in iron can cause the yellowing of leaves and plants.

Mn

Manganese promotes enzyme activity during the growth of the plant and helps to form chlorophyll. Therefore chlorosis of leaves is the initial symptom of manganese deficiency.

Cu

Copper is involved in many metabolic reactions during the growth and development of pseudo-ginseng. It is a component of polyphenol oxidase, ascorbic acid oxidase, cytochrome oxidase and so on. If lacking, the results show yellowing leaves and stunted procreation.

Mo

Molybdenum plays an important role in biological nitrogen fixation. It is a component of nitrate reductase and participates in the process of nitrate reduction. The effects for pseudo-ginseng lacking in molybdenum is poor growth, short plants, malformed withering leaves and necrosis.

About Ultra Foliar Fruits & Veggies Plus

This specialised crop nutrition product from RLF contains not only the three major nutrient elements, N, P and K, but also nine minor and trace elements.

It efficiently balances the twelve essential nutrient elements required by a pseudo-ginseng crop with the help of a biochemical chelating agent.

This results in a higher utilisation rate of elements, faster absorption, no damage to leaf cells, balanced nutrition, reduced deficiency problems, scientific ratio of photosynthetic elements, significantly enhanced photosynthetic capacity and nutrient absorption rate, plus increased anti-stress ability and improved quality and yield.

The effects of **Fruits & Veggies Plus** on pseudo-ginseng can confidently be given as :

- ✓ Faster growth as it promotes vegetative growth at each critical period of pseudo-ginseng. It also contains magnesium, iron, zinc and other photosynthetic elements for leaf development, accelerates the colour and shape of the leaf, enhances photosynthesis and cure the physiological deficiency symptoms such as leaflets, yellow leaves, leaf litter and premature senescence.
- ✓ Is anti-stress because of increased antioxidant capacity. It helps resist all kinds of stress associated with the growing of pseudo-ginseng such as high temperature, low temperature, low light, hail, phytotoxicity and chemical damage.
- ✓ Contains total nutritional package as it supplies all the nutrients needed for healthy growth of pseudo-ginseng. It also promotes root development which in turn increases the production of root dry matter. Therefore, the pseudo-ginseng is more resistant and has high commodity value.
- ✓ Advanced reproduction because it is rich in reproductive elements such as absorbable phosphorus and chelated boron and zinc which endows the pseudo-ginseng with an early bolting stage, neat blooms, full red seeds and minimal empty shells.



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