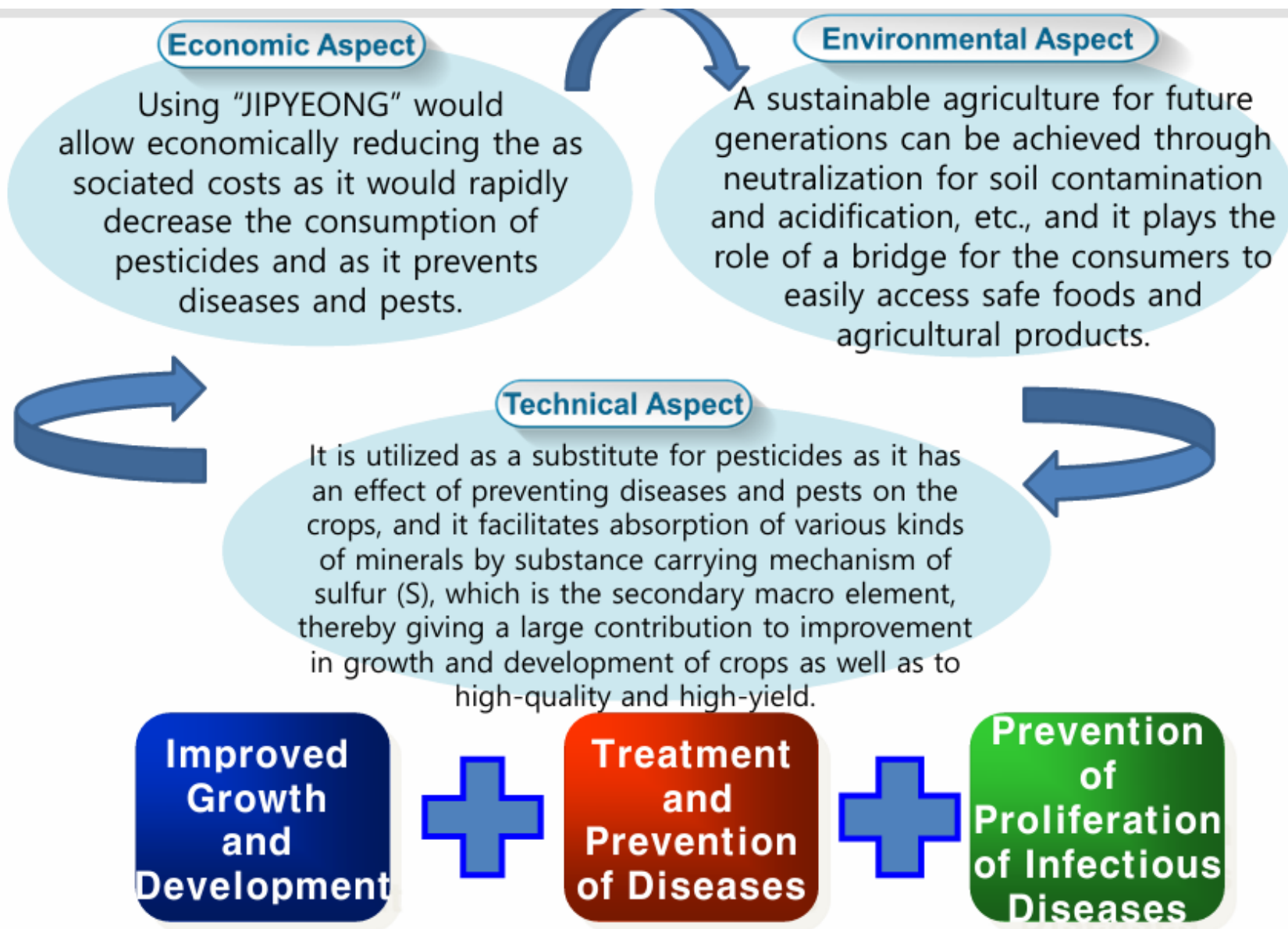


# Instructions for “Jipyeong”

2026.05



## 1-1 Anticipated Effects of Fermented and Detoxified Sulfur



## 1-2 Improved Growth and Development



As a result of conducting a test on approximately 600 different kinds of major crops in China for the past 10 years, it clearly revealed an increase in production by more than 85%.

Increase in production was more clearly revealed for rice, fruits, tea leaves, soybean, sugar cane, sweet potatoes, and corns, etc. (increase in production, which is 20% higher than the conventional effect)



Using a reasonable fermented sulfur fertilizer would allow an increase in the content of original components possessed by each agricultural product.

10 - 27% increase in crude protein content in rice and wheat, and 6.6% increase in amino acid content in tea leaves.

Improved fruit quality (sweetness and size) and 1.5 times increase in retention period.



It performs neutralization on soil contamination and acidification, etc. caused by using chemical fertilizers.



# 1-3 Treatment and Prevention of Diseases, and Prevention of Proliferation of Infectious Diseases

- Average increase in production by 15 - 30%
- Prevention and treatment effects for various types of diseases and pests
- Quality improvement and extension of expiration date
- Soil improvement
- Neutralization of pesticide components in soil
- Major effects in rust and bacterial leaf blight

Rice – damping-off, Bakanae disease, bacterial leaf blight, sheath blight, leaf blast, and false smut

Cucumber – downy mildew, powdery mildew, and thrips

Onion – *Sclerotium cepivorum*, downy mildew, and bacterial soft rot

Garlic – *Sclerotium cepivorum*, and bacterial soft rot

Tomato – leaf mold, and *Bemisia tabaci*

Grape – powdery mildew

Strawberry – cotton aphid, two spotted spider mite, and gray mold rot

Apple – Marssonina blotch, and Anthracnose

## Cases of Treatment

BEFORE

AFTER

Bakanae disease



Bacterial leaf blight



Downy mildew



## 2-2 Manufacturing Process



\*Although the Methyl sulfonylmethane most widely being used today has lower toxicity level, its effective value is low as it has a lower content of sulfur (33%), and is vulnerable against heat, and has a larger particle size.

\*Although mineral sulfur has a higher content of sulfur (98%), excellent efficacy, and the price is inexpensive, it has to go through detoxification process due to its strong toxicity.

\*Although the level of processing for conventional sulfur was at 70%, the company has carried out a research and development for successfully reducing toxicity to harmless level while maintaining the efficacy of mineral sulfur as it is.

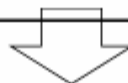
\*It has established a new paradigm in fertilizer market (overcoming resistance) through securing an eco-friendly detoxification technology based on using radish, catalyst, and fermentation.

\*The surface area was maximized by utilizing the particle grinding technology, and excellent product efficacy was achieved by optimizing the infiltration rate.

- **A perfect detoxification technology was developed through a development process of about 10 years.**
- **Based on a combination of traditional detoxification method and scientific mechanism, we have successfully developed a detoxification technology for mineral sulfur, which satisfies stability, efficiency, and economic feasibility!**
- **Nitrogen, water-soluble kali, boron, and zinc, which are essential elements for plants, were added.**

## 2-1 Manufacturing Process

|                                         |                                                                                          |                     |
|-----------------------------------------|------------------------------------------------------------------------------------------|---------------------|
| Fermentation and detoxification process | 1. Warehousing of washed radishes                                                        |                     |
|                                         | 2. Fragmentation of radishes and extraction of radish juice                              | Crusher / extractor |
|                                         | 3. Injection of sulfur/fermentation catalyst in radish juice, and stirring               | Stirrer (2.5 tons)  |
|                                         | 4. Detoxification followed by water break and drying of sulfur mixed in the radish juice | Dehydrator / dryer  |
|                                         | 5. Nano conversion (1,000mesh) of dried sulfur and IBC filling                           | Nano devices        |



|                        |                                                                              |                  |
|------------------------|------------------------------------------------------------------------------|------------------|
| Mixing Filling Process | 1. Warehousing of IBC                                                        |                  |
|                        | 2. Dilution of radish juice and injection of secondary fermentation catalyst | Stirrer (6 tons) |
|                        | 3. Addition of nitrogen, zinc, kali, and boron                               | Filler / labeler |
|                        | 4. Bottle filling / labeling and packing                                     |                  |
|                        | 5. Container loading and shipping                                            |                  |



## 2-2 Difference with general detoxified sulfur

|                                  | JIPYEONG                                                                                     | General detoxified sulfur                                                                                   |
|----------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Detoxification method            | Fermentation and detoxification that utilize radish juice                                    | Detoxification is performed by using heavy metals such as mercury, cadmium, lead, and water from soil, etc. |
| Fertilizer Manufacturing Process | Organification of the Fertilizer based on the fermentation technology utilizing radish juice | Mineral state                                                                                               |
| Detoxification efficiency        | High detoxification efficiency                                                               | Low detoxification efficiency                                                                               |
| Particle size                    | 3 $\mu\text{m}$                                                                              | 10~40 $\mu\text{m}$                                                                                         |

- 99.9% extraction of sulfur through a desulfurization system
- Fermentation process of extracted sulfur and radish juice (fermentation for 24 - 36 hours)
- Low temperature drying of sulfur + radish juice fermented sulfur (48 hours)
- Powder blasting of dried sulfur for 36 hours
- Addition of nitrogen, zinc, kali, and boron

**"Toxic elements of sulfur are removed as the sulfur is fermented and subject to ultra-nano conversion, and its beneficial components are maximized while the [whole quantity of sulfur] is reduced."**

AT Analysis Center Co., Ltd.

Analysis Sheet

Client: N A S O  
Address: 25, Olsong-ro, Seongnam-si, Gyeonggi-do, Republic of Korea

Sample Name: JIPYEONG  
Sample Date: 2018-August-09  
Reception No.: 2018-08-09

Analysis Result

| Ingredient                                      | Content | Result       |
|-------------------------------------------------|---------|--------------|
| Total N (%)                                     | 18.0    | 18.38        |
| Water-soluble K <sub>2</sub> O (%)              | 1.0     | 1.34         |
| Water-soluble B <sub>2</sub> O <sub>3</sub> (%) | -       | 0.086        |
| Water-soluble Zn (%)                            | -       | 0.071        |
| Total S (%)                                     | -       | 2.40         |
| Thiocyanate (%)                                 | -       | Not detected |
| As (%)                                          | -       | Not detected |
| Nitrous acid (%)                                | -       | Not detected |
| Biuret N (%)                                    | -       | Not detected |
| Sulfamic acid (%)                               | -       | Not detected |
| As (mg/kg)                                      | 0.1     | Not detected |
| Cd (mg/kg)                                      | 0.1     | Not detected |
| Pb (mg/kg)                                      | 0.1     | Not detected |
| Cr (mg/kg)                                      | 3.0     | Not detected |
| Hg (mg/kg)                                      | 0.1     | Not detected |

2018-August-09

AT Analysis Center  
Certified Analysis by KTL  
Chemical Analysis Laboratory

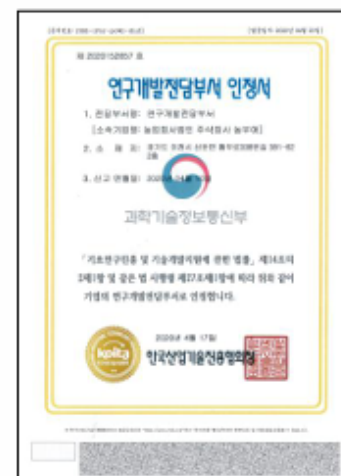
| Ingredient(Unit)                                | Content | Result       |
|-------------------------------------------------|---------|--------------|
| Total N(%)                                      | 18.0    | 18.38        |
| Water-soluble K <sub>2</sub> O(%)               | 1.0     | 1.34         |
| Water-soluble B <sub>2</sub> O <sub>3</sub> (%) | -       | 0.086        |
| Water-soluble Zn(%)                             | -       | 0.071        |
| Total S(%)                                      | -       | 2.40         |
| Thiocyanate(%)                                  | -       | Not detected |
| As(%)                                           | -       | Not detected |
| Nitrous acid(%)                                 | -       | Not detected |
| Biuret N(%)                                     | -       | Not detected |
| Sulfamic acid(%)                                | -       | Not detected |
| As (mg/kg)                                      | 0.1     | Not detected |
| Cd (mg/kg)                                      | 0.1     | Not detected |
| Pb (mg/kg)                                      | 0.1     | Not detected |
| Cr (mg/kg)                                      | 3.0     | Not detected |
| Hg (mg/kg)                                      | 0.1     | Not detected |

## 2-3 NONGBUEH Company Overview

|                               |                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Company name                  | Agricultural Corporation NONGBUEH Co., Ltd.                                                                                             |
| CEO                           | Sun Sim Park                                                                                                                            |
| Corporate registration number | 287-86-00616                                                                                                                            |
| Date of establishment         | 23 June 2017                                                                                                                            |
| Business type                 | Production of agricultural materials and processed goods such as fruit juice, etc. and distribution of agricultural materials and foods |
| Company location              | 381-62, Hwangmu-ro 338beon-gil, Sindun-myeon, Icheon-si, Gyeonggi-do, Republic of Korea                                                 |
| Capital                       | 494 million won                                                                                                                         |
| Daily production volume       | 40 tons of JIPYEONG (40,000 bottles/1L)                                                                                                 |



(Certificate of Organic Products Manufacturing Facility)



(Certificate of Department in charge of Research and Development)



(Business license)



(Certificate of Patent on Low Temperature and Reduced Pressure Extractor)





## Product Description

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Product Name        | JIPYEONG (fermented and detoxified sulfur fertilizer)                                |
| Registration number | Official Notice-1-2-114                                                              |
| Net contents        | 1,000 ml                                                                             |
| Material type name  | For crop growth                                                                      |
| Content %           | Sulfur 2, radish juice 77, nitrogen 20 water-soluble kali 0.9, boron 0.05, zinc 0.04 |
| Expiration date     | 2 years from the manufacturing date                                                  |
| Storage method      | To be stored at room temperature                                                     |

### Others

- It has 200 times greater effects than the general processed sulfur (10 - 40  $\mu\text{m}$ ) as ultra fine particle grinding of 3  $\mu\text{m}$  is performed on processed sulfur that removed toxic substances.

The surface area is increased by more than 500 times from the general processed sulfur.

- After primary fermentation, the low temperature and reduced pressure technology, which is a patent of NUNGBUEH, is used. Then, ripening and fermentation process is performed at 50 degrees Celsius to maximize organic components of JIPYEONG.

## 2-5 How to Use

| Crops                                                                    | Seedbed                                          | Growing Period                                                   | Harbest Time                                                            | nutrition store stage                    | Effect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fruit & Vegetables / See flowers/<br>leaf vegetables/<br>root vegetables | Dilute 1000 times to 7 days, side-to side ratio. | 1,000 times dilution<br>every two weeks<br>Side spray            | 1,000 times dilution<br>10 days before harvest<br>Side spray            | 1,000 times dilution<br>Surface spraying | 1. Activation of metabolism leads to the growth of crops.<br>It stimulates growth and boosts the vitality of aging fruit trees.<br>2. Shorten the harvest time.<br>Increase the cultivation period.<br>The yield is increased by about 20%.<br>3. The quality of crops (color, sugar level, fragrance, etc.)<br>Raise it up.<br>4. Causing antimicrobial production of crops,<br>It boosts your immune system.<br>Pathogens and viruses and<br>In diseases such as fungi,<br>It's working very well. |
| fruit tree                                                               | -                                                | 1,000 times dilution<br>for a month's time<br>Side spray         | 1,000 times dilution<br>for a month's time<br>Side spray                | 1,000 times dilution<br>Surface spraying |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Rice                                                                     | Dilute 250 times to settle<br>for 3 days.        | 1,000 times dilution<br>Side spray after 20<br>days on the road. | When rice plants sprout<br>1,000 times dilution<br>air spray in the air | -                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

# Instructions for Use of “Jipyeongong”

2026.05





## ■ General Usage

**Nursery stage (seedling stage):**

Dilute 500 times, spray 2–3 times at 15–20 day intervals

**After transplanting:**

Dilute 1,000 times, spray 4–5 times at 20–30 day intervals

**When disease occurs:**

For diseases such as sclerotinia, downy mildew, soft rot, powdery mildew

→ Dilute 250 times and spray evenly

※ Can be mixed with pesticides for use

## 2-1 Efficacy and Application Method

| Crop                                          | Pest/Disease            | Timing & Frequency                    | Dilution | Per 20L Water | Notes                       |
|-----------------------------------------------|-------------------------|---------------------------------------|----------|---------------|-----------------------------|
| Cucumber, lettuce, pepper, tomato, watermelon | During growth           | 250x                                  | 80 ml    | 80 ml         | Phytotoxicity test required |
| Strawberry                                    | Gray mold               | At early stage, every 7 days, 3 times |          |               | Foliar treatment            |
| Pepper                                        | Aphids                  | At peak occurrence, once              |          |               |                             |
|                                               | Anthracnose             | Early stage, every 10 days, 4 times   |          |               |                             |
| Pear                                          | Scab                    |                                       |          |               |                             |
| Onion                                         | Black rot (sclerotinia) | Early stage, every 7 days, 3 times    |          |               | Soil drench                 |
|                                               | Downy mildew            |                                       |          |               |                             |
|                                               | Soft rot                |                                       |          |               |                             |

## 2-2 Efficacy and Application Method

|                |                |                                    |  |  |                  |
|----------------|----------------|------------------------------------|--|--|------------------|
| Cucumber       | Thrips         | Early stage, every 7 days, 2 times |  |  | Foliar treatment |
| Garlic         | Soft rot       | Early stage, every 7 days, 3 times |  |  | Soil drench      |
| Tomato         | Leaf mold      | Early stage, every 7 days, 4 times |  |  | Foliar treatment |
|                | Whitefly       | Early stage, every 7 days, 2 times |  |  |                  |
| Oriental melon | Powdery mildew | At early stage, once               |  |  | Soil/Foliar      |
| Melon          | Powdery mildew | Early stage, every 5 days, 3 times |  |  |                  |



## 2-3 Efficacy and Application Method

|            |                       |                                       |  |        |                 |
|------------|-----------------------|---------------------------------------|--|--------|-----------------|
| Rice       | Sheath blight         |                                       |  |        |                 |
|            | Leaf blast            |                                       |  |        |                 |
|            | Bacterial leaf blight |                                       |  |        |                 |
|            | Bakanae disease       | Before sowing, 48 hrs                 |  |        | Seed soaking    |
|            | False smut            | Before heading, every 7 days, 2 times |  | 100 ml | Foliar          |
|            | Leaf blast            | Early stage, once                     |  | 80 ml  | Aerial spraying |
| Watermelon | Aphids                | At peak occurrence                    |  |        | Foliar          |
|            | Spider mites          | When 3-5 per leaf                     |  |        |                 |
| Persimmon  | Anthracnose           | From mid-June, every 10 days, 6 times |  |        |                 |
| Spinach    | Downy mildew          | Early stage, every 5 days, 3 times    |  |        |                 |

## 2-4 Efficacy and Application Method

|                                                            |                |                                             |  |        |               |
|------------------------------------------------------------|----------------|---------------------------------------------|--|--------|---------------|
| Sweet potato                                               | Vine rot       | After transplanting, every 10 days, 3 times |  |        | Soil drench   |
| Green onion                                                | Black rot      | During growth                               |  |        | Foliar        |
| Grape                                                      | Powdery mildew | Early stage, every 10 days, 3 times         |  |        |               |
| Citrus                                                     | Gray mold      |                                             |  |        |               |
| Schisandra                                                 | Powdery mildew |                                             |  |        |               |
| Peach                                                      | Brown rot      | Early stage, every 7 days, 3 times          |  |        |               |
| Apple                                                      | Anthraco nose  | Early stage, every 10 days, 7 times         |  |        |               |
| Mulberry                                                   | Sclerotinia    | 5 days before flowering, once after         |  |        |               |
| Ginseng                                                    | Leaf spot      | Early stage, every 10 days, 4 times         |  | 100 ml |               |
| Chinese cabbage                                            | Root rot       | Early stage, every 5 days, 2 times          |  |        |               |
| Rice, perilla, cucumber, cabbage, lettuce, pepper, soybean | During growth  | 1,000x                                      |  | 20 ml  | Aerial safety |

※ All crops during growth: dilute 1,000x (20 ml per 20L water)

- Do NOT mix with:
  - Copper agents
  - Lime sulfur
  - Bordeaux mixture
  - Alkaline materials
  - Other sulfur products
- Use opened product as soon as possible
- Spray during cool hours (morning/evening)
- Test on a small area before full use (risk of phytotoxicity)
- Store in a cool, shaded place
- Test before foliar spraying on cucurbits and grapes (Campbell)
- Keep out of reach of children

- Safe for crops and facilities, dissolves well in water
- Contains sulfur and microbial metabolites → enhances disease resistance
- Improves sugar content and flavor
- Enhances storage quality
- Prevents calcium deficiency
- No synthetic chemicals (approved for organic farming)
- Made by fermenting mineral sulfur with plant extracts



- Registration No.: Gongsil-1-2-114
- Product name: Jipyeong
- Net volume: 1L
- Ingredients:
  - o Sulfur  $\geq 3\%$
  - o Radish extract 97%
- Shelf life: 2 years from manufacture date



## Additional Instructions

- Shake well before use
- Avoid freezing during storage
- Standard usage:
  - Apply 3 times at 7-day intervals at early disease stage (250x dilution)
- Rice: aerial ULV spraying at seedling stage (8x dilution)

## 6 Role of Fertilizers (Summary Translation)

### Nitrogen (N)

- Essential for proteins, nucleic acids, chlorophyll
- Promotes leaf and stem growth

### Phosphorus (P)

- Root development, flowering, fruiting
- Involved in energy (ATP)

### Potassium (K)

- Improves stress resistance
- Enhances fruit quality, sugar content, and storage

### Boron

- Supports cell wall and reproductive growth

### Sulfur fertilizers

- Improve flavor and storage
- Assist chlorophyll formation