

BOTANICAL BACTERICIDE

BERBERINE

4% Berberine SC



Description Natural Plant Extracted Bactericide (alkaloid extracted from the Ranunculaceae Berberine - Rhizoma coptidis)

Effective Ingredient: natural alkaloid: **berberine>4%**

Characteristic: highly bioactive plant-derived bactericide (control bacteria);

Main preventative activity as well as certain curative property.

Unique mode of action as a systemic acquired resistance elicitor. So there is no cross resistance with other kinds of fungicides.

Compatible with other pesticides.

Safe to human being, livestock, and environment and could be used in green and organic vegetable production.

Low toxicity and friendly to environment.

Mode of action: Penetrate plant leaves rapidly, inhibit the growth and reproduction of bacteria and fungi through internal interfere the metabolic of pathogens. It also can enhance the activity of plant cells, improve the resistance to pathogens, to achieve control the disease spread and kill bacteria.

Target diseases: Plant disease caused by bacteria, especially soft rot, cotton angular leaf spot, bacteria of rice leaf blight, potato ring rot bacteria, tobacco bacterial wilt, Bacterial angular leaf spot (*Xanthomonas ftagarelae*), etc.

| crops | Target diseases | Application method | dilution | dosage |
|--------------------|-------------------|--------------------|----------|------------|
| rice | rice leaf blight | foliage spray | 600 | 1,5-2 l/ha |
| leaf vegetables | soft rot | | | |
| potato | ring rot bacteria | | | |
| cucumber | angular leaf spot | | | |
| strawberry, pepper | leaf spot | | | |
| peach, apple | caverned disease | | | |
| tobacco | bacterial wilt | root irrigation | 300 | - |
| cucumber, tomato | root rot | | | |

Diseases controlled or prevented

Main target of diseases is **bacterial diseases**, fungal diseases. Specially the bacterial angular leaf spot of vegetables. It is also effective on **downy mildew, gray mold, and rot disease**.

Use Precautions

- 4% Berberine AS is a protective fungicide. So it must be applied prior to the appearance of diseases or when diseases first appear. Good control can not be obtained when applied too late.
- 4% Berberine AS is non-systemic. Evenly and thoroughly spraying is necessary to obtain anticipated protective effectiveness.
- 4% Berberine AS residual activity lasts about 10 days. Repeated applications are needed to protect crop from disease infection for the whole growing season.
- Even though 4% Berberine AS is very low toxic to human being and livestock, applicators and other handlers must take protection measures as the requirements of pesticides regulation when they operate the fungicide.
- Store unused product in original containers only, in cool, dry area out of reach of children and animals. Do not contaminate water, food, and feed by storage and disposal.