CeraXel®

The Natural Way to Higher Yield

CeraXel® is a phosphite-based booster that enhances the resistance against fungi and oomycetes, and reduces the fungicide load in crop protection.
**CeraXel®** is fungicide based on disodium phosphite and an organic ingredient (lignosulfonate) that stimulates the resistance against a broad spectrum of fungal and oomycete diseases. It is mainly used as a booster in combination with both contact and systemic commercial pesticides. When combined with these products, the dose can be reduced by half while maintaining full efficacy. This leads to cost reduction and to a more environmental friendly way of crop production.

**CeraXel®** is a unique Ceradis product containing lignosulfonate (CaLS). This new formulation has been developed in cooperation with Wageningen University and Research Center and has been patented.
**Mode of Action**

*CeraXel®* has two main ingredients, disodium phosphite and the organic compound lignosulfonate. Phosphite provides direct as well as indirect protection by enhancing the plant’s natural line of defenses and stimulating the production of phytoalexins. Phosphite is very mobile within the plant and translocates through the xylem and phloem vessels after being absorbed by the leaves. Lignosulfonate makes *CeraXel®* compatible with other products by reacting with metals in the solution. It also prevents calcium deficiencies and crystallization of the solution.

When *CeraXel* is mixed with metals as copper, the copper is surrounded by an organic film which allows for slow release and prevents phytotoxicity.
Experimental Results

Figure 1: Efficacy measurement of phosphite and Fluazinam against *Phytophthora infestans* on potato

Greenhouse trail on potato (cv Bintje) in the Netherlands. Spray interval 7 days.
Application & mixture preparation

Use:

CeraXel® is stable in solution and easy to use. It is also compatible with other crop protection products.

Preparation:

Add the recommended amount of CeraXel® (2-3 l/ha) to the tank-mix and fill up with 50% of water. Add additional fungicides and insecticides as desired. Fill the tank up to the final volume and keep stirring until fully dissolved.

Crops:

CeraXel® has a wide range of crop application, for example grapevine, potato and tomato.
### Benefits

- Cost reduction and environmental friendly
- Provides direct protection and stimulates plant defenses
- Can be used as an efficacy booster with other fungicides
- High compatibility with other pesticides in the tank-mix

### Composition

<table>
<thead>
<tr>
<th>Compounds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disodium phosphite</td>
<td>500 g/l</td>
</tr>
<tr>
<td>Inert ingredients</td>
<td>845 g/l</td>
</tr>
<tr>
<td>Total (pH = 8.2)</td>
<td>1345 g/l</td>
</tr>
</tbody>
</table>
Benefits of CeraXel®

- Reduces the dose load of pesticides
- Provides protection against fungi and oomycetes
- Eco-friendly and safe for the user