



# CILUS<sup>®</sup> PLUS

## Increasing yield and quality at harvest

Cilus<sup>®</sup> Plus is a microbial preparation containing a very high concentration of *Bacillus amyloliquefaciens* strain IT45 isolated through Lallemand Research.

### Benefits

- Increasing number of tubers.
- Increasing yield of targeted calibres.
- Improving visual quality of tubers.

### Modes of action

The *Bacillus* IT45 bacteria contained in Cilus<sup>®</sup> Plus multiply and quickly colonise the rhizosphere (zone near the roots) by feeding on root exudates.

In return, this bacterial population brings several benefits to the plant:

- ✓ **Solubilises phosphorus:**  
**+28 %** of Phosphorus available in the rhizosphere\*

Phosphorus unavailable  
 Phosphorus available

- ✓ **Stimulates growth of efficient roots (root hairs):**  
**+20 %** of root biomass\*

Increase in the area for interception of nutrients

- ✓ **Probiotic effect:**  
Rhizosphere occupation by beneficial microbes.

\*Results obtained from a series of tests over 10 years.



*Bacillus amyloliquefaciens* strain IT45

#### Active substance:

2.10<sup>10</sup> CFU/g of *Bacillus amyloliquefaciens* strain IT45

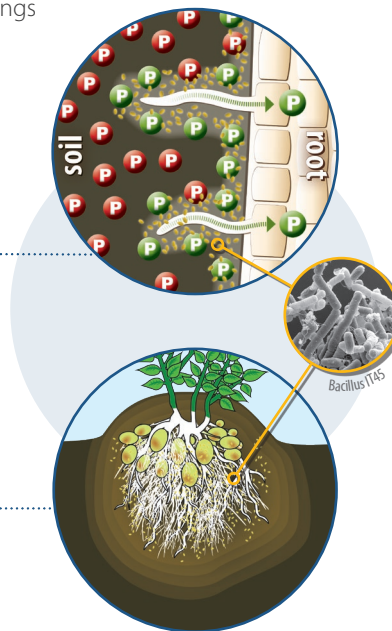
#### Formulation type:

Wettable powder

#### Packaging:

200g bag

Usable in organic farming



### Application

| Crop type | Dose     | Period                         | Application method                     |
|-----------|----------|--------------------------------|----------------------------------------|
| Potatoes  | 200 g/ha | Before planting (max 12 hours) | Full cover soil spraying/drenching     |
|           |          | Before ridging (max 12 hours)  |                                        |
|           |          | At planting in the furrow      | Localised in-furrow spraying/drenching |

**Compatibility:** for any mixing with chemical products, ask your distributor.

**Conditions at applications:**

- optimal temperature between 10°C and 30°C.
- apply preferably in humid conditions.
- do not apply on dry soils and in high temperature periods.

### Results

#### ■ Increasing marketable yield and improving visual quality of tubers.



**Trial on BROVARY KARTOPLYA Farm**  
Ukraine, 2017

|              |                 |
|--------------|-----------------|
| Variety      | Arrow (Agrico)  |
| Type of soil | Sandy half clay |
| pH           | 4.8             |
| Planting     | 30/04/2017      |
| Application  | At planting     |



#### Irrigated regime

|                         | Gross Yield (t/ha)    | Calibre distribution (2 x 5 linear metres) |         |     |       | % of tubers affected with |      |
|-------------------------|-----------------------|--------------------------------------------|---------|-----|-------|---------------------------|------|
|                         |                       | <35                                        | 35 - 55 | >55 | TOTAL | Rhizoctonia               | Scab |
| Control                 | 19.02                 | 40                                         | 172     | 31  | 243   | 0.95                      | 9.00 |
| Cilus <sup>®</sup> Plus | 31.65<br><b>+66 %</b> | 17                                         | 132     | 62  | 211   | 0.20                      | 5.00 |



#### Non-irrigated regime

|                         | Gross Yield (t/ha)   | Calibre distribution (2 x 5 linear metres) |         |     |       | % of tubers affected with |      |
|-------------------------|----------------------|--------------------------------------------|---------|-----|-------|---------------------------|------|
|                         |                      | <35                                        | 35 - 55 | >55 | TOTAL | Rhizoctonia               | Scab |
| Control                 | 18.62                | 47                                         | 167     | 4   | 218   | 1.75                      | 9.00 |
| Cilus <sup>®</sup> Plus | 19.55<br><b>+5 %</b> | 46                                         | 191     | 12  | 249   | 0.25                      | 5.50 |

#### LALLEMAND PLANT CARE

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