



**PRODUCT INFO  
& DATASHEET**

## **SICOHEL (L) – Cu** *Copper fertiliser in solution* **EEC FERTILIZER**

### **Specifications:**

Cu (Copper) soluble in water:	7.63 % (=100 g Cu/L)
Cu (Copper) chelated:	7.63 % chelated with EDTA, DTPA, HEDTA (= 100 g Cu/L)
Stability of the chelate:	between pH=4 and pH=10
Product low in chlorine (Cl)	

### **RECOMMENDATIONS**

#### **Soil applications:**

Cereals: Depending on the type of soil a dose of 1-3 L/Ha is applied from the time of soil preparation until the end of tillering (multiple stem development).

Other crops: Depending on the type of soil a dose of 1-3 L/Ha is applied starting when soil preparation commences.

#### **Foliar application:**

The doses for foliar applications vary between 0.4- 1.0 l/ha and depend on the crop and the growth stage of the crop.

The maximum concentration is 2 % (= 2 L SICOHEL (L) - Cu in 100 L water).

### **PRODUCT PROPERTIES**

SICOHEL (L) - Cu has negative charges, which prevent the adsorption of the product on the clay-humic complex, and guarantees complete plant availability.

Plants are able to absorb SICOHEL (L) - Cu through their leaves and through the roots.

SICOHEL (L) - Cu:

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|---|--|
| - Avoids the disease of "the white flag" on cereals | - Avoids empty ears                      |
| - Increases the resistance of plants to cold        | - Improves the fecundation               |
| - Promotes the flowering and production of pollen   | - Improves the production of chlorophyll |
| - Increases the fertility                           | - Increases the 1000-grain weight        |

### **ROLE OF COPPER**

Particularly during the early stages of growth plants take up Cu. Translocation of Cu between the roots and the aerial part of the plants is very reduced. This leads often to an unbalanced Cu concentration between roots and aerial parts. The close correlation between Cu and certain proteins is due to the affinity between Cu and these proteins. Of the contained Cu approx 60-80 % is located in the chloroplasts (similar situation as for Fe). Cu stabilizes the chlorophyll in fixing chlorophyllic complexes, albumen - lipid, the enzymatic action of which prevents early degradation of the chlorophyll. This stabilizing effect combined with the cytokininic action stimulates the albumen synthesis. On certain plants (potato, tobacco, grapes) an adequate Cu guarantees an efficient and long growth season, which is essentially due to an increase in the chlorophyll production, activated by copper. The existence of a direct connection between Nitrogen (N) and a Cu supply, implies that an isolated supply of the former would cause insufficient protein production. Cu plays a direct role in the production and translocation of certain other enzymes (lactase, phenoloxdase, tyrosinase, ascorbinoxydase acid).

### **RELATIVE SENSITIVITY TO COPPER DEFICIENCY**

#### **Very sensitive**

barley  
wheat  
corn  
oat

#### **Average sensitivity**

carrots  
apple  
flax  
hemp  
lupine  
rape seed  
sunflowers

#### **Little sensitivity**

potato  
buckwheat  
serradelle

### **SYMPTOMS OF COPPER DEFICIENCY**

Withering of the leaves, which get brittle and roll up to form a horn or a corkscrew. The shoots do not bloom. Growth comes to a standstill. In cereals copper deficiency the ears do not come out of their sheath which dries out. The grains remain very small and hairy. The ears vend.