



Chelal® Zn on Sugar Beets:

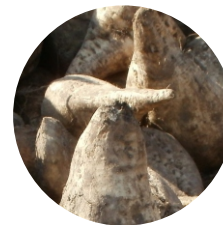
Improve the efficiency of the herbicides !

The use of zinc on sugar beets is not known at all, but can nevertheless be very interesting, certainly if applied in combination with the herbicides of the **sulfonylurea family**.

It has been observed that certain herbicides, especially those of the sulfonylurea family influence the root system significantly, on certain crops. The development of mainly the finest roots (smaller than 0,2 mm) is affected and consequently **the absorption of nutrients** from the soil solution will be reduced, above all of those elements with little mobility in the soil such as phosphorous and zinc. The effect is more important on young plants compared to more developed plants.

It is actually in these younger plants that **zinc** plays a very important and active role for the development of the crops. Zinc influences and stimulates the endogenous production of growth hormones, extremely important during the initial phases of the crop development.

If the application of this type of herbicides also coincides with circumstances that reduce the availability of the zinc in the soil, it will be even more likely that deficiencies appear. In soils with a high pH, high phosphorous concentrations or fertilization, or after important applications of lime, and/or with low temperatures, the availability of zinc will be limited.



The solution: Chelal® Zn

The deficiency induced by the herbicide application can be compensated by adding Chelal® Zn to the herbicide treatment. The zinc applied with Chelal® Zn is completely chelated and therefore very stable and plant available. Chelal® Zn will improve the zinc uptake by the crop in two ways. The zinc applied on top of the leaves will be absorbed rapidly and will treat immediately any deficiency that the plant might have already. Because the zinc in Chelal® zinc is chelated by three chelating agents, the product is completely soluble and will stay plant available even when it falls onto the soil where it will be easily absorbed by the roots.

With Chelal® Zn, the crop will not suffer any stress or growth interruption caused by the herbicide application.



Recommendations

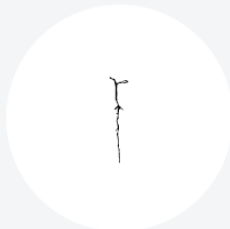
Trials with Chelal® Zn

The trials we did in France, Italy and Spain in collaboration with some of our important clients, did not only demonstrate that the selectivity of the herbicides of the sulfonylurea family increases, but also a higher efficiency was observed.

In trials done in France, during 2 consecutive years, it became clear that if Chelal® Zn was incorporated into the weed control programs with the herbicides from the sulfonylurea family, the control of the weeds was notably better. The efficiency reached 9,5 point out of 10 when Chelal® Zn was applied jointly with the herbicide, an efficiency which was not reached WITHOUT Chelal® Zn.

The efficiency increased on average between 0,5 and 1,0 point when Chelal® Zn was added to the mixture.

Recommendations



Emergence



4 leaves



6 leaves



8 leaves

2-3 x Chelal® Zn 0,5-1 L/ha (applied jointly with the herbicide)

The advantages of Chelal® Zn:

- Reduces the stress that the sugar beet crop might suffer from the application of herbicides of the sulfonylurea family.
- Avoids growth interruptions.
- A reduction in the amount of active ingredient (of the herbicide) is possible.
- Maintaining the same efficiency, or an increased efficiency will be obtained.

