



PRODUCT INFO
& DATASHEET

SICO-TRIGGER

*Powerful & safe biostimulant
for high potential crops, root crops etc.*

09/2017

PRODUCT DESCRIPTION

SICO-TRIGGER is a special proprietary product, a powerful and safe biostimulant, it has little or no nutritional value and acts by triggering the plants own systems to produce more growth hormones. It is a construction of precursors and stimulators to plant growth regulators.

Composition

Amino acids: anthranilic acid, proline, glutamine; Betaine; Nicotinamide; Penetrants: propionic acid; Stickers: glycerol, nonylphenyl surfactant; Biocide.

Specifications & certificate of analysis

Appearance:	pale liquid	Density:	1,036 kg/m ³
Solubility:	100%	pH:	3.7 - 4.3 (when dissolved 2% in water)

Indications

- **The formulation of SICO-TRIGGER is optimised for root crops.**
- SICO-TRIGGER works best on high potential crops and is NOT a stimulant for backward crops.
- It works during the period of vegetative growth and the earlier it gets into the plant, the more effective it seems to be.
- SICO-TRIGGER does not seem to be temperature dependent and is robust in all weather conditions.
- The formulation is not weather-proof and may need to be attached to the leaf using the adhesive properties of SICO-EXTEND under adverse conditions.
- SICO-TRIGGER increases root length and mass.
- SICO-TRIGGER effectively pushes root crops through early growth stages to achieve maximum root / tuber development and leaf area index whilst growing conditions are ideal in early summer.
- SICO-TRIGGER will promote earlier plant development, causing plants to be less susceptible to drought stress.
- SICO-TRIGGER is NOT a plant growth regulator, this having been established by close examination of its components.
- SICO-TRIGGER is quickly metabolised within the plant and presents no residue hazards.

APPLICATION

Timing and application rates

All crops: apply SICO-TRIGGER at 1 litre per hectare between 2 - 6 true leaves.
For potatoes apply at the onset of tuber initiation.

Usage summary

* SICO-TRIGGER is designed and recommended on **spring-sown root crops** to enhance early root development and increase vital early leaf area, leading to vigorous growth and yield increases.

* The 1.0l/ha rate is our recommendation for use on **potatoes, sugar beet and carrots**. In addition to the root crops, SICO-TRIGGER is the product of choice for use under good late spring growing conditions on later sown spring crops like **maize and linseed**.

* The application of SICO-TRIGGER should take place as soon as there is enough leaf to take up the product. This is normally within 10 days of emergence in potatoes, but further work is being conducted to evaluate later applications and split dosed programs. In general, later applications during the vegetative growth period are still effective, but earliest treatments produce the most commercially viable responses. **The effect of SICO-TRIGGER is most pronounced when the crop is actively growing** and capable of using the stimulus that the product provides.

* SICO-TRIGGER works well when used in program **with**, rather than instead of, foliar feed type products, for example: Lamina foliar phosphate. Crops treated with SICO-TRIGGER need nutrition and moisture to sustain the early development boost provided by SICO-TRIGGER. Treated potato crops may produce greater tuber numbers from later applications, which if un-supported by irrigation, can lead to adverse effects of smaller tubers in greater numbers. This may be beneficial for potato crops destined for seed, but would be a problem in a ware crop requiring larger tubers. What crops of potatoes should be treated as early as possible after emergence to stimulate the maximum initial tuber set, as these are the tubers which then go on to produce the largest tubers in the harvest sample.

* SICO-TRIGGER has been particularly **successful in producing large marketable yield increases in the potato crop, but will readily improve any root crop**. Overall yields of sugar beet are increased, with observable differences between treated and untreated areas of the field. The treated plants often produce a greater leaf area index earlier, with leaves meeting

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both along and across the rows earlier in the treated plots. Much later in the life of the crop, untreated plants can be observed wilting in the late afternoon sun of summer, whereas wilting is significantly delayed in the treated areas.

This is because the treated plants develop more root earlier and are consequently less prone to the effects of drought. The increased early leaf development has implications for herbicide programs and the effect needs to be considered when planning contact or residual herbicides.

* Following the use of SICO-TRIGGER in a number of crops, higher levels of overall plant health have been reported. This is clearly the result of the early increase in root development leading to **more robust plants that are more resistant to disease and pests** and better able to source nutrients and moisture. In some cases, treated plants have matured earlier than untreated under optimum growing conditions.

* SICO-TRIGGER is a bio-stimulant growth enhancer, primarily acting on the plants natural auxin production processes.

This increase in biochemical activity leads to:

- increased early rooting
- earlier establishment
- increase in photosynthetic area

APPLICATION RATES: 0.5 - 1 litre per hectare in 200 litres water

MIXING AND SPRAYING

3/4-fill spray tank. Shake container well and add to tank whilst agitating. Top up with water and spray. Wash hands before meals and after work. Safely dispose of empty container.

RECOMMENDED RATES OF APPLICATION

SICO-TRIGGER is most effective when applied early in the crops development to optimize early rooting and plant establishment.

Cassava: 2 litres per hectare or 2 applications of 1 litre, 2-3 weeks apart, beginning at 4-5 true leaves.

Cereals: apply 0.5 to 0.75 litres per hectare at 2 true leaves up to mid tillering

Peas, beans, brassicas, other vegetables: 0.5 to 1 litre per ha in 200 litres water per hectare at the 3 - 6 leaf stage

Potatoes: 1 litre per hectare in 200 litres water per ha at onset of tuber initiation

Maize: 1 litre per hectare in 200 litres water per hectare at the 2 - 4 true leaves

Sugar Beet: 1 litre per hectare in 200 litres water per hectare at 2 - 6 leaves

Shrubs, bush fruit: 0.75 litres per hectare in 3 - 400 litres of water per hectare

Top fruit: 1.0 litre per hectare in 400 litres water per hectare

Turf grass: 0.75 litres in 200 litres water per hectare.

WHAT DOES IT COST?

In line with the Sap International Corporation bvba policy of affordable technology, SICO-TRIGGER is priced to make it as attractive as possible. The cost of SICO-TRIGGER could be 5 or 6 times higher on potatoes and **it would still not be expensive for this crop.**

WHAT IS SICO-TRIGGER?

SICO-TRIGGER is a sophisticated cocktail of compounds that are analogues of the molecules that stimulate the plant to produce its own auxins and other growth hormones. It is a safe and non-hazardous material, formulated from specific technical materials that represent no risk of residue or contamination. The formulation is optimised for root crops and springsown crops going through rapid vegetative growth. It is compatible with some pesticide treatments, but is best applied alone or in adverse weather conditions SICO-TRIGGER can be tank-mixed with "SICO-EXTEND" (adhesive polymer adjuvant) to stick it to the plant and prevent leaching from the leaf surface.

DOES SICO-TRIGGER WORK?

Three years trial, based on the original glasshouse work has confirmed the efficacy of this product and commercial usage has only served to underline the conservative nature of the claims made for SICO-TRIGGER. The trials information gathered to date seems to indicate that the most fertile crops are those most likely to benefit. If weather conditions are less than ideal (warm and moist growing weather) at the time of application, then a follow up dose (half to full rate) applied when conditions improve, will generate the greatest responses. Commercial usage work has generated several consistent results. Tank-mixtures of SICO-TRIGGER with other products would appear not to represent a problem due to the dilution of concentrates in the spray water.

PACKING: in 5 liters cans.

TRANSPORT CLASSIFICATION: without restriction for IMDG, ADR/RID, DGR.