MOS Marketing, Reg. No. 2015/297527/07, Posbus 121, Witsand, 6666
Tel: 012 561 3912 / Fax: 086 623 6384 /082 419 1770, Email: corrie@organicnature.co.za or info@organicnature.co.za

MOS EnerG

- **MOS EnerG** consists of amino gluconates and micro organisms that are in **MOS Woema**. There is also carbon, fulvic acids, amino acids, glucose, Manganese (37g/kg) and Sulphur (29g/kg). There are, among others, Bacillus thuringiensis and Pseudomonas flourescens organisms in it.
- The main purpose of **MOS EnerG** is to provide energy to the plants which then activates various physiological processes in the plant.
- **MOS EnerG** is therefore also an excellent biostimulant. It helps with the prevention of abiotic stress as well as recovery from abiotic stress conditions.
- Amino gluconates are also one of the best chelating agents that exist. It can bind more minerals than fulvic acid and EDTA. It is therefore an excellent addition together with any foliar sprays of plant nutritional elements.
- Calcium absorption is much better together with amino gluconates. The calcium is then transported more effectively into the cells where fruit formation and seed formation take place and it is not only trapped in the cell wall structure. The uptake is more direct by diffusion through the cell walls and is not dependent on only absorption through the stomata.
- The amino acids are also a readily available source of energy for the plants, which is especially useful if there are any environmental conditions that place the plants under stress, such as cold, heat and excess salts in the soil. A sudden demand for energy by the plant such as during fruit set also causes stress in the plants.
- **The combination of carbon, microbes and aminogluconates is a foliar applied root stimulant that empowers the root system to absorb nutrients that are in the soil anyway.**

APPLICATIONS

- Together with foliar feeding: 1 % of the total volume.
- As a single component sprayed on leaves for energy: 1l/ha for young trees and crops up to 3 l/ha for larger spray volumes on larger trees.
- Cereals: 1l/ha at 4 leaf stage and again 2 l/ha at flag leaf stage. It can be sprayed together with fungicides and foliar feeding.

- As a single application, spray a 2% solution.
- As a biological stimulant, it works excellently if application is repeated every 2 weeks at only 1 l/ha/ It can also be sprayed together with other chemical agents.

SEVERAL TRIALS WERE DONE ON TREES, CEREALS AND VEGETABLES
In all the trials, there were good visual differences.
What is also noteworthy is that several nutrient levels in the leaves improved, even though no nutritional elements were added.

Green beans

MOS EnerG was sprayed on beans at 3 l/ha and leaf samples were taken 6 days after spraying.

Leaf samples were taken and sap analyses were done by Shortlands Agri Consulting

Element	MOS EnerG(dpm)	Control(dpm)
Al	4.08	2.40
B	1.08	0.63
Cu	3.0	2.31
Fe	1.69	4.01
Mn	3.00	2.31
Zn	5.94	2.56
Si	27.19	23.68
Ca	1110	401
Mg	592	251
K	1807	717
P	135	67
S	35	19.8
BRIX	12	9

DESPITE THERE NOT BEING ANY TRACE ELEMENTS ADDED, THERE WERE MAJOR CHANGES, EXCEPT FOR Fe AND Mn.
Of particular interest is the increase in Ca-176%, Mg-135%, K-152% and Brix-33%.

POTATOES

Trials were conducted in the Limpopo province where **MOS EnerG** was sprayed together with foliar feeding. Trials were conducted by Shortlands Agri Consulting. The control was where **MOS EnerG** was not added. Manganese was added here to the **MOS EnerG**.

The treatment was as follows:
5 kg/ha Potassium sulphate
5 kg/ha Magnesium sulphate
5 kg/ha Map technical
3 l/ha MOS EnerG
0.6 kg/ha Fulvic
All sprayed over the leaves with 400 l/ha of water.

Element	MOS EnerG(dpm)	Control(dpm)
B	**2.39**	**0.91**
Cu	**29.79**	**0.72**
Fe	**20.46**	**0.87**
Mn	**11.96**	**1.93**
Zn	**10.24**	**0.38**
Si	**21.23**	**15.91**
Ca	**1924**	**1246**
Mg	**1484**	**1102**
K	**2232**	**2038**
P	**52**	**48**
S	**33**	**21**
BRIX	**12**	**10**

ONIONS (Alldays)

A trial was conducted on onions where the effect on growth and root development was mainly looked at.
A total of 10 l/ha **MOS EnerG** was sprayed together with 4 kg/ha Fulvic acid and worked into the soil.
The following visual observations were made.
Leaf mass: The leaf mass where **MOS EnerG** was applied doubled compared to the control.
Chlorosis was clearly visible on the leaves of the control
Root development: Very strong root development versus poor development, with a doubling in root mass.
Yield: The yield was 45% better compared to the control.

CANOLA TRIAL - JACOBUS HUMAN

The aim of the trial was to determine the effect of **MOS EnerG** on the uptake of elements. **MOS EnerG** was compared with the standard foliar feeding mixture used. No additional trace elements were sprayed on the leaves with **MOS EnerG**, except for the Manganese in **MOS EnerG**. 3 l/ha of **MOS EnerG** was sprayed and 2 weeks later leaf samples were taken for sap analyses which were done by Shortlands Agri.

Element	Kontrole	Proef- Mos EnerG
B	**0.19**	**0.56**
Cu	**0.11**	**0.10**
Mn	**0.94**	**1.63**
Zn	**0.63**	**1.40**
Ca	**392**	**867**
Mg	**102**	**278**
K	**636**	**1240**
P	**62**	**136**
S	**183**	**415**

IN GENERAL, IT IS CLEAR FROM THE TRIALS THAT THE NUTRIENT ABSORPTION OF MOST OF THE NUTRIENTS IS IMPROVED WITH THE USE OF MOS ENERG.

TRIALS AT HERMI STEYN, SWELLENDAM DISTRICT

MOS Woema was planted at 20 l/ha on land where there are sodium problems. **MOS EnerG** was also applied as a foliar spray at 1 l/ha which was compared with the farmer's own trace element mixture as a foliar spray. Sap analyses were done for evaluation purposes.

	MOS Woema	Woema+En	EnerG	Kontrole
Sapanalises				
Mn	**1.95**	**3.8**	**1.79**	**2.3**
Zn	**1.25**	**1.34**	**0.67**	**1.13**
Cu	**0.37**	**0.47**	**0.52**	**0.53**
Ca	**378**	**581**	**463**	**542**
Mg	**171**	**274**	**134**	**367**
Na	**538**	**894**	**569**	**1533**
K	**2002**	**3038**	**1888**	**2953**
P	**90**	**186**	**61**	**169**
Nitraat	**1500**	**1700**	**1600**	**1700**
EC	**9.9**	**10.5**	**8.9**	**8.5**
pH	**6.9**	**7.0**	**6.9**	**6.8**
Brix	**12**	**12**	**10**	**9**

BARLEY AT BROODKAS FARM, HEIDELBERG

2 l/ha **MOS EnerG** was sprayed on leaves together with 500 grams/ha Copper sulphate. Leaf sap analyses were done 10 days after spraying.

Element	Kontrole	Mos EnerG
Cu	0,219	1,021
Zn	0,547	0,819
Na	429	250
Nitraat	1500	1400

Citrus in Cederberge, Jannie Nieuwhout **The same trees February 2019**

Sprayed with **MOS EnerG** in Aug 2018 and applied **MOS Woema** to the soil.
The trees were under stress due to high sodium levels in the soil.

For any inquiries, contact our office.
Corrie v.d. Westhuizen(MSc. Agric) Prsi Nat Sci.
082 419 1770