



# KELO COTTON

BIOACTIVATOR FOR COTTON



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KELOM COTTON was developed in order to increase the yield of a particular crop, cotton, which main problem is the falling of flower tips and small fruits by physiological causes.

For more than 40 years, this problem was treated with auxins (Eatin, Eagle, Dunlop, 1935; Rojas Garcidueñas y Tejada, 1966), which increased the number of branches by plant but did not change the falling problem or yields.



Lately, other phyto regulators were tested which lead more interesting changes in plant development.

Recent work, made by the Cotton group of the FAO Inter-Regional Research Network in several cotton producer countries, shows different results depending on the regulator tested. In summary, the results of that work are the following:

## PHYTOREGULATORS STUDIED

### PGR-IV

From MicroFlo Co. It contains gibberellic acid and synthetic indolbutyric acid. It has beneficial effects on root growth and on the aerial part of the plant.

### CYTOKININ

Developed by Plant Biotech, is an extract of seaweeds and potassic carbonate. It seems to improve flower retention and be a cycle accelerator.

### PHCA

Developed by MicroFlo Co, is a polyhydrocarboxylic acid, increases the number and the retention of capsules.



### RESULTS



#### Fayetteville, Arkansas (USA)

All substances increased yields in kg of fiber/ha respect to the blank, increased the number of nodes and decreased plant height. Maturity indexes above (NAWF=5) also increased as well as photosynthesis levels.

#### Seville (Spain)

Only Cytokinin at high rates and applied in three different stages affected production, increasing the total number of capsules, and obtaining 300 more kg by ha respect to the blank.

#### Chirpan (Bulgaria)

Tests were made in a greenhouse in controlled condition, so plants did not suffer from climatic stress. Although, fruit retention and flowering earliness were increased, there were no higher yields.



#### Palamos (Greece)

All treatments increased the net weight/ha, standing out PHCA and in less extension Cytokinin. The other parameter measured were no statistically different.

#### Thessaloniki (Greece)

All the substances increased yields respect to blank plants, even in the first collection. This area is one of the coldest in Greece, so earliness is highly desired.

#### Adana (Turkey)

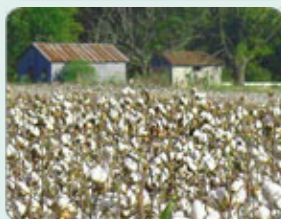
All tests were made with Cytokinin, and resulted in a slight increase in production respect to the blank.

## WHAT IS KELOM COTTON?

### What can we obtain from this addition to plants?



KELOM COTTON components mobilise the special plant process for the adaptation to particular stress conditions.



KELOM COTTON also increases and maintains the retention capacity of flowers small fruits in the most advantageous positions and branches to maximise production and the earliness of the crop.



KELOM COTTON is made of enzymes and growth substances from natural origin by an special fermentative extracting procedure from seaweeds in order to stabilise and balance its composition and contains organic acids and chelated micronutrients for the elimination of yield limiting factors.



Micronutrient is known to take part in essential enzymes needed to compensate the loss of cellular energy. The preparation is completed with a metabolic activator.





## COMPOSITION

Polyhydroxy carboxylic acids (PHC)	25.00% w/w
Betaine	9.00% w/w
Total Aminoacids	15.00% w/w
Iron (Fe)	1.68% w/w
Manganese (Mn)	0.63% w/w
Zinc (Zn)	0.34% w/w
Copper (Cu)	0.04% w/w
Boron (B)	0.34% w/w
Molybdenum (Mo)	0.004% w/w

## DOSAGE AND INSTRUCTIONS

In order to optimise the action, the product must be applied in two different phenological stages, according to the table:

Addition	Phenological stage	Dosage
1st	Begginig of flowering	1 L/Ha
2nd	40-45 days after the first addition	0.75 L/Ha

FIRST FLOWERING



40-45 DAYS LATER

## RESULTS



### 1ST ADDITION

Emission of all possible fructifying organs.

Increases the number of fructifying branches and positions inside them.

In summary the hormonal equilibrium is balanced at this stage and the possible nutrient demand is attended.

### 2ND ADDITION

A 60% aprox. of 20-22 fructifying organs are retained (buttons, flowers and capsules)

The general plant development continues in a balanced way and the emission of fructifying organs is maintained in optimum condition

Owed to the increase of fructifying organs formed and maintained by KELOM COTTON addition, there is also an increase in plant nutrition needs which are balanced by the influence of KELOM COTTON on nutrient transport to the demand sites.

In addition, we get that fruit be formed and matured as well as an early production and a higher number of capsules in the first harvest.

In summary, with the addition of KELOM COTTON, a higher production and yield in cotton cropping is obtained.