

EFFECT OF FOLIAR FERTILIZATION OF AGROSOL  
ON THE VEGETATION GROWTH ,CHEMICAL COMPOSITION  
AND SEED YIELD OF MAIZE PLANTS

The main goal of this investigation is to study the effect of different foliar

fertilization levels of AGROSOL ( manufactured by AGRO solution GmbH, Linz, Austria) .

Experimental work was undertaken in the experimental farm of DPS MARKETING CO. supervision National Research center , at Soliman village , Nubariya town , EGYPT.

The land is sandy with drip irrigation system .

Foliar fertilization of AGROSOL was used at levels as follows:

0 ,4 and 6 gm/L .

The plants were sprayed with AGROSOL Three times with 15 days Interval starting an June 1<sup>st</sup> (after 30 days from planting) .

Each treatment consist three replicates each one contains 20 plants .

The following data were collected after 31 days from third treatment at 31/7/2009 per plant.

Treatment	plant	Fresh	corn crid	Steam
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	Length	weight	weight/wet	diameter
Cont. 0gm/L	265 cm	1450 gm	600 gm	2.8 cm
AGR 4gm/L	305 cm	2520 gm	1035gm	3.1 cm
AGR 6gm/L	330 cm	3035 gm	1160gm	3.7 cm

Treatments	Grains weight per plant	100 grains weight	Rows NO. per crib
Cont. 0gm/L	131.50	24.3	9
AGR. 4gm/L	197.76	26.1	11
AGR. 6gm/L	242.96	28.2	12

Corncribs weight with cover after 20 days stop irrigation / plant

Cont.  $1240\text{gm} \div 3 = 413.33$

4gm/L  $2515\text{gm} \div 3 = 838.33$

6gm/L  $2720\text{gm} \div 3 = 906.66$

Corncribs weight without cover after open the cover and dry seven days.

Cont.  $550\text{gm} \div 3 = 183.3$

4gm/L  $850\text{gm} \div 3 = 283.33$

6gm/L  $950\text{gm} \div 3 = 316.66$



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Plant health and soil amelioration

Table (1): Effect of Agrosol on minerals composition of corn grains.

Sample no.	Macronutrients (%)			Micronutrients (ppm)			
	N	P	K	Fe	Mn	Zn	Cu
Cont. 0gm/L	0.76	0.51	2.56	119	29.1	30.9	22.0
AGR. 4gm/L	0.83	0.56	2.82	124	32.6	33.5	27.3
AGR. 6gm/L	0.95	0.62	3.04	133	35.7	36.6	32.7

Table (2): Effect of Agrosol on minerals composition of corn leaves.

Sample no.	Macronutrients (%)			Micronutrients (ppm)			
	N	P	K	Fe	Mn	Zn	Cu
Cont. 0gm/L	1.03	0.72	3.77	279	39.6	41.9	31.5
AGR. 4gm/L	1.11	0.79	4.06	284	42.0	46.6	36.7
AGR. 6gm/L	1.38	0.85	4.66	293	45.3	49.9	41.9

Table (3): Effect of Agrosol on chemicals composition of corn grains.

Sample no.	Oil	Protein	Total carbohydrates	Total phenoles	TSS
	(%)				
Cont. 0gm/L	3.13	9.06	72.4	34.0	19.1
AGR. 4gm/L	3.89	9.46	76.5	36.7	20.8
AGR. 6gm/L	4.22	9.91	79.4	40.6	22.0

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