

## Effect of **actosol**<sup>®</sup> on Quality and Yield of Potatoes in Sandy Soils in Sonac and Farm Frits, Nutron Valley, EGYPT

At Sonac farms, field trial was conducted to evaluate the use of **actosol** with 6% K on the quality and yield of potatoes in sandy soil. Potatoes tubers (seeds) were planted using planter in an area of 100 Feddans (acres). Under Pivot irrigation system, half of the area was treated with **actosol** and the other half was not treated with **actosol** (control). All other agriculture practices were the same in the treated and untreated areas. Cultivation was done in November 2008.

**actosol** was applied at a rate of 12 liters per acre and was divided into 4 doses:

*1st dose was 4 liters at the planting of the tubers*

*2nd dose was 3 liters at Ridge (after 25 to 30 days of planting)*

*3rd dose was 3 liter after 2 weeks after second application*

*4th dose was 2 liter after 2 weeks after third application*



**actosol** is Mixed with Fungicide and Added at Planting



**actosol** is Added at the Time of Ridging

### Results:

Yield showed that untreated area gave 15 tons per Feddan (acre) and the **actosol** treated area gave 18 tons per (Feddan (acre)). This indicates that there was a 20% increase in yield of potatoes. Similar field trials were conducted at Farm Frits using the same rate of 12 liters of **actosol** per Feddan (acre). The following picture shows the increase in numbers of potatoes per plant as compared to the untreated area.



### Conclusion:

The use of **actosol** increased potatoes yield by 20%. **actosol** sold in Egypt at 20 Egyptian pound per liter. The total cost of **actosol**® added per acre was 240 Egyptian pound (12 x 20 = 240) or \$34.28 (change rate is \$1= LE 7). Based on the statistical data of UN FAO (2010), producer price for 1 ton of potatoes is \$193. Therefore, a total gain of \$545 (\$579 - \$34) per care resulted from the use of 12 liters of **actosol** at a price of \$34, resulting in 17:1 return on investment.

