

actosol[®] Raised the Yield of Rice 15% in Clay Sandy Soils in Kafr El Sheikh, EGYPT

Rice is one of the main crops in Egypt. More than 1 million acre is cultivated with rice in the Nile Delta of Egypt. Field trial was conducted in Kafr El Sheikh, Egypt to evaluate the use of **actosol** with 6% K on the yield of Rice in clay soil of the Nile Delta. Under flood 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. **actosol** was applied at a rate of 6 liters per acre and was divided into 2 doses. After Tillage (soil plowing) and flooding the field by irrigation water, leveling of the soil was done before setting the young rice seedlings. Before seedlings, the first dose of 3 liters of **actosol** was added. The second dose was also 3 liters and it was added 30 days after transplanting of rice seedlings. The following pictures show the method of cultivating rice and applying **actosol**:



Tilling of Soil



Flood Irrigation



Soil Leveling

Results:

Yield showed that untreated area gave 13 ardab (ardab = 300 kg) per Feddan (acre) and the **actosol** treated area gave 15 ardabs per (Feddan (acre)). This indicates that there was a 15% (600 kg) increase in yield of rice.



Untreated

actosol Treated

Conclusion:

The use of **actosol** increased rice yield by 15% (600kg). **actosol** sold in Egypt at 20 Egyptian pound per liter. The total cost of **actosol** added per acre was 120 Egyptian pound (6 x 20 = 120) or \$17.14 (change rate is \$1= LE7). Based on the statistical data of UN FAO (2010), producer price for 1 ton of rice \$327. Therefore, a total gain of \$179.06 (\$196.2 – \$17.14) per acre resulted from the use of 6 liters of **actosol** at a price of \$17.14, resulting in 10:1 return on investment.

