



SUMMARY TRIAL REPORT

The Use of TerraCottem[®] Universal to Combat Drought and Desertification

Research done at:

Himachal Pradesh, India, District Sirmour, Sanaura & Karganoo villages

In collaboration with:

- Rural Centre for Human Interests (RUCHI, India)
- Terr@dialog



This report illustrates how TerraCottem[®] Universal enhances plant growth and how it substantially increases the farmer's turnover. The initial investment is easily recovered within 1 growing season while the product remains effective for many years. This particular tomato crop has generated a net income increase of 150% in the first growing season.

1. SET - UP

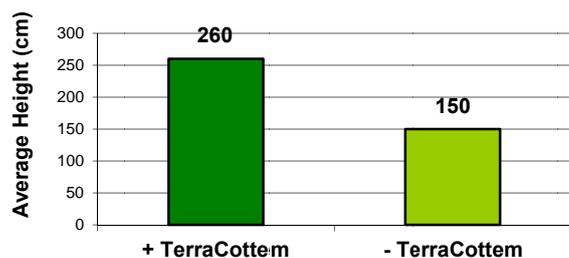
Two small plots of 160 square feet (approximately 16x10 feet) were prepared in 2 villages (Sanaura and Karganoo). In the third week of July 2001, 50 tomato saplings were planted in each plot with a spacing of 20"x15" (ca. 50x38cm). All saplings were 10-12cm high. In one plot, 10 g of TerraCottem[®] was applied around the roots of each sapling during planting, at a depth of approximately 6 inches (15 cm). As customary, all plants were watered immediately after planting.

During the 12 week growing season growth was monitored on a fortnightly basis. No supplementary fertilizer or pesticide was used. In the adjacent control plot chemical fertilizer was used and pesticide was sprayed as it is traditionally done.

2. RESULTS

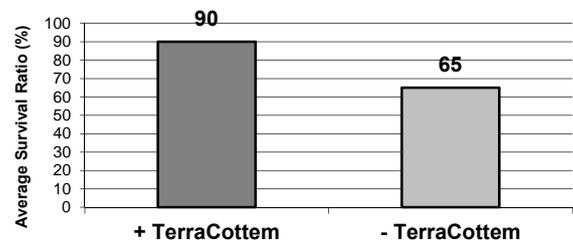
2.1 Height (cm)

The height of the plants was measured after a 12 week growing season. The average height of the TC-treated plants was 2.6m and 1.5m for the plants treated with chemical fertilisers. It was the first time that the population of this area harvested tomatoes from such tall plants.



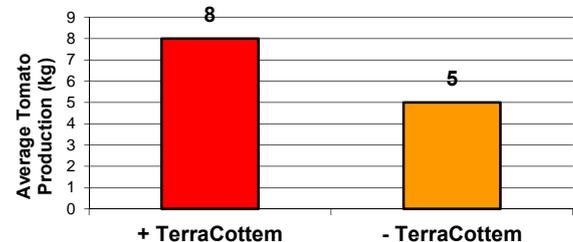
2.2 Survival rate (%)

On average, the survival rate of the TC- treated plants was 90% compared to 65% for the non-treated tomato plants.



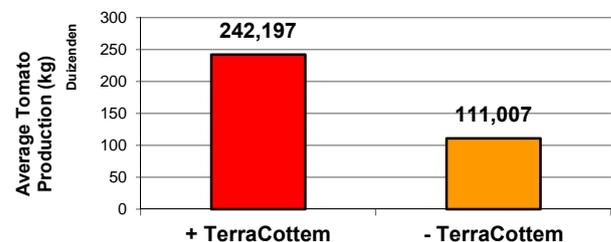
2.3 Tomato production per plant (kg)

The treated plants were dark green, healthy and fast growing. They were loaded with healthy and large sized tomatoes, almost double in size. The leaves were broad and fresh whereas the untreated plants had shrunken and pale leaves. The average tomato production of the TerraCottem® Universal - treated plants was 8kg, and only 5kg for the non-treated plants.



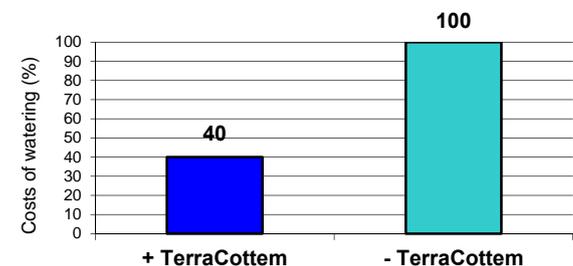
2.4 Tomato production per hectare (kg)

The average tomato production per hectare of the TC-treated plants was 242,197kg, as for the untreated plants only 111,007kg. This is an increase of 118%.



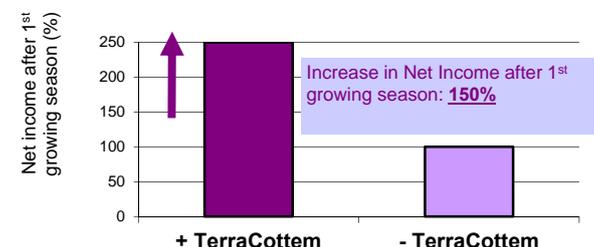
2.5 Total cost of watering (%)

The use of TerraCottem® Universal, allows a 60% reduction in irrigation volume while the production is far better both quality and quantity wise. This means that 60% of the normal water quantity can be saved during periods of extreme drought or used in the same period to irrigate more than double the normal area.



2.6 Net income after 1st growing season

A 150% net income increase for the farmers in the first growing season was measured (see cost/benefit – analysis).



3. Conclusions

Required irrigation volume: 60% ↓

Survival rate of planted saplings: 35% ↑

Average production per plant: 60% ↑

Average production per hectare: 118% ↑

Net income after 1 growing season: 150% ↑