GreenCircle®

ICS
CONTROL SYSTEMS

Present:

KSA Test Plot Results

BIOHUMIN
THE WORLD IN YOUR HAND

Comparison Between:

Conventional Method

&

BIOHUMIN° Method

(Planting Sukkary Date Palms)

PRIMARY FACTS

Consideration	Conventional Method	BIOHUMIN° Method
Water Consumption (During the nursery period of 45 days)	**15,000 Liters Total** (Per Tree)	**2,250 Liters Total** (Per Tree)
Soil Temperature (Example of surface temperature)	**49°C** (Noon)	**38°C** (Noon)
Soil Humidity (Example of surface humidity)	**25%** (Noon)	**73%** (Noon)
Soil Surface Salinity (i.e. Salt deposits around tree base)	**Evident & Pronounced**	**Absent & Avoided**

WATER CONSUMPTION

Conventional

Nursery period irrigation:

- 600L / Tree / Day for the first 5 days
- 300L / Tree / Day for the next 40 days

Total = 15,000L / Tree

After planting palm trees in a soil mix comprised of 5% BIOHUMIN°, water consumption was reduced in this most critical phase in the life of a tree by more than 6.5 times!

BIOHUMIN°

Nursery period irrigation:

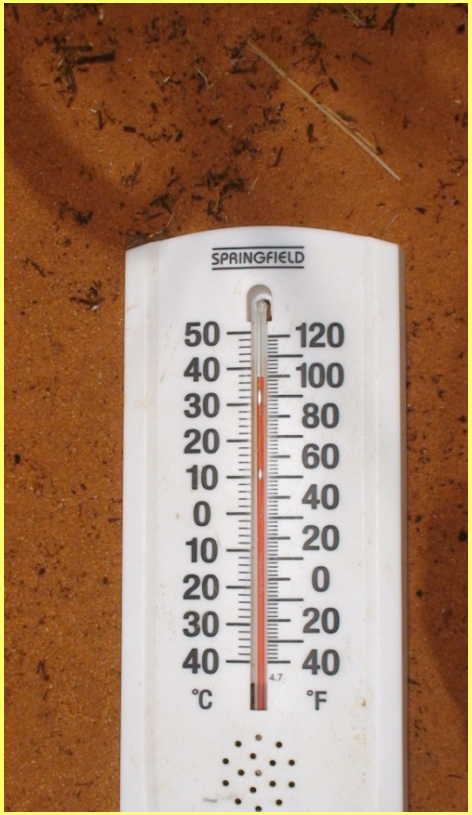
- 50L / Tree / Day throughout all 45 days

(25L, twice daily: morning & late afternoon)

Total = 2,250L / Tree

SOIL TEMPERATURE

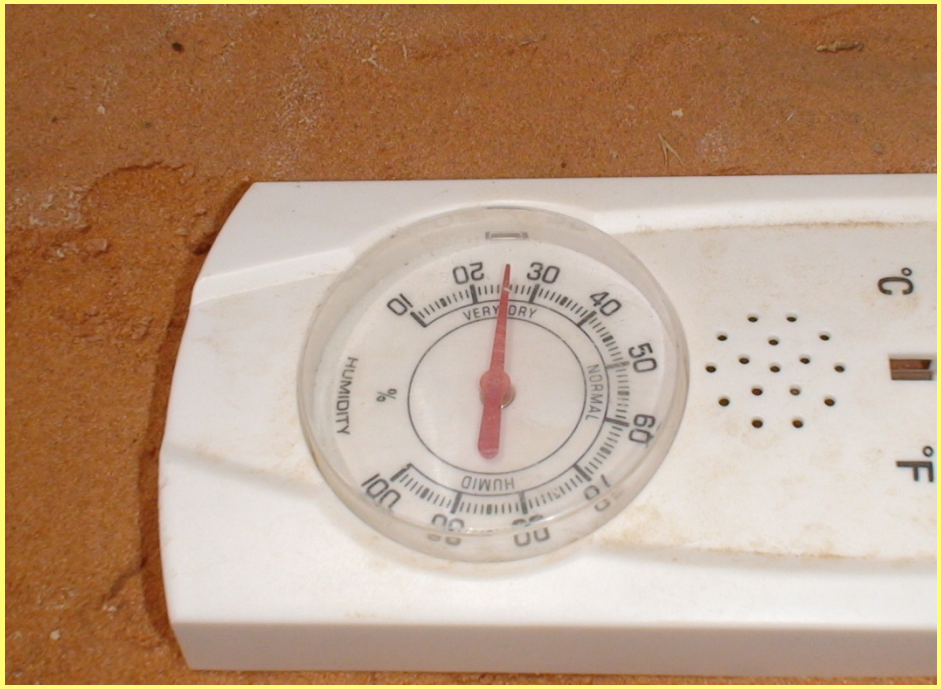
Conventional



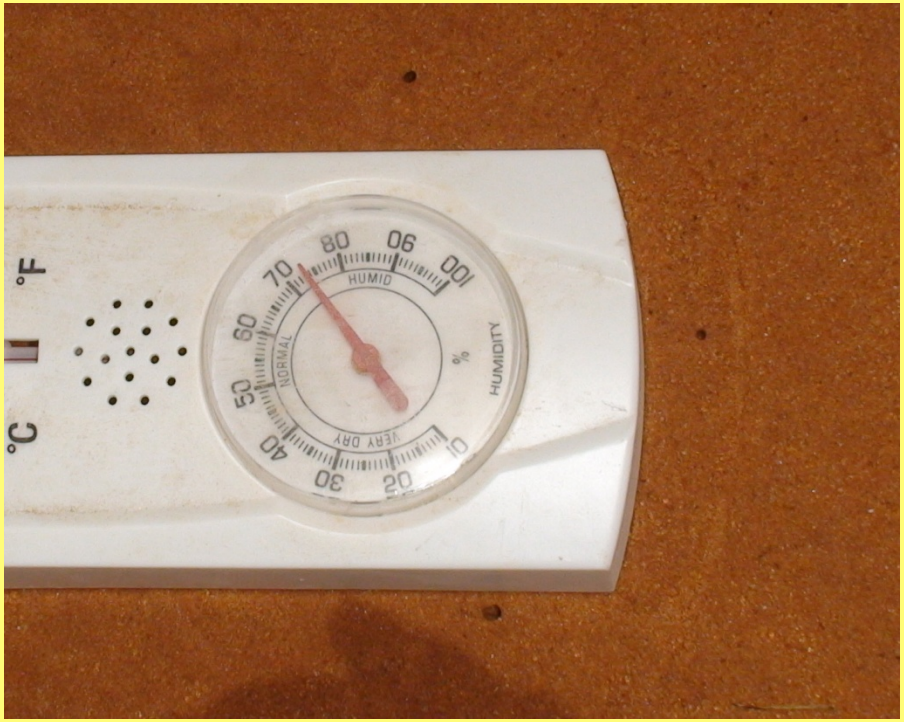
BIOHUMIN°

The difference between average sandy desert soil surface temperatures at the base of each palm and those observed over the BIOHUMIN° soil mixture is between 10 to 15 degrees (Celsius) cooler in the BIOHUMIN soil. In addition, temperature fluctuations in the sand are severe – creating a highly stressful situation for plants in this critical phase, while those in BIOHUMIN° soil fluctuate much more lightly, enabling plants to transition more smoothly into their new environment, free from such strain.

SOIL HUMIDITY



Conventional



BIOHUMIN°

Loss of water due to evaporation, transpiration and drainage is significantly slower in the BIOHUMIN° soil than in the sandy desert soil. Sandy soil conditions cannot hold onto water effectively around tree root systems – losing most of it very quickly to the depths below and the atmosphere above, while BIOHUMIN° makes it possible to retain water around the roots for much longer and reserves it for continuous use by the tree.

SOIL SALINITY

Conventional

BIOHUMIN°

Soil surface salt deposits arise from using a heavy amount of water during irrigation in a needy soil condition that cannot manage to keep up adequate water reserves around plant roots for plant use. Here, both the forces of drainage and evaporation occur very quickly with high osmotic pressure pulling up salts from deep below the surface with great ease. In BIOHUMIN° soil, however, all of the above is avoided.

FURTHER FINDINGS

Consideration	Conventional Method	BIOHUMIN° Method
Replanting Stress	Up to 20% of palms planted conventionally either weaken at the heart or are lost due to the high readjustment stress	No evidence of stress or weakness observed in any palm hearts after replanting in BIOHUMIN° soil
Tree Base Technique	A ring-like reservoir basin is formed around the base of each tree in order to keep the irrigation water from running off & away from the tree base	There is no use or need for such reservoirs at the base of trees planted in BIOHUMIN°
Tree Base Cloth Use	A sizeable amount of cloth is used to cover the area around the base of each tree intended to help reduce wild grass growth and evaporation	With BIOHUMIN°, there is no need for further use of this system. Even if some wild grass grows, the palms will not have to compete with them, but they will in turn work together naturally

SUMMARY (SOIL)

Improving Soil Condition:

BIOHUMIN° -

- Regenerates & Rejuvenates Soil Condition, turning it into a Viable Soil
- Infuses Essential Nutrition into the soil, giving it Health & Vitality
- Brings the soil to Neutral PH levels, maintaining Equilibrium longer
- Optimizes Soil Quality, retaining crucial liquid & mineral content for plant use

SUMMARY (WATER)

Water Consumption Comparison (per Tree):

Conventional Method:

Period	Frequency	Consumption	Total
Nursing Period	Once Daily	600L(x5) + 300L(x40)	15,000 Liters / Period
Regular Period	Once Weekly	750L	750 Liters / Week

BIOHUMIN° Method:

Period	Frequency	Consumption	Total
Nursing Period	Twice Daily	25L(AM) + 25L (PM)	2,250 Liters / Period
Regular Period	Once Daily	50L (PM)	350 Liters / Week

Water Consumption Reduction Using BIOHUMIN°:

- 6.67 TIMES during nursing period in test plot
- 53% during regular periods

Before & After:

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