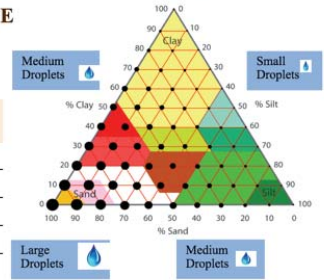


# IRRIGATION APPLICATIONS

## APPLICATION RATE VS. SOIL INF. RATE

To avoid run-off, the application rate should match the soil's ability to absorb water. This ensures water will infiltrate the soil gradually.

	Basic Intake Rate (mm/hr)	Reduce for Poor Condition (mm/hr)
Coarse Sand	19,1 – 25,4	8,9 – 16,5
Fine Sand	12,7 – 19,1	6,4 – 12,7
Fine Sandy Loam	8,9 – 12,7	3,8 – 7,6
Silt Loam	6,4 – 10,2	2,5 – 6,4
Clay Loam	2,5 – 7,6	1,3 – 5,1



### Application Intensity

Low kinetic energy minimizes surface soil compaction and maintains the soil's infiltration capability.

### Application Rate

Water infiltrates soil's pores at varying rates depending on soil texture.

### Droplet Size

The optimum droplet size is the largest droplet possible that does not have adverse effects on soils or crops.



## AGRONOMIC CONSIDERATIONS

- Soil Type Crop
- Elevation Changes
- Water Availability
- Water Quality
- Pressure
- Crop
- Droplet Size
- Wind Conditions
- Spacing Available
- Ground Clearance

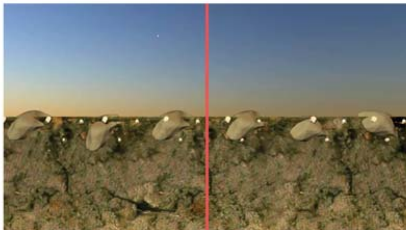


### Low Application Intensity

(left) Soil structure is maintained and optimum infiltration is retained.

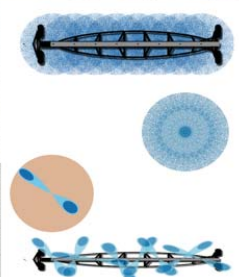
### High Application Intensity

(right) Soil particles are disrupted and the soil's structure breaks down. This leads to soil sealing and prevents proper infiltration of future applications.

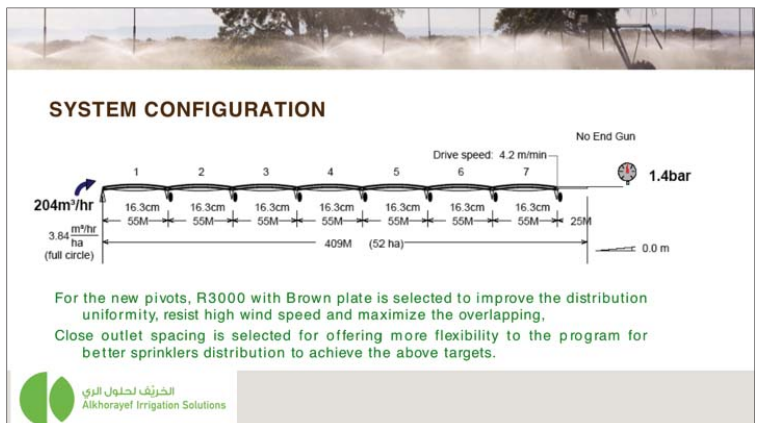
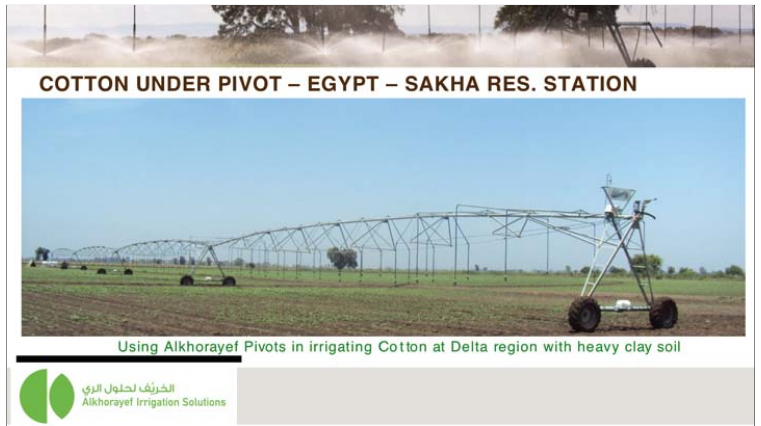



A rotator sprinkler applies flow instantly and evenly over a large area.

A fixed sprinkler applies flow instantly to a relatively small area, therefore not covering the entire area.

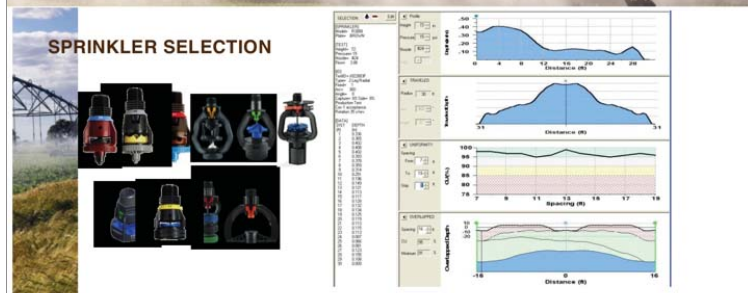










## SPRINKLER SELECTION



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## GERMINATION



High germination percentage with homogenize and strong plants of sugarbeet have got due to better distribution uniformity of water that distributed by pivots over all the field and due to maintain the moisture content at the upper layer at the field capacity


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## MANAGEMENT TOOLS




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## WEATHER DATA



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## MOISTURE DATA



The graph reveals that moisture content in the first layer of 15 to 20cm depth is in the field capacity whilst keeping the water suction in the second layer at high readings ...

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## MOISTURE DATA



Auger is used to take soil sample from different spots of the field and also different depths to feel the moisture of the soil compared to the moisture records ...

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