**SUGARCANE**
Growing Protocols With Nimbus Drip

**About us:**

**Nimbus** is a leading manufacturer and supplier of various micro irrigation solutions to Indian farmers from last four decades, while having its roots in India, leverage to know the kind of challenges being faced by Indian farmers and accordingly designed and actively catering need based Global Technology locally.

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**Benefits of drip:**

**To Water and Soil**
- 40-70 per cent saving of water
- More area can be planted with same quantity of water
- Increased water use efficiency
- Balanced air and water ratio in soil
- Around more than 90% of irrigation uniformity
- Poor quality of water can be used
- Suitable for any type of soil
- Undulated/rocky soil can also put under cultivation
- Good soil health due to less salt being added with irrigation water

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**Sugarcane**

- is a C4, perennial, most efficient energy storing grass belongs to the genus *Saccharum* and originated in Asia. It is grown between 35°N and S of the equator.

It occupies a prominent position in the Indian Agricultural scenario too on account of its wider adoption in different agroclimatic conditions of the country. It has significant role in national economy and provides raw material to sugar and over 25 other major industries viz. producing alcohol, papers, chemicals, and cattle feed.

**In India**

- Around 80% of fresh water is being used in Agriculture and Sugarcane is again a water guzzler crop, one Kg of refined sugar consumed around 2000 liters of water.

So, judicious use of water is one of key for sustainable sugarcane growing apart from others. Besides five decades of Micro irrigation invention, it's still only technology to answer for increased water use efficiency globally.

**To Sugarcane Crop**

- Uniform and quick germination
- Good root growth due to less soil compaction
- Profuse tillering and more mill able canes
- Inter cultivation is convenient
- Fertilizer application easier due to fertigation
- Less weeds and associated cost of labor etc.
- Mechanical earthing up possible
- Less lodging losses
- Clean cultivation
- De-trashing is possible during ripening phase
- Better control over crop
- Better ratoon management
- Higher yield (25-50%) with better sugar recovery

**To inputs variables**

- Saving in seed quantity, fertilizer, agrochemicals, energy and labor etc.
Climate:
It thrives well in a hot and humid atmosphere with a temperature of 21°C to 27°C while at ripening low temperature 12-15° C with cool nights are more suitable for higher sugar recovery. Sunlight 9-10 Hr/day is desirable. Broadly there are two distinct agroclimatic regions of sugarcane cultivation in India. **Tropical Region:** It contributes around 45 per cent of cane growing area and includes the states of Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, Madhya Pradesh, and Kerala. **Subtropical region:** Around 55 per cent of total cane area in the country is in the sub-tropics. U.P, Bihar, Haryana, and Punjab comes under this region.

Planting season:
In India, planting season of sugarcane in **tropical regions** (Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, and Madhya Pradesh) it is June to August (Adami) and January to February (Eksali). Some states like Tamil Nadu and Kerala. In, India planting season of sugarcane in **Subtropical Region** (UP, Bihar, Haryana, and Punjab) it is September to October (Autumn) and February to March (spring).

Irrigation scheduling:
It is very important to schedule an irrigation based on weather and crop growth stages to meet daily water requirement. | Crop Growth Stage (Days) | Days | Month | Crop Coefficient(H) | Epan (mm/day) | Pan Factor | WR (mm/day) |
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<tbody>
<tr>
<td>Termination and establishment (Up to 30)</td>
<td>1 to 30</td>
<td>Nov</td>
<td>0.3</td>
<td>4.5</td>
<td>0.7</td>
<td>0.95</td>
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<tr>
<td>Tillering &amp; Formative - I (31-90)</td>
<td>31 to 60</td>
<td>Dec</td>
<td>0.45</td>
<td>3.6</td>
<td>0.7</td>
<td>1.12</td>
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<td></td>
<td>61 to 90</td>
<td>Jan</td>
<td>0.6</td>
<td>3.9</td>
<td>0.7</td>
<td>1.63</td>
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<td>91 to 120</td>
<td>Feb</td>
<td>0.8</td>
<td>4.9</td>
<td>0.7</td>
<td>2.73</td>
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<td>121 to 140</td>
<td>March</td>
<td>0.9</td>
<td>7.4</td>
<td>0.7</td>
<td>4.66</td>
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<tr>
<td>Grand Growth - I (141-200)</td>
<td>141 to 150</td>
<td>March</td>
<td>0.9</td>
<td>7.4</td>
<td>0.7</td>
<td>4.66</td>
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<tr>
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<td>151 to 180</td>
<td>April</td>
<td>1.0</td>
<td>8.0</td>
<td>0.7</td>
<td>5.61</td>
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<td>181 to 200</td>
<td>May</td>
<td>1.0</td>
<td>9.5</td>
<td>0.7</td>
<td>6.84</td>
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<td>Grand Growth - II (201-260)</td>
<td>201 to 210</td>
<td>May</td>
<td>1.1</td>
<td>9.5</td>
<td>0.7</td>
<td>6.98</td>
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<tr>
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<td>211 to 240</td>
<td>June</td>
<td>1.1</td>
<td>7.8</td>
<td>0.7</td>
<td>6.01</td>
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<td>241 to 260</td>
<td>July</td>
<td>1.0</td>
<td>5.2</td>
<td>0.7</td>
<td>3.47</td>
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<tr>
<td>Grand Growth - III (261-320)</td>
<td>261 to 270</td>
<td>July</td>
<td>1.0</td>
<td>5.2</td>
<td>0.7</td>
<td>3.64</td>
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<td>271 to 300</td>
<td>Aug</td>
<td>0.9</td>
<td>3.6</td>
<td>0.7</td>
<td>2.27</td>
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<td>301 to 320</td>
<td>Sep</td>
<td>0.8</td>
<td>4.7</td>
<td>0.7</td>
<td>2.61</td>
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<td>Maturity (321-360)</td>
<td>321 to 330</td>
<td>Oct</td>
<td>0.7</td>
<td>5.6</td>
<td>0.7</td>
<td>2.76</td>
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<tr>
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<td>331 to 360</td>
<td>Nov</td>
<td>0.7</td>
<td>4.5</td>
<td>0.7</td>
<td>2.21</td>
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**DISCLAIMER:** This a general guideline about crop cultivation. It may vary according to time of planting, varieties, nutrient status of soil, climate and or any other situational reasons. NPL will not be held responsible in any special, direct, indirect, consequential, or incidental case arise out of it.

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**Planting Pattern and drip layout:**
Under drip irrigation, there are two types of prevailing patterns being adopted by farmers.
- **In single row** techniques, single line of dripline being used
- **Paired row** planting techniques single dripline used for pair of sugarcane rows.

**Recommendation for Drip Systems:**
Nimbus’s high performing inline (Victor/Prime) with 40 / 50 cm dripper spacing and 2-4lph dripper discharge is ideal for most of the soil types. We are providing tailor made system according to resources available and need of the farmer to make it Product selection, Design and Installation of irrigation system based on soil, crop, climate, and water source.
- Training to users in operation and maintenance and providing after sales service.
- Guide farmers on Water and Fertigation Management.

**Fertigation:**
General guideline of Sugarcane Fertigation

**DISCLAIMER**

- We Manufacture and Supply: Drip Irrigation, Mini Sprinkler, Sprinkler, Rain Gun, PE Pipes

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