



TURBO DRIPPER
4 / 8 /14 LPH



AQUARIUS PCND DRIPPER
4 / 8 LPH



K-GOL DRIPPER
2 / 4 LPH



K-GOL PC DRIPPER
2.5 / 4.5 LPH



K-LIN DRIPPER
1.2 / 2 / 4 LPH



K-LIN PCND DRIPPER
1.6 / 2.2 / 3.4 LPH



KOTHARI[®]
— IRRIGATION —

EXCELLENCE IN CITRUS CULTIVATION ONLY WITH KOTHARI DRIP IRRIGATION

Orange, Mandarin Orange Kagzi Lime are the main citrus class fruits. Citrus class fruits belongs Torutaceae family , which has thousands of classes. These fruits are found in hot climatic areas. Citrus class fruits are originally from South East Asia. In India, the North East area is the main area where fruits like Mandarin are grown. Nagpur Oranges are cultivated in large amount in Vidarbha region of Central India. Lemon is cultivated all over the country.

Kothari Agritech Pvt. Ltd.'s Drip Irrigation System, made up of modern world class technology is used for the irrigation of citrus class fruit crop. It supplies water and fertilizers equally to the efficient roots of citrus class fruits. It leads to increase in the amount of active roots. Kothari Agritech Pvt. Ltd. always serves Indian farmers with its best product & after sales support.

Benefits of Drip Irrigation:

- 1) Kothari Drip Irrigation helps in better establishment of plants.
- 2) It supplies water and fertilizers equally to the efficient roots of citrus class fruits. It helps in fast growth of the plants.
- 3) Kothari Drip Irrigation helps in equal growth, early ripening, more and quality yield.
- 4) Kothari Drip Irrigation saves 50% water, so more area can be brought under irrigation.
- 5) Kothari Drip Irrigation helps to irrigate frequently, because the efficient roots are in the upper layer of the soil, so it requires frequent irrigation.
- 6) Kothari Drip Irrigation keeps continuous moisture in the roots. So there is suitable situation for the growth of crop and it leads to increase in production.

Climate: Citrus class crops require hot and slightly humid climate. If there is 370 mm to 620 mm rain and 50-53% humidity in air the growth of plants is good. For growth and fruit bearing 14°C to 40°C temperature is required, but approximately 29-35°C temperature is more suitable.

Soil: Medium black and clay soil with depth of 1.5 to 2 metres with good drainage is good for this crop, pH 5.5 to 7.5. Heavy black soil should be avoided if possible.

Cultivation Method: For cultivation of citrus fruits dig 60 X 60 X 60 cms pits on 6 mts distance. Tranplant using square method. The pits should be dug one month before cultivation. Fill them with the mixture of 25 kg compost manure, 2 kg Single Super Phosphate, 100 gms 10% Clorden powder and good soil before onset of monsoon.

Selected grafts should be planted after sufficient rain. Citrus fruit are planted in High-density planting method also. (6mts - 3mts)

Kothari Drip Irrigation: Kothari Online Dripper like Uniflower Carona is used for citrus fruits. For every plant the number of drippers depends and changes as per the age and growth of the plant. For fully grown plant install 8 drippers of 8 lps.

More than 90 % efficient roots of citrus class fruits are in the depth of 25 to 30 cms. If Kothari Inline Drip Irrigation is used, it helps in providing water and fertilizer to all the efficient roots. It leads to proper growth of the plant, increases flower and fruit bearing capacity and thus increases production.

Water Management for Online Kothari Drip Irrigation

| Age | Number of drippers per tree | Dripper flow Ltr/hour | Flow per tree Ltr/hour | Maximum requirement of water Ltr/plant |
|------------------|-----------------------------|-----------------------|------------------------|--|
| 1 year | 2 | 8 | 16 | 16-20 |
| 2 years | 2 | 8 | 16 | 20-30 |
| 3 years | 2 | 8 | 16 | 30-40 |
| 4 years | 4 | 8 | 32 | 40-50 |
| 5 years | 4 | 8 | 32 | 50-60 |
| 6 years | 4 | 8 | 32 | 60-70 |
| 7 years | 6 | 8 | 48 | 70-80 |
| 8 years | 6 | 8 | 48 | 90-100 |
| 8 years and more | 8 | 8 | 64 | 100-120 |

For Inline Kothari Drip Irrigation

| Age | Number of drippers per tree | Distance between two drippers (m) | Time period to keep drip open |
|------------------|-----------------------------|-----------------------------------|-------------------------------|
| 1 year | 2 | 0.4 | 30 minutes |
| 2 years | 2 | 0.4 | 16 minutes |
| 3 years | 2 | 0.4 | 16 minutes |
| 4 years | 2 | 0.4 | 32 minutes |
| 5 years | 2 | 0.4 | 32 minutes |
| 6 years | 2 | 0.4 | 32 minutes |
| 7 years | 2 | 0.4 | 48 minutes |
| 8 years | 2 | 0.4 | 48 minutes |
| 8 years and more | 2 | 0.4 | 64 minutes |

Fertilizer Management: During 1 to 5 years of growth of citrus class fruits, supply manure in the last week of May or in the first week June every year.

Depending upon the age, supply chemical fertilizer as given below

| Time period | Sweet lime or Satgudi (kg/tree) | | | Lemon (kg/tree) | | |
|------------------|---------------------------------|------|------|-----------------|------|------|
| | 1 year | 0.3 | 0.07 | 0.08 | 0.3 | 0.15 |
| 2 years | 0.6 | 0.14 | 0.16 | 0.6 | 0.30 | 0.30 |
| 3 years | 0.9 | 0.21 | 0.24 | 0.9 | 0.45 | 0.45 |
| 4 years | 1.2 | 0.28 | 0.32 | 1.2 | 0.60 | 0.60 |
| 5 years and more | 1.5 | 0.35 | 0.40 | 1.5 | 0.60 | 0.80 |

Supply of fertilizer through Drip Irrigation for fully grown trees and above 5 years of age.

After Blooming Period: Supply fertilizers such as **Manure:** 20 - 30 kg per tree, **Wormy Compost:** 1.0 kg per tree, **Neem Cake:** 1.0 kg per tree. **Single Super Phosphate:** 2.0 kg per tree, **M. Potash:** 0.40 kg per tree, **M. Sulphate:** 0.40 kg per tree through soil.

Soluble Fertilizer Management through Kothari Drip Irrigation

| State | Fertilizer | Kg per tree | Total |
|---------------------------------|-----------------------------|-------------|-------|
| Flower bud initiation 1-30 days | Ammonium Sulphate | 2.00 | 224 |
| | Urea | 0.400 | 45 |
| | Murate of Potash | 0.250 | 28 |
| Fruit Bearing 90- 140 days | Ammonium Sulphate | 0.500 | 56 |
| | Urea | 0.500 | 56 |
| | Murate of Potash | 0.250 | 28 |
| | Magnesium Sulphate | 0.250 | 28 |
| Fruit development 141-170 | Calcium Nitrate | 0.200 | 23 |
| | Urea | 0.400 | 45 |
| | Murate of Potash | 0.250 | 28 |
| | Magnesium Sulphate | 0.250 | 28 |
| Fruit ripening 171- 200 | Urea | 0.200 | 23 |
| | 13:00:45 Sulphate of Potash | 0.200 | 23 |
| | | 0.250 | 28 |

Note: Table above is a guideline, kindly do the necessary changes as per change in climate and soil.

KOTHARI®

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