

COTTON CULTIVATION – A New Package



Cotton is a unique crop plant, and its innate growth pattern makes it challenging to grow. However, the plant develops in a somewhat predictable pattern. Initially, leaf area and vegetative structures are developed that will then support future reproductive growth. If this initial vegetative growth is compromised, subsequent reproductive growth also suffers. Unlike many other crops, the cotton plant continues vegetative growth after flowering begins. The development of fruiting structures ultimately reduces vegetative growth as the plant matures.

Crop growth pattern of cotton is strictly decided by the accumulation of heat degree unit concepts. For example,

Heat degree units and crop stage (140 days old Variety)

| Growth Stage | Heat Units | Days |
|---------------------|-------------------|-------------|
| Emergence | 50 | 5 |
| First Square | 550 | 38 |
| First Flower | 950 | 59 |
| Open Boll | 2150 | 116 |
| Harvest | 2600 | 140 |

On consideration of heat degree unit concepts AgriInfotech's products recommendation as follows,

COTTON

SOIL & FOLIAR NUTIRENT APPLICATION PROGRAMME

| GROWTH STAGE AND METHOD | PRODUCT | APPLICATION / RATE |
|--|---|---|
| <p><u>PLANTING</u></p> <p><u>SEED TREATMENT</u></p> | <p><u>Super Hume</u></p> | <p>Mix 10 ml each of Super Hume and Super Sea weed per liter of water. Prepare appropriate amount applied as seed soaked fully in water and soak it for 30-40 minutes. It enhances germination, seedling vigor and root development of any crops.</p> |
| | <p><u>Sea weed Extract</u></p> | |
| | <p>After normal fertilization apply 500 to 750 ml of super Hume as basal application. Mix it with 200 to 300 liters of water and apply directly to soil concentrating around root zone.</p> | |
| <p><u>In-Furrow Spraying</u></p> | | <p>If prior crop is of any cereals, apply 500 ml in 200 liters of water. (apply on the stubbles of wheat, sugarcane and rice after each harvest). This will increase the decomposition of stubbles also impart organic matter to the soil.</p> |
| <p><u>2-4 WEEKS AFTER EMERGENCE OR 4-6 TRUE LEAF STAGE (FOLIAR)</u></p> <p>Multiple applications are beneficial and cost effective.</p> | <p>Microboost 1.0 ml plus 3 ml seaweed extract per liter of water. (Add each separately onto the sprayer).</p> <p>Also beneficial if you add 1.0 ml of microboost along with every time of pesticide application.</p> | |
| <p><u>4-6 LEAF STAGE ONWARDS (FOLIAR)</u></p> | | <p>Microboost 2.0 ml plus 5.0 ml of super seaweed or 3-5 ml of Bio-NPK 16-4-8 per liter of water and apply as foliar.</p> |
| <p><u>MID SEASON (Active Vegetative stage)</u></p> | | <p>3-5 ml of Bio-NPK 10-8-8 or SuperHume 1.0 ml per liter of water and apply through foliar.</p> |

| GROWTH STAGE AND METHOD | PRODUCT | APPLICATION / RATE |
|---|---|--|
| <u>APPLY PRIOR TO FIRST BLOOM</u> Up to 3 applications. | <u>Super Seaweed</u> <u>Microboost</u> | Microboost 2.0 ml plus 5 ml of super seaweed or 3-5 ml of Bio-NPK 10-8-8 or SuperHume 1.0 ml per liter of water and apply as foliar. |
| <u>FIRST FLOWER TO PEAK FLOWER</u> | <u>Super Seaweed</u> <u>Microboost</u> | Microboost 2.0 ml plus 5 ml of super seaweed per liter of water and apply as foliar. |
| <u>PEAK FLOWER ONWARDS</u> | <u>Sea Weed</u> | Apply 5 ml of super seaweed alone in one liter of water and apply as foliar. |

NOTE: The above suggested rates of application should be used as a guide only. Each farmer's climatic conditions, water quality, soil types, application processes and practices may differ and therefore necessitate corrections to ensure optimum results. It is recommended that when applying to a crop or area for the first time or in combination with other chemicals a small test area should be sprayed and observed prior to the total crop spray. Where possible it is recommended that regular leaf (sap) test are conducted to determine actual plant nutrient availability during each growing cycle. Soil tests at least once per year are essential.

BIOLOGICAL NPK FIT FOR FERTIGATION AS WELL FOR FOLIAR SPRAY

| GROWTH STAGE AND METHOD | PRODUCT | APPLICATION / RATE |
|--------------------------------|----------------|---------------------------|
|--------------------------------|----------------|---------------------------|

| | | |
|---|-------------------------------------|--|
| <u>APPLY PRIOR TO FIRST BLOOM</u> | <u>Biological NPK 10-8-8</u> | 500 ml/acre. Applied through Drip system or it may be supplied through foliar. |
| <u>FIRST FLOWER TO PEAK FLOWER</u> | <u>Biological NPK 16-4-8</u> | 500 ml/acre. Applied through Drip system or it may be supplied through foliar. |

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BOTANICAL PESTICIDES FOR PEST CONTROL IN COTTON

| GROWTH STAGE AND METHOD | PRODUCT | APPLICATION / RATE |
|--|---|--|
| <u>APPLY PRIOR TO FIRST BLOOM</u> | <u>NeemHumate</u> <u>AzaKaranj</u> | Basal application 5 to 10 Kg/acre 200 to 300 ml/acre for any pest problem |
| <u>FIRST FLOWER TO PEAK</u> | <u>Fungicide FC100 (Plant Derived)</u> | FC 100 500 to 750 ml per acre |

| | | |
|-----------------------------------|--|---|
| <u>FLOWER</u> | <u>Hydrolyzed Protein (Immunity Development)</u> | Hydrolyzed Protein 500 ml/acre |
| <u>PEAK FLOWER ONWARDS</u> | <u>Insecticide IC 100</u> <u>Garlic Plus Neem</u> | IC 100 500 to 750 ml per acre. Dose 500 ml/acre. |

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***Dosage may be redesigned based on the stage and condition of crops and soil fertility level based on the prescription of AgriInfoTech technical team.**