

Package of Practices for Cotton Cultivation in Karnataka

Cotton Research Station, UAS, Raichur

Variety: Bt hybrids for South Zone (I)

Name of the crop: Cotton (*Gossypium hirsutum*)

Sl. No.	Particulars	Package Recommended
1.	Suitability of the variety for the area (Recommended area for which variety has been released/ recommended)	Irrigated areas of South Zone All recommended Bt hybrids for South Zone
2.	Selection of field/ land preparation (Type of topography, soil condition, tillage operations for seed bed etc.)	Medium to heavy well drained soils Ploughing once and two to three times harrowing.
3.	Seed Treatment (Recommended chemical with dosages)	Imidacloprod @ 4g/kg of seeds for sucking pests, Carbendizim 3g/kg seeds for soil borne diseases. Azatobacter and PSB @ 25g/kg seed for Nitrogen fixation and phosphorus solubilization.
4.	Sowing time (Optimum sowing period)	Onset of Monsoon to 15 th July
5.	Seed Rate/ sowing method-line sowing with row to row and plant to plant distance	1.5 to 2.0 kg/ha Dibbling 90 × 60 cm (90 cm row to row and 60 cm plant to plant spacing)
6.	Fertilizer Doses & Time of fertilizers application (Type and quantity of fertilizers)	180:90:90 kg NPK/ha 12.5% N & K and entire P as basal 12.5% N & K at 25 DAS 50 % N & K at 50 DAS 12.5% N & K at 75 DAS 12.5% N & K at 100 DAS
7.	Weed control (Name of weedicide(s) with dosages and timing of mechanical weeding, if any)	Pendimethalin 30EC @ 5 lit/ha as pre-emergent herbicide or Pendimethalin 38.7 CS @ 1.75 lit/ha as pre-emergent herbicide. Pyrithiobac Sodium 10EC @ 750 ml/ha as post-emergent herbicide at 25-30 DAS

		Two to three hoeing at 20 days interval and two hand weedings (1 and 2 months after sowing) should be done.
8.	Major disease and pest control (Type of pest and disease with name of chemicals and dosages & timing of application)	<p>For Aphids, Jassids and Thrips: Spraying Dimethoate 30EC (10ml in 10 lit of water) or Methyl Demeton 25 EC (8 ml in 10 lit of water) or Acetamaprid 20SP (2g in 10 lit of water) or Imidacloprid 17.8 SL (4 ml in 10 lit of water) or Thiomethaxam 25 WG (3 g in 10 lit of water) or Diafenthiuron 20SG (3 g in 10 lit of water) or Flonicamid 50WG (10 g in 10 lit of water)</p> <p>For whiteflies: Spraying Trizophos 40 EC (20 ml in 10 lit of water) or Diafenthiuron 50 WP (8 g in 10 lit of water)</p> <p>For Spotted, Heliothis and Pink Bollworm: Spraying Quinolphos 25 EC (20 ml in 10 lit of water) or Thiodicarb 75 WP (20 g in 10 lit of water) or Spinisad 25 SC (4 ml in 10 lit of water) or Cypermethrin 10 EC (7.5 ml in 10 lit of water) or Profenophos 50EC (20 ml in 10 lit of water) or Lambda-cyhalothrin 10EC (10 ml in 10 lit of water)</p>
9.	Leaf reddening management	<ul style="list-style-type: none"> • 10 kg MgSO₄ as soil application at the time of sowing • 1% 19:19:19 (10g in 1 lit of water) + 1% MgSO₄ (10g in 1 lit of water) foliar spray during flowering (55-60 DAS). The same spray should be repeated at 75-80 DAS (boll initiation stage) and 95-100 DAS (boll development stage) • 0.5% Micronutrient spray (5 ml in 1 lit of water) at 85 DAS • Right time of sowing <i>i.e.</i>, 1st week of June is optimum • Providing irrigation at critical stages (squaring, flowering, boll initiation and boll development stages)
10.	Irrigation Schedule (Critical stages for irrigation and method of irrigation)	One or two protective irrigations at critical stages of crop growth namely, boll initiation and boll development.
11.	Harvesting (Approximate days of harvestable maturity)	170-180 days
12.	Expected yield of the Bt hybrid per acre from 14q to 16q/acre (Yield subject to use under area of adaption and	14 to 16q/acre depending upon the prevalent environmental conditions and above said appropriate management practices.

	the recommended climatic conditions and adoption of package and practices)	
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Note: These are standard package and practices which may vary with environment fluctuations. The information is supplied by the University/ Institute

Variety: Non Bt Varieties for South Zone (I)

Name of the crop: Cotton (*Gossypium hirsutum*)

Sl. No.	Particulars	Package Recommended
1.	Suitability of the variety for the area (Recommended area for which variety has been released/ recommended)	Irrigated areas of South Zone
2.	Selection of field/ land preparation (Type of topography, soil condition, tillage operations for seed bed etc.)	Medium to heavy well drained soils Ploughing once and two to three times harrowing.
3.	Seed Treatment (Recommended chemical with dosages)	Imidacloprod @ 4g/kg of seeds for sucking pests, Carbendizim 3g/kg seeds for soil borne diseases. Azatobacter and PSB @ 25g/kg seed for Nitrogen fixation and phosphorus solubilization.
4.	Sowing time (Optimum sowing period)	Onset of Monsoon to 15 th July
5.	Seed Rate/ sowing method-line sowing with row to row and plant to plant distance	4-5 kg/ha Dibbling 90 × 30 cm (90 cm row to row and 30 cm plant to plant spacing)
6.	Fertilizer Doses & Time of fertilizers application (Type and quantity of fertilizers)	80:40:40 kg NPK/ha Half dose of N, full dose of P ₂ O ₅ and K ₂ O at the time of sowing and remaining N (50%) should be applied at 25 DAS and 50 DAS in equal splits
7.	Weed control (Name of weedicide(s) with dosages and timing of mechanical weeding, if any)	Pendimethalin 30EC @ 5 lit/ha as pre-emergent herbicide or Pendimethalin 38.7 CS @ 1.75 lit/ha as pre-emergent herbicide. Pyrithiobac Sodium 10EC @ 750 ml/ha as post-emergent herbicide at 25-30 DAS

		Two to three hoeing at 20 days interval and two hand weedings (1 and 2 months after sowing) should be done.
8.	Major disease and pest control (Type of pest and disease with name of chemicals and dosages & timing of application)	<p>For Aphids, Jassids and Thrips: Spraying Dimethoate 30EC (10ml in 10 lit of water) or Methyl Demeton 25 EC (8 ml in 10 lit of water) or Acetamaprid 20SP (2g in 10 lit of water) or Imidacloprid 17.8 SL (4 ml in 10 lit of water) or Thiomethaxam 25 WG (3 g in 10 lit of water) or Diafenthiuron 20SG (3 g in 10 lit of water) or Flonicamid 50WG (10 g in 10 lit of water)</p> <p>For whiteflies: Spraying Trizophos 40 EC (20 ml in 10 lit of water) or Diafenthiuron 50 WP (8 g in 10 lit of water)</p> <p>For Spotted, Heliothis and Pink Bollworm: Spraying Quinolphos 25 EC (20 ml in 10 lit of water) or Thiodicarb 75 WP (20 g in 10 lit of water) or Spinisad 25 SC (4 ml in 10 lit of water) or Cypermethrin 10 EC (7.5 ml in 10 lit of water) or Profenophos 50EC (20 ml in 10 lit of water) or Lambda-cyhalothrin 10EC (10 ml in 10 lit of water)</p>
9.	Irrigation Schedule (Critical stages for irrigation and method of irrigation)	One or two protective irrigations at critical stages of crop growth namely, boll initiation and boll development.
10.	Harvesting (Approximate days of harvestable maturity)	150-160 days
11.	Expected yield of the variety per acre from 12q to 15q/acre (Yield subject to use under area of adaption and the recommended climatic conditions and adoption of package and practices)	12 to 15q/acre depending upon the prevalent environmental conditions and above said appropriate management practices.

Note: These are standard package and practices which may vary with environment fluctuations. The information is supplied by the University/ Institute

Information provided by: Cotton Research Station, UAS, Raichur. (2023)

Information collected and uploaded by Dr. M. Sabesh, CICR