

CASTOR

Recommended Varieties/Hybrids:

S.No.	Variety / Hybrid	Duration (Days)	Yield (q/ac)	Important Characters
1.	Kranthi	90-150	6-8	Bold seed, early maturing
2.	Haritha	90-180	6-8	Resistant to wilt
3.	Kiran	90-150	6-8	Tolerant to drought and to grey rot due to non spiny capsules
4.	Jyothi	90-150	6-8	Wilt resistant
5.	Jwala	90-180	6-8	Tolerant to wilt and grey rot
6.	GCH-4	90-180	7-8	Tolerant to wilt and root rot
7.	DCH-177	90-180	8-10	Resistant to wilt
8.	DCH- 519	90-180	8-10	Resistant to wilt
9.	PCH-111	90-180	8-10	Resistant to wilt
10.	PCH-222	90-180	8-10	Resistant to wilt

- 1. Suitability of the variety for the area (Recommended area for which variety has been released / recommended.):** All the above mentioned varieties/hybrids are suitable to entire Andhra Pradesh
- 2. Selection of field/land preparation (Type of topography soil condition, tillage operations for seed bed etc.):** Castor can be cultivated in all types soils except saline soils and soils with poor drainage. Two ploughings followed by harrowing and leveling are required for land preparation.
- 3. Seed Treatment (Recommended chemical with dosages):** 3 g Thiram or captan / kg seed can control seedling blight and alternaria leaf spot and Fusariumwilt to some extent. In areas where Fusarium wilt is endemic, 3 g of carabendazim or 10 g of *Trichoderma viride* powder/ kg seed is recommended.
- 4. Sowing Time(Optimum sowing period) :**
Kharif: June 15th to July 31st is recommended.
Rabi: October is recommended. Delay in sowing beyond October reduces the yields by 30-40%
- 5. Seed Rate/sowing method-line sowing with row to row and plant to plant distance:**
Seed Rate: Varieties: 3-4 kg/acreHybrids: 2 kg/acre, **Sowing method:** Line sowing is recommended**Spacing:** During *kharif*, 90 x 60 cm is recommended. In delayed situation with poor quality soil, 90 x 45 cm is recommended. In *rabi*, 120 x 60-90cm and 90 x 60-90 cm are

recommended for heavy and light soils, respectively.

6. Fertilizer Doses & time of fertilizer's application (Type and quantity of Fertilizers): Varieties: 60-40-30 kg N,P₂O₅,K₂O/haHybrids: 80-40-30 kg N,P₂O₅,K₂O/haUnder Drip

irrigation : 80 to 120 - 40-30 kg N,P₂O₅,K₂O/ha. Apply 2-3 tonnes of Farm yard manure per acre. Full dose of P and K, half the dose of N as basal and remaining half dose of N in two equal splits at 30 and 60 DAS for varieties and three equal splits at 30,60, 90 DAS for hybrids either *kharif* or *rabi*.

7. Weed Control(Name of weedicide(s) with dosages and timing of mechanical weeding, if any): Pre-emergence spray of Pendimethalin @ 1.0-1.3 lit acre within 48-72 hrs after sowing in the presence of optimum soil moisture. Post emergence application of Targasuper/Whip super/Agri @ 300ml/acre or Clincher @ 250ml/acre at 15-20 DAS to control the grasses. 2-3 intercultivations depending on the weed intensity between 30 and 60 DAS onwards.

8. Major disease and pest control (Type of Pest and disease with name of chemicals and dosages & timing of application):

7.1. Insects

Semilooper:

- In early stages spray neem oil (5 ml/l) or NSKE (5%) twice with an interval of 10-15 days.
- Collection and destruction of larvae.
- Release 50, 000 *Trichogramma* parasitoids / acre.



- Arrange 10 bird perches /acre
- Spray monocrotophos (1.5 ml)/ carbaryl (3 g)/l.



Spodoptera:

- Deep summer ploughing
- Collection and destruction of egg masses and larvae.
- In early stages spray Neem oil (5 ml/l) or monocrotophos (2.0 ml/l) or Chloripyriphos (2.5 ml/l).
- Poison baits (5 kg rice bran + 500 g jaggery + 500ml monocrotophos or 500 g carbaryl).

Shoot and capsule borer:

- Spray Dimethoate/ Methyl-o-demeton/ monocrotophos (2ml/l) at flowering stage and 20 days later.



Bihar hairy caterpillar:

- Spray neem oil (5ml)/Chloripyrifos (2ml)/ Dichlorovos(1ml) per L.

Jassids:

- Spray Dimethoate (2ml)/ monocrotophos (1.5ml/l) per L.

DISEASES

Fusarium Wilt:

- Use tolerant varieties like Haritha, 48-1, Jyothi, PCH-111 and PCH-222.



- Treat the seed with Thiram or Carbendazim @ 3 g/kg.
- Intercropping with Redgram and crop rotation with bajra.
- Spray Carbendazim 1g/l.
- Removal and destruction of affected plants.

Botrytis Grey Rot:

- Soon after cyclone warning is given in Radio/ T.V., spray carbendazim (1.0 g/l).
- Remove infected spikes and destroy.



- Spray carbendazim after the rains.
- Apply 20 kg urea and 10 kg potash/acre.

9. Irrigation schedule(Critical stages for irrigation and method of irrigation): Castor is grown during *kharif* season under rainfed conditions. Hence, no need of giving irrigation to castor in *kharif*. However, in the event of long dry spells during critical stages i.e., flowering and capsule development, one or two life saving irrigations are advocated. In case of *rabi* season, irrigation has to be scheduled at an interval of 12-15 days from October to January and 6-8 days interval during February and March. In case of *rabi* castor under drip irrigation, irrigation has to be scheduled for 1.5 to 2.0 hrs during oct-Jan and 2.5-3.0 hrs during Feb and March.

- 10. Harvesting(Approximate days of harvestable maturity):** Castor crop comes to maturity at 90 days after sowing. Harvest the crop at one month interval after first picking (3-4 pickings). Harvest when 80% capsules turn yellow in a spike. Thresh after drying and store the seed with 9-10% moisture.
- 11. Expected yield of the variety per acre (Yield subject to use under area of adaption and the recommended climatic conditions and adoption of package and practices):** 4-6 q/acre under rainfed situation during *kharif* 10-12 q/ac under assured irrigation during *rabi* 15-16 q/acre under drip irrigation in *rabi* season

