

## Improved Agronomic Practices for Castor Cultivation

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### INTRODUCTION

#### Varieties

**DCH 177:** The primary spike of DCH 177 matures in 90-100 day. This is a high yielding variety suitable for both rainfed as well as irrigated area. The seed yield of this variety 6-12 qt/ ha in rainfed and 16-24 qt/ha in irrigated area of Haryana. This is a known for non shattering variety and resistant to white fly, root rot, wilt and lodging.

**ICH 66:** The primary spike of ICH 66 maturing 94-97 days. This is a high yielding hybrid suitable for both rainfed as well as irrigated area. The seed yield of this hybrid 6-12 qt/ha in rainfed and 16-25 qt/ha in irrigated area of Haryana. This hybrid is resistant to Jassid, root rot and wilt.

**Sowing time:** Optimum time of sowing of the castor hybrid in north India (Haryana, Punjab, U.P. and western Rajasthan) from last week of June to first fortnight of July.

**Seed rate and spacing:** In rainfed and low irrigated area the castor hybrid is sown at spacing of 90 x 60 cm with seed rate 3 kg/acre. In irrigated area, this is sown at spacing of 150 x 90 cm with seed rate 1.6 kg/acre. The depth of seed sowing should be 2-3 inches. The seed of Castor hybrid should be soaked in water for 12-24 hours before the sowing, it helps in improving seed germination.

**Seed treatment:** The seed and soil should be treated in thiram and captan @ 3 g/kg seed or bavistin @ 2 g/kg seed for controlling the attack of insect pest.

**Fertilizer:** In rainfed castor 8 kg nitrogen and 16 kg phosphorus should be apply before sowing the crop. The remaining two doses of nitrogen (8 kg- 8 kg) apply at 35-40 days after sowing (DAS) and 65-70 DAS. In irrigated area 8 kg Nitrogen, 16 kg phosphorus should be apply at the time of sowing and remaining two doses of Nitrogen (8 kg – 8 kg) apply at 35-40 DAS and 75-80 DAS. The application of 10-12 kg potash, 10 kg zinc sulphate and 100 kg gypsum at the time of sowing. It beneficial for higher crop production.

**Irrigation:** During initial stage of castor hybrid, does not requires much water, if there is prolong dry spell of 20-25 period days, it requires irrigation. Depending upon soil water holding capacity, it requires 3-4 to 5-6 irrigation. The critical stage of irrigations is 50-60 days after sowing and 80-95 DAS. During summer season irrigation should be apply at interval of 15-20 days and during winter at 25-30 days interval.

**Intercultural operation:** In initial stage castor is very sensitive to weed problem. Weed can be controlled effectively with two hand hoeing (4<sup>th</sup> and 7<sup>th</sup> weeks after sowing). Like cotton crop hoeing can also be carried with help of tractor, bullock and camels. Before

germination spray of 800 ml pendimethalin is beneficial for weed control.

**Insect control:** The attack of insect is the major constraint in Castor production. Which includes chewing types, sucking type and Borer insect. But they can control effectively with 1-2 spray of insecticide.

**Harvesting:** Harvesting is done when some capsule become yellowish while some capsule become brownish in the spike. First spike get ripened after 90-120 DAS. Then harvesting is carried out at 25-30 Days intervals. Harvesting gets completed in 4-6 times. Generally, In irrigated condition the harvesting should be completed in the end of April or 1<sup>st</sup> week of May.