

Cultivation of maize is done in north/eastern plain areas. In other irrigated areas of the state also, its cultivation can be done successfully.

Recommended Intensive System

Details of hybrid and sankul variety of maize are given below:

SN Variety	Color and size of grains	Shades of colors and grains	Duration of release of cumin (days)	Duration of Ripening (In Days)	Yield (Quintal/hectare)
Hybrid Maize					
1 Buland	2005	Yellow, Round	85-90	150-155	70-80
2 PMH-3	2008	Orange, Round	85-90	150-160	70-80
3 Deccan-105	1991	Orange, Semipermetta	85-90	150-160	70-80
4 Trisulta	1991	Orange, Semipermetta	85-90	150-160	70-80
5 Shaktiman-1	2001	White, Shiny	85-90	150-155	70-80
6 X-1382 (3054)	1998	Yellow, Half-Width	85-90	155-160	70-80
7 K. H.-5981	1997	Yellow, Half-Width	85-90	155-160	70-80
8 K.H.-5991	1997	Yellow, Half-Width	85-90	155-160	70-80
9 SeedTech-2324	2001	Yellow, Half-Width	85-90	155-160	70-80
10 HQPM-1	2005	Yellow, flat	85-90	150-160	70-80
Sankul Makka					
1 Dhawal	1988	White, Half-Width	75-79	145-150	50-60
2 Sharadmani	2008	Orange Yellow	82-87	125-130	45-50
3 Shakti-1	1997	Yellow, Half-Width	75-80	130-135	40-45
For Lava					
4 Amber-Popcorn	1988	Orange, Round	75-80	135-140	30-35
5 V.L. Amber-popcorn	1982	Orange, Round	75-80	135-140	30-35
6 Pearl-Popcorn	1996	Orange, Round	75-80	135-140	30-35
Sweet corn for green gran (sweet corn)					
7 Madhuri Sweet Carn	1990	Yellow, flat	80-85	120-125	Ready Corn
8	2002	Yellow, Flat	80-85	120-125	

Priya Sweet Corn						Ready Corn
Maize for fodder						
9	African Tall	1982	-	-	350-400	Ku. Green fodder
10	J.-1006	1992	-	-	300-350	Ku. Green fodder

Note: For special use, it should be taken care of that other variety of maize should not be sown in around 400 meter.

Preparation of Field

Loamy soil is suitable for rabi maize. Make the soil fine by 1-2 plough by disc harrow. If there is lack of sufficient moisture, prepare the field by tillage. By use of tractor driven rotavator, the field is prepared in single plough.

Sowing Time

Suitable time of sowing of Rabi maize is 15th October to 15th November.

Seed Rate and Sowing Method

Use 20-22 kg seed per hectare for Rabi maize so that 85-90 thousand plants can be obtained. Treatment of seed before sowing is essential. Keep the distance between 2 rows 60 cm and between 2 plants 20-25 cm.

Seed Treatment

For protection of seed borne diseases, sow the seed after treatment with 2.5 gm thiram or 2 gm carbadasim 50% per hectare.

Fertilizers

Use of fertilizer as follows is beneficial according to the variety of maize sown and soil testing:

	Nitrogen	Phosphorous	Potash	Sulphur
Hybrid Maize	150 kg/hectare	75 kg/hectare	60 kg/hectare	40 kg/hectare
Sankul Maize	120 kg/hectare	60 kg/hectare	40 kg/hectare	30 kg/hectare

Whole quantity of phosphorous and potash and 1/4th quantity of nitrogen should be used at the time of sowing. Half of the remaining quantity of nitrogen should be used when the plants attain knee height and remaining quantity should be used as top dressing before silk formation. In the areas of zinc deficiency, use 20-25 kg zinc sulphate per hectare before last plough. Never use zinc sulphate with phosphate fertilizer. To get good yield and maintain the soil fertility, use 60 quintal per hectare well decomposed cow dung or compost for hybrid variety and 40 kg for sankul variety. In such condition, 20 kg less nitrogen per hectare should be used.

Other Necessary Activities

When the crop attains knee height, earth up the plants. A drain is formed between the rows of the plants by this activity due to which irrigation becomes easier.

Weeding-Hoeing

Take out weeds and hoe after 20-25 days and 40-45 days of sowing or spray atrazine 50% WP 1.0-1.5 liter dissolved in 500-600 liter water before sowing and after germination.

Irrigation

Rabi maize requires 4-5 irrigation. First irrigation should be done after 25-30 days of sowing, second after 55-60 days, third after 75-80 days, fourth after 110-115 days and fifth after 120-125 days. If required, additional irrigation as per moisture requirement of the field will be suitable.

Inter Cropping

Early ripening variety of pulses such as peas (for vegetables), Rajma, Wakla, tomato, early potato, carrot, sweet carrot and onion can be sown between the rows as inter crop successfully.

Harvesting

When 75% of the leaves covering the cobs turns yellow, pluck the cobs, dry it and separate the kernels.

Maize Saylor

Dry the corn and sail the kernels by manual or power driven maize sailor. It reduces the cost by 40-50%.

Crop Protection

Soil Treatment and Treatment of Insect/ Disease in Standing Crop

• Identification of Termite Insect

Mainly worker termite which is 6 mm long, white colored soft insect harms the plant by cutting the roots.

Treatment

- Apply chlorpyrifos 1.5% at the rate of 25-30 kg per hectare in the field at the time of last plough.
- In case of insect menace in standing crop, use linden 20 EC 3.75 liter or chlorpyrifos 2-3 liter/hectare.

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- **Haired(Bhurli) Insect**

Maggot of this insect eats the leaves very quickly and causes heavy loss to the crops. The body of this insect is covered with hair.

Treatment

Spray any one of the following chemicals for prevention of these insects:

- 25 kg per hectare soluble powder of methyl parathion 2%.
- Di chlorvas 650 ml.
- Chlorpyrifos 20 EC, 1.5 liter.

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- Di chlorvas 650 ml.
- Chlorpyrifos 20 EC, 1.5 liter.
- **Identification of Mahu Insect**

The infants and adults of this insect sucks the juice from the leaf surface and harms the crop.

Treatment

Spray any one of the following chemicals for prevention of these insects:

- Methyl -o-demeton 25 EC, 1.00 liter.
- Monocrotopos 36 ED, 0.500 ml.
- Chlorpyrifos 20 EC, 0.750 liter.

NOTE: Where green cob is used for eating, do not use these chemicals there. Spray malathion at the rate of 1.0 liter per hectare for control of mahu in the cobs.

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Disease Control

• Diagnosis of Leaf Blight (Jhulsa)

In this disease, long oval shed brown colored lesion appears on the leaves. In case of intense menace, the leaves burn and dry.

Treatment

Spray Zineb or Mancozeb 75% WP at the rate of 2 kg per hectare.

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• Identification of Pink Bladder Disease

In this disease, the plants look dry after grain feeling. If the stem is cut transverse, the veins appear pink colored from lower sides and contracts.

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• Ukatha

The plants appear dry in the field before 10-15 days of harvesting. If the stem is cut transverse, the veins appear contracted and copal filled with powder.

Treatment

For its control, use healthy seeds, seed treatment and apply irrigation as per need.

Remarks: Make arrangement of irrigation to maintain sufficient moisture at the time of ripening of kernels. In case of inter cropping with potato, do not use atrazine.

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Treatment

For its control, use healthy seeds, seed treatment and apply irrigation as per need.

Remarks: Make arrangement of irrigation to maintain sufficient moisture at the time of ripening of kernels. In case of inter cropping with potato, do n ot use atrazine.