In rainy season low, water logging areas are not suitable normally for Kharif and Rabi crop. Approximately 3000 hectare such area is available even today in Ballia, Deoria, Gorakhpur, Basti, Siddhrthnagar, Mirzapur, Varanasi and Ghazipur district of eastern Uttar Pradesh but the productivity of this area is very low due to lack of proper farm management, less variety, and lack of promotion where as Boro variety has higher production capacity. 30-50% more yield can be obtained in comparison to normal paddy from cultivation of boro paddy due to availability of sufficient moisture and minimum possibility of disease, insect and seasonal weeds which can be proved as blessings to the farmers and the state in the form of additional production. This will certainly increase the productivity and income of the farmers by increase in total crop coverage area by use of wasteland and use of surplus time of the farmers. Even today, saket-4, Sarju-52, Jaya, I. R-8 is being cultivated in the form of boro paddy. In experiments, varieties of other state such as Prabhat, Saroj, Gautam etc has been found better in view of production.

High yield Recommended Variety of Boro Paddy

SN	Variety Name	duration In days	Yield Capacity Kuntal/Ha
1	Narendra-97	145	35-45
2	Barani Deep	140	30-40
3	Rhecharia	160	35-45
4	Dhanalakshmi	170	45-55
5	Prabhat	160	50-60
6	Saroj	170	55-65
7	Gautam	175	60-70
8	Malaviya Paddy -105	150-155	65-70
9	IR-64	145-150	60-65

Suitable Land

Water logging area in rainy season especially on the bank of ponds, lakes where the water level is slowly reduced to 30 cm at the end of rainy season is more suitable. The land near the canal which is always covered with water due to seepage is suitable for Boro paddy.

Seed Rate

Plant at the rate of 40-45 kg seed per hectare

Time of Planting

Mid October to Mid November is suitable for planting.

Planting Time

एक माह से अधिक लेकिन दो माह से कम समय की पौध रोपाई करने से अच्छी उपज प्राप्त होती है।

Plant management

Best management is essential for successful cultivation of Boro paddy which is detailed below:

- Low lying area with irrigation facility is suitable for planting of Boro Paddy.
- Use 1.0-1.5 kg/square meter decomposed farm yard manure in the nursery.
- Spread 25 kg urea, 25 kg single super phosphate, 20 kg murrett of potash and 2 kg Zinc Sulphate in plant area of 1/10 hectare at the time of preparation of field for planting in one hectare.
- Use carbandasim at the rate of 2 gm per kg seed for seed treatment.|
- Use 80-100 gm germinated seed per square meter. The seeds should be soaked in water for 2 hours and it is essential to keep covered with wet bags in shade for 48 hours.
- Apply regular irrigation in such a manner that sufficient moisture is available all the times in the field.

Measures for protection of crop from cold

- Apply proper irrigation.
- Spray wood/husk/dung ash twice in a week.
- Remove the dew from the leaves.
- Cover the plant with plastic sheet in evening and remove it in the morning.
- Smoke for short duration can also save the crop from cold.

Preparation of Nursery by Depog Method

In this method, nursery can be prepared at any place such as roof or in a big size iron/wooden tray. Spread the germinated seed on one inch thick layer of soil. Slap the soil with hand and sprinkle water to maintain the moisture. In this method, possibility of damage from cold is reduced.

Preparation of Field for Planting

In the field where planting is to be done, at least 2 ploughs and strong bund are essential. Plough and level the field after spreading 10 tons decomposed farm yard manure per hectare before the on set of rainy season.

Requirement and Use of Fertilizer

Use 100 kg nitrogen (220 kg urea), 40 kg phosphorous (250 kg single super phosphate) and 20 kg potash (34 kg murrett of potash) per hectare. Use half of the quantity of nitrogen and full quantity of phosphorous and potash should be used at the time of tillage. Half of the remaining quantity of nitrogen should be used after 30 days of planting and remaining half at the time of streak formation.

Planting

On favorable temperature (average temperature 13-14 degree Celsius), planting should be done from 15th January to 15th February in 60-70 days old 2-3 plant(18-20 cm. long) per cluster(punja) in such a manner that at least 40-50 cluster is planted per square meter.

Irrigation

Apply irrigation as per need. Sufficient availability of water in the field eases the control of weeds. In Boro paddy, at least 6 cm water should be filled at the time of planting, tillering, streak formation and grain filling. There is no requirement of irrigation before 15 days of harvesting.

Crop Protection

Normally problem of weeds, insects and disease is found less in Boro paddy in comparison to normal paddy but following cycle should be adopted for crop protection to get good 5%

Weed Management

- Use 1.5 kg butachlor per hectare after 2-3 days of planting before weeds germinate.
- Take the weeds out after 30 and 50 days of planting.
- Spray 2-4 D at the rate of 0.5 kg/hectare dissolved in 500-600 liter water after weed germination.

Insect Management

Protect from insects causing damage to Boro Paddy as follows:

- **Brown Aphid:** Use 3% granular carbofuran at the rate of 20-25 kg per hectare when 8-10 insect per plant is seen at the time of tillering. If the streak has emerged, spray ethopfenprox 20 EC solution at the rate of 1 ml/ liter water as needed.
- **Stem Borer Insect:** : In case of 5% insect menace at the stage of tillering, spray 3% furadan powder at the rate of 20-25 kg per hectare.
- **Gandhi Insect:** In case of insect menace, spray 5% Malathion powder at the rate of 20-25 kg per hectare in morning and evening.

Disease Management

Treat the critical diseases of Boro paddy as per details given below:

- **Brown Spot:** Treat the seed before sowing with 3 gm thiram per kg seed. Use 2 kg of 80% zerum powder or 3 liter of protoquinol 27 EC per hectare in standing crop.
- **Jhonka Disease:** Treat the seed with 3 gm thiram or 2 gm carbandasim per kg seed. 2 kg of Zerum or 0.01% solution of Adipinfos or 0.01% solution of carbandasim should be used in the standing crop 2-3 times at an interval of 10-12 days.
- **Sheath Blight (Jhulsa):** Spray 1.5 kg thiofenetmethyl or 1 kg carbandasim dissolved in 800 liter water at an interval of 10 days as needed.

Harvesting and Threshing

Stop irrigation when lower kernel becomes hard and reap the crop when all kernels become hard. Clean the kernel after 1 day and dry in shade up to 13-14% moisture level.

Storage

It can be stored in any metallic or non metallic container in which permeability is not easy. Use Malathion 50 EC disinfectant before storage and keep the bags on wooden racks. Keep the metallic container at least 30 cm away from the wall and ware house/store room is closed.