

CROP: WHEAT

VARIETY

- Timely Sown (15th to 30th November)
 - PBW 343, HD 2733, K 9107, HP 1731 & HP 1761
- Late sown (5th to 30th December)
 - HD 2985, DBW 14, WR 544 & PBW 343

SEED TREATMENT

Seeds should be treated with Vitabax or Thiram at the rate 2 gms or 3 gms per kg of seeds.

SEED RATE

Timely Sown - 125 Kg per hectare.

Late sown – 150 Kg per hectare.

Seeds should be sown at the depth of 5-6 cm in the soil in lines at a distance of 15 - 20 cm from row to row and 5 cm plant to plant.

MANURE AND FERTILIZERS

Balanced manuring is important than heavy and unbalanced fertilizer dose 5-10 tonnes of FYM or compost should be applied per hectare at the time of preparation of land.

DOSES OF FERTILIZER PER HECTARE

Name of Fertilizer	Irrigated	Irrigated late	Un-irrigated
Urea	(150Kg N)	(120 Kg N)	(60 Kg N)
Super Phosphate	(60 Kg P ₂ O ₅)	(40 Kg P ₂ O ₅)	(30 Kg P ₂ O ₅)
Muriate of Potash	(40 Kg K ₂ O)	(20 Kg K ₂ O)	(20 Kg K ₂ O)

Application of fertilizers should be based on soil testing reports for economic use of fertilizer. Under irrigated condition half the quantity of Urea and the entire quantity of Phosphate and Muriate of Potash should be applied at the time of sowing. The remaining 50 % of the quantity of Urea's should be top dressed at the time of first irrigation and rest quantity of Urea should be top dressed at the time of second irrigation.

IRRIGATION

- First Irrigation 20-25 days after sowing (Crown root-initiation stage).
- Second Irrigation 40-45 days after sowing (tillering stage)
- Third Irrigation 70-75 days after sowing (late jointing stage)
- Fourth Irrigation 90-95 days after sowing (flowering stage)
- Fifth Irrigation after 110-115 days of sowing (dough stage)

WEED CONTROL

Wheat field should be kept weed free particularly at the early stage of growth.

- For controlling broad leaved weeds, spray, 2,4-D @ 0.5 to 1 Kg per hectare in about 600 liter of water after 28-30 days of sowing.

PLANT PROTECTION

A. DISEASE

1. Seed borne disease- Loose Smut, Bunt etc,

CONTROL

- Remove the smutted ear heads as soon as they emerge from the boot leaf and burn.
- Seed treatment must be followed.

2. Rust- Dark brown or black or orange yellow pustules are formed on the leaves, leaf-sheaths and stems in the colder months. Rust cause drying up of foliage and consequent reduction in yield.

CONTROL

- Treat the seeds before sowing as mentioned above.
- Spray Dithane M-45/Indofil M-45 at the rate of 2 Kg or Dithane Z- 78 at the rate of 2.5 kg mixed with 600 liter of water per hectare. Two to three spraying at fortnightly interval will effectively control the disease or dust Sulphur at the rate of 25 kg per hectare.

B. INSECTS- PESTS

1. TERMITES OR WHITE ANTS- Termites or ants are serious problem in irrigated sandy or sandy loam soil.

CONTROL

- Irrigate the affected field as it prevents termite damage to some extent.
- At the time of application of basal dose of manure, apply Ekalux 1.5 % dust @ 45 Kgs per hectare, and mix with the soil to a depth of 8-10 cm by repeated ploughing of the field.
- In case of termites attack in standing crop, drench the soil with 2.5 litter of Chlorpyrifos 20 EC mixed in 1000 litter of water. The insecticides can also be mixed with irrigation water.

2. STEM BORER- It bores the stem causing "dead heart" in early stage of crop and "White ears" in the earhead stage.

CONTROL

- Pullout the "dead heart" and "white ears" along with larvae or pupae and destroy by burning.
- Broadcast Ekalux 5 G or Furadan 3 G @ 18 Kgs per hectare uniformly in the infested areas with assured high soil moisture content or spray Dimecron 85 EC @ 5 to 6 ml or Thiodan 35EC @ 27 ml or Ekalux 25 EC in 18 litres of water (1 kerosene tinful). Two to three sprayings at an interval of 3 weeks will control the insect pest.

3. Aphids, Army worms, Grasshoppers and Cut worms- Apply Ekalux 1.5 % dust @ 45 Kgs per hectare or spray Dimecron 85 EC @ 5-6 ml or Rogor 30 EC @ 10-12 ml or Thiodan 35 EC 27 ml in 18 litres of water. Repeat spraying at fortnightly interval if necessary.

4. Rodent- Poison baiting with Zinc phosphide against rat menace may be undertaken during the earing stage.

5. Harvest- The maturity of these varieties is uniform. Harvesting of wheat should be done as soon as the grains are ripe to avoid loss due to shattering of seeds and damage by birds etc.