CULTURAL PRACTICES | Farmer guide

Wheat Cultivation Guide

A better start • balanced nutrition • timely care

General guidance for irrigated cultivation in the northern Indian plains. Adapt it to local weather, soil, and the recommendation written on the seed pack.

This one guide is general guidance for DBW 303 (20 kg and 40 kg), HD 2967 (40 kg), and PBW 502 (40 kg).

DP Agrogenetics Private Limited

Field and seed preparation

Get the soil tested. Keep the field level, friable, and well drained. If moisture is low, give a pre-sowing irrigation (palewa). Do not burn crop residue; sow with suitable machinery. Check the sealed seed, the lot details, and the germination percentage.



Sowing

Right time to sow

In the western plains the suitable time is generally 1–15 November, and in the eastern plains 10–20 November.

Western plains	Eastern plains
1–15 November	**10–20 November**

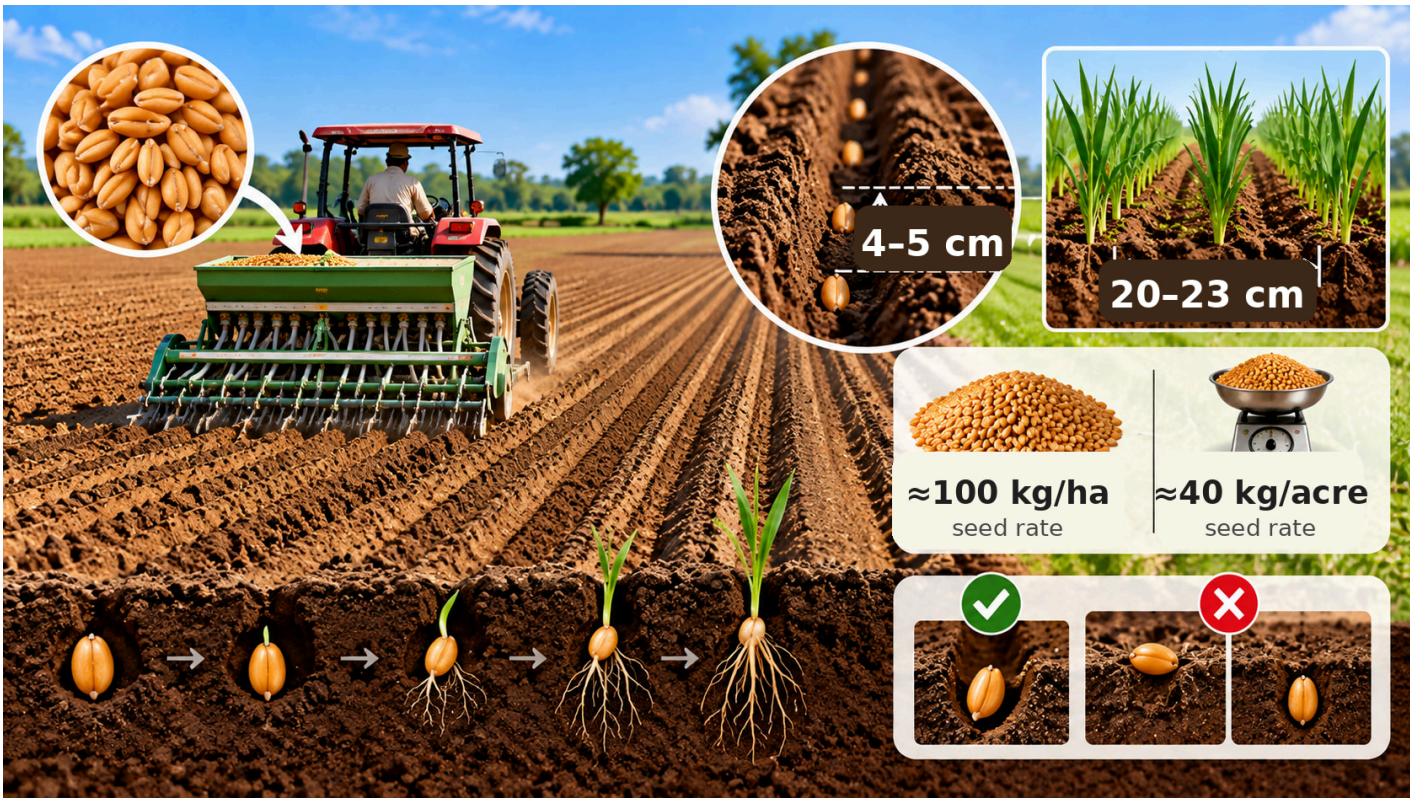
If sowing is delayed, take advice from the local Krishi Vigyan Kendra on suitability and seed rate.



Even sowing in rows

For timely sowing, use about 40 kg seed per acre (100 kg/ha). Keep row spacing at 20–23 cm and depth at about 4–5 cm. Adjust the quantity for seed size, germination, and the sowing method.

About 40 kg/acre **100 kg/ha** **Rows 20–23 cm** **Depth 4–5 cm**



Seed treatment

Check the pack to see whether the seed is already treated. Do not treat already-treated seed again on your own. For untreated seed, treat it according to the local recommendation and the product label.

Fertilizer in the right amount

Apply fertilizer based on a soil test; do not rely on urea alone.

General nutrient target for timely sown irrigated wheat: N : P2O5 : K2O = 150 : 60 : 40 kg per hectare, that is about 61 : 24 : 16 kg per acre.

Based on ordinary urea 46% N, DAP 18:46:0 and MOP 60% K2O. Nitrogen supplied by DAP has been subtracted in the calculation.



Wheat Fertilizer Schedule — per acre

At sowing

DAP + MOP **53 + 27 kg**

Urea **23 kg**

Around the first irrigation

Urea **44 kg**

Around the second irrigation

Urea **44 kg**

Total example / acre

DAP 53 kg + MOP 27 kg + urea about 111 kg per acre.

Important

This is an example; change it according to the soil test, previous fertilizer, and the local recommendation.

Top-dress on moist soil; do not apply while water is standing. Do not keep fertilizer in direct contact with the seed. Give zinc, sulfur, and similar nutrients only for a confirmed deficiency and according to local advice.

Irrigate on time

Along with the day count, also look at the crop stage, rainfall, and soil moisture.



Wheat Irrigation & Growth Timeline

1	2	3	4	5	6
20-25 days CRI / crown-root MOST IMPORTANT	**40-45 days** Tillering & jointing stage	**60-65 days** Stem elongation stage	**80-85 days** Before heading	**100-105 days** Milk stage	**115-120 days** Grain filling — if needed

Generally 4-6 irrigations may be sufficient; reduce the number according to rainfall and soil moisture.

If water is limited, prioritize the CRI stage. Avoid waterlogging and heavy irrigation during strong winds.

The first irrigation matters most

About 20–25 days after sowing, at crown-root initiation (CRI), do not let moisture run short.

- **20–25 days** Crown-root initiation (CRI)
- **40–45 days** Tillering and jointing stage
- **60–65 days** Stem elongation stage
- **80–85 days** Before heading
- **100–105 days** Milk stage in the grain
- **115–120 days** Grain-filling stage; if needed

These are estimated stages. Not every field needs 6 irrigations. Generally 4–6 irrigations may be sufficient; reduce the number according to rainfall and moisture.

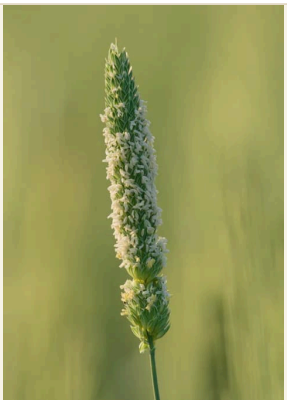
Give water uniformly and avoid waterlogging. Heavy irrigation in strong wind can make the crop lodge. If water is limited, prioritize CRI; decide the next irrigation with local advice.

From care to harvest

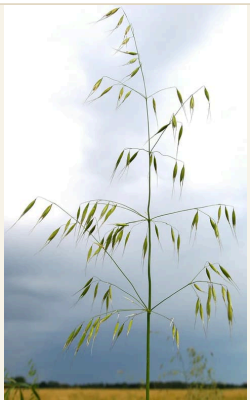
Watch the field regularly, and treat a problem only after it has been identified.

Identify weeds in time

Identify weeds such as mandusi, wild oat, and bathua. Control them at an early stage. The timing of many later sprays is about 30–35 days. Decide the right product, quantity, moisture, and spray time from its label.



Mandusi
Phalaris minor
Identify them early. Control them according to the approved label and local advice.



Wild oat
wild oat
Identify them early. Control them according to the approved label and local advice.



Bathua
Chenopodium album
Identify them early. Control them according to the approved label and local advice.

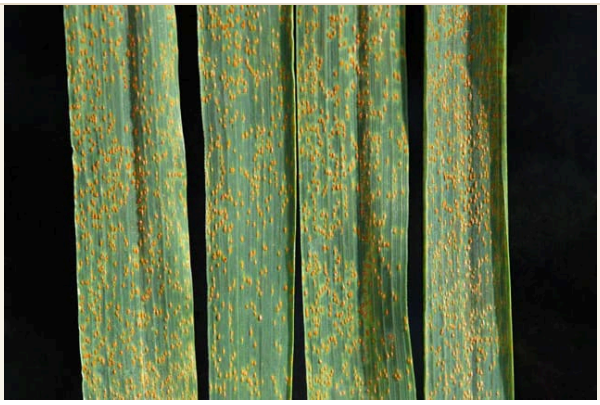
Do you see symptoms like these?

If you see yellow or brown dust-like stripes on the leaves, groups of aphids, or plants drying up, show a photo to an agricultural expert. Also monitor termites and stem borers. Protect beneficial insects; do not mix and spray chemicals without identifying the problem.

Reference image only. This is not a diagnosis. Photograph the affected crop and show it to an agricultural expert.

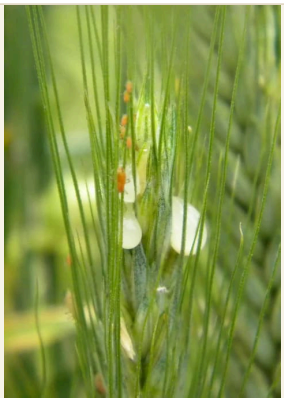


Yellow stripe rust



Brown leaf rust

Pests — reference only



Aphid

Sitobion avenae

Reference image only. Confirm the problem locally and consult an agricultural expert.



Termite

Odontotermes obesus

Reference image only. Confirm the problem locally and consult an agricultural expert.



Stem borer

Sesamia inferens

This is a reference photo of the adult moth. It is not a view inside the stem. Reference image only. Confirm the problem locally and consult an agricultural expert.

Harvest and safe storage



1. **Timely harvest** Harvest on time when the crop is mature and the grains are hard.
2. **Clean tarpaulin** Dry the grain on a clean tarpaulin.
3. **Moisture below 12%** Before storage, keep moisture below 12%.
4. **Safe store** Keep it in a clean, dry, pest-free store and inspect it regularly.

Do not use treated seed as food or animal feed.

Use a crop-protection chemical only according to a label approved for wheat, the safety instructions, and the advice of a local agricultural expert. Yield depends on soil, weather, and management.

Technical references

Tap a name to read it

- ICAR-IIWBR: Wheat Cultivation in India, EB-52
- ICAR-IIWBR: November crop advisory
- Vikaspedia: Wheat package of practices