

ALL INDIA COORDINATED WHEAT & BARLEY IMPROVEMENT PROJECT

**TECHNICAL PROGRAMME OF
WHEAT AGRONOMY
2023-2024**

ZONE-WISE DATE OF SUBMISSION

1.	NORTHERN HILLS ZONE	15 th JUNE
2.	NORTH WESTERN PLAINS ZONE	15 th MAY
3.	NORTH EASTERN PLAINS ZONE	15 th MAY
4.	CENTRAL ZONE	30 th APRIL
5.	PENINSULAR ZONE	30 th APRIL
6.	SOUTHERN HILLS ZONE	30 th APRIL

FOR UNIFORMITY IN DATA RECORDING AND REPORTING FOLLOWING POINTS SHOULD BE STRICTLY ADHERED TO

1. Sequence of treatments should be strictly as per the technical programme. Columns/Rows for the missing treatment/variety should be kept blank. Data should be submitted as per the stipulated date given above.
2. To record observations on stand count, earhead/m² etc., two fixed quadrants may be marked in each plot.
3. For recording observations on weeds, wherever necessary, two fixed quadrants per plot may be marked.
4. Yield, 1000-grain weight and biomass may be reported at 12% moisture. For this purpose, grain and straw samples may be taken for determining moisture content at the time of recording and data corrected to 12% moisture content.
5. For calculating grains/earhead following formula may be used;

$$\text{Grains/earhead} = \frac{\text{Yield, q/ha} \times 10,000}{\text{Earhead/m}^2 \times 1000 \text{ grain weight, g}}$$

6. For calculating lodging score following formula may be used

$$\text{Lodging Score} = \frac{(\text{Lodged area/Net plot area}) \times 100 \times \text{Angle of lodging}}{90}$$

7. Data should be reported strictly as per the units given at the top of each page/worksheet/character for different parameters.

Norms with respect to minimum limit of target condition (q/ha) for acceptance or rejection of coordinated varietal evaluation trials.

Zone/Trial	Normal (q/ha)	Late (q/ha)	Very late (q/ha)	Restricted Irrigation (q/ha)	Rainfed/Salinity/Alkalinity Conditions (q/ha)
NHZ	35	20	-	15	15
NWPZ	50	40	25	35	20
NEPZ	45	35	20	30	20
CZ	45	35	-	30	20
PZ	45	35	-	30	20
Dicoccum	35	-	-	-	-
HYPT-ES	NWPZ : 65, CZ:55	-	-	-	-

Note: There is 5 q/ha relaxation for Assam and West Bengal centers.

WHEAT AGRONOMY EXPERIMENT NO. IR-TS-DOS-TAS

NORTH WESTERN PLAINS ZONE

2023-24

TITLE: Performance of new wheat genotypes at different dates of sowing under irrigated conditions.

OBJECTIVE: To evaluate the performance of genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Timely (5th Nov. to 11th Nov.)
- D₂ Late (10th Dec. to 16th Dec.)

B. Genotypes (Sub-plots): 09

- 1. DBW386 2. HD3471^M 3. HI1668 4. HD2967
- 5. DBW187 6. DBW222 7. PBW826 8. HD3386(I)

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

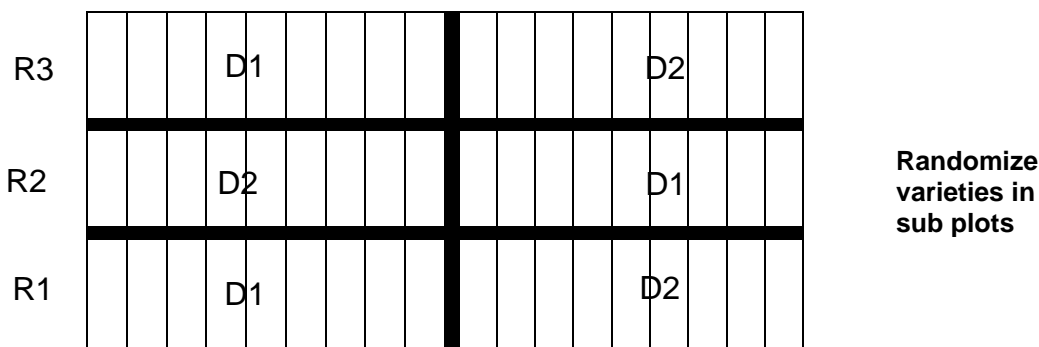
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER 150:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 100 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Agra, Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana, Pantnagar, Sriganagar

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. IR-LS-DOS-TAS

NORTH WESTERN PLAINS ZONE

2023-24

TITLE: Performance of new wheat genotypes under late sowing conditions.

OBJECTIVE: To evaluate the performance of late sown genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Late (10th Dec. to 16th Dec.)
- D₂ Very Late (01st Jan. to 07th Jan.)

B. Genotypes (Sub-plots): 05

- 1. HD3428
- 2. HD3059
- 3. DBW173
- 4. PBW771
- 5. JKW261

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)

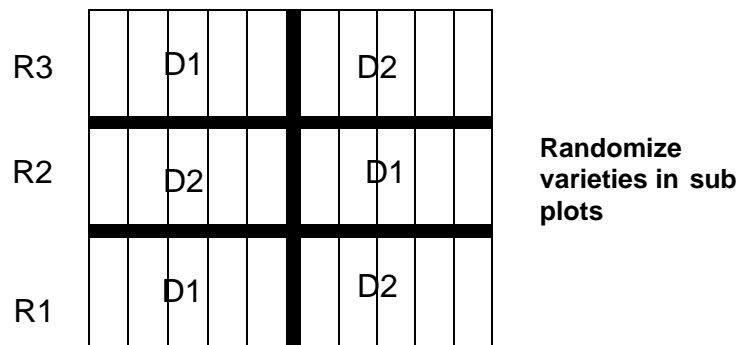
NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: 120:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 125 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Agra, Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana, Pantnagar, Sriganagar

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. IR-TS-DOS-TAS

NORTH EASTERN PLAINS ZONE

2023-24

TITLE: Performance of new wheat genotypes at different dates of sowing under irrigated conditions.

OBJECTIVE: To evaluate the performance of genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Timely (12th Nov. to 18th Nov.)
- D₂ Late (10th Dec. to 16th Dec.)

B. Genotypes (Sub-plots): 05

- 1. DBW386 2. HD3249 3. DBW187
- 4. DBW222 5. PBW826

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

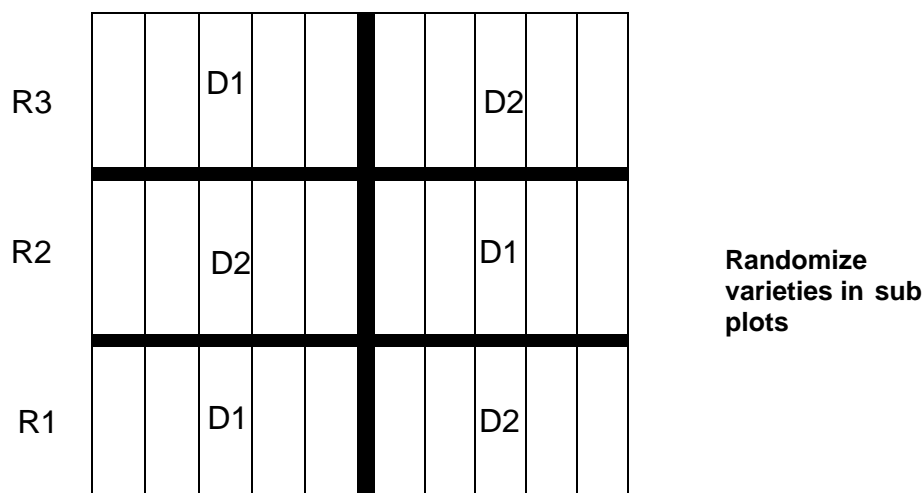
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: 150:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 100 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Ayodhya, Coochbehar, Kalyani, Kanpur, Ranchi, RPCAU Pusa, Sabour, Shillongani, Varanasi

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. IR-TS-DOS-TAD

CENTRAL ZONE

2023-24

TITLE: Performance of new wheat genotypes at different dates of sowing under irrigated conditions.

OBJECTIVE: To evaluate the performance of genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Timely (05th Nov to 11^h Nov)
- D₂ Late (03rd Dec. to 09th Dec.)

B. Genotypes (Sub-plots): 05

- 1. HI1669 2. GW322 3. MACS6768
- 4. HI1650 5. GW547(I)

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

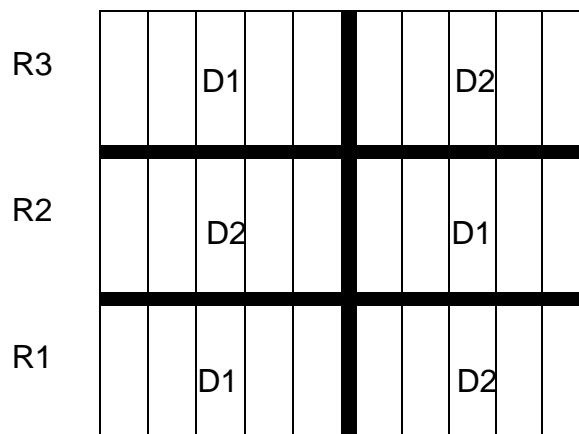
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: 120:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 100 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Bilaspur, Gwalior, Indore, Jabalpur, Junagarh, Powarkheda, Udaipur, Vijapur

LAYOUT



Randomize varieties in sub plots

WHEAT AGRONOMY EXPERIMENT NO. IR-LS-DOS-TAS

CENTRAL ZONE

2023-24

TITLE: Performance of new wheat genotypes under late sowing conditions.

OBJECTIVE: To evaluate the performance of late sown genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Late (03rd Dec. to 09th Dec)
- D₂ Very Late (24th Dec. to 31st Dec.)

B. Genotypes (Sub-plots): 05

- 1. HI1674 2. HD2932 3. MP4010
- 4. HI1634 5. CG1029

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

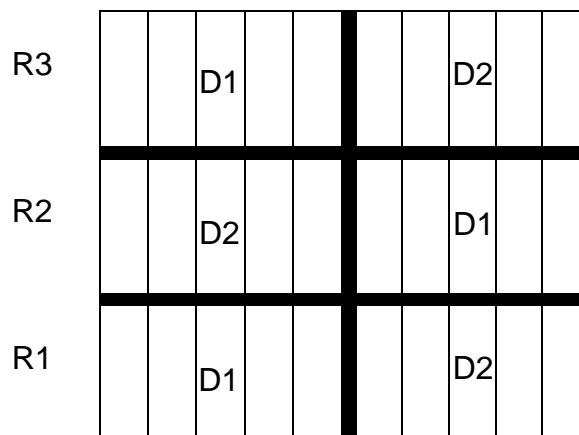
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: 90:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 125 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Bilaspur, Gwalior, Indore, Jabalpur, Junagarh, Powarkheda, Udaipur, Vijapur

LAYOUT



Randomize varieties in sub plots

WHEAT AGRONOMY EXPERIMENT NO. RIR-TS-TAD

CENTRAL ZONE

2023-24

TITLE: Performance of new wheat genotypes under restricted irrigation conditions.

OBJECTIVE: To evaluate the performance of timely sown genotypes at different irrigation schedules.

TREATMENTS

A. Irrigation levels (Main-plots):03

- I₁ - No irrigation
- I₂ - One irrigation at CRI (20-25 DAS)
- I₃ - Two irrigations at CRI and Boot leaf (80-85 DAS)

B. Genotypes (Sub-plots): 05

- 1. DBW441^M 2. DBW110 3. CG1036
- 4. HI1655 5. DBW359(I)

Seed requirement: 2.0 kg/ entry/ location

DESIGN: Split-plot

REPLICATIONS: Three

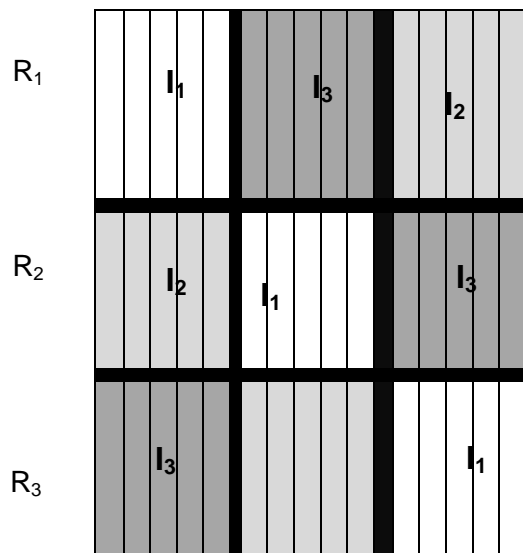
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: 90:60:40 kg N, P₂O₅ and K₂O/ha. Apply full dose of NPK as basal in I₁ and 1/3rd nitrogen, full phosphorus and potash as basal in other treatments and the remaining 2/3rd nitrogen at first irrigation.

SEED RATE: 100 kg/ha (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Bilaspur, Gwalior, Indore, Jabalpur, Powarkheda, Udaipur

LAYOUT



Randomize varieties in sub plots

WHEAT AGRONOMY EXPERIMENT NO. IR-TS-DOS-TAD

PENINSULAR ZONE

2023-24

TITLE: Performance of new wheat genotypes at different dates of sowing under irrigated conditions.

OBJECTIVE: To evaluate the performance of genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Timely (5th Nov. to 11th Nov.)
- D₂ Late (26th Nov. to 2nd Dec.)

B. Genotypes (Sub-plots): 08

- 1. PBW891 2. DBW443 3. AKAW5100 4. WH1306
- 5. NWS2222 6. MACS6222 7. GW322 8. MP1378(I)

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

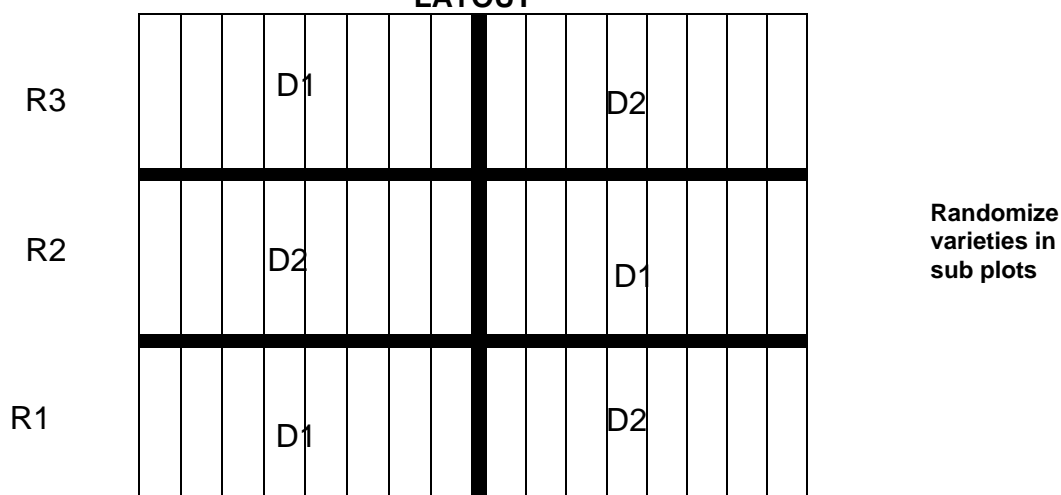
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER 120:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 100 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Akola, Dharwad, Niphad, Pune

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. IR-LS-DOS-TAS

PENINSULAR ZONE

2023-24

TITLE: Performance of new wheat genotypes under late sowing conditions.

OBJECTIVE: To evaluate the performance of late sown genotypes at different dates of sowing.

TREATMENTS

A. Dates of sowing (Main-plots): 02

- D₁ Late (26th Nov. to 2nd Dec.)
- D₂ Very Late (17th Dec. to 23th Dec.)

B. Genotypes (Sub-plots): 08

- 1. HI1674 2. NIAW4114 3. NIAW4120 4. LOK79
- 5. RAJ4083 6. HD2932 7. HD3090 8. HI1633

Seed requirement: 2.0 kg/entry/location

DESIGN: Split-plot

REPLICATIONS: Three

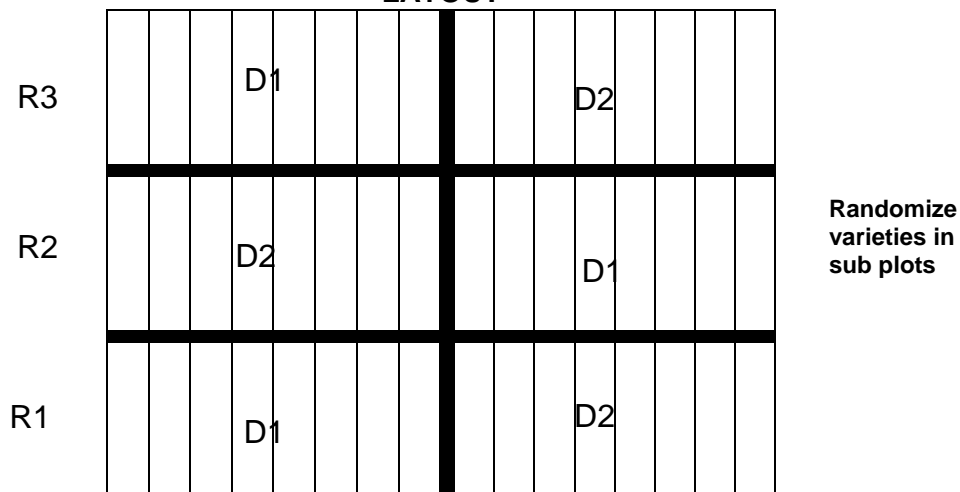
PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)
 NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER 90:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 125 kg/ha for timely sown conditions (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: Akola, Dharwad, Niphad, Pune

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. SPL-IR-ES-HYPT (CZ)

CENTRAL ZONE

2023-24

TITLE: Evaluation of wheat genotypes targeted to achieve 8 t/ha productivity

OBJECTIVE: Finalising the package of practices to achieve targeted productivity.

TREATMENTS

A. Nutrient management option (Main-plots): 02

NM₁ Recommended Fertiliser Dose (RFD) 120:60:40 kg N, P₂O₅ and K₂O/ha

NM₂ 150% RFD+ FYM15 t/ha+ Growth Regulators*

***NOTE:** Two sprays as tank mix-Chlormequat chloride (Lihocin) @ 0.2%+ tebuconazole (Folicur 430 SC) @ 0.1% of commercial product dose at First Node and Flag leaf (Tank mix application)

B. Genotypes (Sub-plots): 06

- | | | |
|-----------|--------------|-----------|
| 1. GW543 | 2. CG1044 | 3. DBW187 |
| 4. DBW303 | 5. DBW377(I) | 6. GW322 |

Seed Required: 2.0 kg per location/entry

SOWING TIME: 1-5 Nov. in CZ.

DESIGN: Split-plot

REPLICATIONS: Three

PLOT SIZE: GROSS: 1.60 m x 8 m = 12.80 sq. m. (8 rows at 20 cm spacing)

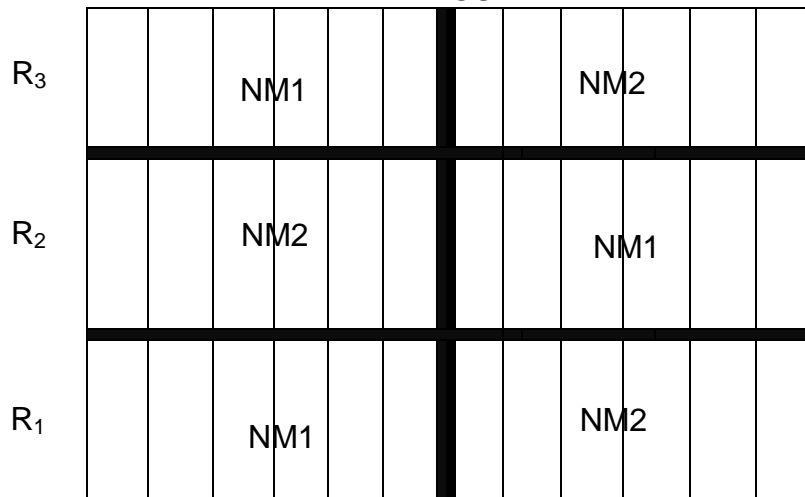
NET: 1.20 m x 7 m = 8.40 sq. m. (6 inner rows x 7 m long)

FERTILISER: Apply 1/3rd nitrogen, full phosphorus and potash as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

SEED RATE: 100 kg/ha (Adjust seed rate considering 1000 grains weight as 38 g).

CENTRES: CZ: Powarkheda, BISA-Jabalpur, Jabalpur, Vijapur, Udaipur

LAYOUT



Randomize genotypes in subplots

BARLEY AGRONOMY EXPERIMENT NO. IR-TS-FB- DOS

NORTH WESTERN and EASTERN PLAIN ZONE

2023-24

TITLE: Response of new feed barley genotypes to different sowing time (NWPZ).

OBJECTIVES

1. To work out productivity of new barley genotypes under different sowing dates

TREATMENTS

A. Sowing Date (Main-Plots): 02

NWPZ: D1: Timely sown (6th Nov. to 15th Nov.) D2: Late sown (1st Dec. to 10th Dec.)
 NEPZ: D1: Timely sown (11th Nov. to 20th Nov.) D2: Late sown (6th Dec. to 15th Dec.)

B. Varieties (Sub-Plots): 4

1. UPB 1106,
2. BH 946,
3. DWRB137,
4. HUB113

Seed Required: 2.0 kg per location/entry

DESIGN: Split Plot

REPLICATIONS: Three

PLOT SIZE: GROSS = 2.76 m x 8 m = 22.08 m² (12 Rows at 23 cm apart)
 NET = 2.30 m x 7 m = 16.1 m² (10 inner rows of 7 m)

FERTILISER: NPK @60:30:20 kg/ha, respectively. Apply 1/2 of N and full P &K as basal and rest 1/2 N after first irrigation.

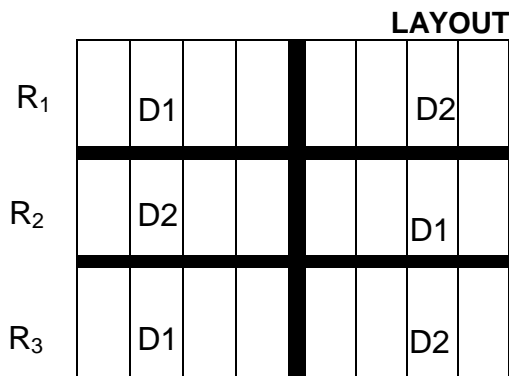
SEED RATE: 100 kg/ha (Adjust seed rate taking 1000 seeds weight of 45 g).

CENTRES: NWPZ: Durgapura, Hisar, Ludhiana and Karnal

NEPZ: Kanpur, Faizabad and Ranchi

OBSERVATIONS:

1. Yield and yield attributing characters.



**Randomize varieties
in sub plots**

BARLEY AGRONOMY EXPERIMENT NO. IR-TS-HL- DOS

NORTH WESTERN and CENTRAL ZONE

2023-24

TITLE: Response of new Hulless barley genotypes to different sowing time (NWPZ).

OBJECTIVES

1. To work out productivity of new barley genotypes under different sowing dates

TREATMENTS

A. A. Sowing Date (Main-Plots): 02

D1: Timely sown (6th Nov. to 15th Nov.) D2: Late sown (1st Dec. to 10th Dec.)

B. Varieties (Sub-Plots): 4

1. DWRB 223,
2. PL891,
3. K1149,
4. Karan16

Seed Required: 2.0 kg per location/entry

DESIGN: Split Plot

REPLICATIONS: Three

PLOT SIZE: GROSS = 2.76 m x 8 m = 22.08 m² (12 Rows at 23 cm apart)
 NET = 2.30 m x 7 m = 16.1 m² (10 inner rows of 7 m)

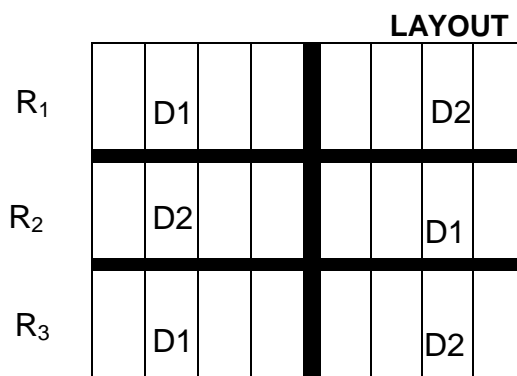
FERTILISER: NPK@ 60:30:20 kg/ha, respectively. Apply 1/2 of N and full P &K as basal and rest 1/2 N after first irrigation.

SEED RATE: 100 kg/ha (Adjust seed rate taking 1000 seeds weight of 45 g).

CENTRES: NWPZ: Durgapura, Hisar, Ludhiana and Karnal
 CZ: Gwalior, Jabalpur, Vijapur, Udaipur

OBSERVATIONS:

1. Yield and yield attributing characters.



**Randomize varieties
in sub plots**

BARLEY AGRONOMY EXPERIMENT NO. IR-SL- LON

NORTH EASTERN & WESTERN PLAINS ZONE

2023-24

TITLE: Response of new feed barley genotypes to different N levels under salinity conditions in NWPZ and NEPZ.

OBJECTIVES

1. To work out the productivity of different genotypes at different nitrogen levels under salinity conditions

TREATMENTS

A. Nitrogen Levels (Main-Plots): 03

N1: 60 kg/ha N2: 75 kg/ha N3: 90 kg/ha

B. Varieties (Sub-Plots) = 04

1. KB 2031,
2. RD2907,
3. NDB1173,
4. RD2794

Seed Required: 2.5 kg per location/entry

DESIGN: Split Plot

REPLICATION: Three

PLOT SIZE: GROSS = 2.76 m x 8 m = 22.08 m² (12 Rows at 23 cm apart)
 NET = 2.30 m x 7 m = 16.1 m² (10 inner rows of 7 m)

FERTILISER: N as per treatment and PK @60:20 kg/ha, respectively. Apply 1/2 of N and full P & K as basal and rest 1/2 N after first irrigation.

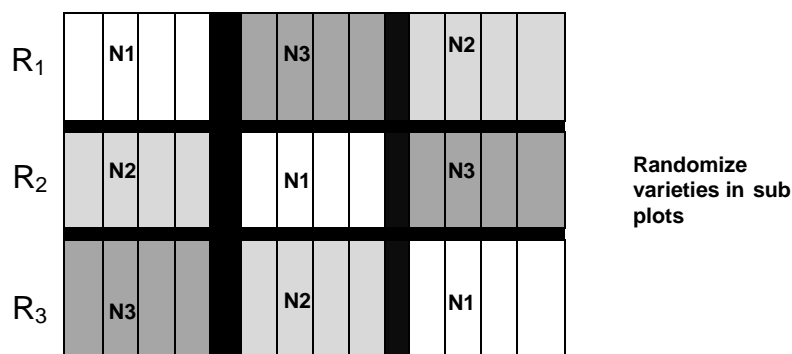
SEED RATE: 100 kg/ha (Adjust seed rate taking 1000 seeds weight of 45 g).

OBSERVATIONS:

1. Yield and yield attributing characters.

CENTRES: Dilipnagar (Kanpur), Faizabad, Hisar (CCS HAU), Hisar (IIWBR),

LAYOUT



WHEAT AGRONOMY EXPERIMENT NO. SPL-1

2023-2024

TITLE: Effect of tillage, rice residue and microbial consortia management on wheat productivity, profitability and soil health

OBJECTIVE: Identifying effective tillage and rice residue management strategy.

Treatments:

Main-Plots: Tillage methods: 03

- 1. Zero tillage*
- 2. Strip Tillage[#]
- 3. Conventional Tillage

Sub-Plots: Rice residue levels: 03

- 1. No Residue
- 2. Full residue[§]
- 3. Full residue + microbial consortia

Design: Split -plot

Replications: Three

*Sowing to be performed by RDD/Happy Seeder depending on the availability of machine

[#]Sowing to be performed by Strip-till drill (Smart Seeder)

[§]In case full residue load, anchored residue of about 30 cm may be kept and rest will be in the form of loose residue.

Note: Previous crop should be direct seeded rice or zero-till based direct transplanted rice without puddling.

PLOT SIZE: 10 rows of wheat of 8 meters length at 20 cm spacing

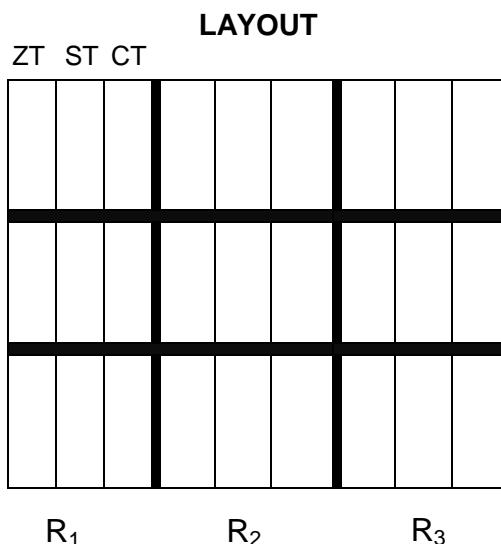
SEED RATE: 100 kg/ha (Adjust seed rate taking 1000 grain weight of 38 g).

FERTILISER: 150:60:40 kg N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash to be applied as basal dose and the remaining 2/3rd nitrogen as 1/3rd at first irrigation and 1/3rd at second irrigation.

DESIGN: Split Plot

REPLICATIONS: Three

Centers: Bisa Ladawal, BISA Samastipur, Karnal, Kalyani, Shillongani



Randomize residue levels in sub plots

WHEAT AGRONOMY EXPERIMENT NO. SPL-2

2023-2024

TITLE: Effect of seed rate and growth regulators on productivity of wheat under early sowing in NWPZ.

OBJECTIVE: To maximise wheat productivity by optimum plant stand and growth regulators

TREATMENTS:

Main Plots- Seed Rate: 03

- 1) 60 kg/ha
- 2) 80 kg/ha
- 3) 100 kg/ha

Sub plots: Foliar application of growth regulators and mechanical drum rolling: 05

1. Control (water spray)
2. Drum rolling (30 and 45 DAS)
3. 100 ppm. 2,3,5-triiodobenzoic Acid (TIBA) (Auxin transport inhibitor) at tiller initiation stage
4. 100 ppm. 6-benzyl amino purine (Cytokinin derivative) at tiller initiation stage
- 5) Two sprays as tank mix-Chlormequat chloride (Lihocin) @ 0.2%+ tebuconazole (Folicur 430 SC) @ 0.1% of commercial product dose at first node and flag leaf (Tank mix application)

Design: Split-plot

Replications: Three

Variety: Wheat (DBW 327)

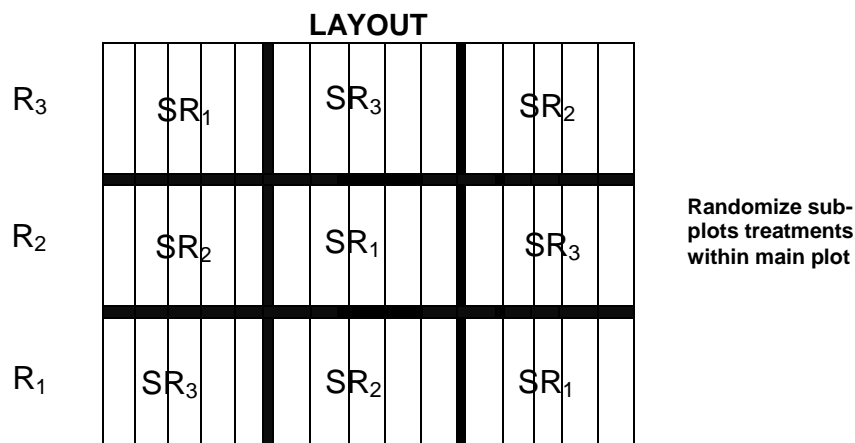
PLOT SIZE: Gross: 1.80 m X 8 m, Net: 1.40m x7.0 m

FERTILISER: NPK @150:60:40 kg/ha, respectively. Apply 1/3rd nitrogen, full phosphorus and potash as basal, 1/3rd at first irrigation and the remaining 1/3rd at second irrigation.

OBSERVATIONS:

Plant height, Lodging score, Yield and yield attributes

CENTRES: Agra, Almora, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana , Pantnagar



WHEAT AGRONOMY EXPERIMENT NO. SPL-3

2023-2024

TITLE: Precision N management in wheat using green seeker tool

OBJECTIVE: Precision nutrient management for wheat-based cropping

TREATMENTS: 09

1. Zero N
2. 150 N (50-50-50)
3. 75-75-GS
4. 0-75-GS
5. 25-25-GS
6. 50-50-GS
7. 25-50-GS
8. 60-60-GS
9. N rich (70-70-70)

Design: RBD

Replication: 03

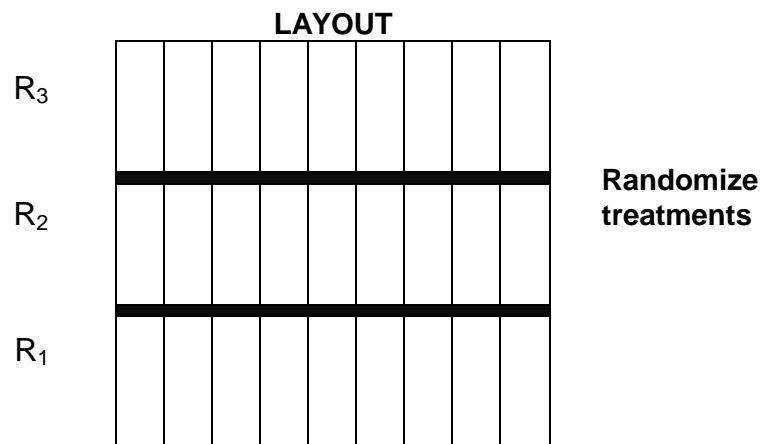
Observations:

- (I) Growth characters
- (II) Yield attributes
- (III) Grain and straw/stover yield

PLOT SIZE: Gross: 1.80 m X 8 m, Net: 1.40m x7.0 m

Fertilizer: As per treatments

Centers: Agra, Ayodhya, Coochbehar, Dharwad, Gurdaspur, Hisar, Karnal, Kanpur, Ludhiana, Malan, Pantnagar, Sabour, Shillongani, Vijapur, Varanasi



WHEAT AGRONOMY EXPERIMENT NO. SPL-4

2023-2024

TITLE: Intercropping of oilseed/pulses with wheat and barley for enhancing productivity and profitability of rice-fallow area with one irrigation.

OBJECTIVE: To maximise the productivity and profitability by Intercropping of oilseed/pulses with wheat and barley.

TREATMENTS:

Intercropping systems

1. Wheat +Toria (8:2)
2. Wheat + Lentil (4:2)
3. Wheat + Linseed (4:2)
4. Barley +Toria (8:2)
5. Barley + Lentil (4:2)
6. Barley + Linseed (4:2)
7. Wheat (Sole)
8. Barley (Sole)
9. Toria (Sole)
10. Lentil (Sole)
11. Linseed (Sole)

DESIGN : RBD

REPLICATIONS : Three

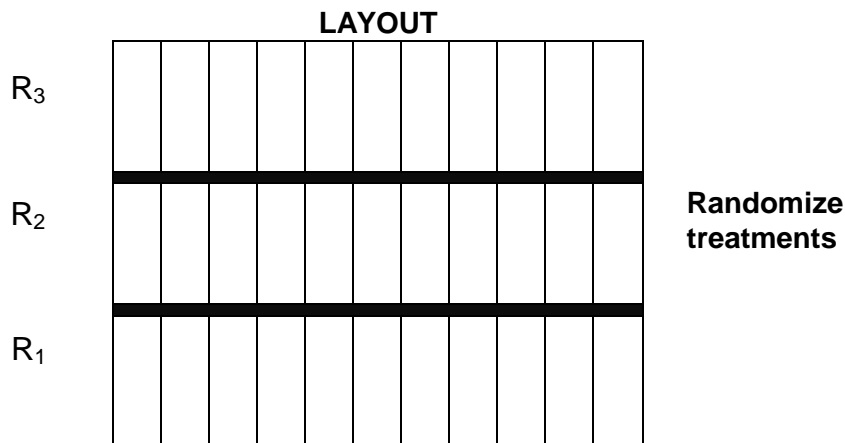
PLOT SIZE: Gross: 1.80 m X 8 m, Net: 1.40m x7.0 m

Variety- Wheat (K 1317) and Barley (DWRB 137)

FERTILISER: Recommended N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash as basal, 1/3rd at first irrigation and the remaining 1/3rd at second irrigation.

OBSERVATIONS:Yield and yield attributes

CENTRES: Ayodhya, Hisar, Jabalpur, Jammu, Kanpur, Sabpur, Samastipur, Shillongani , Varanasi



WHEAT AGRONOMY EXPERIMENT NO. SPL-5

2023-2024

TITLE: Evaluation of herbicides for broad-leaved weed control in barley

OBJECTIVE: To identify effective herbicides for broad leaved weeds control in barley

TREATMENTS:

- T1: Halauxifen-methyl 1.21% + Fluroxypyr 38.9% EC at 200.6 (6.1+194.5) g a.i./ha
- T2: Metsulfuron methyl 20 WG + Surfactant at 4 g a.i./ha+ 0.2% S
- T3: Carfentrazone 20 g a.i./ha
- T4: Metsulfuron + Carfentrazone + Surfactant 25 (20+5) g a.i./ha + 0.2% S
- T5: 2,4-D-Na 500 g a.i./ha
- T6: 2,4-D-Na + Carfentrazone 500 + 4 g a.i./ha
- T7: 2,4-D-E 500 g a.i./ha
- T8: 2,4-D-E + Carfentrazone 500 + 4 g a.i./ha
- T9: Weedy check
- T10: Weed free

Design: RBD

Replications: Three

PLOT SIZE: Gross: 1.80 m X 8 m, Net: 1.40m x7.0 m

FERTILISER: Recommended N, P₂O₅ and K₂O/ha. Apply 1/3rd nitrogen, full phosphorus and potash as basal and the remaining 2/3rd nitrogen as 1/3rd at CRI and 1/3rd at Jointing.

SEED RATE: 100 kg/ha (Adjust seed rate taking 1000 grain weight of 38g).

OBSERVATIONS:

1. Weed count and weed dry weight species-wise at 60 and 90 DAS
2. Yield and Yield attributes.

Varieties: NHZ : BHS 400, NWPZ: DWRB 137, NEPZ: DWRB 137, CZ: RD 2899

Centres:

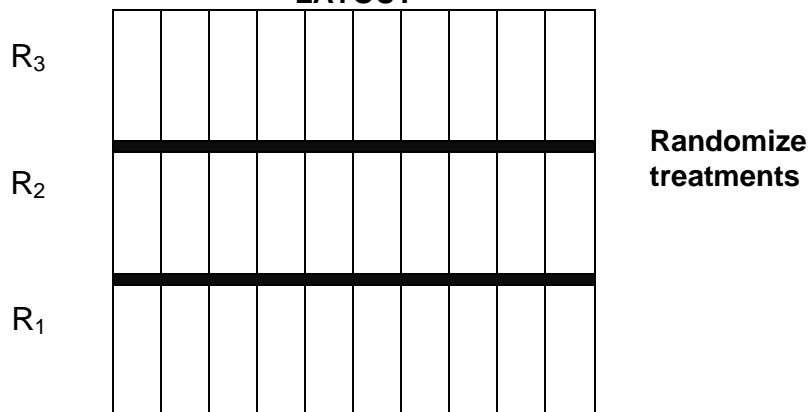
NHZ: Khudwani, Malan,

NWPZ: Agra, Durgapura, Hisar, , Karnal,

NEPZ: Ayodhya, Kalyani Kanpur, Ranchi

CZ: Gwalior, Jabalpur, Udaipur, Vijapur.

LAYOUT



LIST OF CENTRES AND COOPERATING SCIENTISTS WORKING UNDER RESOURCE MANAGEMENT PROGRAMME OF THE AICW&BIP (2023-24)

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***Funded Centres**

SOWING DATES FOR DIFFERENT ZONES UNDER IRRIGATED CONDITIONS

ZONE		<i>Triticum aestivum</i>	<i>Triticum durum</i>
NORTHERN HILLS ZONE			
	Timely	5 th Nov. to 11 th Nov.	
	Late	26 th Nov. to 2 nd Dec.	
	Very Late	17 th Dec. to 23 rd Dec.	
NORTH WESTERN PLAINS ZONE			
	Timely	5 th Nov. to 11 th Nov.	29 th Oct. to 4 th Nov.
	Late	10 th Dec. to 16 th Dec.	26 th Nov. to 2 nd Dec.
	Very Late	1 st Jan. to 7 th Jan.	
NORTH EASTERN PLAINS ZONE			
	Timely	12 th Nov. to 18 th Nov.	
	Late	10 th Dec. to 16 th Dec.	
	Very Late	1 st Jan. to 7 th Jan.	
CENTRAL ZONE			
	Timely	12 th Nov. to 18 th Nov.	5 th Nov. to 11 th Nov.
	Late	3 rd Dec. to 9 th Dec.	
	Very Late	24 th Dec. to 31 st Dec.	
PENINSULAR ZONE			
	Timely	5 th Nov. to 11 th Nov.	5 th Nov. to 11 th Nov.
	Late	26 th Nov. to 2 nd Dec.	
	Very Late	17 th Dec. to 23 rd Dec.	
SOUTHERN HILLS ZONE			
	Timely	26 th Nov. to 2 nd Dec.	
	Late	24 th Dec. to 31 th Dec.	