(5.9 t/ha) was also in the same statistical group as these treatments. Pretilachlor produced 5.4 t/ha and was statistically grouped with the weed-free treatment, whereas pendimethalin + 2,4-D produced 3.7 t/ha.

Table 5 Effect of herbicides on effective tiller, panicle length, number of grain and sterility percent on direct seeded rice cultivation at Chitwan during 2024

Treatments	Effective tiller (m^2)	Panicle length (cm)	No. of grains per panicle filled	Unfilled	Sterility (%)
Weedy Check	151^{c}	22.9^{c}	132^{c}	39^{a}	22.81^{a}
Weedfree	272^{ab}	25.5^{ab}	155^{ab}	22^{b}	12.43^{b}
Pendimethalin	260^{ab}	24.1^{b}	150^{b}	21^{b}	12.28^{b}
Pretilachlor	267^{ab}	24.9^{ab}	152^{ab}	20^{b}	11.63^{b}
Bispyribac Sodium	284^{a}	25.8^{a}	158^{a}	19^{b}	10.73^{b}
Pendi+2,4-D	236^{b}	23.5^{bc}	149^{b}	27^{b}	15.34^{b}
Pretilachlor+2,4-D	248^{b}	24.6^{b}	150^{b}	25^{b}	14.29^{b}
Oxadiargyl	254^{ab}	24.3^{b}	151^{ab}	21^{b}	12.21^{b}
Bispyribac Sodium+2,4-D	287^{a}	25.7^{a}	161^{a}	17^{b}	9.55^{b}
SEm±	13.65	0.33	2.72	2.19	1.30
CV%	16.31	4.06	5.41	17.98	18.94
Mean	251	24.59	150.89	23.44	13.47

Note: Treatment means followed by the same letter (s) within the column are non-significantly different among each other at 5% level of significance. SEm = Standard error of mean and CV= Coefficient of variation

Straw yield was lowest under the weedy check (4.6 t/ha). Bispyribac sodium + 2,4-D produced the greatest numerical straw yield (7.1 t/ha), followed by the weed-free treatment (7.0 t/ha) and bispyribac sodium (6.9 t/ha); these three treatments were statistically grouped together.

Harvest index was lowest under the weedy check (31.3%). Bispyribac sodium had the greatest numerical harvest index (46.9%) and was statistically grouped with pretilachlor, weed-free, and bispyribac sodium + 2,4-D. The remaining treatment means are presented in Table 6.

Table 6 Effect of herbicides on TGW, grain yield, straw yield, HI and weed index on direct seeded rice cultivation at Chitwan during 2024

Treatments	TGW (g)	Grain yield (t/ha)	Straw yield (t/ha)	HI (%)	WI
Weedy Check	21.1^{b}	2.1^{c}	4.6^{c}	31.3^{c}	64.41^{a}
Weedfree	24.8^{a}	5.9^{ab}	7.0^{a}	45.7^{ab}	0.00^{b}
Pendimethalin	22.3^{b}	4.5^{b}	6.1^{b}	42.5^{b}	23.73^{b}
Pretilachlor	22.4^{b}	5.4^{ab}	6.3^{ab}	46.2^{ab}	8.47^{b}
Bispyribac sodium	24.0^{a}	6.1^{a}	6.9^{a}	46.9^{a}	−3.39^{b}
Pendi+2,4-D	21.5^{b}	3.7^{bc}	6.2^{b}	37.4^{bc}	37.29^{b}
Pretilachlor+2,4-D	22.0^{b}	4.6^{b}	5.9^{b}	43.8^{b}	22.03^{b}
Oxadiargyl	24.0^{a}	4.8^{b}	6.0^{b}	44.4^{b}	18.64^{b}
Bispyribac Sodium+ 2,4-D	24.2^{a}	6.0^{a}	7.1^{a}	45.8^{ab}	−1.69^{b}
SEm±	0.45	0.43	0.25	1.71	7.29
CV%	5.84	18.95	12.22	12.01	16.17
Mean	22.92	4.79	6.23	42.67	18.83

Note: Treatment means followed by the same letter (s) within the column are non-significantly different among each other at 5% level of significance. SEm = Standard error of mean and CV= Coefficient of variation