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25 This avoids any mechanical obstruction for germination seeds as furrow remains uncovered.
26 The experimental findings on these aspects were observed and described into subsequent
27 heads.

28 **MATERIALS AND METHODS**

29 The test was conducted in Rajpur Tal of Bhagalpur district for direct sowing of wheat
30 after harvest of rice. The soil and sowing characteristics has been presented in Table 1. The
31 paddy field was manually harvested and the stubble was left at height ranging 10-15 cm. For
32 accurate seed rate the drill was calibrated like traditional seed drill but in this case seed rate
33 was kept 20% higher than recommended conventional drilling. The moisture content was 20
34 percent. The other method for sowing of wheat was also carried out in the Rajpur Tal and the
35 suitability of the zero till drill was evaluated.

36 **RESULT AND DISCUSSION**

37 The results of this experiment are presented in Table 2 and Table 3. The emergence of
38 wheat as influence by different method of sowing at an interval of 7 days is presented in
39 Table 2. The maximum emergence was noted in case of zero till drill due to minimum
40 resistance to germinating seeds. The yield attributing character is presented in Table 3. The
41 effective tiller per square meter of field, no. of grains per panicle and 1000 grain weight is
42 found to be more in case of sowing of wheat by zero till drill. The yield of grain has been
43 noted 38q/ha by sowing the seed by zero drill, which is relatively higher than other sowing
44 method adopted in the Tal land.

45 Based upon the above results, the zero till drill prove most suitable machine for
46 sowing wheat in Tal land, where little time is left for land preparation.

47 **REFERENCE**

- 48 Annual report, 1998-99, RWMP, RAU, Pusa, Samastipur.
49 Annual report, 1999-2000, RWMP, RAU, Pusa, Samastipur.

50 Annual report,2000-2001, RWMP, RAU, Pusa, Samastipur.

51 Annual report,1999-2000, RWMP, PAU, Ludhiana.

52 **Table 1: Soil and sowing characteristics of experimental site**



Location	Soil Characteristics						Sowing Characteristics	
	Textural class	PH	EC (mmh/c)	OC%	HC (cm/hr)	BD (g/cm ³)	Moist. Content (%)	Ht. of stubble (cm)
Rajpur Tal of Bhagalpur district	Clay	7.2	0.35	0.52	0.126	1.46	20	10-15

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54 **Table 2: Emergence of wheat as influenced by different treatments**

Sl. No.	Treatments	No of emergence per sq. meter	
		7 days after sowing	15 days after sowing
1.	Broadcasting of seed and mixing by cultivar	152	170
2.	Sowing inploughed field by broadcasting and mixing by cultivator	178	205
3.	Sowing by zero till drill	185	230

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56 **Table 3: Yield attributing characteristics and yield of wheat**

Sl. No.	Treatments	Effective Tiller/sqm	No. of grains/panicle	1000 grains wt (gm)	Yield (q/ha)
1.	Broadcasting of seed and mixing by cultivar	208	39	34.8	27.8
2.	Sowing inploughed field by broadcasting and mixing by cultivator	218	37	36.5	34.5
3.	Sowing by zero till drill	221	41	38.2	38.0

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