

PROJECT REPORT

2020

Effect of RCM-HARIT SANJIVANI on growth and
yield of wheat

SPONSORED BY:

M/S Vyenkatesh Agrotrade Pvt. Ltd., D-13, Silver Heights, Opp.
Hotel Sandeep, Gurudvara Road, Mumbai Naka, Nasik - 422009



CONDUCTED BY:

**DEPARTMENT OF PLANT BREEDING & GENETICS
COLLEGE OF AGRICULTURE JNKVV, JABALPUR**

PROJECT DETAILS:

1	Name of the Sponsorer and sponsoring agency	M/S Vyenkatesh Agrotrade Pvt. Ltd., D-13, Silver Heights, Opp. Hotel Sandeep, Gurudvara Road, Mumbai Naka, Nasik - 422009
2	Name of the Scientist involved in Project	Dr. A.K Jha, Scientist Department of Agronomy, College of Agriculture, JNKVV, Jabalpur
3	Product code	RCM-HARIT SANJIVANI
4	Title of the project	Effect of RCM-HARIT SANJIVANI on growth and yield of wheat
6	Location of Experiment	Experimental Farm, College of Agriculture, Jabalpur
7	Design	Randomized Block Design
8	Plot size	3m x 4m
9	Spacing	15 x 10 cm
10	Crop variety	JW 3382
11	Replication	Three
12	Date of sowing	20/11/2020
15	Soil type and weather conditions	loamy sand to clay loam
16	Application technique	Knapsack sprayer fitted with flat fan nozzle
17	RDF (NPK)	120 kg N,60kg P ₂ O ₅ and 40 kg K ₂ O/ha
18	Date of Harvesting	04/04/2021

Objectives:

- To see the Effect of RCM-HARIT SANJIVANI on growth and yield of wheat



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JNKVV, Jabalpur

B) Treatment details : Application of RCM-Harit-sanjivani (grams per acre)

Treatments		Stage (II) (soil application after transplanting)	Stage (II) (foliar spray at 30 DAT)	Stage (II) (foliar spray at 45 DAT)	Stage (II) (foliar spray at 60 DAT)
T1	(No application)	0	0	0	0
T2	Soil and foliar application of RCM-Harit-Sanjivani (grams per acre)	150	75	125	150
T3	Soil and foliar application of RCM	200	100	150	200
T4	Soil and foliar application of RCM	250	125	175	250
T5	Soil and foliar application of RCM	300	150	200	300
T6	Soil and foliar application of RCM	350	200	250	350

- **Note** : - Uniform dose of 120 kg N: through Urea 60kg P₂O₅ through SSP and 40kg K₂O through MOP per ha⁻¹ was given to all the treatments.



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RESULTS

The data presented in Table 1 revealed that all the characters were influenced significantly by the given treatments. The highest height of plant at time of harvest (103.43 cm) was recorded in the treatment T5. The highest number of ears /m² was recorded in T5 as compared to T1 and T2. The highest grains/earhead and test weight were recorded in the treatment T5 as compared to T1 and T3 and at par to T4 and T6. The highest number of grains yield as well biomass was recorded in T5 application of RCM-HARIT SANJIVANI 300:150:200:300g acre⁻¹ over all the treatment except treatment T4 application RCM-HARIT SANJIVANI 250:125:175:250g acre⁻¹ which are at par.

CONCLUSION

The study conducted at JNKVV on wheat variety JW 3382 during *Rabi*, 2020-2021 revealed that significant grain yield was noticed with the treatment T5 application of RCM-HARIT SANJIVANI 300:150:200:300g acre⁻¹ (54.34q ha⁻¹) over all the treatment except treatment T4 application RCM-HARIT SANJIVANI 250:125:175:250g acre⁻¹ (51.56 q ha⁻¹) which are at par.



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Table 1: Effect of RCM-HARIT SANJIVANI on growth, yield of wheat

Treatment	Plant Height (cm)	No. of Earhead /sq.m.	No. of Grains/ Earhead	1000 Grains Weight (g)	Yield (q/ha)	Biomass (q/ha)
T1	90.28	376.87	40.18	35.55	40.56	76.89
T2	92.44	382.56	41.11	38.28	42.34	78.66
T3	95.44	388.98	42.76	40.56	44.56	84.67
T4	101.44	395.98	44.28	42.28	51.56	88.96
T5	103.43	408.00	45.53	46.78	54.34	94.67
T6	98.28	398.99	43.18	40.78	49.89	85.99
S.E.m+	0.45	1.78	0.66	0.02	1.15	1.16
C.D at 5%	1.67	3.89	1.18	0.06	3.45	3.48

Table 2: Effect of RCM-HARIT SANJIVANI on soil fertility parameters after harvest

Treatments	Soil parameters			Available nutrient in soil (kg/ha)		
	pH	EC (dsm ⁻¹)	OC (%)	N	P	K
T ₁	7.72	0.47	0.50	268.6	18.2	368.1
T ₂	7.76	0.48	0.50	260.3	16.2	367.3
T ₃	7.75	0.46	0.51	270.1	18.8	371.6
T ₄	7.72	0.48	0.51	272.3	18.6	374.8
T ₅	7.63	0.47	0.54	272.6	19.4	377.4
T ₆	7.74	0.48	0.53	270.8	18.6	374.6
Initial	7.64	0.46	0.53	272.1	18.4	372.8

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