



**Report on testing of Product
Bounty**

Field test for Plant Growth Regulator on *Capsicum* Production



**Tested Product
Bounty- Plant Growth Regulator**

**Manufactured by
Ritika Research Labs Private Limited
Bandra East, Mumbai-51**

**Agricultural Research Station,
Kasbe Digraj-416 305
Dist. Sangli (Maharashtra)**

2015-16

1. Name and Address of the firm : M/s. Ritika Research Labs Private Limited,
509, Balarama, Bandra Kurla Complex,
Bandra East, Mumbai-400 051.
2. Project objects : 1. To evaluate the effect of PGR 'Bounty' on
physiological development of *Capsicum* crop.
2. To evaluate yield potential of *Capsicum* crop
treated with PGR 'Bounty' under field conditions.
3. Name and Address of Research Institute : Agricultural Research Station, Kasbe Digraj,
(Mahatma Phule Krishi Vidyapeeth,)
Tal.- Miraj, Dist.- Sangli (Maharashtra)
Pin. 416 305
4. Location : Agricultural Research Station, Kasbe Digraj,
Tal.- Miraj, Dist.- Sangli
5. Name of the Scientists involved : Dr. J. H. Kadam, I/c TRS, K. Digraj, Sangli
Dr. D. K. Kathmale, I/c ARS, K. Digraj, Sangli

6. Experimental details

1.	Crop	<i>Capsicum</i>
2.	Variety	Indira
3.	Year	2015-16
4.	Design	RBD
5.	Replications	Three
6.	Treatments	Nine
7.	Method of Planting	Ridges and furrows
8.	Spacing	90 cm x 45 cm
9.	Plot size Gross:	5.40 x 4.50 m ²
	Net :	4.50 x 3.60 m ²
10.	Date of seeding	15.02.2015
11.	Date of transplanting	1.04.2015


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7. Treatment Details:

Tr. No.	Treatment details
1.	Regular Cultural Practices (RCP)
2.	RCP + Foliar Application 1
3.	RCP + Foliar Application 2
4.	RCP + Foliar Application 1 + Foliar Application 2
5.	RCP + Seed treatment + Foliar Application 1
6.	RCP + Seed treatment + Foliar Application 2
7.	RCP + Seed treatment + Foliar Application 1 + Foliar Application 2
8.	RCP + Seed treatment + Foliar Application 1 + Foliar Application 2- 20 % fertilizer
9.	RCP + Seed treatment + Foliar Application 1 + Foliar Application 2- 50 % fertilizer

Results:


A) Nursery observations:


The effects of different treatments of plant growth regulator-Bounty on initial growth in nursery are presented in Table 1.

The maximum germination percentage (85.60 %) was observed in seeds treated with Bounty. Similarly, maximum height of seedling (12.0 cm) and length of root (9.5 cm) were observed in seeds treated with plant growth regulator 'Bounty' during transplanting. The maximum fresh shoot and root weight (1.537 g and 0.716 g, respectively) as well as dry shoot and root weight (0.307 g and 0.146 g, respectively) was observed in seeds treated with plant growth regulator 'Bounty' during transplanting.

Table 1. Effect of PGR Bounty on growth during seedling stage

Sr. No.	Observations	Treated seeds (250 ml Bounty per litre) for 25 min	Untreated seeds
1	Germination percentage (%)	85.60	77.20
2	Height of seedling during transplanting (cm)	12.0	11.0
3	Length of root of seedling during transplanting (cm)	9.5	8.6
4	Fresh weight of shoot during transplanting (gm)	1.537	1.472
5	Dry weight of shoot during transplanting (gm)	0.307	0.267
6	Fresh weight of root during transplanting (gm)	0.716	0.653
7	Dry weight of root during transplanting (gm)	0.146	0.118


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B) Field observations:**i) Growth Parameters:**


The effects of different treatments of plant growth regulator-Bounty on growth of *Capsicum* are presented in Table 2.

The significantly maximum height of plant at vegetation stage (45 days after transplanting) as well as at flowering and fruit setting (90 days after transplanting) were observed in treatment T₇ (34.70 cm and 73.53 cm, respectively) followed by treatment T₅ (29.47 cm and 69.33 cm, respectively). The significantly maximum length of root (25.67 cm) at flowering and fruit setting stage was observed in treatment T₇ followed by treatment T₅ (24.20 cm). The significantly maximum root fresh and dry weight at flowering and fruit setting was observed in treatment T₇ (38.17 cm and 8.28 cm, respectively) followed by treatment T₅ (33.50 cm and 7.20 cm, respectively).

Table 2: Effect of different treatments of plant growth regulator Bounty on growth of *Capsicum*

Treatments	Height of plant at vegetation 45 DAT (cm)	Height of plant at flowering and fruit setting 90 DAT (cm)	Length of root at flowering and fruit setting 90 DAT (cm)	Root fresh weight at flowering and fruit setting 90 DAT (g)	Root dry weight at flowering and fruit setting 90 DAT (g)
T ₁	24.27	55.67	19.37	26.57	5.52
T ₂	25.53	58.80	20.47	27.57	5.79
T ₃	25.53	57.53	20.03	26.87	5.60
T ₄	26.53	60.73	21.10	28.57	6.04
T ₅	29.47	69.33	24.20	33.50	7.20
T ₆	27.13	65.70	22.87	31.20	6.68
T ₇	34.70	73.53	25.67	38.17	8.28
T ₈	27.10	61.07	21.20	29.33	6.24
T ₉	23.47	43.23	14.97	20.53	4.22
S. E.±	0.45	1.29	0.45	0.50	0.11
C. D. 5%	1.34	3.88	1.35	1.49	0.32


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ii) Yield and yield attributing characters:

The effects of different treatments of plant growth regulator-Bounty on yield and yield attributing characters of *Capsicum* are presented in Table 3.

The maximum number of branches at flowering was observed in treatment T₇ (8.67) which was at par with treatment T₅ (8.33). The significantly minimum number of days required for first picking was observed in T₇ (41.00) which was followed by T₅ (42.00). The maximum average fruit was observed in treatment T₇ (36.67) which was at par with treatment T₅ (34.67). The maximum total number of fruits per plant (27.67) was recorded in T₁ which was at par with treatment T₉ (27.00) however, significantly maximum number of marketable fruits are observed in treatment T₇ (24.00) followed by treatment T₅ (23.00). The minimum number of unmarketable fruits (0.33) was observed in treatment T₇ and T₅, respectively. The significantly maximum yield per plant and per hectare was observed in treatment T₇ (0.890 Kg and 22.03 T, respectively) followed by treatment T₅ (0.830 Kg and 20.47 T, respectively).

Table 3. Effect of different treatments of plant growth regulator Bounty on yield and yield attributing characters of *Capsicum*

Treatments	No. of branches at flowering	No. of days required for first picking	Average fruit weight (g)	Total No. of fruits per plant	No. of marketable fruits per plant	No. of Unmarketable fruits per plant	Yield per plant (Kg)	Yield T/ha
T ₁	5.00	49.67	22.00	27.67	16.67	11.00	0.66	16.37
T ₂	5.67	48.00	26.67	24.33	18.00	6.33	0.70	17.30
T ₃	5.33	49.33	27.33	22.66	17.33	5.33	0.69	16.93
T ₄	6.00	45.00	30.33	22.00	19.33	2.67	0.73	17.93
T ₅	8.33	42.00	34.67	23.33	23.00	0.33	0.83	20.47
T ₆	7.67	44.00	30.67	25.34	21.67	3.67	0.80	19.87
T ₇	8.67	41.00	36.67	24.33	24.00	0.33	0.89	22.03
T ₈	6.33	45.00	31.00	22.33	20.33	2.00	0.75	18.47
T ₉	4.00	50.67	16.67	27.00	15.67	11.33	0.50	12.43
S. E. _±	0.26	0.18	0.93	0.31	0.24	0.23	0.01	0.27
C. D. 5%	0.79	0.54	2.80	0.94	0.73	0.69	0.03	0.81

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Conclusion:

It can be concluded that seed treatment during preparation of seedling with plant growth regulator Bounty and two foliar spraying of the same along with recommended dose of fertilizer will be helpful for increasing the yield in *Capsicum*.


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