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### ORIGINAL ARTICLE

## A COMPARATIVE STUDY ON THE EFFECTIVENESS OF HOMOEOPATHIC MEDICINES PHOSPHORUS 1M AND 6X IN GROWTH OF BRASSICA JUNCEA (BROWN MUSTARD)

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#### Abstract

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**Background:** India ranks as the fourth largest oilseed-producing economy globally, with rapeseed-mustard contributing significantly 28.6% of total oilseed production. However, mustard cultivation often occurs under resource-limited conditions, leading to a substantial gap between production and demand. Conventional chemical inputs used to bridge this gap have raised environmental concerns, while organic alternatives are limited in availability. Homoeopathic preparations such as *Phosphorus 1M* and *Phosphorus 6X* are being explored as potential sustainable growth enhancers for crops like *Brassica juncea* (mustard). **Methods:** A prospective study was conducted using 45 *Brassica juncea* seeds, divided into three groups: Group A (control, irrigated with potable water), Group B (treated with Phosphorus 1M solution), and Group C (treated with Phosphorus 6X solution). Each group had 15 plants grown in agro plastic bags under identical environmental conditions. No fertilizers or pesticides were used. Plant growth was assessed over 50 days based on germination rate, plant height, leaf count, and plant weight. **Results:** Germination rates were similar across groups. However, on Day 50, Group C showed the greatest average plant height (123mm), followed by Group B (110mm), and Group A (55mm). Leaf count and plant weights followed the same trend, with Group C recording the highest total weight (15.7g), slightly exceeding Group B (13.93g) and significantly outperforming Group A (4.11g). **Conclusion:** Both Phosphorus 1M and 6X homoeopathic preparations enhanced the growth of *Brassica juncea* compared to the control. Phosphorus 6X demonstrated slightly superior results.

## INTRODUCTION

India is the fourth largest oilseed frugality in the world. Among the seven comestible oilseeds cultivated in India, rapeseed- mustard contributes 28.6 in the total oilseeds yield and ranks second after groundnut sharing 27.8 in the India's oilseed frugality. The mustard growing areas in India are enduring the vast diversity in the agro climatic conditions. Under borderline resource situation, cultivation of rapeseed- mustard becomes lower profitable to the growers<sup>1</sup>.

Mustard, like other members of the Brassicaceae family, is particularly demanding in terms of certain macronutrients and micronutrients. It requires a well- balanced stock of primary nutrients analogous as nitrogen, phosphorus, and potassium, which play vital functions in processes ranging from energy metabolism and photosynthesis to water regulation and ailment resistance.<sup>2</sup>

When Phosphorus 1M or Phosphorus 6X is been applied, excess of Phosphorus is applied & it improves Phosphorus scarcity. Maximum Phosphorus increases growth of Brassica Juncea. And it improves imbalance of phosphorus content and helps for the growth of Brassica Juncea plant. therefore, this study was shouldered to observe the effectiveness of Homoeopathic medicaments Phosphorus 1M &

Phosphorus 6X on the growth of Brassica Juncea plant.

## METHODS

### Selection Of Samples:

**Sample Size:** 45 minimum was selected.

**Sampling Technique:** Simple Random Sampling.

### Inclusion Criteria:

- Brassica Juncea seeds from authorized agricultural vendor from Manipur.
- Soil free from organic & inorganic fertilizers or pesticide.

### Exclusion Criteria:

- Soil which is already exposed to organic & inorganic fertilizers or pesticide.
- Water containing high TDS values (over 700mg/L).

### Study Design / Brief Of Procedure:

**(Prospective Study)** - Brassica Juncea Seeds were grouped randomly in three groups and were planted separately under each group (minimum 15 seeds in one plastic tray, minimum 2 tray each group). GROUP A (Control Group) – for this group the Brassica Juncea seeds were germinated using potable water & the post germination irrigation was done with potable water. GROUP B (Experimental Group) – for this group the Brassica Juncea seeds were germinated using potable water & the post germination irrigation was done with medicated water

(Phosphorus 1M). GROUP C (Experimental Group) – for this group the Brassica Juncea seeds were germinated using potable water & the post germination irrigation was done with medicated water (Phosphorus 6X).

Daily care like sunlight, water, air was provided to all the groups. No fertilizers were added in any groups. Irrigation was carried out once daily once for all groups.

Growth and condition of each plant in all groups were assessed every 10<sup>TH</sup> day. Growth of plant was determined by considering and tabulating height of plant in term of millimeters & foliage.

The study continued for the period of 50 Days maximum. After the study period the observations for each group are represented in the tables and result is drawn on basis of observations.

**Study Design: TABLE NO. 1**

Pot Group	Germination	Size	Post Germination Irrigation	Size
Group – A (Control Group)	Potable Water	15 agro plastic bags	Potable Water	15 Plants
Group – B (Experimental Group)	Potable Water	15 agro plastic bags	Medicated Water B with Phosphorus 1M	15 Plants
Group – C (Experimental Group)	Potable Water	15 agro plastic bags	Medicated Water C with Phosphorus 6X	15 Plants

**Quantity Of Medicine In Solution: TABLE NO. 2**

Water	Quantity Of Medicine In A Solution
Potable water	No medicine
Medicated Water KX	2ml of Phosphorus 1M in 500 ml of potable water.
Medicated Water KC	2ml of Phosphorus 6X in 500 ml of potable water.

**Assessment Criteria:**

Assessment was done on the basis of:

- Germination time (number of days) each tray in all groups.
- Number of seedlings each tray in all groups on 10<sup>TH</sup> day from sowing.
- Plant growth every 10<sup>TH</sup> day from the day of Germination in all groups.
- Total weight of plants in all group on 50<sup>TH</sup> day.

**RESULTS:****Germination Time****TABLE NO. 3**

NUMBER OF DAYS	D	D	D	D	D	D	D	D	D	D
	AY									
	1	2	3	4	5	6	7	8	9	10
Group – A <i>Number of Germinated Seeds</i>	0	7	13	16	20	26	26	28	29	29
Group – B <i>Number of Germinated Seeds</i>	0	7	13	16	20	25	25	26	28	29
Group – C <i>Number of Germinated Seeds</i>	0	7	13	18	22	25	26	28	30	30

In this study it was observed that Group – A had 29 germinated seeds, Group – B had 29 germinated seeds & Group – C had 30 germinated seeds at on the 10<sup>TH</sup> day from sowing though seeds were germinated using Potable Water in all 3 groups.

**Cumulative Plant Height Assessment Chart (In Millimeters) TABLE NO. 4**

NUMBER OF DAYS	10 <sup>TH</sup> DAY	20 <sup>TH</sup> DAY	30 <sup>TH</sup> DAY	40 <sup>TH</sup> DAY	50 <sup>TH</sup> DAY
Group – A (Control Group) Average Plant Height	18	25	37	42	55
Group – B (Phosphorus 1M) Average Plant Height	20	40	55	60	110
Group – C (Phosphorus 6X) Average Plant Height	25	43	58	64	123

In this study it was observed that Group – A had Average Plant Height of 55mm, Group – B had Average Plant Height of 110mm & Group – C had Average Plant Height of 123mm at on the 50<sup>TH</sup> day from Germination.

**Cumulative Plant Foliage Assessment Chart**      **TABLE NO. 5**

<b>NUMBER OF DAYS</b>	<b>10<sup>TH</sup> DAY</b>	<b>20<sup>TH</sup> DAY</b>	<b>30<sup>TH</sup> DAY</b>	<b>40<sup>TH</sup> DAY</b>	<b>50<sup>TH</sup> DAY</b>
Group – A (Control Group) Average Number of Leaves	4	4	4	5	5
Group – B (Phosphorus 1M) Average Number of Leaves	4	4	5	6	6
Group – C (Phosphorus 6X) Average Number of Leaves	4	5	6	7	7

In this study it was observed that Group – A had 5 Average Number of Leaves, Group – B had 6 Average Number of Leaves & Group – C had 7 Average Number of Leaves at on the 50<sup>TH</sup> day from Germination.

**Cumulative Plant Weight Assessment Chart**      **TABLE NO. 6**

<b>50<sup>TH</sup> DAY</b>	<b>Plan ts</b>	<b>Weight of Plants</b>	<b>Average Weight of Plants</b>	<b>Total Weight of Plants</b>
Group – A (Control Group)	A1	0.23	0.59	4.11
	A2	1.35		
	A3	0.89		
	A4	0.48		
	A5	0.32		
	A6	0.61		
	A7	0.23		
Group – B (Phosphorus 1M)	B1	6.20	1.99	13.93
	B2	3.16		
	B3	0.27		
	B4	0.24		
	B5	1.20		
	B6	2.12		
	B7	0.74		
Group – C (Phosphorus 6X)	C1	4.74	1.74	15.7
	C2	0.49		
	C3	0.06		
	C4	1.04		
	C5	1.63		
	C6	0.65		
	C7	2.03		
	C8	1.80		
	C9	3.26		

In this study it was observed that Group – A had Average Plant Weight of 0.59 grams & Total Plant Weight recorded was 4.11 grams, Group – B had Average Plant Weight of 1.99 grams & Total Plant Weight recorded was 13.93 grams & Group – C had Average Plant

Weight of 1.74 grams & Total Plant Weight recorded was 15.7 grams on the 50TH day on harvesting.

## DISCUSSION

This study was undertaken to evaluate and compare the effectiveness of Phosphorus 1M and Phosphorus 6X, two homeopathic dilutions, on the growth of Brassica juncea (mustard) plants. The parameters assessed included germination rate, plant height, number of leaves (foliage), and total plant biomass over a 50-day period. The results were measured and compared across three groups—Control (Group A), Phosphorus 1M (Group B), and Phosphorus 6X (Group C).

**Germination** - The germination data revealed that all groups, including the control, had high and nearly identical germination rates by the 10th day (Group A and B had 29 seeds germinated; Group C had 30). This suggests that the post-germination treatment with homeopathic preparations had no impact on seed germination, since all seeds were germinated using potable water.

**Plant Height** -A significant difference was observed in plant height between the groups by the end of the 50-day period. Group C (Phosphorus 6X) plants reached the highest average height (123 mm), followed by Group B (Phosphorus 1M) at 110 mm, and the control group at 55 mm. This trend indicates that both homeopathic treatments had a positive influence on

vertical growth, with Phosphorus 6X showing the highest effect.

**Foliage (Number Of Leaves)** - Foliage development showed a gradual increase across all groups, but was most pronounced in Group C. On the 50th day, Group A had an average of 5 leaves, Group B had 6 leaves, and Group C had 7 leaves per plant. These observations indicate that Phosphorus 6X stimulated more robust vegetative development compared to Phosphorus 1M and the control.

**Plant Biomass** - In terms of plant biomass:

- Group A (Control): Total weight = 4.11g, Average = 0.59g
- Group B (Phosphorus 1M): Total weight = 13.93g, Average = 1.99g
- Group C (Phosphorus 6X): Total weight = 15.7g, Average = 1.74g

Although Group B showed a higher average weight per plant, Group C showed the highest total biomass, suggesting a more consistent and balanced growth across all treated plants in that group.

## CONCLUSION

The study concluded the following:

- Both Phosphorus 1M and Phosphorus 6X enhanced the

growth of Brassica juncea compared to the control group.

- Phosphorus 6X proved to be more effective overall, promoting the greatest plant height, leaf development, and total biomass.
- Phosphorus 1M, while beneficial, produced more variability in results and was less consistent than Phosphorus 6X.
- The control group consistently showed the lowest values across all parameters, confirming the stimulatory effect of homeopathic phosphorus.

Therefore, Phosphorus 6X may be considered a better suited homeopathic preparation for enhancing the growth of Brassica juncea under controlled conditions.

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#### REFERENCES

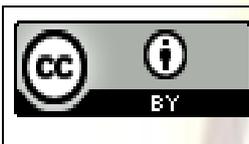
1. Bharati V, Lamani KN, Kumar M. Advances in Agronomic Management of Indian Mustard (Brassica juncea). Available from: <https://justagriculture.in/files/newsletter/dec/026.%20Advances%20in%20Agronomic%20Management%20of%20Indian%20Mustard.pdf>
2. Generoso Bruni, Roberto Branca. Nutritional Management of Mustard (Brassica juncea L.). Foodsciencejournal.com. [cited 2024 Nov 11]. Available from: <https://www.foodsciencejournal.com/assets/archives/2024/vol9issue2/9024.pdf>
3. Tian Y, Deng F. Phytochemistry and biological activity of mustard (Brassica juncea): a review. CyTA - J Food [Internet]. 2020;18(1):704–18. Available from: <http://dx.doi.org/10.1080/19476337.2020.1833988>
4. Vélez ACC. Brassica juncea (mustard). CABI Compendium [Internet]. 2022;CABI Compendium. Available from: <http://dx.doi.org/10.1079/cabicompndium.91760>

5. The Editors of Encyclopedia Britannica. brown mustard. In: Encyclopedia Britannica. 2023.
6. Brassica Juncea plant care & growing basics: Water, light, soil, propagation etc [Internet]. Myplantin.com. [cited 2024 Nov 11]. Available from: <https://myplantin.com/plant/5923>
7. Eulalia Palomo. How to Grow Brassica Juncea. Weekand.com. [cited 2024 Nov 11]. Available from: <https://www.weekand.com/home-garden/article/grow-brassica-juncea-18054935.php>.

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