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An comparative and experimental study on the growth of *Capsicum annuum* using sulphur 6c and ayurvedic preparation kunapajala: A comparative experimental study

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Abstract
'*Capsicum annuum*' is a vital commercial crop widely cultivated for its economic and nutritional value, especially in countries like India, which contributes nearly 40% of global chili production. Conventional agriculture relies heavily on chemical fertilizers to meet high demand, leading to environmental degradation and loss of soil-microbial balance. In response, sustainable alternatives like Homoeopathic and Ayurvedic inputs are being revisited. 'Sulphur 6C', a Homoeopathic preparation, and 'Kunapajala', an ancient Ayurvedic fermented liquid manure, have shown potential in enhancing plant growth. This study aims to comparatively assess the effectiveness of Sulphur 6C and Kunapajala in promoting growth of *Capsicum annuum* plant.
A prospective experimental study was conducted with 45 randomly selected healthy *Capsicum annuum* plants, grouped into three categories: Group-A (Control): irrigated with potable water only. Group-B (Sulphur 6C): irrigated with Sulphur 6C and Group-C (Kunapajala): irrigated with Kunapajala. Plants were planted in untreated soil and grown under uniform conditions without addition of any chemical fertilizers. Plant height was measured every 10th day for 90 days.
By end of 90-day period, Group-A (Control) recorded an average plant height of 71mm. Group-B (Sulphur 6C) achieved highest average height of 134mm. And Group-C (Kunapajala) showed moderate growth with an average height of 93mm. No significant flowering or fruiting was observed in any group during the study period.
The study concludes that Sulphur 6C significantly promotes vegetative growth in *Capsicum annuum* compared to Kunapajala and control group, likely due to its role in protein synthesis and cellular repair mechanisms. Kunapajala, while less effective than Sulphur 6C, still outperformed the control, indicating its promise as an organic input. These findings support the potential integration of alternative bio-enhancers in sustainable agriculture, though further research is needed to evaluate long-term yield and soil health impacts.

Keywords: Capsicum, Kunapajala, Homoeopathic medicine, Sulphur 6C, Biodynamic farming

Introduction
Capsicum is an important mass-market spice and vegetable crop for small and frontier agriculturists in Asia, Africa and south America. Among five cultivated species of the genus capsicum, *Capsicum annuum* is the most extensively cultivated in India for its pungent fruits that are dried for spicy powders, pickles,non-pungent fruits which are cooked as vegetables. India is the largest patron of chilly producing around 40 of the whole worlds produce and to meet this demand the agriculturists solely on chemical manures [1].
The increased use of chemicals under heavy cultivation has not only defiled the ground and face water but has also displaced the symphony living among the soil plant and microbial population. On other hand, conventional organic inputs cannot meet crop nutrient demand over big regions because of restricted amounts available. Agriculturists and experimenters started solving on addition of organic agriculture approaches [2].
In plants and animals, the amino acids cysteine and methionine bear utmost of the sulfur, and the constituent is present in all polypeptides, proteins, and enzymes that contain these amino acids. Disulfide bonds (S- S bonds) between cysteine residua in peptide chains are veritably significant in protein congregation and structure. These covalent bonds between peptide chains grant redundant durability and rigidness.

In intracellular chemistry, sulfur operates as a carrier of breaking hydrogen and its electrons for cellular repair of oxidation [3].

When Sulphur 6C applied, excess of Sulphur is applied. Improve Sulphur deficiency. Maximum Sulphur increases growth of Capsicum. And it improves imbalance of Sulphur content and helps for the growth of *Capsicum annuum* plant [4].

Kunapajala [5] is the one of the traditional liquid formulations enhancing in crop growth and productivity. Even after agricultural researchers, scientists showed negligence on this formulation and Valmiki Sreenivasa a Ayangarya mathematician was the first one who experimental with kunapajaala and documented and beneficial role of herbal kunapajaala on mango and coconut. Ayangarya also observed enhancement in growth of chilly plant after application of herbal kunapajaala prepared from naturally fallen sour mango ang soap out (sapindus emarginatus)

Thus, the study was undertaken to compare the effectiveness of Sulphur 6C and ayurvedic preparation kunapajala in the growth of *Capsicum annuum* plants.

Materials and Methods

Materials

- *Capsicum annuum* seeds from mall of gardens nursery, Krishi Bhavana, Mangalore seed supplier.
- Homoeopathic drugs Sulphur 6C from authentic pharmaceutical company (Dr. Willmar Schwabe India Pvt.).
- Kunapajala from Alva's Ayurveda Medical college, Moodbidri.
- Poly Grow Nursery Plant Bags.
- Soil (local- Mijar, Karnataka; 13.04025°N 74.967838°E) free from organic & inorganic fertilizers or pesticide.
- Potable / Tap water.
- Garden water dispenser.
- Plastic measure cup for liquids (100ml).

Methods

- Sample Size: 45 plants.
- Study Location - Alva's Homoeopathic Medical College, Mijar, Moodabidiri, Mangalore, Dakshina Kannada, Karnataka (Google Map Plus Code: 2XC9+MC).
- Study Settings - 3 groups.
- Study Period - 90 days.
- Assessment -
  - Plant growth every 10th day determined by considering and tabulating length of plant in term of millimeters.
- Results - After the study period (90 days) the observations for each group are represented in the tables and result is presented after analysis of data.

Study Design

Table 1: Study Design

Group	Germination	Size	Post Germination Irrigation	Size
Group - A (Control Group)	Potable Water	30 seeds	Potable Water	15 Plants
Group - B (Experimental Group)	Potable Water	30 seeds	Water Mixed With Sulphur 6C	15 Plants
Group - C (Experimental Group)	Potable Water	30 seeds	Water Mixed With Kunapajala	15 Plants

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

Medicine Dilution Proportion

- 2 ml of Sulphur 6C in 500 ml of potable water.
- 50 ml of Kunapajala in 500 ml of potable water.

Results

In this study it was observed that on 90TH Day in Group-A the maximum Average Plant Height was about 71 millimeters, in Group B the maximum Average Plant Height was about 134 millimeters and in Group C the maximum Average Plant Height was about 93 millimeters.

Table 2: Group-A Average Plant Height

Group-A (Control Group)			Germination: Potable water. Post Germination: Potable water.					
Day-10	Day-20	Day-30	Day-40	Day-50	Day-60	Day-70	Day-80	Day-90
45mm	65mm	68mm	70mm	71mm	71mm	71mm	71mm	71mm

Table 3: Group-B Average Plant Height

Group-B (Experimental Group)			Germination: Potable water. Post Germination: Medicated water with Sulphur 6C.					
Day-10	Day-20	Day-30	Day-40	Day-50	Day-60	Day-70	Day-80	Day-90
65mm	115mm	123mm	130mm	132mm	132mm	134mm	134mm	134mm

Table 4: Group-C Average Plant Height

Group-C (Experimental Group)			Germination: Potable water. Post Germination: Medicated water with Kunapajal.					
Day-10	Day-20	Day-30	Day-40	Day-50	Day-60	Day-70	Day-80	Day-90
60mm	75mm	85mm	90mm	91mm	92mm	92mm	93mm	93mm

Table 5: Group Wise Average Plant Growth Assessment on Day 90

Group	Plant Height (in mm) on Day 90
Group - A	71
Group - B	134
Group - C	93

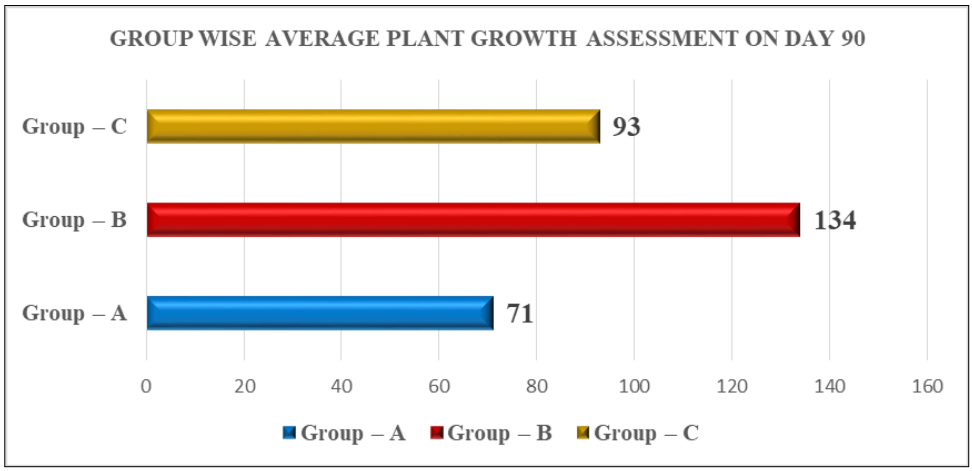

Fig 1: Group Wise Plant Growth Assessment on Day 90

Fig 2: Group A (Day 90)

Fig 3: Height Group A (Day 90)

Fig 4: Group B (Day 90)

Fig 5: Height Group B (Day 90)

Fig 6: Group C (Day 90)

Fig 7: Height Group C (Day 90)

Discussion

The present study was conducted to evaluate and compare the effects of Sulphur 6C, a Homoeopathic dilution, and Kunapajala, a traditional Ayurvedic preparation, on the growth of *Capsicum annuum*. This research addresses the increasing concern over excessive use of chemical fertilizers in agriculture, particularly in India where *Capsicum annuum* is a major crop. The overreliance on chemical inputs has led to significant environmental issues including soil degradation and water pollution, necessitating alternative sustainable agricultural practices.

The study used a randomized design involving three groups:

- Group-A (Control) received only potable water.
- Group-B was treated with Sulphur 6C.
- Group-C was treated with Kunapajala.

Throughout the 90-day observational period, various parameters were assessed, including germination time, plant height at 10-day intervals, and the presence of flowering and fruiting.

The data revealed that Group-B (Sulphur 6C) consistently outperformed the other groups in plant height, reaching a maximum average height of 134mm, compared to 93mm in Group-C (Kunapajala) and 71mm in Group-A (Control) by the day 90. This suggests a significant role of Sulphur in promoting vegetative growth, likely due to its involvement in amino acid synthesis, enzyme activity, and protein structure via disulfide bonding.

Group-C, treated with Kunapajala, also demonstrated enhanced growth compared to the control group. Kunapajala, being rich in organic nutrients derived from fermented plant and animal products, likely improved microbial activity and nutrient availability in the rhizosphere, albeit to a lesser extent than Sulphur 6C.

Interestingly, while Kunapajala did not match the height gains observed in the Sulphur 6C group, it still presented clear improvements in plant vigor over the control, supporting the traditional claims of its efficacy. However, no significant data on flowering or fruiting was observed during the 90-day period, which may require extended studies over a full crop cycle to assess yield effects fully.

Conclusion

The findings from this comparative experimental study indicate that:

- Sulphur 6C significantly enhances the vegetative growth of *Capsicum annuum* when compared to both the control and Kunapajala treatments.
- Kunapajala also positively impacts plant growth, supporting its traditional use, though its effectiveness in

terms of plant height was less pronounced than Sulphur 6C.
- Control plants showed the least growth, highlighting the need for nutritional supplementation even in controlled organic settings.

These results suggest that Sulphur 6C could serve as a potent, low-impact alternative to conventional chemical fertilizers in enhancing early-stage growth of *Capsicum annuum* plant. Kunapajala, on the other hand, offers a promising, eco-friendly, and traditional solution for organic farming, especially in low-resource settings.
Further studies are required to examine long-term effects, including flowering, fruiting, and overall yield, and to determine the economic viability and scalability of both treatments in field conditions.

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Conflict of Interest
Not available

Financial Support
Not available

References
1. DeWitt D, Bosland PW. The Complete Chile Pepper Book. Portland, OR: Timber Press; c2009, p. 33-5.
2. Pa S, Sharma AK, Thakur S, Sharma K. Integrated nutrient management of peppers (*Capsicum annuum* L.) in 21st century - A review. Int J Curr Microbiol Appl Sci. 2017;6(12):227-237.
3. Wikipedia contributors. Sulfur [Internet]. Wikipedia, The Free Encyclopedia; 2022 [cited 2024 May 23]. https://en.wikipedia.org/w/index.php?title=Sulfur&oldid=1085063772
4. José Manuel M-S, Carlos Michel O-S, Milagro G-B, María Araceli A-Q, Fernando A-P, Daulemys B-S, *et al*. Agricultural homoeopathy: A new insight into organics. In: Moudrý J, Mendes KF, Bernas J, da Silva Teixeira R, de Sousa RN, editors. Multifunctionality and Impacts of Organic and Conventional Agriculture. London, England: IntechOpen; c2020.
5. Surapala. Vrikshayurveda in Ancient India (With Original Texts and Translation). 7th ed. Chapter 7, Classic Formulations of Vrikshayurveda; c2020, p. 58.

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