Among the varieties, Swaraj Pan 2155 recorded the highest pod number, longest pods, and highest yield, despite producing fewer leaves and flowering later than Arka Anamika. This combination indicates that, among the traits examined, pod number and pod length contributed more directly to yield than either leaf number or flowering time. The significance of pod number as a yield-determining trait is further supported by Jonah and Kwaga (2019) and Reddy et al. (2012). Pod weight values in the present study, ranging from 13.00 to 14.50 g, fall within the range reported by Nepali et al. (2025) and are broadly consistent with Chaudhary et al. (2023), who observed pod weight ranging from 14.20 to 18.90 g across different mulching treatments. Taken together, the yield differences among varieties appear closely linked to branch number and pod number, both of which showed a direct relationship with final yield in this study.

5 Conclusion

The experimental results show that the different plant parameters help to predict the overall yield and performance of the specific plant. Flowering commences 52 to 60 days after sowing, with early flowering at 52 days for Arka Anamika. Production was varied according to number of pod and weight of pod. Highest yield and maximum number of pods is observed in Swaraj Pan 2155.

Through our experiment, Swaraj Pan 2155 was considered as the high yielding variety among all and best suited to Chakarghatta, Sarlahi. Single field experiment is not suitable for valid result. So similar research trial in the location should be done.

Authors' contributions

APY carried out the conceptualization of research, designed the experiment, collect the data and drafted the manuscript. AP helped in data analysis and helped to draft the manuscript. DK helped to draft the manuscript and supervision of the research. All authors read and approved the final manuscript.

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Conflict of Interest Disclosure

The authors affirm that this research was conducted without any commercial or financial relationship that could be contruct as a potential conflict of interest.

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