



Introduction

- Drumstick farming is a low investment enterprise with an immediate return.
- Farmers are unaware of the profitability of drumsticks, and production is limited to backyard farming.

Study objective

Analyse the financial feasibility of the drumstick enterprise in the Terai belt of eastern Nepal.

Methods

- Siraha, Kalyanpur, and Karjanha Municipalities of Siraha district, Madhesh Province in FY 2020/21
- Drumstick producers (105), Focus group discussions (3), Key informant interviews (7)
- Profitability analysis of drumstick production in a hectare of land: Benefit Cost Ratio (BCR), Net Present Value (NPV), Internal Rate of Return (IRR), Sensitivity analysis, and Payback Period (PBP)

Results

- Drumstick farming is economically profitable for a continuous ten-year of production plan in the Terai belt of eastern Nepal.
- A comparison of ten years of continuous production (same plant) and five years of production (new plantation every fifth year).

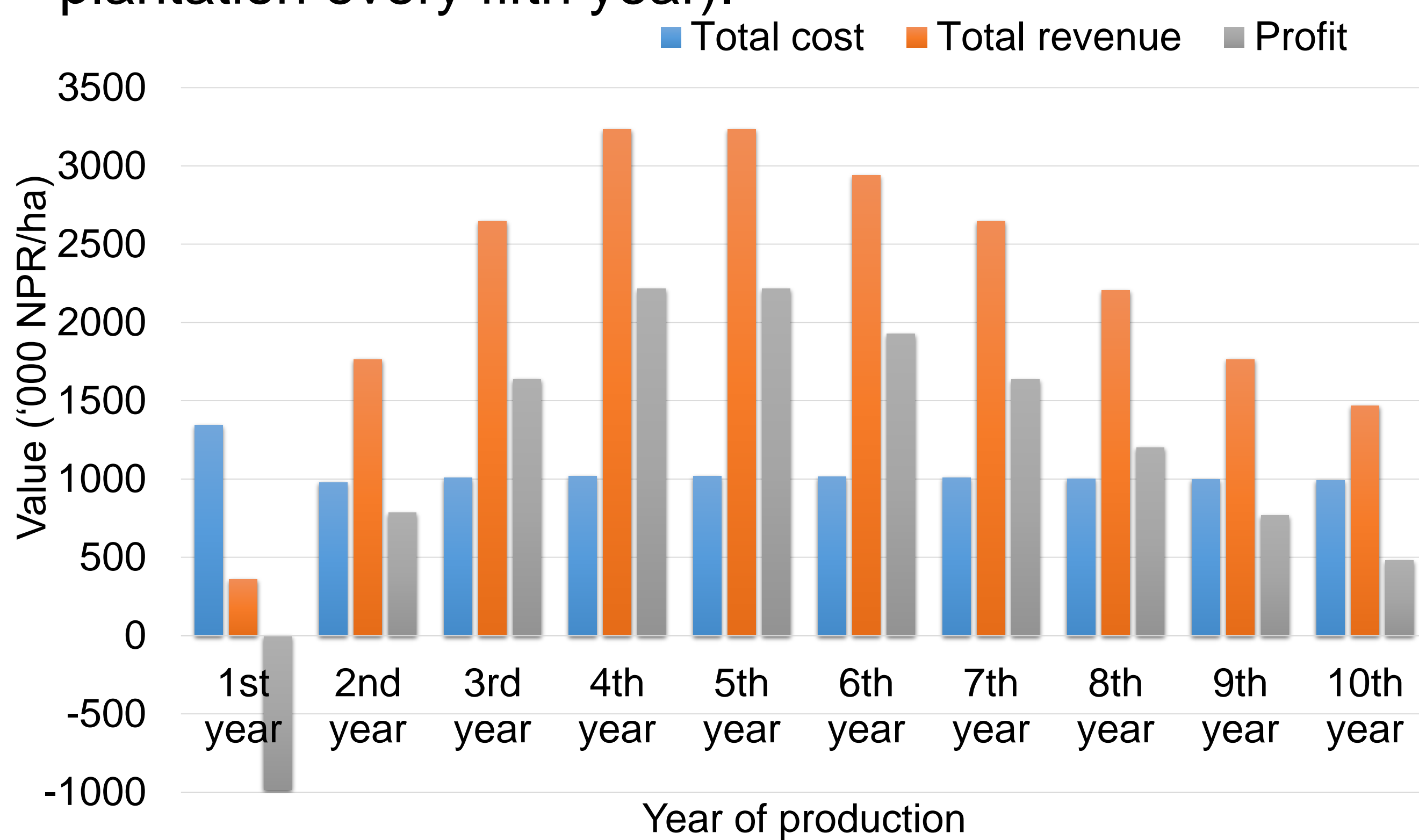


Fig.1: Total cost, revenue and profit for continuous ten years

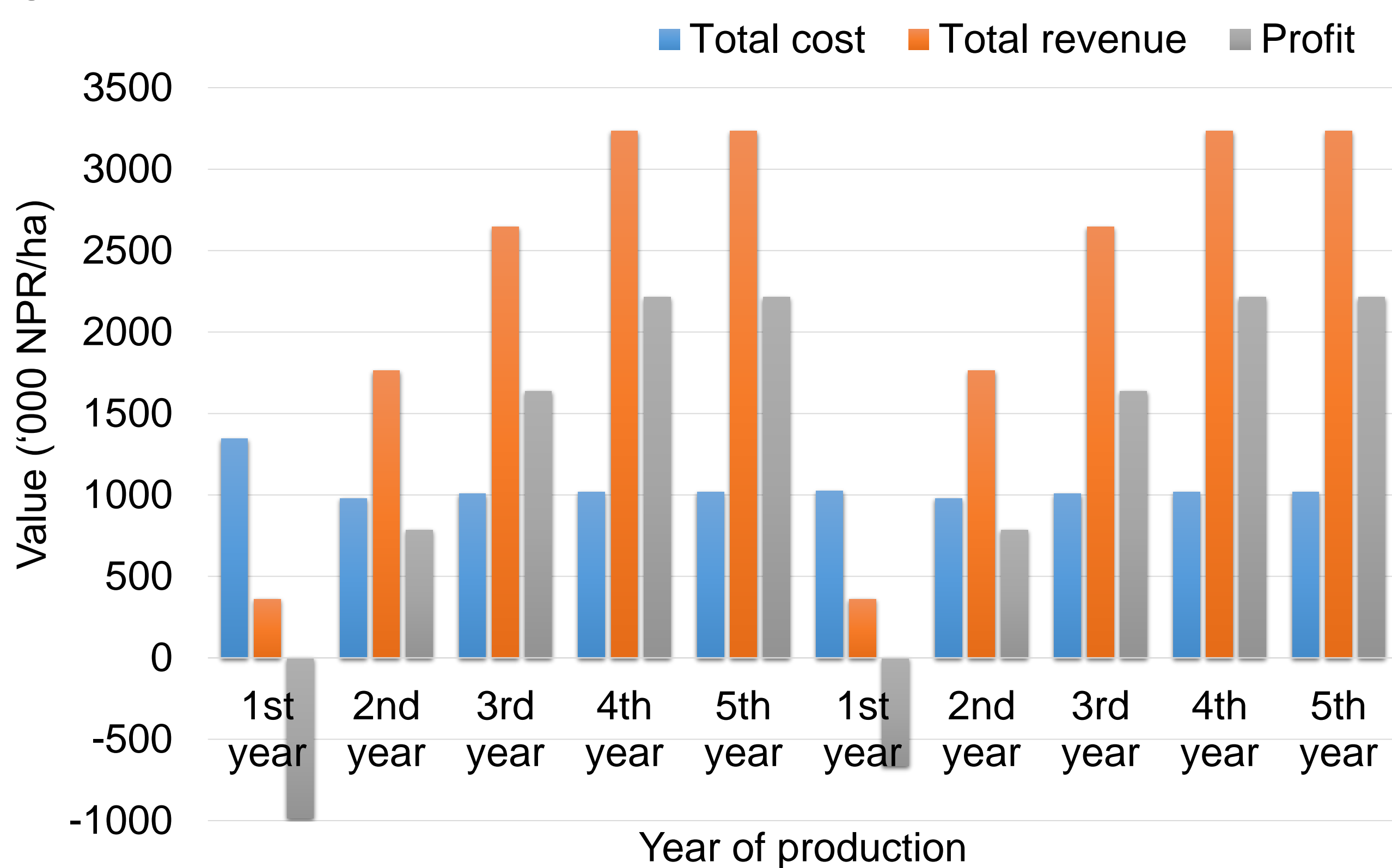


Fig.2: Total cost, revenue and profit for each five years

The average BCR for the continuous ten years and every fifth year of production were 2.20 and 2.22, respectively.

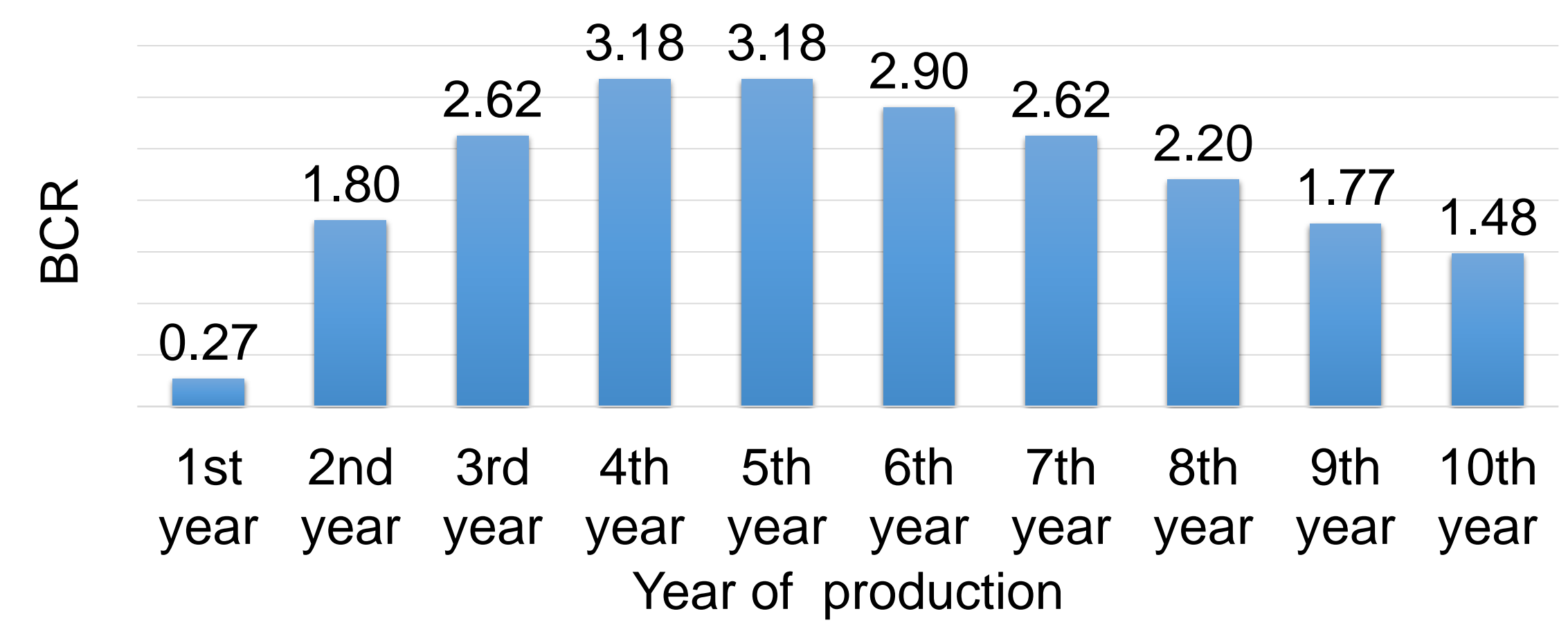


Fig.3: BCR of drumstick production for continuous ten years

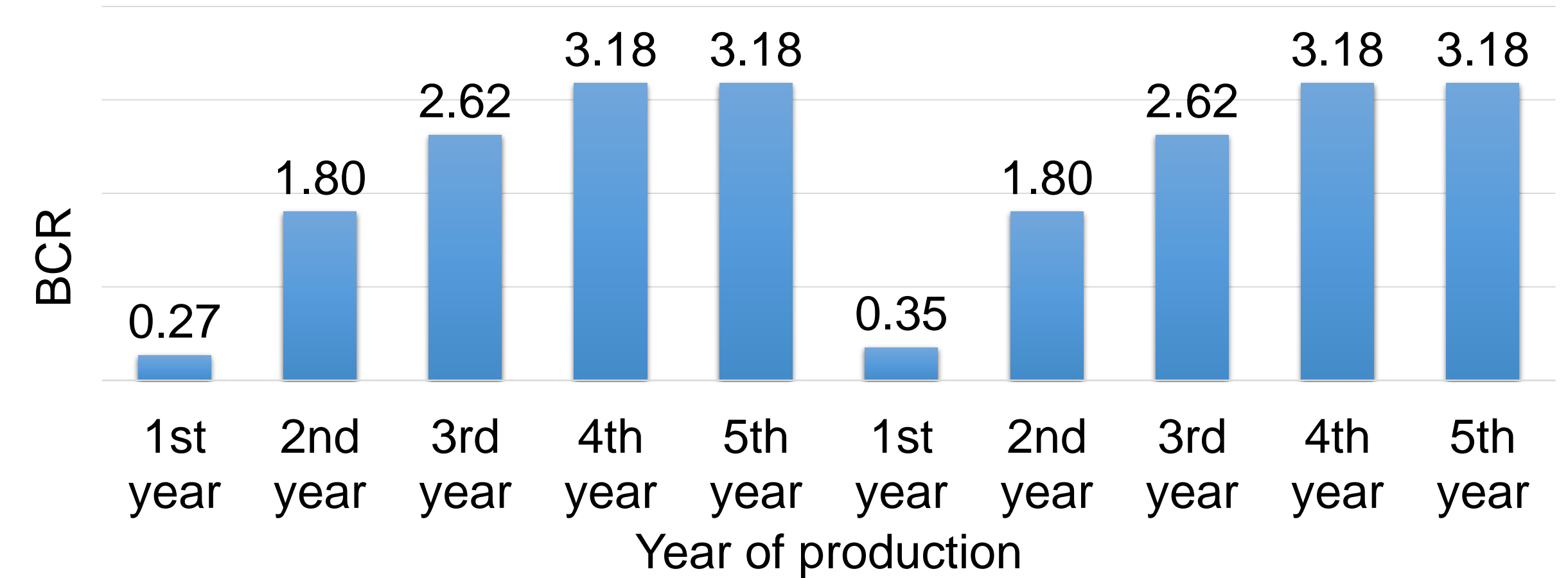


Fig.4: BCR of drumstick production for each five years

- The NPV was NPR 6,870,992 and NPR 8,039,131 per ha
- The IRR for continuous ten years and each five years of drumstick production was 127.1% and 142.2%, respectively.

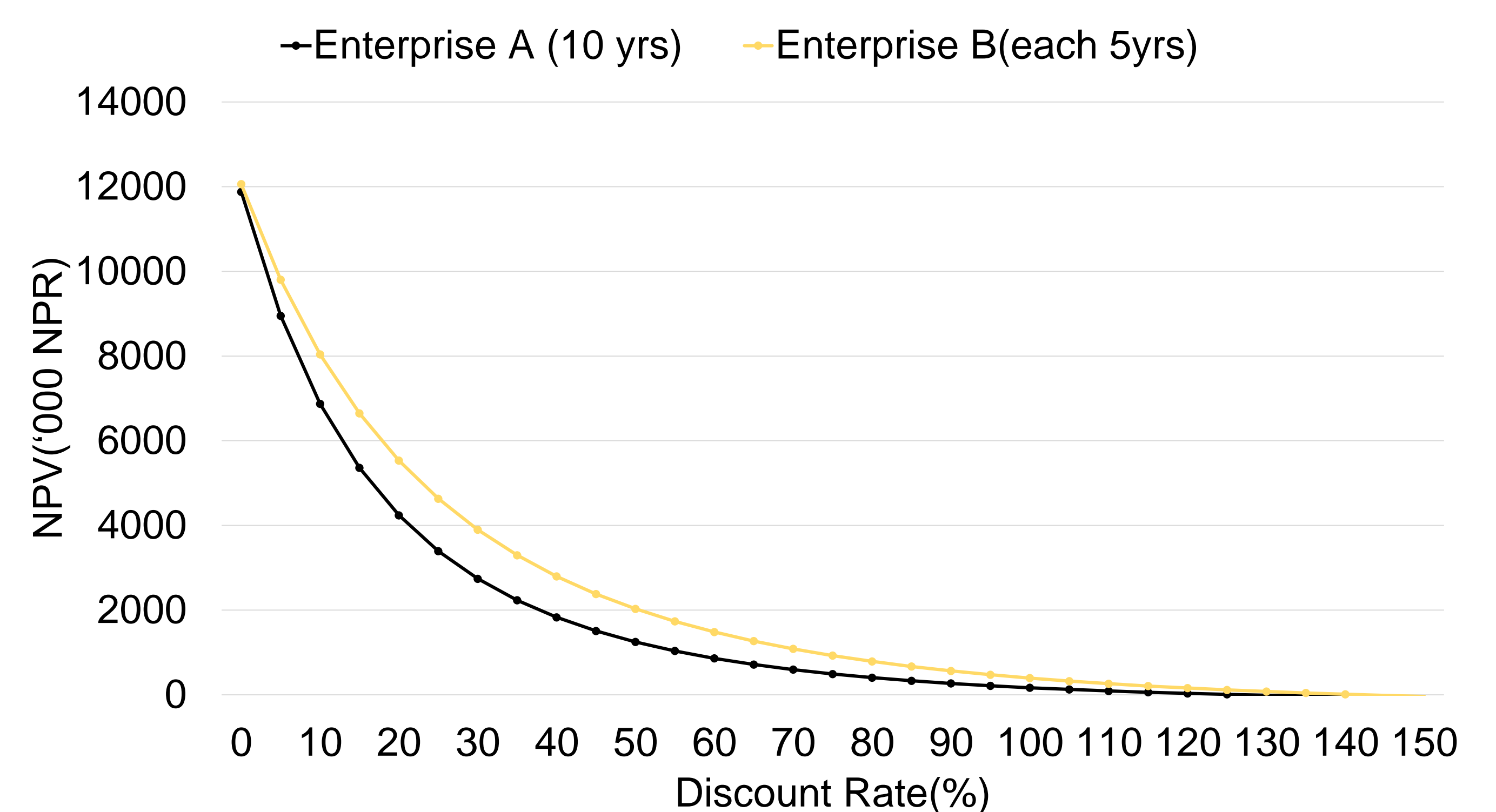


Fig.5: IRR for continuous ten years and each five year

- Both types of drumstick enterprises were not sensitive to a 10% increase in total cost and a 10% decrease in total revenue.
- PBP was 2.56 years of a continuous ten-year period, and 2.56 years and 2.38 years for each five-year period of drumstick production.

Conclusion

Establishment of the new orchard in every fifth year of drumstick production is more profitable compared to the continuous ten years of production from the same plant in the Terai belt of eastern Nepal.

References

- Rahim, M. (2017). Improving the moringa value chain in Bangladesh and linking growers with the market. *Acta Hort.* doi:10.17660/ActaHortic.2017.1158.43
- Seifu, E., & Teketay, D. (2020). Introduction and expansion of *Moringa oleifera* Lam. in Botswana: Current status and potential for commercialization. *South African Journal of Botany*, 1-9.

Acknowledgement

The study was supported by BMZ/Welthungerhilfe (WHH) Nepal, FORWARD Nepal, and Aasaman Nepal



Tropentag 2022, ID 313, Session online Livelihood II 9:50-10:30, September 16, 2022, Conference on International Research on Food Security, Natural Resource Management and Rural Development organised by Czech University of Life Sciences, Prague, Czech Republic