

CHALLENGES AND OPPORTUNITIES OF SMALL SCALE BIOPESTICIDE/ BIOCONTROL PRODUCTION



IDEAS & SOLUTIONS FOR TODAY'S GROWER

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Introduction

- ❖ There is a growing demand for eco-friendly and sustainable pest control methods.
- ❖ Small-scale biopesticide (SSBP) production plays a vital role in meeting our local market needs, by
 - Enabling accessibility to small scale farmers through collaborations & partnerships.
 - allows for the customization of biopesticides based on the specific needs of the local market.
 - With proper modelling BPs can be availed at an affordable price to these farmers

CHALLENGES

- ❖ Limited knowledge and training.
- ❖ Access to advanced equipment and technology.
- ❖ Market Competition and cost effectiveness.
- ❖ Regulatory compliance.
- ❖ Supply chain challenges.

1. Limited Knowledge and Training.

- ❖ Small scale BP producers, have limited expertise in production process, formulation development, safety and handling of micro-organisms. Inadequate training may risk human health and environmental safety.
- ❖ Limited knowledge and training in research and development can also hinder SSBP producers capacity to develop new products.
 - due to insufficient funding for research and development. This limits their ability to address local farming pest challenges and diversify products to meet small holder needs.

2. Access to Advanced Equipment and Technology

❖ We have limited resources for acquiring modern equipment and technology resulting in;

- Lower efficiencies
- difficulties in scaling up,
- struggle to innovate and keep up with the market demands

3. Market Competition and Cost-Effectiveness

- ❖ SSBP producers have to contend with Competition with larger manufacturers who benefit from economies of scale.
 - Our production and landed costs per unit are higher due to our limited range of products.
 - Some stages of our production cycle are carried out manually and lower our efficiencies, leading to wastage and risk of batch contaminations.

Regulatory compliance

- ❖ Regulatory requirements are complex and lengthy and requires expertise and advanced equipment that comes at a huge cost.
- Limits the speed and number of products SSBP producers can introduce in the market within a specified period, to counter the use of synthetics by small holder farmers.

Supply Chain Challenges

- Developing and producing BPs and Biocontrols requires complex supply chain.
- Small scale farmers are distributed over wide and sometimes remote areas and this affects the landed cost of the BP products
- SSBP producers may struggle to find suppliers of raw materials they need, or to find customers for their finished products.
- This limits their ability to scale up and grow their business.

OPPORTUNITIES

The challenges SSBP producers face can be transformed into opportunities by embracing innovation, differentiation, collaboration, adaptability and resilience. Opportunities presented include;

- ❖ Collaboration and partnerships.
- ❖ Supportive government policies.
- ❖ Economic empowerment of rural communities.
- ❖ Increasing market share and cost efficiencies.

COLLABORATION & PARTNERSHIPS

- ❖ There is opportunity for SSBP producers to collaborate with local farmers to develop customized pest management solutions.
 - Identifying traditional/ local solutions used by farmers which are effective in controlling local pests.
 - Provide value addition through improved formulations to improve the efficacy of these solutions.
 - Conducting on-site trials, and participatory field demonstrations
 - Act as distribution channels for biopesticides and bio control agents produced by SSBP producers.
- This collaborations can be done with cooperatives, farmer groups and their networks at the local level.

- ❖ Collaboration between government, research institutions, NGOs, small-scale biopesticide producers and small scale farmers;
- This can address challenges related to limited access to advanced equipment and technologies. Outsourcing options can be explored here.
- Can provide continuous education and training support for Small scale biopesticide producers as well as end users of the biopesticides.
- Co-develop knowledge-sharing platforms and technology transfer initiatives, that benefit both small scale biopesticide producers and farmers.

Supportive Government Policies

There is opportunity for government to promote use of biopesticides and research and development, by creating enabling policies.

- ❖ Incentives and subsidies for all stakeholders along the biopesticide value chain to propel growth in the industry.

Economic Empowerment

- ❖ Small-scale biopesticide production can contribute to local economic development.
- By collaborating with women and youth in small businesses or cooperatives focused on biopesticide production. Individuals and communities can create employment opportunities and generate income locally.
- This localized economic activity strengthens the local economy, reduces dependence on external suppliers, and fosters self-sufficiency in pest management.

Increasing Market Share and Cost Efficiencies

- ❖ Market share can be increased by identifying niche markets
 - Addressing the needs of the small scale farmer can provide opportunities for differentiation by leveraging unique attributes to create a competitive edge in the market
- ❖ Cost efficiencies can be improved through partnerships, collaborations, out sourcing/ subcontracting some stage(s) of the production (to Researchers, CBOs, youth and women groups) and supply value chains, through innovative models.

Conclusion

- ❖ Small scale biopesticide producers offer opportunities and propel growth in the BP industry by
 - Focusing on niche markets
 - Being more flexible.
 - Producing locally.
 - Having lower costs through collaborations and partnerships

These factors can help SSBP producers differentiate themselves in the market and provide unique benefits to local small holder farmers.

THANK YOU



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