

Data Analysis Report: Project Impact Data

Project: Veterinum Pilot Breeding Centre for Tenebrio Molitor Larvae

Location: Veterinum Headquarters, Ulcinj

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1. Introduction

This data analysis report presents the impact data collected from the Veterinum Pilot Breeding Centre for Tenebrio Molitor (TeM) larvae. The analysis covers key metrics related to production growth, staff performance, and research developments, providing insights into the project's effectiveness and areas for further improvement.

2. Data Collection Methodology

Data was collected through various methods, including:

- **Real-Time Monitoring:** Continuous data collection using advanced sensors and monitoring systems.
- **Staff Reports:** Regular updates and logs maintained by the agricultural expert and operational staff.
- **Inspection Reports:** Findings from periodic site inspections conducted by the Belinda Animals expert team.
- **Research Data:** Initial findings from ongoing research into TeM products and their applications.

3. Key Metrics and Findings

3.1 Production Growth

- **New Batches Established:** 10 new batches of TeM larvae were successfully established, in addition to the existing 5 batches, bringing the total to 15.
- **Increase in Egg Production:** A significant rise in the number of eggs was recorded, indicating healthy breeding conditions and effective management practices.
- **Colony Expansion:** The expansion of colonies has shown a consistent upward trend, with an average growth rate of [Insert Growth Rate] over the past two months.

3.2 Environmental Control

- **Temperature and Humidity:** Optimal environmental conditions were maintained, with temperature and humidity levels consistently within the ideal range for TeM breeding.
 - **Average Temperature:** 26 °C
 - **Average Humidity:** 57 %
- **System Efficiency:** The automated systems for climate control demonstrated high efficiency, with minimal deviations from the set parameters.

3.3 Staff Performance and Training

- **Training Sessions Conducted:** Detailed training sessions were held, focusing on advanced breeding techniques, environmental controls, and larvae care.
 - **Number of Training Sessions:** 3
 - **Participant Feedback:** Positive feedback was received, indicating improved confidence and competence among the staff.
- **Mentoring Impact:** Continuous mentoring addressed specific knowledge gaps and operational challenges, resulting in enhanced staff performance.

3.4 Research and Development

- **TeM Products Research:** Initial research into the use of TeM products such as oil and protein flour in protein meals for bees showed promising results.
 - **Nutritional Analysis:** Preliminary nutritional analyses indicated high protein content and potential benefits for bee feeding, over 55%.
 - **Regulatory Compliance:** Steps are being taken to obtain necessary permits and declarations for market entry, concisely analysis of ingredients.

4. Impact Assessment

4.1 Production Impact

- **Scalability:** The successful establishment of new batches and the increase in egg production demonstrate the scalability of the TeM breeding operations.
- **Market Potential:** The centre is positioned to become a key provider of initial TeM colonies, meeting the demand from other agricultural companies.

4.2 Environmental Impact

- **Sustainability:** The optimal use of resources and effective waste management practices contribute to the overall sustainability of the breeding operations.
- **Biodiversity:** The introduction of TeM larvae as an alternative protein source supports biodiversity by reducing reliance on traditional animal feed.

4.3 Economic Impact

- **Cost Efficiency:** The effective breeding practices and optimized resource use have resulted in cost savings and increased profitability.
- **Market Expansion:** The development of TeM-based products offers new revenue streams and market opportunities.

5. Recommendations

- **Continued Training:** Regular training and refresher sessions for staff to stay updated with the latest advancements in TeM breeding.
- **Research Collaboration:** Strengthen partnerships with research institutions to further explore the applications and benefits of TeM products.
- **Market Strategy:** Develop a comprehensive market strategy for the introduction and promotion of TeM-based products.

6. Conclusion

The data analysis confirms the significant progress and positive impact of the Veterinum Pilot Breeding Centre. The project's success in scaling production, maintaining optimal conditions, and initiating innovative research highlights its potential as a model for sustainable agriculture. Belinda Animals will continue to support Veterinum in achieving its goals and expanding its impact.

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