

SUSTAINABLE FRUIT PRODUCTION IN SLOVENIA



The Fruit Centre Maribor is an experimental research station for stone fruits. The Centre is researching and promoting sustainable fruit production practices to minimise the reliance on synthetic pesticides. They use more resistant fruit varieties, have developed their own plant-based pesticide sprays and focused on improving soil health.



THE CHALLENGE

The Fruit Centre in Maribor is trying to reduce the use of synthetic pesticides in fruit growing to achieve more sustainable farming practices.

MAIN OBSTACLES

- A lack of understanding and support for sustainable fruit production from other stakeholders in fruit production.
- Difficulties in sourcing alternative synthetic pesticide products, such as specialised clays.
- The need for consistent yield and plant growth monitoring to ensure new methods are not adversely affecting crop quality or quantity.
- Undeveloped market for sustainably grown fruits in Slovenia
- Lack of consumer willingness to pay higher prices for fruits that are grown without synthetic pesticides.

OVERCOMING BARRIERS

Personal commitment: Commitment to implementing sustainable farming practices, despite scepticism and criticism.

Learning from others: Sought knowledge from farmers and researchers and attended conferences. Stayed updated on research and best practices while networking with like-minded people.

Experimentation and adaptation over time: Gradually replaced synthetic pesticides with natural plant extracts and other products. Learned to be flexible and adapt approach in response to changing weather and other factors.

Monitoring and evaluation: Carefully monitored results, assessing fruit quality, yield, and environmental impact, enabling progress tracking and necessary adjustments to maintain effectiveness.

KEY OBJECTIVES

- To implement sustainable fruit production practices that minimise the reliance on synthetic pesticides.
- To increase understanding and acceptance amongst farmers and stakeholders about the benefits and feasibility of sustainable fruit production practices.
- To monitor and manage crop yields and plant health to ensure consistent yield and quality.
- To provide evidence that sustainable methods can lead to economic savings and improved profitability for farmers.



AGRONOMIC SOLUTIONS

- New fruit varieties with improved fungal resistance.
- Integrated pest management practices to limit the use of fungicides, herbicides and insecticides.
- Natural stimulants and soil additives to improve overall health and productivity, including clay soil additives that improve phenolic content and protect against climatic conditions.
- Monitoring plant variety susceptibility to frost and regeneration.

KNOWLEDGE EXCHANGE SOLUTIONS

- Awareness-raising activities with farmers and stakeholders.



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RESULTS AND OUTCOMES

By transitioning away from synthetic pesticides and towards natural insecticides and soil amendments, the Fruit Centre has been able to reduce its use of synthetic pesticides, create healthier soils and attract beneficial insects and wildlife thereby building a more resilient ecosystem. Additionally, by focusing on crop diversity and disease-resistant varieties of crops, the Fruit Centre has been able to maintain high yields and quality despite reducing the use of synthetic pesticides.



LESSONS LEARNED

- 1 Transition to sustainable practices requires a strong commitment
- 2 A willingness to experiment with new approaches is required
- 3 A focus on producing high-quality, healthy crops is essential
- 4 Sharing knowledge and experiences with others is important
- 5 Economic profitability needs to be balanced with environmental stability
- 6 There is currently a limited market for specialty fruit products in Slovenia
- 7 There is a need for continuous learning and adaptation to new challenges

Markets: As the market for sustainably grown fruits is undeveloped in Slovenia, there is a need to develop new markets and value chains to markets these fruits as specialty products with higher prices. This will require raising awareness among consumers and retailers and creating effective marketing strategies.

Research: More research is needed on the effectiveness of alternative preparations like stimulators and natural predators, which show promise in reducing synthetic pesticide use but lack long-term studies. Additionally, research should focus on developing new fruit varieties that are more resistant to pests and diseases.

Governance: Greater knowledge exchange and collaboration among stakeholders in the agriculture sector, including growers, researchers, advisors, and policymakers, is required. This involves sharing experiences and best practices, as well as developing new tools and resources to support sustainable management practices.

TRANSFERABILITY

Additional support is required to enable the upscaling of the sustainable practices adopted in the Fruit Centre.

Advice: Guidance from advisory services is required to help fruit growers navigate the associated risks, assess the effectiveness and offer necessary support and resources to reduce the use of synthetic pesticides.

FURTHER INFORMATION

Read more about the Fruit Centre Maribor here: <https://tinyurl.com/37mr32um>

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