



Ideas to Innovation: Exploring bio actives of damson plums



Purple Foods Health Benefits

Anti-cancer
Provides Youthful Skin
Anti-inflammation
Anti Heart Disease
Anti-Diabetes
Anti-Aging
Prevents Obesity
Prevents Bacterial Infections
Prevents Urinary Tract Infection
Prevents Age-related Neurodegenerative Diseases

antiagingforall.com



IDEA.....



LINKING IN

- Hui with High Value Nutrition
- Development grant
- Link with the Riddet Institute
- Link with Massey
- Co-design of research plan



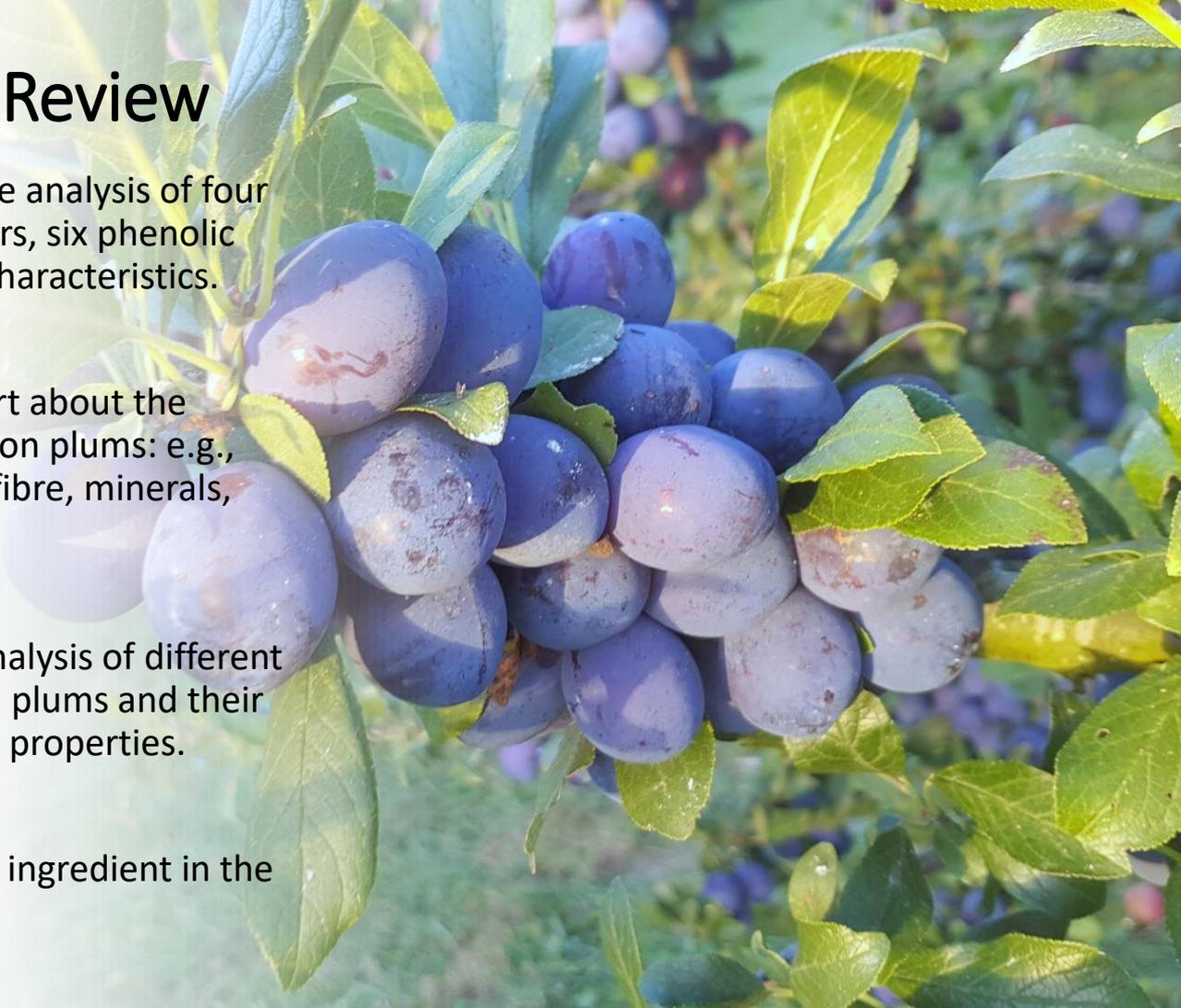
"We are interested to explore whether damson plums, as a potential high-value food, may have any health benefits beyond their basic nutritional value by decreasing the risk of chronic diseases,"

Research Aims

1. Investigating the biochemical composition and functionality of compounds in Damson plums.
2. Determine the nutrient content and antioxidant activity at different stages of plum ripening and harvest.
3. Map out regulatory considerations for exporting functional products based on Damson plums, in partnership with Smart Regulatory solutions.

Stage 1: Systematic Review

- Limited literature focused on the analysis of four organic acids, three soluble sugars, six phenolic compounds, and some genetic characteristics.
- No systematic publication/report about the nutritional composition of Damson plums: e.g., contents of protein, fat, dietary fibre, minerals, vitamins.
- No studies carried out on the analysis of different bioactive compounds in Damson plums and their corresponding health promoting properties.
- No data of Damson plums as an ingredient in the food and beverage industries.



RESULTS

- The fruit samples were harvested at early-, mid-, and late-ripening stages from randomly selected different plum trees.
- Damson plums are proven to be a fruit with a high concentration of bioactive compounds, such as vitamins (A, C, and E).
- The findings showed significant differences in some of the nutrients at each ripening stage.
- The Damson plum samples harvested at the end of ripening stage contained lower total phenolic content (TPC).
- Presence of specific Polyphenols and Anthocyanins.



RESULTS

- Accessible markets
- Traditional vs Novel foods
- Nutrient content and Health claims
- Research Gap

“We have made excellent progress in a short time, and we are delighted with the preliminary results showing that Damson plums are a great source of some of the vital nutrients and antioxidants required for maintaining good health”, Dr Ali Rashidinejad (Riddet Institute).





Next Steps

- Extract,
 - Identify,
 - Isolate, and
 - Protect antioxidants
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- Post Grad student, Massey
 - Māori Research pathways
-
- **To produce functional food products**

KIA ORA!!



- High Value Nutrition
- Riddet Institute
- Massey University
- Smart Regulatory Solutions