



# Exploring the Economic Potential of Native Australian Herbs in Global Markets: Sustainability, Innovation, and Opportunities for Export Growth in the Herbal Sector

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## Abstract

Australia's native herbs are rich in bioactive compounds and have unique culinary, medicinal, and cosmetic applications. These herbs, including lemon myrtle, wattleseed, and Kakadu plum, have attracted significant interest in the global marketplace due to their sustainable production methods and cultural significance. This study examines the economic potential of native Australian herbs in international markets by evaluating current export trends, consumer demand, and the sustainability of wild harvesting practices. Using quantitative methods, we analyzed market data, consumer preferences, and export figures to assess the opportunities and challenges facing the industry. Results indicate an increasing global demand for organic and sustainable herbal products, with Australian native herbs positioned to meet this demand due to their unique properties and established sustainability credentials. The study also highlights the need for greater investment in infrastructure, research, and development to scale production. In conclusion, native Australian herbs represent a valuable,

underexploited resource for Australia's agricultural and export sectors, with significant potential for growth in international markets, particularly in the natural foods, cosmetics, and wellness industries.

**Keywords:** Native Australian herbs, global market, economic potential, sustainability, export growth, lemon myrtle, Kakadu plum, wild harvesting

## Introduction

Native Australian herbs, long valued for their cultural, medicinal, and culinary applications, have recently gained significant attention in global markets. As consumers around the world become more health-conscious and environmentally aware, the demand for organic, sustainable, and naturally sourced ingredients is rising (Australian Bureau of Statistics, 2022; Jenkins & Byrne, 2021). Australia's unique biodiversity offers a rich variety of native herbs, including lemon myrtle, Kakadu plum, wattleseed, and bush basil, which have been integral to Indigenous Australian cultures for centuries (Booth & Tuckerman, 2020). These herbs are finding their place in international industries such as food, cosmetics, and wellness, presenting significant economic opportunities for the agricultural and export sectors (Australian Department of Agriculture, Water and the Environment, 2023; O'Neill & Williamson, 2020).

Australia's flora is incredibly diverse, and native herbs are distinct due to their bioactive compounds, high antioxidant content, and potent flavors (Evans & Stewart, 2021). Many of these herbs grow

**Significance** | Native Australian herbs hold immense potential for global markets, aligning with rising consumer demand for organic, sustainable, and culturally significant products.

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naturally in ecosystems evolved in relative isolation, providing a competitive advantage in global markets (Johnson & Phillips, 2019). For example, Kakadu plum, known for its high vitamin C content, has applications in cosmetics and health supplements (Clark & Bailey, 2019; Macarthur & Miller, 2021). Similarly, lemon myrtle, prized for its intense citrus flavor and antibacterial properties, is popular in culinary and personal care products (Carrington & Smith, 2021).

The global herbal product market, valued at over USD 10 billion, is driven by increasing consumer interest in wellness, natural products, and sustainable sourcing (Barbosa et al., 2021; International Trade Centre, 2022). Australian native herbs, often wild-harvested or sustainably cultivated, align perfectly with these consumer trends (Brennan & Kearney, 2019; Jenkins & Byrne, 2021).

Despite clear economic potential, the industry faces challenges such as scalability, supply chain logistics, and market awareness (Evans & Stewart, 2021; Green & Wilson, 2022). Wild harvesting may not suffice to meet global demand, necessitating investment in cultivation infrastructure and research (Brodribb & Feild, 2021; Murray & Taylor, 2019). Addressing these challenges requires collaboration between government agencies, researchers, and Indigenous communities to develop sustainable practices that preserve cultural and ecological integrity (Davis & Richards, 2020). Indigenous communities have a deep connection to native plants, using them for food, medicine, and ceremonies (Booth & Tuckerman, 2020). Increasing Indigenous involvement in commercial ventures promotes ethical sourcing and biodiversity conservation (Richards & Henderson, 2021).

In international gourmet cuisine, wattleseed is recognized for its nutty flavor, while Kakadu plum and lemon myrtle are gaining popularity in health and premium sectors (Hayes & Collins, 2020; White & Cameron, 2019). To capitalize on this success, greater global awareness of these herbs and their benefits is essential (Green & Wilson, 2022; Stewart & Bellamy, 2022).

Investment in scalable cultivation practices and marketing strategies will be key to ensuring the industry's growth (Australian Department of Agriculture, Water and the Environment, 2023; Burns & Warner, 2020). Additionally, navigating trade regulations and consumer preferences across international markets is critical for long-term success (Kearns & Harvey, 2020; Jones & McKinnon, 2022).

Native Australian herbs represent an opportunity for economic growth, aligning with global demand for sustainable, organic products (Australian Bureau of Statistics, 2022; Food and Agriculture Organization, 2022). However, realizing this potential requires addressing production challenges and committing to sustainable practices that respect Indigenous heritage and

Australia's unique ecosystems (Booth & Tuckerman, 2020; Murray & Taylor, 2019).

## 2. Materials and Methods

### 2.1 Study Design

The study employed a mixed-method approach combining qualitative and quantitative research to explore the economic potential of native Australian herbs in global markets. The research was conducted in three phases: market analysis, consumer preference study, and export data analysis. These methods provided a comprehensive understanding of the current market conditions and the future potential for native Australian herbs.

### 2.2 Data Collection

**2.2.1 Market Analysis:** Data on the global demand for herbal products were gathered from market reports published by agencies such as the International Trade Centre (ITC), Food and Agriculture Organization (FAO), and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). This provided insights into the trends in consumer preferences, with a focus on organic and sustainable products. Additional data were sourced from industry reports on the performance of native Australian herbs in both domestic and international markets.

**2.2.2 Consumer Preference Study:** A consumer survey was conducted across key export markets, including the United States, Europe, and Asia, focusing on demand for native herbs like lemon myrtle, wattleseed, and bush basil. Respondents were asked about their purchasing habits, preferences for organic and sustainable products, and perceptions of Australian native herbs.

**2.2.3 Export Data Analysis:** Export data were obtained from the Australian Department of Agriculture, Water and the Environment (DAWE). The data included export volumes, values, and trends over the past ten years, focusing on key herbs like lemon myrtle, Kakadu plum, and native peppercorn.

### 2.3 Materials

**2.3.1 Market Reports:** Reports from the FAO, ITC, and ABARES were used for baseline market data on herbs.

**2.3.2 Survey Tools:** An online survey platform (Qualtrics) was utilized to collect data on consumer preferences across the target markets.

**2.3.3 Export Data:** The Australian Bureau of Statistics (ABS) provided data on export volumes and values for key native Australian herbs.

## 3. Results

### 3.1 Export Trends of Native Australian Herbs

Between 2010 and 2023, exports of native Australian herbs increased by an average of 15% per annum (Table 1). This growth has been largely driven by increasing global demand for organic and sustainable products. Among the herbs studied, lemon myrtle has

**Table 1.** Export Volumes and Values of Selected Native Australian Herbs (2010-2023)

Herb	Export volume(tons)	Export value Aid millions)	Annual Growth Rate (%)
Lemon myrtle	1200	12	22
Kakadu plum	800	15	10
Wattleseed	600	5	8

**Table 2.** Consumer Familiarity and Preferences for Native Australian Herbs

Herb	Consumer familiarity(%)	Preference for organic (%)
Lemon myrtle	72	82
Kakadu plum	45	79
Wattleseed	30	65

experienced the most significant export growth, with an average annual increase of 22%. Kakadu plum exports, while smaller in volume, have shown a steady 10% annual increase due to their popularity in the cosmetics industry for their high vitamin C content.

### 3.2 Consumer Preferences

The consumer survey revealed that over 60% of respondents in key export markets preferred products labeled as "organic" or "sustainable" (Table 2). Native Australian herbs, due to their wild-harvested or sustainably farmed nature, fit this preference profile well. Lemon myrtle was the most recognized herb, with 72% of consumers expressing familiarity with it. Kakadu plum followed at 45%, largely due to its use in skincare products.

## 4. Discussion

The global market for herbal products, particularly those positioned as organic, natural, and sustainable, is expanding rapidly. Native Australian herbs are well-positioned to take advantage of this trend, given their unique bioactive compounds, their association with clean, green, and sustainable production methods, and their rich cultural history. Herbs like lemon myrtle and Kakadu plum stand out due to their distinct flavors and health benefits, including high antioxidant levels and anti-inflammatory properties, making them appealing to health-conscious consumers in international markets. One of the key findings of this study is the alignment between global consumer preferences for organic and sustainably sourced products and the intrinsic qualities of native Australian herbs. The wild harvesting methods used for many native herbs not only support biodiversity but also meet consumer expectations for ethically sourced products. However, scaling up production to meet growing demand presents challenges, particularly in terms of ensuring sustainable harvesting practices and managing supply chain logistics.

To fully unlock the economic potential of these herbs, investment in infrastructure is necessary, particularly in remote areas where many of these herbs are harvested. Additionally, research and development efforts should focus on improving cultivation techniques to increase yield without compromising the sustainability of these species. Strategic marketing campaigns highlighting the unique cultural heritage and environmental benefits of native Australian herbs will also be crucial in differentiating them from other herbal products in the global market.

The findings from this study indicate that native Australian herbs are poised to become major players in the global herbal products market, but their success depends on addressing several key challenges. The growing global demand for natural and organic products creates a favorable environment for native Australian

herbs, but the industry must be carefully managed to ensure both economic viability and environmental sustainability.

One of the central issues identified in this study is the scalability of production. While wild harvesting remains a popular method of sourcing native herbs, it has limitations in terms of scalability. Many native herbs grow in remote regions, often on land managed by Indigenous communities, which makes large-scale harvesting difficult. Furthermore, the ecological sustainability of wild harvesting is a concern, as overharvesting could threaten native plant populations and disrupt ecosystems (Murray & Taylor, 2019). Therefore, investment in sustainable cultivation methods is essential for the industry to meet increasing global demand.

Research and development will play a crucial role in overcoming the scalability challenge. The development of new cultivation techniques, such as agroforestry and permaculture, could help increase yields while maintaining environmental sustainability. Additionally, improving propagation techniques for native herbs could help reduce reliance on wild populations, ensuring a stable supply chain for global markets (Evans & Stewart, 2021). Government and private sector investment in research, as well as collaboration with Indigenous communities who possess traditional knowledge about the sustainable use of these plants, will be essential for developing these techniques.

Consumer education and awareness are also critical for the success of native Australian herbs in global markets. While certain herbs, such as lemon myrtle and Kakadu plum, have gained recognition for their unique flavors and health benefits, many other native herbs remain relatively unknown outside of Australia. Marketing campaigns that emphasize the unique qualities of these herbs—such as their bioactive compounds, cultural significance, and environmental sustainability—could help increase demand in international markets. These campaigns could also highlight the ethical sourcing of these herbs, which aligns with the growing consumer preference for products that are both sustainable and socially responsible (Jenkins & Byrne, 2021).

Moreover, the role of native Australian herbs in health and wellness industries is particularly promising. Kakadu plum, for instance, has been shown to have one of the highest levels of vitamin C of any fruit, making it a popular ingredient in both health supplements and skincare products (Clark & Bailey, 2019). Lemon myrtle, with its antibacterial and antifungal properties, has potential applications in natural medicine and personal care products (Carrington & Smith, 2021). As consumers seek alternatives to synthetic ingredients, the demand for naturally derived compounds from native herbs is likely to increase, providing additional economic opportunities for producers.

Another promising avenue for native Australian herbs lies in the food industry. With increasing interest in gourmet and exotic foods, native herbs like wattleseed, native peppercorn, and lemon

myrtle are being embraced by chefs and food producers around the world. These herbs offer distinctive flavors that are not found in traditional European or Asian cuisine, giving them a competitive edge in the high-end culinary market (Hayes & Collins, 2020). Furthermore, the growing trend of plant-based and functional foods offers additional opportunities for native herbs to be incorporated into products that cater to health-conscious consumers. For instance, wattleseed can be used as a gluten-free alternative in baking, while lemon myrtle can be incorporated into beverages and sauces for its unique flavor and health benefits.

However, in order to fully capitalize on these opportunities, Australia must strengthen its export infrastructure for native herbs. This includes improving logistics for transporting these herbs from remote regions to international markets, as well as ensuring that Australian producers comply with international trade regulations (O'Neill & Williamson, 2020). Each market has its own regulatory framework for importing herbal products, particularly those used in food and cosmetics. Australia will need to ensure that its native herbs meet the safety and quality standards of these markets in order to gain a foothold internationally.

## 5. Conclusion

The economic potential of native Australian herbs in global markets is substantial, driven by growing consumer demand for organic, sustainable, and unique products. Herbs such as lemon myrtle, Kakadu plum, and wattleseed offer distinctive flavors and health benefits, making them attractive to international buyers. However, realizing this potential will require addressing challenges related to scaling production sustainably and ensuring consistent supply. With the right investments in infrastructure, research, and marketing, Australia is well-positioned to become a leading exporter of native herbs, contributing to the global herbal market while supporting local communities and promoting biodiversity conservation.

## Author contributions

A.M.S.A.M. conceptualized and designed the study, conducted the analysis, and prepared the manuscript draft. C.C. contributed to the interpretation of results, critical manuscript revisions, and provided expert guidance. Both authors reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

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## Competing financial interests

The authors have no conflict of interest.

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