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Native Plants of Korea

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Introduction

The Korean Peninsula is a land of striking contrasts, where rugged mountains, rolling hills, lush forests, and fertile coastal plains converge to create one of Asia's most ecologically diverse regions. Korea's unique position, bridging the vastness of the Asian continent with the Pacific, and its four well-defined seasons, result in a remarkable spectrum of habitats. These range from subalpine forests clinging to the peaks of northern mountains to warm temperate woodlands on southern islands, and sprawling wetlands that serve as vital refuges for plants and wildlife alike.

This abundance of landscapes has fostered an extraordinary wealth of native plant life. Approximately two-thirds of Korea's terrain is mountainous, providing countless ecological niches for a wide array of species. The varied climate and topography invite a high degree of endemism—many plants found nowhere else in the world. From iconic trees like the Korean red pine and the Zelkova, to vibrant wildflowers such as the national flower Mugunghwa and the graceful Oriental orchids, Korea's botanical riches are both biologically and culturally significant.

The diversity of Korea's flora is more than a product of nature; it is also a legacy of history, shaped by glacial refugia and migration corridors over millennia. Islands like Jeju and Ulleungdo support their own unique plant communities, while different floristic zones emerge across north and south, mountain and coast, river and plain. The flora catalogued in Korea numbers in the thousands, representing hundreds of genera and families, a testament to centuries of botanical vitality.

Yet, the value of these native plants extends far beyond their ecological roles. In Korean society, plants are deeply woven into daily life, culture, and tradition. Trees provide the timber for historic architecture; flowers appear in festivals, art, and poetry; herbs and roots grace traditional medicine chests and family tables. Even language bears tribute to plants, with the "language of flowers"—*kkot-mal*—symbolizing deep emotions and values. Korea's national identity is inseparable from its living botanical heritage.

However, this natural legacy faces mounting challenges. Urbanization, industrial development, habitat loss, invasive species, and the pervasive force of climate change threaten native plants and the ecosystems they sustain. Conservation efforts—led by research institutions, national parks, arboreta, and seed banks—are now vital to ensure that Korea's botanical heritage endures. Protecting rare and endangered species, restoring degraded habitats, and promoting the sustainable use of native plants have become national and global imperatives.

This book, “Native Plants of Korea: A Guide to the Native Plants of Korea,” is an introduction and a tribute to this remarkable flora. Through its chapters, readers are invited to explore the diversity, uniqueness, and beauty of Korea’s native plants. We will journey from forests to wetlands, encounter ancient trees and delicate wildflowers, learn about conservation successes, and reflect on the cultural meaning of plants in Korean life. Whether you are a botanist, a gardener, a traveler, or simply a lover of nature, this book aims to deepen your appreciation for the living tapestry of Korea, and to inspire a commitment to its ongoing protection and celebration.

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CHAPTER ONE: The Stage is Set: Geography and Climate

The Korean Peninsula, a prominent finger of land extending from the northeastern corner of the Asian continent, finds itself in a rather interesting geographical predicament. It's bordered by the vastness of China and Russia to the north, while to the east, south, and west lie the waters of the East Sea (Sea of Japan), the East China Sea, and the Yellow Sea, respectively. This position, a bridge between a massive landmass and a major ocean, sets the stage for a climate and topography that are anything but monotonous. The peninsula itself stretches approximately 1,000 kilometers (about 620 miles) from north to south and is roughly 300 kilometers (around 190 miles) wide on average. South Korea, the southern half of this landmass, occupies about 100,364 square kilometers (around 38,751 sq mi), which for a bit of perspective, is roughly the size of Portugal or Hungary.

One cannot talk about Korea's geography without immediately mentioning its mountains. They are, quite frankly, everywhere. Approximately 70% to three-quarters of the Korean Peninsula is covered by mountains. Early European visitors, perhaps a touch dramatically, described the landscape as resembling "a sea in a heavy gale" due to the sheer number of successive mountain ranges. While many of these are not exceptionally high, peaks exceeding 1,000 meters (about 3,281 feet) are concentrated in the northern and eastern parts of the peninsula, forming a kind of topographical backbone. The Taebaek Mountains are a significant range running along the eastern side of South Korea, with the Sobaek Mountains branching off to the southwest. This mountainous terrain, with its varied elevations and slopes, creates a multitude of microhabitats, providing sanctuary for a diverse range of plant life. The eastern coast, for instance, tends to be steeper than the west coast, a result of geological uplift that occurred millions of years ago when the East Sea was forming.

The coastline of the Korean Peninsula is extensive, totaling around 15,282 kilometers (approximately 9,500 miles) for both North and South Korea, including islands. South Korea alone boasts about 2,413 kilometers (around 1,499 miles) of coastline. The character of the coastline varies significantly depending on which side of the peninsula you find yourself on. The eastern coast is generally smoother and less indented with deeper waters, while the southern and western coasts are famously complex, with countless inlets, bays, and a staggering number of islands - some 3,579 of them lie adjacent to the peninsula, with most concentrated along the south and west. This intricate coastline, particularly in the west, also experiences dramatic tidal fluctuations. These coastal environments, from rocky shores to extensive tidal flats, add another layer of complexity to the nation's botanical landscape.

Korea's location in the mid-latitudes means it experiences a distinct temperate climate with four undeniable seasons. This isn't just a subtle shift; we're talking about clear differences in temperature and moisture throughout the year. Spring, typically from March to May, brings a welcome warmth after the cold winter, and is characterized by clear skies, though occasionally, unwelcome yellow dust from the Gobi Desert can make an appearance. Temperatures in spring in Seoul, for instance, can range from a daily mean of around 5.7°C (42°F) in March to 17.8°C (64°F) in May.

Summer, from June to August, is the warmest and wettest season, heavily influenced by the East Asian monsoon. Hot and humid air masses push in from the North Pacific, bringing substantial rainfall. About 50-60% of Korea's annual precipitation falls during the summer months. The rainy season, known as *jangma*, typically begins in mid-June and lasts for about a month. Average temperatures during summer can reach highs of 25°C to 35°C (77°F to 95°F), with August often being the hottest month. Seoul sees average highs of 84°F (29°C) in August. The humidity can be quite high during this time, making those air-conditioned spaces in cities particularly appealing.

Autumn, from September to November, is often considered a delightful season. The humidity of summer recedes, and temperatures become mild and pleasant, with clear skies returning. Temperatures gradually cool, and the landscape is painted with vibrant autumnal colors. October is often highlighted as a particularly pleasant month. Average temperatures in autumn can be similar to spring, ranging between 10°C and 20°C (50°F and 68°F).

Winter, from December to March, is cold and dry, dominated by cold, dry continental high-pressure systems that sweep in from the northwest. Temperatures can drop significantly, particularly in the northern and inland areas. Seoul's average temperature in January is around -2°C (28°F), but temperatures can plummet much lower during cold spells. The southern parts of the peninsula and Jeju Island experience milder winters. While generally dry, winter does bring snow, especially to mountainous regions and the northeast coast.

It's worth noting that while we speak of four distinct seasons, there are regional variations in climate across the peninsula. The difference in temperature between the northern and southern areas is noticeable due to latitude. Elevation also plays a significant role, with higher altitudes experiencing colder temperatures. Coastal areas tend to have slightly less extreme temperatures than inland regions. For example, the average minimum temperatures in coastal areas are generally higher than in inland areas. This interplay of latitude, elevation, and proximity to the sea creates a mosaic of microclimates across Korea, each supporting its own unique set of native plants.

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