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Medicinal Plant Images

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Figure 1: *Australian Acacia* spp. The genus *Acacia* (family Fabaceae) is a large genus of more than 1200 trees and shrubs which are widely distributed throughout the world, with more than 700 species indigenous to Australia. The Australian species had multiple medicinal uses by indigenous Australians, including being used to treat diarrhoea and hyperglycemia[1,2] and as a general antiseptic agent.[4-7] Many *Australian acacia* species have been reported to have amtimicrobial, molluskicidal, antihypertensive and platelet aggregatory activities.[1] This photograph was taken in Brisbane, Australia in 2024 by Dr. Ian Cock.

Figure 2: *Syzygium australe* (H.L.Wenfl. ex Link) *B. hyland* (commonly known as brush cherry). Syzygium is a large genus of evergreen flowering plants of the family Myrtaceae which consists of approximately 500 species.[8] Plants of this genus are widespread, occurring in tropical and subtropical regions of South-East Asia, Australia and Africa. Many *Syzygium* species produce edible fruits and berries. Some *Syzygium* spp. are used in traditional medicine to treat respiratory ailments, tuberculosis, gastro-intestinal disorders, diarrhoea and dysentery.[9] Recent reports have also highlighted the Australian *Syzygium S. leuhmannii (*riberry*)* and *Syzygium australe* (bush cherry) extracts as having exceptionally high antioxidant contents.[10] Antioxidants have been associated with the prevention of cancer, cardiovascular disease and neurological degenerative disorders.[11-13] They are also linked with anti-diabetic bioactivities and have been associated with the reduction of obesity. Antioxidants can directly scavenge free radicals, protecting cells against oxidative stress related damage to proteins, lipids and nucleic acids.[14] Thus, *Syzygium* spp. have potential in the treatment of a significant number of diseases and medical conditions related to cellular redox state.

Many other *Syzygium* species internationally also have documented uses in traditional medicine.[2] In the commercially most important species *Syzygium aromaticum* (clove), the unopened flower bud is used as a spice. This plant also has uses in traditional medicine due to its anaesthetic properties.15 The antibacterial activity of *S. aromaticum* is also well known. Numerous studies have reported on the antibacterial[15] and antifungal[16] activities of oils and extracts from this plant. Other *Syzygium* species from South East Asia (*Syzygium jambos*)[17] and India (*Syzygium lineare* and *Syzygium cumini*)[18] have also been shown to have antimicrobial activity. Recent studies have also reported the antibacterial activity of *Syzygium cordatum* leaf extracts. Of particular interest was the potent growth inhibitory of the extracts against the bacterial triggers of rheumatoid arthritis19 and ankylosing spondylitis.[20]

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