

Medicinal Plant Images

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Figure 1: *Syzygium cordatum* (Hochst.) leaves and fruit. *Syzygium* is a large genus of evergreen flowering plants of the family Myrtaceae which consists of approximately 500 species.¹ 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. *S. cordatum* is used to treat respiratory ailments, tuberculosis, gastro-intestinal disorders, diarrhoea and dysentery.² Recent studies have confirmed the antibacterial activity of *S. cordatum* leaf extracts.³ Of particular interest was the potent growth inhibitory of the extracts against the bacterial triggers of rheumatoid arthritis³ and ankylosing spondylitis.⁴

Many other *Syzygium* species internationally also have documented uses in traditional medicine. 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.⁵ The antibacterial activity of *S. aromaticum* is also well known. Numerous studies have reported on the antibacterial⁶ and antifungal⁷ activities of oils and extracts from this plant. Other *Syzygium* species from South East Asia (*Syzygium jambos*),⁸ India (*Syzygium lineare* and *Syzygium cumini*)⁹ and Australia¹⁰⁻¹³ have also been shown to have antimicrobial activity. Recent reports have also highlighted *Syzygium australe* (Bush Cherry) and *Syzygium leuhmannii* (Riberry) extracts as having exceptionally high antioxidant contents.¹⁴ Antioxidants have been associated with the prevention of cancer, cardiovascular disease and neurological degenerative disorders.¹⁵⁻¹⁷ 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



Figure 2: *Walburgia salutaris* (Bertol.f.) Chiov. is southern African plant that occurs in South Africa, Botswana, Namibia, Mozambique, Swaziland, Zimbabwe and Malawi. It is now considered to be endangered due to over-harvesting of wild trees for traditional medicines. It has a myriad of therapeutic uses including use to treat coughs, colds and chest complaints.² It has also been used to treat influenza, malaria, sexually transmitted diseases headache, toothache and rheumatism and inflammation. It has also been reported to block the microbial triggers of rheumatoid arthritis³ and ankylosing spondylitis.⁴ Its pharmacological effects are believed to be due to its drimane sesquiterpenoid components including warurganal, mukaadial, salutarisolide and polygodial.

against oxidative stress related damage to proteins, lipids and nucleic acids.¹⁸ Thus, *Syzygium* spp. have potential in the treatment of a significant number of diseases and medical conditions related to cellular redox state. This photograph was taken in St Lucia, South Africa in 2013 by Dr Ian Cock.

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