

## Chemical Constituents and Biological Activities of *Araucaria angustifolia* (Bertol.) O. Kuntze: A Review

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*Araucaria angustifolia* is a tree that has a place with Araucariaceae family and it is chiefly found in Southern Brazil. This plant has a remarkable remedial history in society medication holding incredible financial and natural significance. As of recently, a few examinations were led to evaluate its synthetic arrangement, organic and pharmacological properties. The investigations have indicated that the bark, tie, needles (leaves), seeds and bracts (sterile seeds) contain high centralizations of dynamic mixes and display distinctive natural impacts. In the society medication the various pieces of this plant are utilized to treat different sorts of ailments, for example, shingles, respiratory tract contaminations, explicitly transmitted illnesses and a few kinds of wounds. Remembering this, this survey centers around all as of now compound and natural impacts previously announced for *A. angustifolia* and give a novel point of view and helpful data for future research. *Araucaria* is one among three genera that have a place with the family Araucariaceae, involving a disengaged position in the midst of the conifers. The class *Araucaria* incorporates nineteen species and presents the biggest geological range in this family, far reaching from South America to Australia and Pacific islands. In spite of the fact that the family Araucariaceae is currently confined toward the southern half of the globe, fossil proof shows that it recently happened likewise in the northern piece of the globe. *Araucaria angustifolia* (Bertol.) O. Kuntze is a subtropical animal categories referred to prevalently as *Araucaria* or Brazilian pine. Local species can be found in mountain atmosphere all through southern Brazil, northeastern Argentina and eastern Paraguay. These days, *A. angustifolia* is basically imperiled because of significant stretches of logging for wood and agribusiness purposes. The *Araucaria* seed, named pinhão, is an occasional item and has incredible healthy benefit being a wellspring of dietary fiber, sugars, proteins and minor. All the more critically, they contain higher substance of phenolic mixes. Notwithstanding the incredible substance portrayal of the seeds, different pieces of the tree are similarly significant. Studies have revealed that the pitch (found in the wood and bunches), the dead bark (which is normally disposed of by the tree) and the leaves (needles) hold a fascinating substance piece with dynamic natural movement. Our gathering has significantly commitments in regards to *A. angustifolia* organic impacts. We announced that bracts (sterile seeds) contain significant levels of synthetic mixes with significant pharmacological activities in a few models of study. In spite of the diverse extraction conditions utilized in unmistakable examinations, phenolic mixes can be viewed as the significant constituents in this specific plant. Despite the fact that couple of pharmacological studies have been performed on this plant, there is a striking history of restorative use by local populaces. Mixtures of leaves, bark and bunches are utilized to treat paleness, muscle strains, varies, renal and explicitly transmitted maladies. In addition, the syrup created from sap is utilized to treat respiratory tract contaminations,

showing a helpful adaptability in the empiric employments of *A. angustifolia*. In spite of the fact that the logical writing about this plant is scant, most of the examinations have endeavored to recognize their concoction constituents and left aside their job in natural frameworks. Given this, the motivation behind this survey is to give a diagram of the fundamental synthetic mixes found in *A. angustifolia* and its organic exercises, bringing confirmations as reason for additional examination. *A. angustifolia* is a subtropical gymnosperm relating to the family Araucariaceae, request Coniferales. This species was depicted just because by Bertoloni in 1820 as *Columbea angustifolia* Bert. After, it was redescribed by Richard Rich as *Araucaria brasiliiana* and corrected by Otto Kuntze as *Araucaria angustifolia* (Bert.) Ktze. It happens as a significant animal types inside the *Araucaria* wet woodlands supported by elevations going from 500 to 1,500 m. The tree is open minded to low temperatures and has physiological flexibility to light and shade moving states of the earth. *A. angustifolia* stands apart among other arboreal species because of its huge and umbrelliform overhang. It includes a rectilinear, tube shaped trunk that can arrive at 25 to 50 m tallness and may extend between 1 to 2 m in width. The storage compartment presents a purplish-earthy colored shaded, unpleasant external shell and an internal shell which is resinous and whitish. As time passes by, the external shell (dead bark) is normally disposed of by the tree, which may live 200 years by and large. The youthful tree is even, cone molded, secured with substitute and gathered branches from base to zenith, containing dim green acicular (needle-formed) leaves that stay appended to the tree for a long time and can reach up to 6 cm long and 1 cm wide. *A. angustifolia* is transcendently dioecious, i.e., it highlights male and female examples that have their own particular strobili. The female strobili, known as cone, are globular or ovoid, having intently covering scales and bracts embedded on a conic focal pivot. The male catkins are stretched, round and hollow, thick and secured by scales which mastermind themselves in a winding. The scales from the base open to permit the arrival of dust and dispersal happens through wind. The two strobili create during summer. The fecundated cone may quantify 10 to 25 cm in breadth and weigh up to 4.7 kg, containing in excess of 1,000 components, including seeds and bracts. Bracts event is around multiple times higher than rich seeds. The conceptive procedure of species is long. Fertilization happens during September and October and, once treated, the cones develop in 2 to 3 years. It ordinarily takes 12 to 15 years for a youthful plant to begin creating seeds. These seeds, prevalently known as pinhão, are scattered for the most part from May to August. They show yellowish-earthy colored tinge, encased in an exceptionally safe dull earthy colored coat alongside an inward follower film. *Araucaria* seeds are plump and have ovate oblong position, going from 3 to 8 cm long and 1 to 2.5 cm in width, weighing roughly 8 g.

This is the main work that has summed up the pertinent writing concerning the concoction constituents, natural exercises and ethno botanical parts of the conifer *A. angustifolia*, a significant plant with a long custom of restorative and dietary uses in South America. This survey gives numerous commitments to the characteristic items inquire about region, since they show the gainful impacts performed by the synthetic mixes existent in this plant for anticipation and treatment of some human pathologies. Thinking about the social and biological significance of *A.*

*angustifolia*, it is basic that preservation programs must be performed and continually refreshed. In addition, it is additionally critical to improve inquires about including the advancement of pharmaceutical items utilizing lingering portions of the plant, since the utilization of bracts, dead barks and needles would not bargain *A. angustifolia* suggestive populaces nor human and creature feed.

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