

# A Review on Chemical composition, Medicinal Value and other Applications of *Azadirachta indica*

Melese Damtew\*

Mekdela Amba University, College of Natural and Computational Sciences, Department of chemistry, Ethiopia

## Corresponding Author\*

Melese Damtew  
Department of chemistry  
Mekdela Amba  
University, Ethiopia.  
E-mail: Beteraba21@gmail.com

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## Abstract

It was estimated from World Health Organization (WHO) that most of the world population depends on herbal medicine for their health care. *Azadirachta Indica* also known as neem plant is one of the most popular

medicinal plants in Asia and Africa which was used from the ancient times for many medicinal purposes. It is used in many traditional remedies because of its richness with biological active constituents. Some of these

chemical constituents are Nimbidin, Nimbin, Nimbolide, Gedunin, Azadirachtin, Mahmoodin, Cyclic trisulphide and others which are used as

antipyretic, anti-inflammatory, antibacterial, antigastric ulcer, antiarthritic, spermicidal antifungal, antimalarial, hypoglycemic, immunomodulatory, diuretic and antitumour. Traditionally different parts of the plant are used

by populations from many countries for the treatment of several diseases such as leprosy, epistaxis, eye problem, elimination of intestinal worms, anorexia, skin ulcers, biliousness, Skin diseases like ringworms, burning sensation, wounds and itching. It also used in agriculture as pesticides and

fertilizer to increase crop production. Nowadays drug resistance is the main problem in both animals and humans due to use of synthetic products for long period of time which makes this plant to be preferable as alternative to

overcome the situation. The tree is also source of feed for animals which is providing a number of nutrients like protein, minerals, fatty acids, vitamins. This implies that they are acquiring the medicine indirectly and become

resistance toward diseases.

The present work provides comprehensive information on the medicinal

use, other application, the chemical constituents and side effects of *Azadirachta Indica*.

## Retraction Note

Neem (*Azadirachta indica*), is native of India and growing in most of tropical and subtropical countries. The tree has adaptability to a wide range of climatic, topographic and edaphic factors. It thrives well in dry, stony shallow soils and even on soils having hard calcareous or clay pan, at a shallow depth. So that it requires little water and plenty of sunlight to survive in the environment [1]. The plant is distributed widely in the world providing a source of inspiration for novel drug compounds, as plant derived medicines which have made large contributions to human health and well-being. Presently it can be seen growing successfully in about 72 countries worldwide, in Asia, Africa, Australia, North, Central and South America [2].

Neem is a member of the Mahogany family. Order Rutales, Suborder Rutinae, Family Meliaceae, Subfamily Melioideae, Tribe Melieae, Genus *Azadirachta*, Species *indica*. Two species of *Azadirachta* have been reported, *A.indica* A. Juss native to Indian subcontinent and *Azadirachta excels* Kack, confined to Philippines and Indonesia [3]. Every part of the tree has been used as traditional medicine for household remedy against various diseases [4]. It elaborates a vast array of biologically active compounds that are chemically diverse and structurally variable with different ingredients isolate from different parts of the tree [5].

