

## Medicinal Plants for Boosting Immune System

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**Abstract :-** The Immune system is the most important system in our body. It is essential for our survival. Without an immune system, our body would be open to attack from bacteria, virus, parasites, and more. It is our immune system that keeps us healthy. To live long and be healthy we have to improve our immune system. Plants are the main source of herbal remedies and we have been using it since ancient time to prevent us from different diseases, In this paper I mentioned some medicinal plants that can help us to improve our immune system.

**Introduction :-** Medicinal plants have been used since immemorial times, for the treatment of different kinds of diseases. Presence of phytochemicals, plants work in the same manner as conventional drugs. Medicinal plants can be used to improve immunity. Our immune system is the most important part of our body. It is made up of different types of cells like, specific cell (macrophages, lymphocytes etc.) Lymphatic organs like thymus, spleen, etc. Our immune system is our natural defence system against pervasive chain of diseases. In present time we live in polluted environment, there are many kinds of bacteria, virus fungi, and harmful UV rays that can causes different kinds of diseases. So it is now important to improve our immune system, to live healthy. There are some medicinal plants that can help us to improve our immunity.

**Ocimum basilium (Tulsi) :-** Ocimum basilicum commonly known as Tulsi in the Indian houses. In India, Basil is a holy plant, we believe that, basil is our goddess. It is the most common herb which is used in every Indian house for common fever, cold and cough. Basil or ocimum basilicum belongs to lamiaceae family. Basil has an extensive list of traditional medical uses. O. basilicum has more than 50 medicinal uses, from analgesic to anthelmintic, and is supposed to treat fungal infections, acne, headaches, etc. The traditional Chinese medicine system involves the use of O. basilicum for treatment of gum ulcers, kidney problems (Meyers, 2003).Traditionally, basil has been used as a medicinal and aromatic herb, to add

aroma and flavour to food (Vieira, Simon, 2000). In India, it is used in problems as diverse as earache, menstrual irregularities, arthritis, anorexia and malaria (Medical Economics Company, 2000, cited by Meyers, 2003). Danesi et al., 2008 reported that *Ocimum L.* includes approximately 150 species, possessing a great variation in plant morphology and biology, essential oil content, and chemical composition. In basil there are several pharmacological effects in different diseases, with potent antioxidant, anti-aging, anticancer, antiviral, and antimicrobial properties (Sakr, Al-Amoudi, 2012).

**Ginger (*Zingiber officinale* Roscoe)** :- Ginger is very famous and globally used spice. It belongs to the family Zingiberaceae. In Ayurveda ginger is an important part of traditional medicine. (Hridayam of Srimadvagbhatt, 1999). Ginger is consumed worldwide as spice, flavouring agent, garnish, medicine, and food preservative and is used either freshly in a fresh paste, or dry in a dry powder. Fresh ginger can be substituted for dried ground ginger, although the flavours of fresh and dried ginger are somewhat different. Powdered dry ginger is typically used as flavouring for recipes such as gingerbread, cookies, crackers and cakes, ginger ale, and beer. The fragrance of ginger is penetrating and aromatic. It tastes spicy, hot, and biting and is an integral part of almost all the cuisines of the world.(Bhatt et al.,2013). It is used in various kind of diseases like cold, headache, common fever. In India it is famous for 'Adrak-vali chai'. It has many kind of phytochemicals including phenolic compounds, terpenes, polysaccharides, lipids, organic acids, and raw fibres. The health benefits of ginger are mainly attributed to its phenolic compounds, such as gingerols and shogaols. Accumulated investigations have demonstrated that ginger possesses multiple biological activities, including anti-oxidant, anti-inflammatory, anti-microbial, anti-cancer, cardiovascular protective, respiratory protective, anti-obesity, anti-diabetic, anti-nausea, and antiemetic activities.(Quin t al, 2019). Ginger is a complex substance consisting of more than 60 compounds (Srivastava et al, 2000). Studies shown that ginger stimulates the flow of saliva, bile, and gastric secretions and therefore is traditionally used to stimulate appetite, reduce flatulence, colic, and gastrointestinal spasms, and generally act as a digestive aid (Blumenthal et al, 2000). Gingerols inhibit the growth of *Helicobacter pylori* associated with dyspepsia, peptic ulcer disease, and the development of gastric and colon cancer (Mahady et al, 2005).

**Andrographis paniculata (Kalmegh)** :- *Andrographis paniculata* commonly known as Kalmegh, bhuminimb. It belongs to family Acanthaceae. In traditional medicine, *A. paniculata* is widely used to get rid of body heat, dispel toxins from the body; prevent

common cold, upper respiratory tract infections including sinusitis and fever (Gabrielian, et. al., 2002) and as an antidote against poisons of snakes and insects (Samy, et. al., 2008). An antioxidant is a molecule capable of terminating the chain reactions that damage cells by removing free radical intermediates, and inhibit other oxidation reactions by thereby reducing stress responsible for many degenerative disorders. *Andrographis paniculata* Nees, a multipurpose tropical plant is believed to have antioxidant properties (Mishra, et. al., 2013). The characteristic secondary metabolites encountered in this plant have considerably enhanced its importance in the arena of medicinal plants. Plant has various kind of phytochemicals such as such as Alkaloids, Flavonoids, Saponin, Terpenoid, Tannin, Glycosides, Phytosterol, and Proteins.(Pandey.et al.,2019). This plant has been used as bitter tonic, stimulant, and aperients in Ayurvedic and other traditionally known health care systems widely practiced in India and other Asiatic countries (Kumar. et al., 2014). *Andrographis paniculata* extracts possess anti-stress or apoptogenic properties have often been pointed out by several modern scholars and researchers of traditionally known herbal remedies.

**Result and Conclusion :-** In this article, we discussed only about the plant which is easily available either in house or near to house. We are living in polluted atmosphere, facing UV rays day to day, using polluted water as well as food. So it is mandatory to improve our immunity to live healthy life, we cannot depend only on synthetic drugs because they can harm us by their long uses. Medicinal plants and herbs are the boon for human life. We should use it in our daily routine. Basil is the queen of herbs, it is easily available in every house. Basil has many kinds of medicinal properties, that is why basil is used most of the time in traditional medicine. Ginger is the second most usable herb in every house. In ginger there are many kinds of phytochemicals that can help us to improve our immune system. Same as *Andrographis paniculata* which is called little Neem (*Azadirachta indica*) in such plants phytochemicals like alkaloids, flavonoids, terpenoids, and glycosides are responsible to improve immunity. These plants have antibacterial, antifungal, antiviral properties as well as contain antioxidants.

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