

## **Azadirachta indica (Neem)**

*Azadirachta indica*, also known as Neem, is a tree species native to the Indian subcontinent. It has been used for centuries in traditional medicine, agriculture, and pest control.

### **Medicinal Properties**

1. **\*Antimicrobial\***: Neem has antibacterial, antiviral, and antifungal properties.
2. **\*Anti-inflammatory\***: Neem extracts have been shown to reduce inflammation and pain.
3. **\*Antioxidant\***: Neem contains antioxidants that help protect against cell damage.

### **Agricultural Uses**

1. **\*Pest control\***: Neem oil is used as a natural pesticide to control insects, nematodes, and fungi.
2. **\*Fertilizer\***: Neem cake, a byproduct of neem oil extraction, is used as a natural fertilizer.
3. **\*Soil remediation\***: Neem has been shown to improve soil health and remediate contaminated soil.

### **Environmental Benefits**

1. **\*Soil erosion prevention\***: Neem's extensive root system helps prevent soil erosion.
2. **\*Air purification\***: Neem leaves are known to purify the air by removing pollutants.
3. **\*Biodiversity conservation\***: Neem provides habitat and food for various birds, insects, and animals.

### **Other Uses**

1. **\*Cosmetics\***: Neem oil is used in skincare products due to its antimicrobial and anti-inflammatory properties.

2. **\*Pharmaceuticals\***: Neem extracts are used in the development of medicines for various diseases.
3. **\*Biofuel\***: Neem oil is being explored as a potential biofuel source.