

ARTEMISIA

Artemisia annua, belong to family Asteraceae also known as **sweet wormwood**, **sweet annie**, **sweet sagewort**, **annual mugwort** or **annual wormwood**, is a common type of wormwood native to temperate Asia, but naturalized in many countries including scattered parts of North America.

Chemical constituents

In 1971, scientists demonstrated the plant extracts had antimalarial activity in primate models, and in 1972, the active ingredient, artemisinin (formerly referred to as arteannuin), was isolated and its chemical structure described. Artemisinin may be extracted using a low boiling point [solvent](#), such as [diethylether](#), and is found in the glandular [trichomes](#) of the leaves, stems, and [inflorescences](#), and is concentrated in the upper portions of plant within new growth.

The first isolation of artemisinin from the herb occurred from a military project, following the study of traditional medicine pharmacopoeias and other researchers within the project. *A. annua* contains diverse [phytochemicals](#), including [polyphenols](#) such as [coumarins](#), [flavones](#), [flavonols](#), and [phenolic acids](#) which have unknown biological properties in vivo. Other phytochemicals include 38 [sesquiterpenes](#). [Dihydroartemisinin](#) is the active [metabolite](#) of artemisinin, and artesunate is a [water-soluble](#) derivative of artemisinin

Uses

An [extract](#) of *A. annua*, called [artemisinin](#) (or [artesunate](#)), is a medication used to treat [malaria](#).