

**Abstract:**

From the dichloromethane-methanol (1:1) extract of the seed pods of *Derris trifoliata*, a new flavanone derivative (S)-lupinifolin 4'-methyl ether was isolated. In addition, the known flavonoids lupinifolin and rotenone were identified. The structures were determined on the basis of spectroscopic evidence. Lupinifolin showed moderate in vitro antiplasmodial activity against the D6 (chloroquine-sensitive) and W2 (chloroquineresistant) strains of *Plasmodium falciparum*. The different parts of this plant showed larvicidal activities against *Aedes aegypti* and rotenoids were identified as the active principles.