

Borago officinalis L. (Boraginaceae) is a plant of the Boraginaceae family, used in Algeria for food and medicinal purposes. This study reports the effect of flavonoids extracted from the aerial part of *Borago officinalis* L. (Boraginaceae) on the larvae and engorged adult females of the brown dog tick *Rhipicephalus sanguineus* (Latreille, 1806) using adults immersion test (AIT) and larval immersion test (LIT). For this purpose, the larvae and engorged female of *Rhipicephalus sanguineus* (Latreille, 1806) were exposed to serial dilutions of flavonoids extract (50 mg/ml, 25 mg/ml, 12.5 mg/ml and 6.25 mg/ml) using "dipping method" *in vitro*. The plant extract was obtained by fractionation using appropriate solvents. The extraction yield is 22% with a flavonoids concentration equal to 129.12 µg equivalent of quercetin/ml of the extract. The chromatographic analysis by high performance thin layer chromatography (HPTLC) reveals the presence of gallic acid, vanillic acid, kaempferol, dihydroxybenzoic and quercetin. The results obtained show that the flavonoids extract of *Borago officinalis* L. (Boraginaceae) considerably reduces the oviposition and the hatching rate of the eggs of *Rhipicephalus sanguineus* (Latreille, 1806) and was shown to be toxic against newly hatched larvae of *Rhipicephalus sanguineus* (Latreille, 1806) ($P < 0.05$).