

## PHYTOCHEMICAL RESEARCH OF SALIX CINEREA L.

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The genus *Salix* is one of the largest in the flora of the Ukraine and the largest one in the dendroflora. There are about 29 kinds of willows in Ukraine. Their bark, buds and the leaves of *Salix* L. which contain phenolic glycosides, flavonoids, tannin, organic acids, vitamins, terpenoids. However the *Salix* genus plants aren't studied enough.

*Salix cinerea* L., family Salicaceae is native from most of Europe, Russia and western Asia (i.e. Turkey, Azerbaijan and Kazakhstan). Common names: gray willow, common sallow, large gray willow, olive-leaf willow. It grows in moist sites, often by watersides, in regions with hot summers and cold to mild winters.

It is a deciduous shrub or small tree growing to 4–15 m high. The leaves are spirally arranged, 2–9 cm long and 1–3 cm broad (exceptionally up to 16 cm long and 5 cm broad), green above, hairy below, with a crenate margin. The flowers are produced in early spring in catkins 2–5 cm long; it is dioecious with male and female catkins on separate plants. The male catkins are silvery at first, turning yellow when the pollen is released; the female catkins are greenish-grey, maturing in early summer to release the numerous tiny seeds embedded in white cottony down which assists wind dispersal.

Our goal is the research of qualitative composition and quantitative composition of flavonoids in the branch of *Salix cinerea* L. These branch were gathered for the research in Kharkov regions and in the Zakarpatye oblast of Ukrainian in 2013-2014. There were pointed the presence of phenolic compounds (phenolic glycosides, flavonoids, tannin) when the primary studying of the *Salix cinerea* L leaves was. The presence of flavonoids was defined in the ethanol extracts with cyanidin test, ferric(III) chloride. In results of reaction show the presence of flavonoid aglycones and glycosides. Besides the substances of flavonoids were discovered due to chromatographic method. For this method the paper "Filtrak"(FN №№ 1,4,12) and silica gel TLC plats were used. In accordance with the reference pattern rutin, quercetin, ferulic, chlorogenic, salicylic acids were identified. The method of spectrophotometry(410 nm on the spectrophotometr CФ-46) was applied for the analysis of flavonoids. The contain of flavonoids is turned out not less 2,7%. The *Salix cinerea* L. has the practical interest as a source for getting plant drugs of many-sided pharmacological action due to considerable quantity of phenolic compounds.