Flowers of elderberry - *Sambuci nigrae flos* are used in medicine, pharmacy, food and cosmetic industry. The drug provides a diuretic, diaphoretic activities, the antidiabetic and antioxidant effects have been found out recently. The main content substances are flavonoids and hydroxycinnamic acids. The content of flavonoids was determined in flowers of wild elderberry and cultivated varieties. The flower varieties Allesö, Bohatka, Haschberg, Mammut, Sambo, Sambu, Samdal, Sampo, Samyl and Weihenstephan, collected in 2012-2014, were analyzed. The flowers of cultivated varieties contain 0,65% to 2,33% flavonoids expressed as isoquercitroside. All analyzed samples except of variety Allesö (2013) kept requirement of pharmacopoeia for the drug *Sambuci nigrae flos*. The content of flavonoids of different varieties fluctuated annually. The content was balanced especially in varieties Mammut and Haschberg.