In recent years, the interest in foods that present phenolic compounds have significantly increased. Diverse studies indicated that these compounds are capable to aid in prevention of diseases like arteriosclerosis and cancer. This work aimed to investigate the phenolic composition of aqueous extracts of the following edible mushrooms produced in Brazil: Champignon de Paris (*Agaricus bisporus* white), Portobello (*Agaricus bisporus* brown), Salmon (*Pleurotus ostreatoroseus*), Shimeji (*Pleurotus ostreatus*) and Shiitake (*Lentinula edodes*). Three lots of every kind of mushroom were evaluated. The presence of the 3,4 – dihydroxybenzoic acid, p-hydroxybenzoic acid, caffeic acid, siringic acid, p-coumaric acid, ferulic acid, trans-cinnamic acid and catequin was inquired. Mushrooms samples were collected in February 2011. The extracts were analysed by high efficiency chromatography coupled with a photodiode array detector, at 280 nm. The results were expressed in dry basis, as a mean of the three lots evaluated. Were detected and quantified in mushrooms samples siringic acid, p-coumaric acid and transcinnamic acid. The dates obtained were: for transcinnamic-acid Champignon de Paris, Portobello, Shimeji and Salmon presented 14,63 mg.kg$^{-1}$ (±8,52), 9,36 mg.kg$^{-1}$ (±3,8), 9,06 mg.kg$^{-1}$ (±5,18) and 43,75 mg.kg$^{-1}$ (±22,02), respectively. In Shiitake, it was not detected. For siringic acid, it was detected only in the mushroom Salmon, 29,66 mg.kg$^{-1}$. Finally, the concentration of p-coumaric found were 11, 23 mg.kg$^{-1}$ in Shimeji and 8 mg.kg$^{-1}$ in Salmon. It was not detected in the remainder species. The results showed that edible mushrooms produced in Brazil are able to contribute as a source of phenolic compounds in Brazilian diet.