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EFFECT OF SUN DRYING ON PHYTOCHIMICAL QUALITY AND ANTIOXIDANT ACTIVITY OF FIVE FIG VARIETIES (*Ficus caricaL.*) FROM NORTH ALGERIA.

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ABSTRACT

The fig has been a typical fruit component of the health-promoting Mediterranean diet for a very long time. Due to its perishable and seasonal aspect, it must be kept in its dry form, which can be obtained by several drying processes, including sun-drying. It is known to provide many dietary elements and beneficial phenolic compounds that have good antioxidant properties. This study contributes to assess the impact of sun-drying on phytochemical quality and on the antioxidant activity of five fig varieties from Jijel region (North Algeria). The results show that drying has a positive effect on the content of various phytochemical compounds, in particular total polyphenols, which reached a value of 398.8 ± 2.39 mg AGE/100 g of dried fig, on the content of flavonoids (increase from 17.71± 0.55 to 22.96 ± 0.18 mg QE / 100 g of fig), and proanthocyanidines (from 0.65 ± 0.07 to 2.93 ± 0.17mg CE/100 g of fig). On the other hand, a decrease in the content of anthocyanins (from 4.27 ±0.13 to 1.59±0.07 mg Q3GE/100 g of fig), and carotenoids (from 464.78±1.74 to 140.96±1.41 ug βCE/100 g of fig) is recorded. The *in vitro* evaluation of the antioxidant activity of extracts by DPPH free radical scavenging test, iron reduction, and H_2O_2 scavenging showed that dried figs have significant antioxidant activity dependent on polyphenols content.