PIGMENTED RICES WITH HIGH ANTIOXIDANT CAPACITY AS FUNCTIONAL FOODS

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In the recent years, besides traditional white rice, pigmented rice varieties have received great attention by the market. Pigmented black and red rices are well known and appreciated in various parts of the world, particularly in Asia and Africa. Experimental studies have reported that colored rice supplementation decreased oxidative stress \textit{in vivo} and simultaneously increased antioxidant capacity \textit{in vivo} and \textit{in vitro}. Such healthy properties have been related to several classes of antioxidant compounds present in rice, including tocols, oryzanols and phenolic compounds.

At the C.RA.-G.P.G., the antioxidant compounds present in pigmented rices were characterized. The results showed that the red colour is associated to the presence of proanthocyanidins, while black rice is characterized by the presence of anthocyanins. Moreover it was explored the genetic diversity concerning this character. The results achieved indicate that the pigmented rices show genetic diversity for the antioxidant properties for Italian pigmented rices. Breeding programs are ongoing to select rice with functional properties (i.e. antioxidant properties).