INTRODUCTION

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The oil derived from rapeseed became a very important component of the world fat supply. Interest in canola, as an oilseed crop, has increased significantly, especially in the last five years, mainly due to the realization that the fatty acid profile of this oil is nutritionally favorable **(Ted Mag, 1993)**.

Early before, rapeseeds contained high erucic acid content ranged from 35 to 50% and had also high levels of glucosinolates compounds up to 10% **(FDA, 1985).**

Because of this interest, as well as the fact that canola/rapeseed is a relative newcomer to the world oilseed scene, a great efforts were made in Canada to breed rapeseed plant varieties that had a low erucic acid and glucosinolate contents.

Nowadays, in some countries, low erucic acid of rapeseed oil (LEAR oil) is being used for cooking and other uses of edible oil while, there is still a market for high erucic acid rapeseed oil (HEAR oil) to be only used in industrial aspects. However, the glucosinolates and their hydrolytic products contribute to the flavor of these vegetables and are toxicants that could, if consumed in large quantity, be harmful **(VanEtten and Wolff, 1973).**

However, up till now, the use of rapeseed oil for human consumption in Egypt and rapeseed meal for livestock nutrition has not been yet confirmed and still its use in a big question for scientist to answer.

Palm olein has excellent flavour and oxidative stability but it becomes cloudy and tends to crystallize partially in cold weather. Blends of palm olein with more unsaturated vegetable oils have better cold stability and are suitable for use in a wider range of climates. Such blends are cheaper than highly unsaturated vegetable oils alone. On the other hand, present day guidelines on human nutrition suggest that dietary fat should be made up of approximately equal amounts of saturated, monounsaturated and polyunsaturated fats.

The present investigation was carried out to study the physicochemical properties of rapeseed oil and glucosinolate contents of different varieties of rapeseed.

Also, the study was conducted to evalulate the possibility of blending palm oil and its fractions with rapeseed and/or sunflower to make oils as resistant to oxidation as possible.