# Oxidative Stability of Vegetable Oils with Added Antioxidants

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Synthetic antioxidants are less expensive than natural antioxidants. It is generally accepted that natural antioxidants are more potent, more efficient and safer than synthetic antioxidants. The oxidative stability of different vegetable oil blends, with and without added synthetic and natural antioxidants, was evaluated using the Rancimat test conditions. Blends of sunflower oil (SUN) (50%) and other oil varieties (50%) studied were high-oleic sunflower (HOSUN), corn (COR), olive (OL), almond (ALM) and grape seed (GS). In this study, the antioxidant effect of propyl gallate (0,01%) in blends of sunflower oil and other oil (50:50) was compared to that of natural rosemary extract Oxy'Less®.CS and StabilEnhance® OSR (0.1%, 0.3%). The oxidation was induced and measured using Rancimat (sample 3.0 g, temperature 120 $^{o}$C, airflow 9 L/h). The following results are expressed as induction period (IP) and protection factors (PF). Stability is proportional to the induction period. Natural antioxidants (rosemary extract) increase the stability of blends of sunflower oil and other oil (50:50) at all dosages tested slightly more efficiently than propyl gallate. The results showed the highest antioxidant activity, measured as an induction period, with rosemary extract Oxy'Less®.CS (0.3%), comparable to propyl gallate and StabilEnhance® OSR activity in all blend oils.