

Fruit seeds oils as a cosmetic emulsions component

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The fruit seeds are known to have a considerable amount of oil and their potential specialty as nutraceutical oil was suggested based on high level of unsaturated triacylglycerols (major fatty acids are linoleic, linolenic, oleic) and a high content of tocopherols (tocopherols and tocotrienols).

In this study the possibility of application fruit seeds oils in W/O and O/W emulsion systems was investigated to find the influence of the oil composition on the model emulsion stability as well as rheological properties.

Selected crude cold pressed seed oils: apple-, blackcurrant-, raspberry- and strawberry were studied. Oils was not filtrated. For the W/O and O/W emulsion systems preparation monoacyloglycerol (MAG) and modified acyloglycerol emulsifiers were used respectively.

Emulsion stability is considered as the crucial and specific factor describing quality of dispersed system. To evaluate the emulsion in-time stability Turbiscan TLAB Expert (Formulation, France) was used. The apparatus can detect clarification, creaming and coalescence in concentrated emulsions. It detects small changes before they become apparent on a macroscopic scale. It allows to find physical destabilization of system by backscattered spot of light detection. Because the stability of emulsion is inseparably connected to its rheology, the systems obtained was examined in the terms of rheological parameters at different temperatures. Full sensory characteristics of the systems was used to evaluate its role and acceptance as a potential product.

Based on the data obtained it was stated that the O/W and W/O emulsion formulations with fruit seed oils gave stable, shear-thinning fluids, which are sensory well accepted.