Effects of blending methods on the flavor-releasing properties of dressing made with various oils

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The overall flavor of food is determined by cooking methods. While the making of any dressing varies flavors according to mixing methods. There are several methods, a well-known example relevant to mixing is whipping, blending and homogenizing. These mixing properties are concerned with not only shape of dispersion but also spindle speed and blade angle. The electronic nose can estimate the typical and unique flavors released from the samples and quantitatively detect the differences among the samples prepared under different methods. Also, the sensory evaluation of flavor (QDA) can be useful to evaluate the flavor profiles.

The objective of this study is to research the effect of mixing methods on the flavor-releasing dressing made with diverse oils. The various oils, polysaccharides and lecithin for model dressing were blended in the mixing bottles for 2min at ambient temperature. Then, the generated flavors were collected by purge and trap methods, and analyzed by electronic nose apparatus and the correlations between the results of electronic nose detections and the sensory profiles (QDA) were analyzed.