

ABSTRACT

Ariano, NR., **Innovating Plates from Recycled Paper Materials for Training**. Research and Development. Food and Beverages Services NC II. Quezon National Agricultural School. March, 2021.

Paper product manufacturing involves a variety of chemicals used either directly in paper and pulp production or in the conversion processes (i.e., printing, gluing) that follow. Due to economic and environmental initiatives, paper recycling rates continue to rise. In this study Europe, recycling has increased by nearly 20% within the last decade or so, reaching a level of almost 72% in 2012. With increasing recycling rates, lower quality paper fractions may be included. This may potentially lead to accumulation or un-intended spreading of chemical substances contained in paper, e.g., by introducing chemicals contained in wastepaper into the recycling loop. Also, study provides an overview of chemicals potentially present in paper and applies a sequential hazard screening procedure based on the intrinsic hazard, physical-chemical and biodegradability characteristics of the substances. Based on the results, 51 substances were identified as potentially critical (selected mineral oils, phthalates, phenols, parabens, as well as other groups of chemicals) in relation to paper recycling. It is recommended that these substances receive more attention in waste paper.