

## STABILITY OF AGRO-INDUSTRIAL WASTE THROUGH THE CONVECTIVE DRYING PROCESS

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**Introduction.** Wastes obtained from the processing of agro-food products have a short shelf life, so they need to be preserved for further processing. One solution for the conservation of agro-industrial waste is to be subjected to the drying process. This solution has also the advantage that dry products take up less storage space, due to water removal.

**Material and methods.** In this study, a series of industrial wastes resulting from the processing of vegetables and fruits were dried and were taken from the technological flow of the profile units in Romania (as Research-Development Station for Viticulture and Winemaking Iași - SCDVV Iasi, or SC. ContecFoods SRL, Tecuci). The resulting waste comes from the following technological stages: grape pressing (SCDVV Iasi), sorting, washing, cleaning, peeling, heat treatment of onions, eggplants, peppers, beets, carrots, cabbage (SC. ContecFoods SRL, Tecuci)

**Results and conclusions.** The marc obtained in the grape pressing process was subjected to natural drying in a shed up to a humidity of 18-20%, after which the products were dried to constant humidity in a convective dryer that uses hot air as a drying agent. The humidity obtained after convective drying was on average 8-9% for all marc samples (five species). The samples collected from the technological flow were subjected to the convective drying operation using hot air, reaching a minimum constant humidity (from 85-90% to 10-14%, depending on the variety). In order to dry, the samples were chopped into 3-5 mm particles to increase the contact surface. After drying, the dried samples of marc and vegetables were finely grounded with a hammer machine and/or knife machine. The dried samples were stored, by variety, in paper bags in a dry environment. The drying process lasted between 8 and 14 hours, at 45 degrees Celsius, depending on the humidity of the analyzed samples.

**Keywords:** *agro wastes, grape marc, vegetable wastes, convective drying, conservation.*

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