Determination of Metal Content of Apple Pekmez and Cevizli Sucuk from Apple Pekmez by ICP-OES (Inductively Coupled Plasma–Optical Emission Spectroscopy)

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Pekmez is a traditional food with high nutritional value. It is commonly produced from grape in Turkey. Cevizli sucuk is a delicious snack and there is not enough information about producing cevizli sucuk (walnuts on a string dipped in apple pekmez) [1].

In this research, apple pekmez (AP) and cevizli sucuk (CS) from apple pekmez were prepared. Amasya Apple was used for production of pekmez (Amasya is a province of Turkey). Contents of cevizli sucuk were 34.5% apple pekmez, 13.2% sugar, 2% starch, 0.3% wheat flour and 50% water. Pekmez contains significant minerals widely known for human health. For this reason, aim of this research was to determine the metal content (Mg, P, Fe, Zn, Ar, Hg, Pb, Ag, Co, Ni, Cu, Cr, Mn, Al, Ba) of pekmez and cevizli sucuk [2]. Metal content were determined by ICP–OES (Inductively Coupled Plasma–Optical Emission Spectroscopy).

According to the analysis, the highest amounts of Fe, Zn, Mg, P content were found in CS (12.3 mg/kg, 3.6 mg/kg, 218.9 mg/kg, 443 mg/kg, respectively). On the other hand, the highest amount of K content was found in AP (3203 mg/kg). Except to K value, mineral content increase from AP to CS. Additionally, Pb, Ni, Co, Hg, Ba, As and Ag were not found but Al, Cu, Cr and Mn were found in trace amounts in the research.

KEYWORDS: apple pekmez, cevizli sucuk, ICP-OES

REFERENCES: