عنوان مقاله:

Fabrication and Evaluation of Continuous Press Machine for Extracting Sesame Oil using artificial intelligence techniques

محل انتشار:

چهارمین کنفرانس بین المللی یافته های نوین در علوم کشاورزی، منابع طبیعی و محیط زیست (سال: 1397)

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خلاصه مقاله:

The localization of technology for the design and manufacture of sesame oiling equipment is importance step. The purpose of this research is to design, fabrication and evaluate a sesame oil extraction plant. The main components of the machine are helix, shell, heater and propulsion. In order to operation of the mechanical and thermal properties affecting the quality and quantity of sesame oil, three speeds of the helical shaft were measured at 0.4, 0.6 and 0.8 Hz three levels, press temperature at 30, 45 and 60 degrees Centigrade, moisture content of sesame seeds used in three levels of 3.5 and 7 percent was investigated. To determine the quality of sesame oil that extracted from machine, the acidity and peroxide content of sesame oil were measured. In order to evaluate and model the results from artificial neural network, support vector machine and response surface method were used.

کلمات کلیدی:

Press Machine, Sesame oil, Velocity, Temperature

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