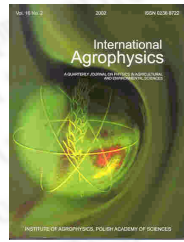




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Effect of bath temperature and soaking time on the dynamics of water capacity of everlasting pea-wheat extrudates

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abstract The paper presents the results of a study on the effect of soak water bath temperature on the dynamics of hydration of everlasting pea extrudates. The extrudates were produced with variable raw materials (shares of the leguminous material (everlasting pea whole meal) and cereals (wheat whole meal) were 35, 50 and 65%, respectively. Other variables included three levels of raw material moisture, of 18, 21 and 24%, and extruder barrel temperature distribution - 90/120/150/140/130°C and 170/130°C. The study of the process of extrusion was conducted by means of a screw extrusion-cooker type 2S-9/5, using a die of diameter of 3x6 mm and rotation speed of 75 r.p.m. It was demonstrated that the adopted range of parameters permit stable operation of the extruder and obtainment of good quality products. As samples with a high content of legumes are difficult to hydrate, the dynamics of water absorption by those extrudates was performed. It was found that increase in the soaking time up to 90 min resulted in unsatisfactory results, i.e. the amount of water absorbed by the tested samples of everlasting pea