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Res. Agr. Eng.

**NEDOMOVÁ Š,
BUCHAR J.**

Goose eggshell

geometry

Res. Agr. Eng., 60 (2014): 100-106

The paper presents a new approach of the eggshell geometry determination using and analysing the egg digital image and edge detection techniques. The detected points on the eggshell contour were fitted by the Fourier series. The obtained equations describing an egg profile were used to calculate the egg volume, surface area, and radius of curvature with much higher degree of precision in comparison with previously published approaches. The paper shows and quantifies the limitations of the common and frequent procedures.

Keywords:

image analysis; goose's egg; eggshell profile; radius of curvature; egg volume; egg surface area

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