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Czech J. Food

**Zhang A.-J., Qin
Zhang H., Wang**

LI X., MIAO L., W **Preparation and characterisation food grade chito from housefly la**

Czech J. Food Sci., 29 (2011)

The preparation and characterisation of food-grade chitosan from housefly larvae are reported. A refinement procedure was developed to remove larval residues from the primary chitosan product, which greatly improved the quality of the final product and simplified the production procedures. Different factors affecting chitosan preparation were studied using an orthogonal experiment to determine optimal preparation conditions. When prepared under optimal conditions, the end product was white in colour, had a high deacetylation percentage, good viscosity, and high nitrogen content. The end product was characterised by Fourier transform infrared spectral analysis, X-ray diffraction analysis, thermo-gravimetric analysis, and differential scanning calorimetry.

physical and chemical properties and sanitary index were determined and compared to the relevant Chinese standards. The results show that the chitosan we produced under the specified conditions meets the Chinese Trade Standard SC/T3403-2003 grade chitosan.

Keywords:

Musca domestica; commercial applications; chitin; insect; domestic

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