

Production, functional properties and applications of rapeseed Cruciferin

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Canola is one of the main sources of vegetable proteins worldwide. Today, the canola meal is used exclusively for animal feeding, although its nutritional value is also high for human nutrition. PPM developed a novel technology to produce pure rapeseed proteins. Cruciferin and Napin are the main storage proteins within Canola. Whereas Cruciferin can be produced of a purity >90% with a simple extraction/precipitation method, Napin needs additional purification by chromatographic procedures. The high nutritional value, the available amounts and the simple production enable the Cruciferin to be used in the food sector, whereas Napin could be used as food additive. In laboratory tests the functional properties, like solubility, foaming and emulsification properties, were tested and compared to commercial products. Cruciferin is an alternative to the available plant protein sources. Potential applications in the food industry might be in the dairy, meat or dressings and sauces sector.