New Process for Maximum Reduction of Gluconisolate in Rape Seed Extraction Meal without Damage of Proteins

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A first overview is presented about the increase in processing of rape seed, which is mostly determined by a strong growing demand on Biodiesel based on rape seed- oil at present. This development is accompanied by a significant bigger volume in production of rape- seed extraction meal, but the use for animal feed is limited because of still relatively high levels of anti- nutritive substances in the meal, mostly glucosinolates. Other alternatives in the use of the extraction meal, e.g. for energy generation, would lead to a significantly lower price compared to the use for animal feed. Therefore, the extension of intake of rape seed extraction meal in animal feed has got growing importance in order to keep stabile its price on the present level.

The current situation of meal toasting is considered with respect to the relation of reduction of glucosinolates and the accompanied damage of proteins and negative influence on other animal feed properties of the meal because of a "sharp" toasting of the meal.

The market potential will be shown if we succeed to reduce the glucosinolates at a minimum level without damage of proteins. The first test results in feeding pigs and poultry demonstrate the important chance in increased market potential for such an improved rape seed extraction meal; the exchange with expensive soybean meal can be taken into account.

The process is described to extract anti- nutritive substances from rape seed extraction meal based on the result of current development work.

The respective processing plant is designed as an extension to running conventional extraction plants. Therefore the oil mill will be able to produce one part of the rape seed extraction meal with improved quality with the lowest amount of glucosinolates, but without a non- acceptable interference of the running existing processing equipment.

The price of this improved rape seed meal, calculated on the described process, will be significantly lower then the soybean one.