Rapeseed meal. IV. Continuous water extraction and short?term feeding studies in rats with the detoxified product

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A continuous two?hour water extraction procedure is proposed instead of the former 14?hour method to remove the thioglucosides from rapeseed presscake meal (RSM). This new procedure produced a complete removal of isothiocyanates (ITC) and a reduction of 97% in oxazolidinethiones (VTO). Net protein utilisation (n.p.u.) increased from 40 to 69% and protein efficiency ratio (p.e.r.) from 0.8 to 1.94. The detoxified material showed a satisfactory growth?promoting capacity for the rat at the level of 10% dietary protein. It did not cause hypertrophy of the thyroid, as compared to the untreated meal, but it produced histopathological damage of variable intensity to this gland. It also caused a slight increase in the size of the liver although the histology of this organ does not show signs of damage. The importance of the minimal residual VTO content in the washed rapeseed meal upon the effect of thyroid histology is discussed and the presence of substances other than VTO and ITC which could