Variation in the nutritive value of cold-pressed rapeseed cake for ruminants

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Situation:

- The growing demand for bio-fuel increases the area of rapeseed grown.
- Part of that rapeseed is pressed in a cold-pressing procedure by farmers themselves.

Questions:

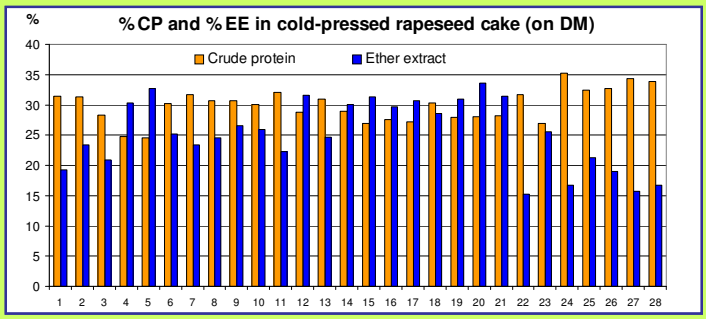
- Does cold-pressed rapeseed cake has an interesting composition for ruminant nutrition? What is the variation in nutritive value?

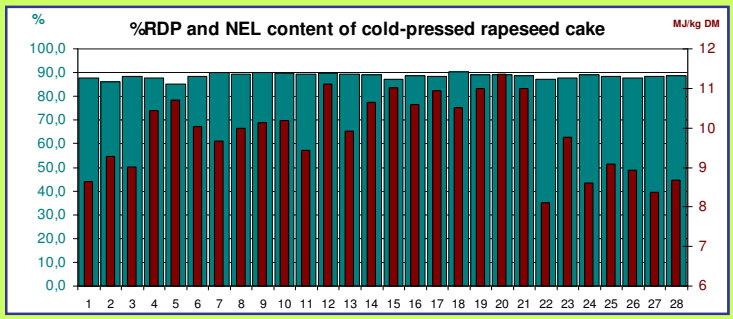
Results:

- 28 samples of cold-pressed rapeseed cake were collected on different locations in Flanders.
- EE content was high and varied widely (range: 153 - 336 g/kgDM)
- Acceptable EE contents in the cake (< 200) seem only possible with high capacity presses (>100kg/h, sample 22 and 24 (153 and 167 g EE/kg DM)) or by drying the rapeseed in advance (sample 26 (2h; 193), 27 (4h; 158) or 28 (24h;167 g EE/kg DM)).
- In sacco incubations indicated that the degradability of the protein in the rumen (%RDP) is very high and shows almost no variation between the samples (range: 85 - 90%).
- Digestibility of the organic matter (DOM) averaged 83.4 % resulting in net energy lactation and fattening (NEL and NEF) amounting to 9.9 (range 8.1 - 11.4) and 10.6 MJ/kg DM (range 8.6 - 12.3).

Nutritive value of the samples

	mean	stdev
DM (g/kg)	907	15
CP (g/kg DM)	299	27
EE (g/kg DM)	252	56
CF (g/kg DM)	104	13
DOM (%)	83.4	2.2
%RDP	88.5	1.2
NEL (MJ/kg DM)	9.9	0.9
NEF (MJ/kg DM)	10.6	1.1





Conclusion:

Large variation in fat content with high levels of remaining fat in several samples, resulting in high NEL levels. On the other hand a very high rumen degradability of the protein, resulting in a rather low protein value for ruminants.

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Vlaamse overheid