

HEAT-MOISTURE TREATED RAPESEED MEAL AS A PROTEIN
SUPPLEMENT FOR DAIRY COWS

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In the feeding trial with 24 ayrshire-cows standard (RSM) and heat-moisture treated rapeseed meal (HMRS_M, ÖPEX^F) were compared. 12 of the cows were multiparous, the others were first calvers. The experiment was started 5 weeks after the calving. During the standardization period of four weeks all the cows were fed with standard RSM, which was then, in the test group, replaced with HMRS_M meal during the test period of 12 weeks. The total diet was as follows: unwilted grass silage ad libitum, 2 kg/d of hay and concentrate mixture of rape meal, barley and oat 0.3 kg/kg FCM. RSM was included into the concentrate at the level of 17%. Rumen degradability of the protein in sacco was as follows:

	2 hours	5 hours	8 hours	24 hours
RSM	33.4	45.9	52.1	84.3
HMRS _M	14.7	22.0	40.6	64.1

Dry matter intake during the test period was 1.09 and 0.94 kg of hay; 8.22 and 7.95 kg of silage; 4.95 and 5.28 kg of grain; 1.08 and 1.15 kg of RSM; and 15.58 and 15.55 kg of total dry matter in the control and test groups, respectively. CP intake was 2528 and 2532 g/d; DCP intake 1847 and 1859 g/d; RDP intake 1795 and 1718 g/d, AAT intake 1305 and 1368 g/d; ME-intake 171.8 and 172.7 MJ/d; fattening feed unit intake 13.14 and 13.29 g/d.

	Standardization period		Test period		P 0.05
	RSM	HMRS _M	RSM	HMRS _M	
milk yield, kg/d	24.25	24.21	22.03	23.77	*
fat yield, g/d	1155	1164	1032	1118	*
protein yield, g/d	742	736	700	747	*
FCM yield kg/d	27.10	27.15	24.29	26.29	*
goitrin, µg/l milk	21.8	17.2	26.8	11.7	*

Feed conversion rate, ffu/kg FCM, was in the test group 0.348 and in the control group 0.365. During the first 6 weeks of the test period the difference was significant (P 0.05) being 0.328 and 0.360, respectively. In milk urea content or fatty acid composition there were no differences between the groups.