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Rapeseed meal (RSM) can be included at high levels in dry pig feeds. However, lower incorporation limits are often proposed for liquid feeding because, in that case, it is thought that RSM could have a more negative effect on intake than for dry feeding. Similarly, commercial pig farms, because of their poorer health status, should not apply the high RSM levels of the research centres. The objective of this study was to evaluate the effects of initial health status and liquid feeding on feed intake and performances of growing-finishing pigs given diets with high levels of RSM.

## Materials and methods

A total of 288 crossbred pigs (28 or 30 kg and 70 d old) were used in two experiments with a 2 x 2 factorial design:

- 8 vs 18 % RSM in iso-energetic and iso-amino acids diets given *ad libitum*
- dry vs liquid distribution

56% of pigs in Exp.1 and 11% in Exp.2 were housed in poor sanitary conditions during the previous post-weaning period (28 to 70 d of age), to modulate their inflammatory status.

## Results

Pigs of Exp.1, mostly reared under poor initial conditions, had homogeneous status whereas health status was heterogeneous in Exp.2. As a result, animal performance and disease prevalence were better in Exp.1 than in Exp.2.

No RSM X feeding equipment interaction was observed.

Liquid feeding caused a higher intake than dry meal in Exp.1 ( $P < 0.001$ ) and Exp.2 ( $P < 0.001$ ). Thus, liquid feeding resulted in higher daily gain in Exp.1 and 2 ( $P < 0.001$ ;  $P = 0.037$ ), but degraded feed conversion ratio ( $P = 0.003$ ;  $P < 0.001$ ).

Effect of dry or liquid feeding and RSM level on pig performance

Feeding	Dry		Liquid		Effect
	8	18	8	18	
% RSM	8	18	8	18	RSM, liquid
Exp. 1 (good health status)					
Intake, kg/d	2.39	2.34	2.62	2.65	L***
Growth, g/d	893	895	953	954	L***
Feed conversion	2.68	2.61	2.75	2.78	L**
Muscle	58.8	58.3	58.2	58.3	ns
Exp. 2 (poor health status)					
Intake, kg/d	2.15	2.15	2.51	2.46	L***
Growth, g/d	782	786	823	828	L*
Feed conversion	2.74	2.74	3.06	2.97	L***
Muscle	59.6	58.6	57.9	58.1	L*

RSM did not significantly influence feed intake for both experiments. Daily gain, feed conversion, harvest weight and carcass parameters were not affected by the % of RSM.



## Conclusion

Rapeseed meal included at a 18 % incorporation rate in pig diets has no negative effect on feed intake, growth performance and carcass quality either in dry or in liquid feeding systems, whenever health status is good or not.