

Piglets' Feed Intake: A Real Challenge

By Ms Joëlle Faugeron, Pancosma

Weaning is a critical phase for piglets, a stressful period when they tend to reduce their feed intake. This can impair gut structure¹ which in turn impacts their health and performance. A smooth transition from liquid to solid feed ensures optimum growth and health, and can be achieved with the right sensory stimulation.

Pigs are extremely sensitive animals, with many more sensory receptors than humans. This means that adding flavour to feed is an effective way to attract piglets' interest and inspire exploratory behaviour. Another way is the use of sweeteners which can further stimulate feed intake and foster gut maturation.

Piglets prefer berry flavour to vanilla

One way to optimize results is by finding the best flavour to catch piglets' attention. Animals, and especially piglets, have a preference for certain smells and tastes. The trick is finding the right one.

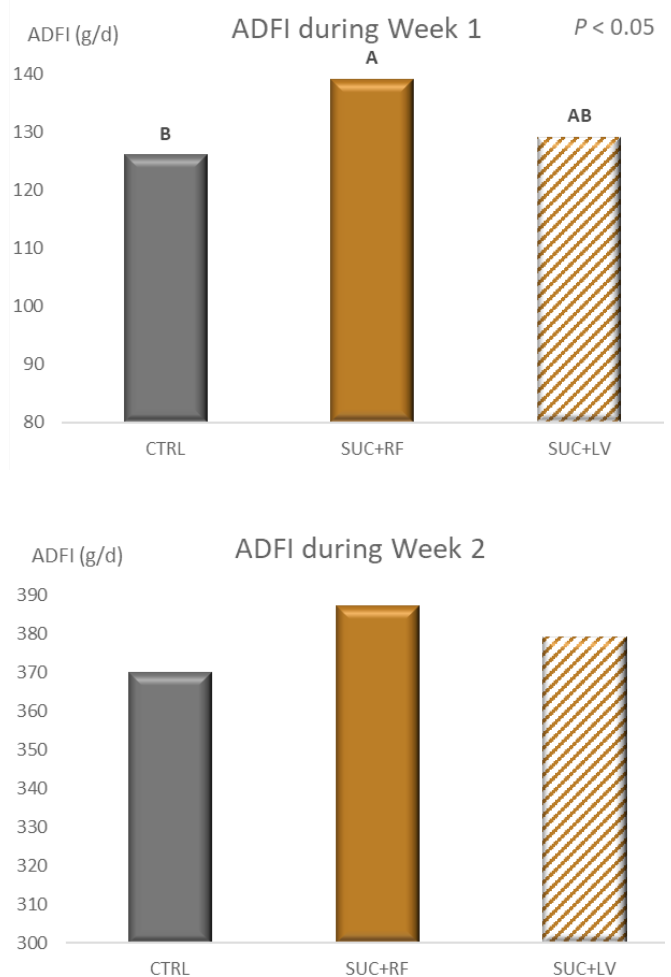
To compare the appeal of flavouring-sweetener combinations, the feed intake of 1044 piglets was assessed for two weeks, directly after weaning at 20 days of age. The study compared two different flavour tonalities: milky vanilla vs. berry. Flavour doses were set at equivalent smell intensities. These two treatments (**SUC+RF** containing the berry flavouring and **SUC+LV** containing the milky vanilla flavouring) were compared to the control feed (**CTRL**) containing no flavouring or sweetener.

In the study, feed containing a sweetener-flavouring combo, whether berry or milky vanilla, improved the average daily feed intake (**ADFI**) of newly-weaned piglets compared to the control feed (Figure 1). As of the first week, the berry-flavoured feed demonstrated a significant edge in piglet appeal. This trend, in terms of numbers, continued during the second week of the trial. Over the entire phase, consumption of the **SUC+RF** treatment was significantly higher than **CTRL** or **SUC+LV**. This corroborates the general belief that berry flavours are piglets' favorites which has also been observed in previous trials.

It is interesting to note that the effect on feed intake during week one was more visible on lightweight piglets (average initial body weight ~ 5 kg) than on medium-weight (~ 6 kg) and large animals (~ 7kg; results not shown). This shows that the benefits of adding well-chosen flavours are especially great for weak animals,

improving their chances to catch up with heavier ones. By reducing variability within the barn, pig producers can better manage health and nutrition as well as tighten the marketing window from first cut to final clean of the barn.

Figure 1: ADFI during weeks 1 & 2

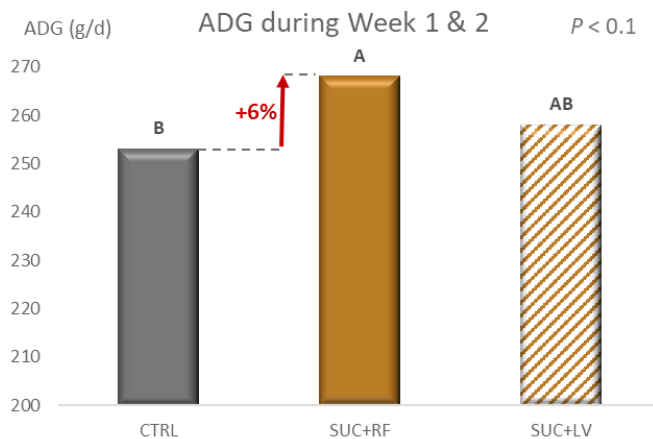


Better feed intake leads to better growth

In the study, the sweetener-berry flavouring combination also improved Average Daily Gain (**ADG**) by 6 % compared to the control feed (Figure 2) over the trial period. The berry flavouring generated

better results than the milky flavouring, a logical consequence of the higher intake observed in this trial. Body weight was more significantly impacted as of the second week (results not shown). After two weeks, animals eating the berry combination had gained on average 3.5 kg compared to 3.3 kg for the control group.

Figure 2: ADG during first two weeks post weaning.



Magnasweet: a 2-in-1 product

Depending on producer's needs, a sweetener and a flavouring can also be used as two distinct products, allowing more flexibility to adapt doses to various feed formulations.

At the other end of the spectrum, some producers may prefer an all-in-one product: they want to manage a single reference, take up less space in the stock, etc. For them, Pancosma proposes a specific range of products called Magnasweet. These 2-in-1 products combine a flavour and SUCRAM sweetener and come in a range of tonalities.

Reference:

JP. Lallès, P. Bosi, H. Smidt, C.R. Stokes, 2007. Nutritional management of gut health in pigs around weaning. Proc Nutr Soc. 2007 May; 66(2):260-8

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