

# FLAVOURS:

## versatile sensory additives

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Flavours were at the origin of Pancosma's creation more than 70 years ago. Today the company is one of the leaders in the creation, development, production and commercialization of sensory additives for the feed industry. Flavours are essential tools to use to improve feeds. They are a powerful asset provided one knows why and how to use them. There are different reasons for using a flavour. In any case, it is key to remember that application tests should be performed to select the most appropriate products to fulfill the customer's needs and find the right dose for their specific product and process.

### Mask or substitute

Some raw materials used in feed are excellent from a nutritional point of view but may present some undesired olfactory notes (i.e. soapy, butyric, rancid, etc.) that may be detrimental to feed intake and therefore have to be avoided. Aside from the aversion the animal may have due to the bad smell, it may also be a reason for the farmer not to use the feed if he judges it inappropriate or does not like it. In addition, some

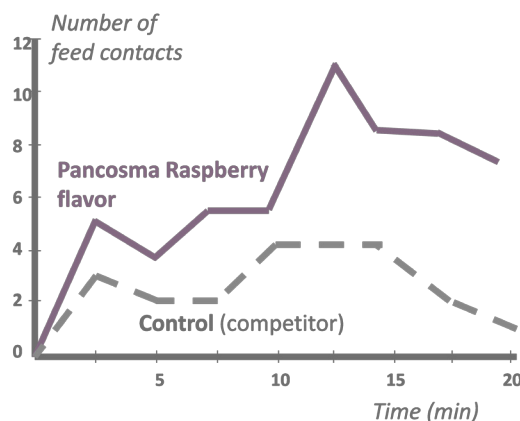
materials (e.g. molasses) have highly fluctuating price and quality so there might be some interest to substitute them at least partially. Substitution of an expensive material by a flavour with similar aromatic profile, eventually combined with a sweetener, will then allow the same smell to be retained while saving costs. Doses have to be adjusted to find the right balance between savings and sensory perception.

In such a case the use of flavours helps to cover the off-notes or to promote a constant aromatic profile of the feed or the premix, and comfort both the animal and the farmer.

### Attract and stimulate

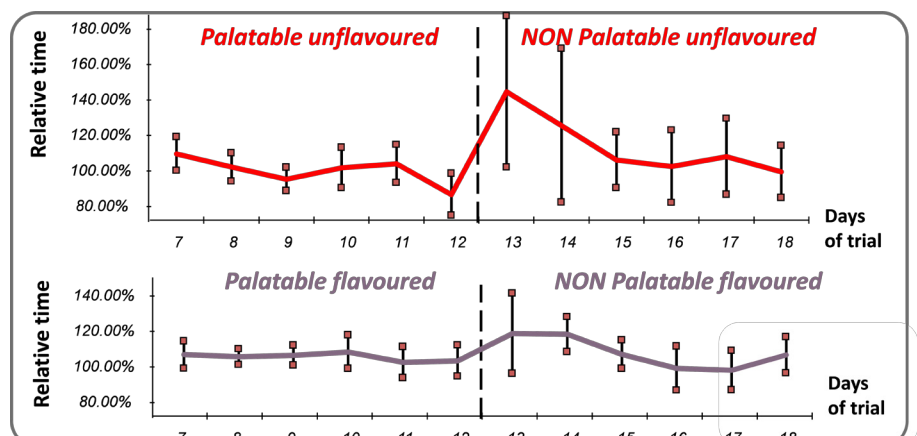
Improvement of feed attraction is one of the principal reasons for using flavours. Smell is, of course, recognized as one of the most important of the five senses, for both humans and animals. And there is a strong odour-emotional connection: an odour can bring back old memories one had totally forgotten. In animals, memory for environmental odours plays a vital role because it regulates many behaviours that are crucial

Figure 1: Effect of a well selected flavour on feed attractiveness for piglets



➤ Pancosma flavour improved piglet feed attraction resulting in higher number of feed contacts

Figure 2: Use of a flavour to limit the negative effect of a non-palatable raw material in dairy cows



for survival <sup>2</sup>. Humans and animals all have preferences for specific tonalities. Preference for certain smells may be inherited from evolution but also conditioned by the animals' own experience. Adding a flavour to a feed is a good way to stimulate exploratory behaviour and feed intake: the smell, provided it is well chosen, will attract the animal and motivate consumption. Flavour selection may rely on general knowledge of animals' preferences. A series of trials<sup>4</sup> highlighted the effect of flavours on the stimulation of exploratory behaviour in piglets (Figure 1), resulting in an increased feed intake and improved performance.

Animals are extremely sensitive to odours, sometimes much more so than humans. As a consequence animals are responsive and picky with their feeds. Any change, however subtle it may be, is noticed and may lead to refusal. Nevertheless feed formulation is changing all the time depending on raw material availability, quality and prices. Furthermore, even from one crop to the other the profile may change.

To alleviate such variations, the use of a flavour will smoothe batch to batch discrepancies (Figure 2), allowing more flexibility to formulators and securing feed acceptance by farm animals.

### Stand out

Last but not least, flavours may be a way to differentiate one's feed in the market with a distinctive smell signature. For this type of request, one should check the customer's ideas and preference, as well as what is present on the market.

Pancosma's portfolio is extensive and can provide the necessary products. Our in-house flavour team is also here to provide tailor-made support to answer to every specific customer's need.

Want to learn more? Contact our experts

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### About Pancosma

Pancosma is a Swiss company and is headquartered in Rolle, Switzerland. As a global leader in developing, manufacturing and distributing a wide range of innovative feed additives, the company is present in more than 75 countries. Its portfolio consists of phytonutrient-based technologies, organic trace minerals, palatants, yeast and organic acids. The company continually strives to deliver innovative solutions for animal nutrition through its commitment to research, development and sustainability.

Pancosma is part of ADM. With industry-advancing innovations, a complete portfolio of ingredients and solutions to meet any taste, and a commitment to sustainability, ADM gives customers an edge in solving the nutritional challenges of today and tomorrow. [www.adm.com](http://www.adm.com)



  
**PAN-TEK®**

The PAN-TEK® range of tailor-made flavours are unique combinations of molecules that induce olfactory and gustatory stimulation. Thanks to a sophisticated formulation process and our exclusive Iso-Fusion Technology®, PAN-TEK® flavours demonstrate optimum strength and stability, making them the perfect tool to enhance feed attractiveness.



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