

## Palatability of Fish for Dogs.

Despite having significantly fewer taste buds than humans (1706 vs 9000), **dogs have a highly attuned sense of taste** which means they can **detect what they like and dislike from only a small sample**. Dogs also have a **highly developed sense of smell which works together with the taste buds to accentuate the sense of taste**.

Like humans, dogs are omnivores and so have **developed preferences for a wide variety of different foods**. They can detect **bitter, sour, salty and sweet flavours**, the latter of which is almost non-existent in cats.

Dogs also possess **receptors** that are able to detect compounds, such as certain **amino acids**, that elicit the so-called "**Umami**" taste. This **fifth flavour** has been described in humans as a kind of satisfying, **savoury taste**. **In dogs and cats**, it is thought that **this sense is well developed** as it enables them to **distinguish between fish and meat**, as well as its **freshness**.

We know that dogs in general will bury bones and return to them later, and eat the most unmentionable things that they find lying in fields and under hedgerows. **This leaves the question 'What makes some of our domestic dogs picky?'**

**The most likely reason is that many commercial dry foods are bland**. They contain **highly processed meat meals**, produced predominantly from **beef by-products**, as well as **significant levels of cereal**. The result is that the **stimulating compounds above are simply not present in many of these foods**.

**An ingredient that appears to contain, and retain, many of these substances is fish**. For centuries Asian chefs have added dried fish powder, fish sauce, and fish heads to stocks, soups and sauces to **enhance the "Umami" flavour**, and also discovered that fermenting these materials **enhances** this further still. The **enhancement** seen with fermentation, which is **also seen with protein hydrolysis**, is primarily caused by the production of

**glutamate**, which is known to **stimulate the Umami sensors** in the mouth.

**Fresh fish also contains significant levels of glutamate itself.** Fish oil also contains many **fatty acids that are particularly palatable to dogs**, and this oil is primarily stored just under the skin. Therefore, **cooked fish skin not only provides these oils** but also **produces attractive 'Maillard' flavours**. As we know ourselves, **on a fillet of fish, the skin and fat beneath are often the most sought after parts.**

FEED FISH ... AND SEE THE DIFFERENCE!