## ARDEN GRANGE

nutrition without compromise

### Ingredients glossary

# A-Z of functional ingredients and ingredients from plant sources

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**Ash** is included in the glossary because of the common misconception that it is an ingredient. It is a measurement of the non-combustible material in the food which is left after burning, and indicates the total mineral content. All pet food labels must declare the ash content, but sometimes it is listed as "inorganic matter".

**Beet pulp** is an excellent source of both soluble and insoluble fibre. Soluble fibre is used for the production of short-chain fatty acids (which supply energy to the friendly bowel flora). It delays gastric emptying, so there is more time for absorption, and improves peristalsis (the contractions that move the food along the digestive tract). Insoluble fibre ensures an optimal transit time of food within the intestine, dilutes the colonic contents and binds to toxins, helps promote the right consistency of stool, and it may aid dietary satisfaction. Beet pulp is not a common allergen because it does not contain very much protein, nor does it turn the coat red.

**Carrots** are a good source of fibre, plus many vitamins and minerals including vitamin A, vitamin B1, vitamin B3, vitamin B6, folic acid, vitamin C, vitamin K, manganese and potassium.

**Chondroitin** blocks destructive enzymes that break down cartilage in the joint. There is always a low level of these destructive enzymes in the joint, but when injury or abnormal wear occurs, these enzymes multiply. Our chondroitin is derived from poultry.

**Corn (maize)** is a complex carbohydrate which is a good source of energy, and nutrients including vitamin B3, vitamin B5, vitamin B6, manganese, phosphorous and fibre. Sweetcorn kernels are indigestible when fed raw, but when cooked within an extruded pet food, the digestibility exceeds 85%. Corn is a glutenfree grain.

**Cranberries** are included for urinary support. They contain D-mannose and hippuric acid, which prevent harmful bacteria from sticking to the mucosal walls. They also contain arbutin, which is effective against certain bacteria and fungi, including Candida. The antioxidant and antiviral properties of cranberries further illustrate the versatility of this small but valuable fruit.

**Gelatin** is used to thicken our Tasty Liver Treat and it is a naturally derived vegetable source.









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**Glucosamine** provides the building blocks to synthesise new joint cartilage, and together with chondroitin and MSM may support joint mobility and longevity. Our glucosamine is derived from crustacean shells.

**Grape seed extract** is a source of oligomeric proanthocyanidins which have antioxidant properties and complement vitamin C, enhancing its effect. Antioxidants are important because they help to protect the body against the harmful effects of free radicals. Grape flesh is toxic to some animals, but the extract from the seed is not associated with any harmful side-effects.

**Green tea extract** (from the plant Camellia sinensis) is a source of antioxidants called catechins which provide support to the immune and cardiovascular systems.

**L-carnitine** plays an important role in the production of energy by transporting fatty acids to the mitochondria (the "energy packs" of the cells). It may increase fat metabolism in the skeletal and cardiac muscle, and improve stamina. Although it is naturally present in meat, fish and egg, our recipes formulated for dogs that may benefit from increased levels have an L-carnitine supplement added.

**Linseed (flax)** is a good source of fibre, omega-3 fatty acids and lignans (which have antioxidant properties). It is rich in vitamins and minerals including vitamin B1, vitamin B3, manganese, magnesium, phosphorous and copper. Linseed contains lignans, which are a class of phytoestrogens considered to have antioxidant properties.

**MSM (methyl-sulphonyl-methane)** is a form of organic sulphur derived from pine bark, and its beneficial properties may include the relief of pain and inflammation. It is also thought that MSM may improve mental alertness and relieve stress.

**Nucleotides** are derived from a special type of nutritional yeast. They increase the surface area for the absorption of nutrients within the small intestine, which may improve the efficiency of the digestion. Nucleotides also support immunity as they help the defence cells to replicate more quickly when challenged; e.g. by infectious organisms.

**Parsley** is a herb that is rich in vitamins, folate and iron.

**Peas** are a good source of vitamin K1, folic acid and vitamin B6, and are included in the Arden Grange Partners canned foods. Pea starch and pea fibre are used as a grain-free carbohydrate source and fibre source respectively in our feline dry food range.

**Potato** is a very digestible carbohydrate source, and it is rich in vitamin c, vitamin B6 and potassium. It is often an ideal alternative carbohydrate source for animals known or suspected to be allergic or intolerant to grains.

**Prebiotic FOS (fructo-oligosaccharides)** are derived from the chicory plant. This type of prebiotic can only be broken down by the friendly gut bacteria, and when this takes place, the energy that is produced is utilised by the beneficial flora and enables them to reproduce efficiently. A thriving colony of the good gut bacteria may limit the growth of pathogenic bacteria.

**Prebiotic MOS (manno-oligosaccharides)** are derived from yeast. This type of prebiotic acts as a gut security guard, mopping up pathogenic organisms and helping to transport them out of the body.

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**Quercetin** is a water-soluble plant pigment. The ingredient we use is derived from citrus fruits including oranges. It is a powerful antioxidant and thought to have anti-inflammatory properties.

**Rice** is a very digestible energy source and usually very well tolerated. We use white rice rather than brown because there are already effective fibre and B vitamin sources in our products. Rice contains little protein and is therefore not commonly associated with food allergies. It contains resistance starch which helps to feed the friendly gut bacteria.

**Rosemary extract** is used as a natural preservative and it helps prevent the oxidisation of the fat components of the food. It is deodorised, and there are no studies to suggest that it causes or exacerbates seizures.

**Seaweed extract** contains many phytochemicals, vitamins and minerals including iodine. Iodine is necessary for efficient cell respiration, nerve and muscle functioning, the growth and repair of tissues, and it helps to promote healthy skin, hair, teeth, and nails. Seaweed extract is included in the Arden Grange Partners canned food range.

Sunflower oil is rich in vitamin E and linoleic acid.

**Sweet potato** is a good source of carbohydrate for the provision of energy. It is an excellent source of many vitamins and minerals including vitamin A (in the form of beta-carotene), vitamin C, manganese, copper, pantothenic acid and vitamin B6.

**Taurine** is an essential nutrient for cats because they cannot manufacture it themselves, and therefore it is added to our feline range. Taurine is especially important for healthy vision, reproduction and cardiovascular function. The Arden Grange Performance contains a taurine supplement since active, working and sporting dogs may benefit from a higher level to support the heart muscle.

**Tocopherols (vitamin E)** are used as an antioxidant along with rosemary extract to help preserve the dry products naturally and prolong their shelf life.

**Yeast / malt extract** is a rich source of B vitamins, and animals like the umami flavour. We use nutritional yeast which is an inactivated type rarely associated with allergic responses. Animals that have yeast allergies normally are reactive to the pathogenic yeasts growing on or inside of their bodies or to active yeasts like those used for baking bread.

**Yucca extract** is derived from sap which has been extracted from the yucca schidigera cactus. All our dry diets are supplemented with yucca extract since it may help reduce faecal odour and reduce lawn staining.







