



# ARDEN GRANGE

## **nutrition sans compromis**

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### **Fact Sheet - How Arden Grange Pet Foods are Made**

#### **Stage 1 – Ingredients**

Ingredients are sourced from around the world, and are chosen for their quality, consistency and nutrient value. Every ingredient is tested for all 3 of these qualities before it is even accepted into the factory (see our Arden Grange Ingredients Fact Sheet for more details). They are then stored in cool, dry conditions until they are needed for manufacture.

#### **Stage 2 – Weighing and Mixing**

Every recipe is stored within a central computer system, and ingredients are weighed on a range of scales, and then sent to a large mixing chamber where they are gently combined for 3 minutes. To minimise any variation, the recipes remain fixed and the scales are tested routinely to ensure their accuracy.

#### **Stage 3 – Grinding**

The next stage is to grind all of these ingredients, which have a variety of sizes, in the equivalent of a huge mortar and pestle. This produces a fine powder (grist), with a similar consistency to baking flour. The blend is then mixed again and the more delicate ingredients, such as vitamins and trace minerals are added.

#### **Stage 4 – Pre-Conditioning**

The first stage of cooking involves 'conditioning' the mixture. Steam and water are added to the grist in a large chamber which contains 30 rotating paddles. Much like dough, the mixture is kneaded until most of the starch molecules are plump and fully hydrated. This process also mixes the grist once again, and pre-cooks the food to 45% of its total 'cook'. Pre-conditioning lasts for 3 minutes.

#### **Stage 5 – Extrusion Cooking**

The final part of the 'cook' only lasts for 30 seconds, but provides over half of the total cooking process. The grist is passed through a long chamber containing a rotating screw, which forces it to the end and out through small, shaped apertures. The pressure within this chamber reaches over 600 psi, and this causes the plump starch molecules to burst and form a pliable mixture with the other ingredients. As this mixture emerges from the end of the chamber, the dramatic drop in pressure causes the food to expand to form a honeycomb-like structure. A knife then cuts the food into chunks as it emerges, and these light, soft 'kibbles' are tested for their shape, colour, size and density.

#### **Stage 6 – Drying**

The kibbles emerging from the extrusion cooker contain over 25% water, and since they do not contain any artificial preservatives, they would soon become mouldy and spoil. Therefore, the drier aims to remove around two-thirds of this water by gently blowing hot air around the kibbles as they pass through the chamber. This takes 20 minutes, and the kibble are continually tested for their moisture content as they emerge from the drier to ensure that they are satisfactory.

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## Stage 7 – Coating

As we know, with many human foods - much of the flavour is in the sauce or the coating. Too much can be over-powering and off-putting, but too little can cause us to lose interest. Therefore the kibbles are coated accurately and uniformly with a combination of oils and NATURAL flavours which, since the kibbles are still warm, permeate through the food.

## Stage 8 – Cooling and Packing

As we would leave baked bread on a wire rack to cool, the same is true of the kibbles. If packed whilst still warm, the kibbles would soon become soft and prone to mould. Therefore the final stage is to hold the food in a large chamber through which cold air is passed. Samples from all batches are then analysed. Finally the food is ready to be packed and sent to the customer.

**Pour plus d'information ou aide avec les questions de santé ou nourriture de votre compagnon d'animaux, s'il vous plait de nous contacter par notre site internet [www.ardengrange.fr](http://www.ardengrange.fr).**