

PET FOOD

The UK has one of the largest pet populations in Europe. In 2001 there were an estimated 4.8 million pet dogs and 4.8 million cats¹. The pet food industry is worth £1.5 billion in the UK alone², and worldwide it is estimated to be a massive \$25 billion³.

Developments in the range and variety of pet foods available have led to the introduction of "lifestyle" products. These products reflect the different nutritional requirements of animals depending upon factors such as age, level of activity and environmental conditions.

The main players in the international pet food industry include Nestlé, Mars (Pedigree), Colgate-Palmolive and Procter & Gamble. The Nestlé company has recently acquired Ralston Purina Pet Foods to now be called Nestlé Purina Petcare Company.

Published research shows that pet food manufacturers carry out, collaborate on, or sponsor, experiments on animals. This largely involves cats and dogs and some of the research can be both nasty and invasive. A large proportion of the research takes place in the USA, but some also takes place in other countries including the UK.

Cats and dogs are likely to suffer pain and distress during these experiments. Yet section 5(4) of the Animals (Scientific Procedures) Act 1986 states:

'In determining whether and on what terms to grant a project licence the Secretary of State shall weigh the likely adverse effects on the animals concerned against the benefit likely to accrue as a result of the programme to be specified in the licence'⁴.

The granting of licences for these commercially motivated experiments surely cannot be justified under this cost / benefit assessment.

The International Pet Food Industry

1. Colgate –Palmolive owns:

Hill's Pet Nutrition

Science Diet, Prescription Diet

2. Nestlé Purina Petcare owns:

(i) Friskies Petcare

Bonio, Winalot, Spillers, Felix, Fido, Friskies, Arthur's, Choosy, Go Cat, Gourmet, Vital Balance

(ii) Alpo*

Mighty Dog

(iii) Ralston Purina*

Purina, Edward Baker Petfoods

(*The tests described in this factsheet took place prior to the acquisition by Nestlé)

3. Mars owns:

(i) Pedigree Petfoods

Pedigree, Cesar, Whiskas, Sheba, Kitekat, Pal, Chappie, Bounce

(ii) Royal Canin (majority shareholder)

Royal Canin, James Wellbeloved

4. Procter and Gamble owns

IAMS

Iams, Eukanuba

Examples of experiments

1. Hill's Pet Nutrition (Colgate-Palmolive)

Thirty-six kittens from the University of California were housed alone for 13 weeks, beginning when they were just over nine weeks old when they were separated from their mothers. They were fed a diet designed to stunt their growth, which resulted in normally fed kittens gaining up to 56% more weight per day than the kittens in the study. Blood samples were taken from the kittens' jugular veins.

(funded by Hill's Pet Nutrition, Topeka, USA ⁵)

Thirty-five cats were used in an experiment to establish the sodium requirements in adult cats. The cats were divided into groups and fed diets containing varying degrees of sodium. Blood samples were taken at varying intervals. Cats fed the low sodium diet showed loss of appetite and reduction in body weight.

The cats were individually housed in small cages for 4 weeks. Cats kept in confined spaces tend to develop stress-related abnormal behaviours. Small cages provide no space for movement or species-related behaviours such as claw sharpening or play.

(This experiment was carried out in the USA and was supported in part by Hill's Pet Nutrition⁶)

In another experiment 18 kittens aged between 11-15 weeks were each isolated in small steel cages (60x60x60cm) for up to 26 days. The aim was to discover the sodium requirements of kittens. Sodium deficiency resulted in loss of appetite, stunted growth, excessive thirst and urination, as well as changes in hormonal levels⁷.

(This experiment was carried out in the USA and part-funded by Hill's Pet Nutrition.)

In a third experiment 42 puppies were fed a zinc-depleted diet for 2 weeks. Severe signs of zinc deficiency were found in all the puppies, (including crusted plaques on face & feet, lethargy & anorexia). The puppies were then divided into groups and given an experimental diet for 3 weeks with varying amounts of zinc, either organic or inorganic. It was intended for one group of 6 pups to be kept on a zinc-free diet for 35 days but 5 out of the 6 pups were removed from the test as zinc deficiencies were so severe. At the end of the experiment dew claws, one canine tooth and testes

were removed from all pups for zinc analysis. The fate of the dogs is not known⁸.

(This experiment was carried out at Hill's Pet Nutrition in Topeka, USA)

2. Nestlé Purina Petcare

Nine beagle dogs were kept in single isolation for 15 weeks, during which time their diets were changed roughly every three weeks. The dogs suffered from diarrhoea in an experiment which has no relevance to improving the care of pet dogs.

(Conducted by Veterinary University of Vienna, Austria; Hanover University, Germany; Nestlé Purina PetCare R&D, Nestlé Research Centre, Lausanne, Switzerland.⁹)

Forty-eight labrador retrievers were kept in a laboratory environment for fifteen years (unless death occurred sooner). Some of the dogs had their food intake severely restricted for the first three years of the study, after which their diet was restricted still further until some animals had available just half the amount of energy intake of their litter mates. Dogs were weighed weekly, x-rayed annually, had heart scans, ECGs and blood pressure taken. Once a year the dogs were starved overnight then injected with glucose, before blood samples were taken from their jugular vein five times in two hours. Body weight of feed-restricted dogs was on average 26% lower than the body weight of litter mates. Adult body weights for this group were as low as 22kg; the ideal body weight for Labrador retrievers is up to 34kg.

(Conducted by Nestle Purina PetCare Research, St. Louis, USA¹⁰).

Eighteen dogs (6 German Shepherds, 6 English Setters and 6 Miniature Schnauzers) were kept in single isolation for 12 weeks and fed either dry or canned dog food. Four dogs either became ill or refused to eat the food offered during the study.

(Conducted by Nestle Purina PetCare Company, St Louis, USA)¹¹

In addition to the animal testing that Nestlé Purina Petcare is currently actively engaged in, both of the brands which Nestlé also owns, Alpo Pet Foods & Ralston Purina have a history of involvement with pet food testing on animals before they were bought by Nestlé.

a) Alpo Pet Foods

In a study part funded by Alpo Pet Foods 15 cats were encouraged to become obese. A tube was put into the stomach of 7 cats and they were given a dose of ammonium chloride. The cats were then taken from their familiar group cages and isolated for up to 7 weeks in small cages. During this time the 15 cats were starved by only offering food which was completely unpalatable.

As a result the cats didn't eat, which was referred to as "voluntary starvation", and they lost 26-40% of their body weight. They also developed severe muscle wasting, dehydration, lethargy, major blood abnormalities and swollen and damaged livers. When finally offered normal food, 11 were unable to eat and had to be tube-fed¹².

(This experiment took place in the USA)

A study of protein and taurine in the diet of cats was also supported by a grant from Alpo Pet Foods. It involved 18 cats being kept in steel cages for one year. During this time their diets were varied several times and the cats were in a state of taurine deficiency for much of that time⁹. In cats taurine is a dietary requirement essential for basic biological functions such as regulating the heartbeat and brain cell activity. Symptoms of deficiency include a slowed growth rate, loss of muscle, weakness and poor eyesight¹³

(This experiment took place in the USA)

In another experiment funded by Alpo and the Alpo Research Fellowship, 9 dogs had their abdomen surgically cut open and a tube sewn in place from the small intestine to the outside of the dogs' body. These dogs would have endured post-operative stress, and the discomfort of having the tube in place for a prolonged period of time, on average 26 weeks but up to 14 months. Many complications occurred during the experiment, which must have caused the dogs further distress and pain. There was a high rate of post-operative wound infection. In four of the dogs, the tube came out completely. Caustic (corrosive) stomach effluent leaked out of the wound and caused hair loss, raw skin and ulceration around the wound, as well as ulceration of the dogs' paws, tongue and lips. The dogs lost weight. The wounds were stitched up but the dogs needed continuous nursing for one week to recover. Afterwards, these same dogs then endured a second operation to surgically replace the tubes. In fact low-level leakage of caustic stomach effluent caused inflammation in most of the dogs, and three dogs

developed abscesses under their skin that needed surgical draining. One dog developed inflammation of the intestine. Tissue swelling around the tube was so great in 3 of the dogs that the swollen skin had to be surgically cut away¹⁴.

b) Ralston Purina

A study was carried out to see if intermittent feeding by stomach tube caused more gastrointestinal upsets than continuous feeding. The study used 10 healthy mixed-breed dogs that were housed singly.

Each dog had a tube surgically inserted through its abdominal wall into the stomach 4 days prior to the start of the experiment. The dogs were fed a formula, designed for humans, directly by the tube, either intermittently or in small continuous amounts, for 10 days. After an 11-day "rest" the dogs were then tested again with the other feeding regime. Blood, breath, urine and faeces samples were taken and analysed, and clinical signs monitored.

(This experiment was funded by Ralston Purina and carried out in New Zealand¹⁵.)

In another experiment 13 cats were used, 7 of whom were deliberately given artificially induced kidney failure by cutting out their right kidney and severely restricting the blood supply to the left kidney. A device was surgically inserted to measure blood pressure & heart rate. All the cats would have had to endure post-operative discomfort as well as the suffering and distress from the deliberate induction of kidney damage. The other 6 cats also endured surgery to insert the measuring device. All 13 cats were kept in individual caging throughout the experiment and were then exposed to simulated visits to a vet's surgery during which they had a physical examination, handling and other stressors to see if these induced changes in breathing, heart rate and blood pressure (called the "white coat effect"). These were pointless experiments, during which cats were subjected to intense surgical intervention and deliberate kidney damage, in order to demonstrate something that is already well known by vets and cat owners world wide – cats show individual variation in their stress response and do not appear to become accustomed to being repeatedly exposed to unfamiliar surroundings. (Supported by the Ralston Purina company¹⁶)

3. Mars (Pedigree Petfoods)

Pedigree carries out research at the British Waltham Centre for Pet Nutrition. Waltham claims to be the

world's leading authority on pet care and nutrition. It has research facilities around the world and also collaborates with universities and individuals both in the UK and overseas. In 1996, for example, it was involved in over 70 collaborative research projects at more than 30 universities in over 15 countries. Waltham houses hundreds of dogs, cats and birds. In 1997 Waltham claimed to have carried out studies on over 25 breeds of dogs, ranging from Yorkshire terriers to Irish wolfhounds

Waltham experiments are widely considered to be 'mild' or low-invasive work although this hasn't always been the case. A research paper published in 1980 on the need of cats for the nutrient taurine involved keeping cats isolated in cages for 11 months. Some of the cats deprived of taurine suffered irreversible eye damage. Waltham still quotes this paper as making a key contribution to understanding the dietary need of cats.

Moreover, some procedures carried out by Waltham do have the potential to cause suffering or distress. For example

- the isolation of dogs
- taking blood samples
- measuring flatulence with instrumentation
- endoscopy (tissue samples taken from the colon via the anus)
- dental examinations which require dogs to be anaesthetised
- fasting for up to 24 hours
- applications of a skin irritant
- giving warm water enemas and inserting flexible tubes into the colon
- frequent changes in diet during trials
- plucking 50 hairs from near the base of the tail

In one test, water levels in the colon were measured. 6 'sensitive' (known to be sensitive to diet) and 6 'robust' dogs were used. All the dogs were given a food that is known to cause diarrhoea in the sensitive dogs. While sedated, the dogs were then given an enema and dialysis bags made of flexible tubing were manually inserted through the rectum¹⁷.

In another study 8 adult greyhounds were used to see if feeding experimental diets with different amounts of protein and carbohydrate could effect their performance on the racetrack (originally there were 10 greyhounds but 2 were withdrawn from the study because they suffered from muscle injuries

during the experiment). The dogs were individually housed during this study, which lasted for 27 weeks, in cages that were significantly smaller than the size recommended by the UK based Universities Federation for Animal Welfare (UFAW). They were subjected to potentially distressing procedures of blood sampling from the jugular vein, injections and rectal temperature recordings. The ultimate fate of these dogs is unknown¹⁸

Greyhound racing is responsible for immense animal suffering. This experiment took place in the USA where an estimated 20,000-30,000 racing greyhounds are killed each year because of injuries, age and unsatisfactory racing performances.

Another test at the Waltham Centre involved 21 dogs (including 12 dogs who suffered from diarrhoea). The dogs were isolated at the Waltham Centre for a total of 16 weeks, during which time they were fed test diets that were changed every four weeks. To study the dogs' colons, the dogs were given an enema and then an endoscopy which involved a tube being inserted into their rectum under sedation.

(Conducted at the Waltham Centre for Pet Nutrition, Leicestershire, UK¹⁹)

In a test involving 60 female cats, the animals were anaesthetised, underwent a full hysterectomy, and took seven days to recover. The cats were used to being group housed, but during the feeding trials some cats were housed individually for an entire year. These isolated cats also had their food intake restricted to an unacceptable level of just 40Kcal/kg/day, just half of the recommended food intake for adult cats. Remarkably, the authors of the study state that the conditions were "*similar to those of pet cats.*"

Body fat increased by nearly 40% in ad libitum (freely available food) fed cats and the authors state that obese cats are more likely to develop diabetes, skin diseases and lameness.

(Conducted at the Waltham Centre for Pet Nutrition, Leicestershire, UK²⁰)

Some of the tests carried out at Waltham are not only trivial but commercially motivated which begs the question as to why the Home Office are issuing licences for cats and dogs to be used in these types of procedures for a company whose motivation is

purely commercial in the competitive global pet food industry?

Research carried out in collaboration with other laboratories and individuals does tend to follow Waltham's own standards of low invasiveness. Although, one researcher at the University of Bristol was supported by Waltham in an experiment where cats were kept isolated in a plastic chamber 30 x 45 x 30 cm for 6 hours or longer. Each cat underwent this procedure four times, once whilst fully conscious ²¹ Furthermore, some of the individual researchers who had sabbaticals at or collaborated with Waltham, have performed much more severe experiments, often funded by other pet food companies.

4. Iams (Procter & Gamble)

Twenty-four cats purchased from laboratory animal breeders Harlan Sprague Dawley (USA) were housed in single isolation throughout the study. Their ovaries and a section of each cat's liver were surgically removed. They were then 'encouraged' to become obese by having access to as much food as they could consume over 15 weeks until at least one third of their body weight heavier. Another surgical liver biopsy was performed. Later, they were put on strict diets until they lost one third of their body weight (losing 10% in just one week), after which they endured a third liver biopsy. Three cats developed hepatic lipidosis when obese, a cause of liver failure in cats.

(Funded by the Iams Company²²)

Kidney failure was artificially induced in 28 young female cats (8-9 months old). They were cut open, one kidney surgically removed and the blood supply to the other kidney was damaged, leaving only a small portion of the remaining kidney still functioning. Two cats died as a result of the surgery. After 2 months "stabilisation", feeding experiments started. During the feeding experiments, the cats showed obvious signs of ill health such as weight loss and vomiting. All the cats were housed in single-isolation. After one year, the cats were operated on again and the remaining bit of kidney cut out under deep anaesthesia. It can only be assumed that the cats were subsequently killed. (Supported by the Iams Company²³).

Why animal tests are unnecessary

The BUAV finds it ethically unacceptable to keep animals such as cats and dogs in essentially laboratory/kennel conditions for their whole lives (or a substantial proportion of it) purely for the benefit of a commercial pet food company. These animals must endure a relentless catalogue of unnecessary veterinary procedures and interventions that undoubtedly causes them suffering.

Companies such as Waltham claim that the animals held in their facilities do not suffer; we disagree. On the subject of keeping dogs confined for pet food testing the BUAV's veterinary advisor stated that,

"In many cases, the dogs in question are kennelled for substantial portions of, if not all their lives. For social and domesticated animals like these, such conditions are inappropriate. These conditions do not provide for adequate mental, physical or social stimulation... We know through various studies that the housing conditions of animals can have a substantial effect not only on their wellbeing, but also on their physiological functions such as the immune system... These effects would tend to render suspicious any results, nutritional or other, that come from such studies.... In almost all cases, the dogs in question are also subjected to various procedures in order to extract data or determine the effects of the diet. For example, blood sampling, enemas, endoscopy and other procedure may be done routinely in these individuals... It is likely that they would experience pain or discomfort regardless of attempts to prevent this. Because none of these procedures are necessary for the dogs' health or well being per se, any ill effects the dogs experience, however slight, cannot be ethically defended or condoned."

Nedim C. Buyukmihci, V.M.D. Professor of Veterinary Medicine (Emeritus), University of California

The global pet food market is a highly competitive industry.

The BUAV believes that above all it is ethically unacceptable for animals to suffer in tests carried out or funded by commercial pet food companies. Is it acceptable for a company that promotes itself as caring about the health and well-being of our pets to

subject animals to procedures that are likely to cause them harm and distress?

Are all the products actually necessary or are pet food companies simply creating a new market for pet 'lifestyle' products which actually are aimed at the desires of human consumers?

Even if some of these new products play a role in improving our pets' lives, it is hypocritical of us to ignore the suffering and in some cases death of other dogs and cats who are equally deserving of our compassion and consideration. Companies should adopt ethical policies to only use non-animal methods such as expert nutritional analysis and artificial systems such as FIDO (functional gastrointestinal dog model)¹⁷.

The FIDO model simulates the digestive processes taking place in the stomach and small intestine of a dog. This includes mimicking the peristaltic motions of the dog's stomach wall, the secretion of acid and relevant enzymes, as well as the action of the pylorus, which divides the dog's stomach from its small intestine. The model is also able to simulate the peristaltic motions of the dog's small intestine, the absorption of digested foodstuffs and the re-absorption of water from the intestinal tract.

This non-animal research device can enable pet food manufacturers to find out what constitutes a well-balanced diet for pets, what are the best foods for them to eat or how particular nutrients would be absorbed etc. without conducting invasive tests.

The company that developed FIDO is also looking to develop a similar model for the more complex cat digestive system.

Action Points

1. Write a letter to the Home Office asking for an end to UK animal testing by pet food companies.

Andy Burnham,
Parliamentary Under Secretary of State,
Home Office,
50 Queen Anne's Gate,
London SW1H 9AT.

2. Write to your MP at

The House of Commons
Westminster
London SW12 0AA

Non-Animal Tested Pet Food

The BUAV would recommend the following companies. These companies were approved under the former "No Animal Testing" Pet Food Standard which was recently discontinued due to an important strategic need for resources to be channelled into a different campaigning area. These companies made a real commitment to non-animal testing by joining the Standard. Even without it, we are sure that the companies will still continue being committed to a non animal testing policy whose practice ensures that no animal testing of or for pet food takes place by the company or anywhere throughout the supply chain.

Burns Pet Nutrition Ltd

Brands: Burns Real Food For Dogs; Burns Real Food For Cats; Burns Organic Food For Garden Birds.

Available by mail order, from pet shops, veterinary practices and independent pet food suppliers.

Telephone: 01554 890482.

Email: sales@burns-pet-nutrition.co.uk

www.burns-pet-nutrition.co.uk

Europa Pet Foods Ltd

Brands: Europa (please note: this is NOT Europa supermarkets)

Available from a variety of pet shops and independent pet product suppliers - check out <http://www.europa-pet-food.co.uk> for details.

Alternatively order by mail order at info@europa-pet-food.co.uk or call 0845 658 0987

Fromm Family Foods

Brands: Fromm Family Four Star Nutritionals; Fromm Family Nutritionals

Available from Postal Pet Products Ltd Customer Enquiries tel: 01531 633 985 to order or for details of your nearest distributor / agent; or order via www.postalpetproducts.co.uk

Harbingers Of A New Age

Brands: Vegecat; Vegekit; Vegecat PH
Available from the Vegan Society. Telephone: 01424 427 393.
Email: info@vegansociety.com

Leander International Pet Foods Ltd

Brands: Arden Grange
Available from supermarkets, by mail order and in pet shops.
Telephone: 01273 833390
Email: enquiries@ardengrange.com
www.ardengrange.com

NatureDiet Pet Foods Ltd

Brands: NatureDiet Pet Foods – for dogs
Available from pet stores. Telephone: 08700 132960.
Email: info@naturediet.co.uk

Pero Foods Ltd

Brands: Pero Organic Foods; Pero Gold with Pasta plus other Pero brands.
Organic complete dry foods for dogs and cats
Availability: Please contact Pero Foods Ltd for details of stockists and for mail order.
Contacts: Customer enquiries: 01690 710457
Email: info@pero-petfood.co.uk
www.pero-petfood.co.uk

Top Number

Brands: Top Number and Happidog
Customer tel enquiries: 0800 0182955
Dog and cat food
Available from health food stores; mail order; veterinary practices; pet trade stores

Trophy Pet Foods

Brands: Trophy Pet Food
Customer tel enquiries: 01367 243434 Email: sales@trohypetfoods.co.uk
www.trohypetfoods.co.uk

Dog, cat and small mammal foods (including for rats, mice, gerbils, hamsters, rabbits and guinea pigs)

Available through mail order; through their nationwide network of Trophy franchises who offer a local free home delivery service (Please note: that some franchisees do sell other brands but only the Trophy Pet Food brand is BUAV recommended as 'not animal tested'.)

¹ Source: Pet Food Manufacturing Association
<http://www.pfma.com/>

² Source: Pet Food Manufacturing Association
<http://www.pfma.com/>

³ 'Iams/P&G deal to shake up pet food market' (1999) *Animal Pharm*, No 427

⁴ The Animals (Scientific Procedures) Act 1986 (HMSO, London, 1986)

⁵ *Journal of Animal Physiology & Animal Nutrition* (2003) 87, pp315-323

⁶ 'Sodium requirement of adult cats for maintenance based on plasma aldosterone concentration' *Journal of Nutrition* (Feb 1999)

⁷ 'The minimum sodium requirement of growing kittens defined on the basis of plasma aldosterone concentration' (1997) *Journal of Nutrition*, Vol. 127, pp 494-501

⁸ 'Are organic zinc sources efficacious in puppies?' (1998) *Journal of Nutrition*, Vol. 128, pp2593S-2595S

⁹ *Journal of Animal Physiology & Animal Nutrition* (2003) 87, pp 397-407

¹⁰ *Journal of Nutrition* (2003) 133, pp2887-92

¹¹ *Res of Veterinary Science* (2002) 72, pp223-7

¹² 'Experimental induction of hepatic lipidosis in cats' (1994) *American Journal Veterinary Research*, Vol 55, No 9, pp 1291-1302

¹³ 'Amino acid interaction with taurine metabolism in cats' (1992) *Taurine*, (Plenum Press, New York)

¹⁴ 'Ileal caulation and associated complicated in dogs' (1996) *Laboratory Animal Science*, Vol 46, No 1, pp 77-80

¹⁵ 'Comparison of continuous versus intermittent enteral feeding in dogs' (1996) *Journal of Veterinary Internal Medicine*, Vol 10, No 3, pp 133-138

¹⁶ 'Evaluation of the White-Coat Effect in Cats' (1999) *Journal of Veterinary Internal Medicine*, Vol 13, pp 134-142

¹⁷ Comparison of colonic transport in robust & sensitive dogs, (1997)

¹⁸ 'Effect of Increased Dietary Protein and Decreased Dietary Carbohydrate on Performance and Body Composition in Racing Greyhounds' (2001) *American Journal of Veterinary Research*, Vol 62, No. 3, pp 440-447

¹⁹ *AJVR* 63, 4, 617-22

²⁰ *J Small Animal Practices* 42, 433-8

²¹ 'Assessment of oro-caecal transit time in cats by the breath hydrogen method: the effects of sedation and a comparison of

definitions' (1996) *Research in Veterinary Science*, vol 60, pp 243-246

²² American Journal of Veterinary Research (2003) 64, No. 3:310-5

²³ 'Protein and calorie effect on progression of induced chronic renal failure in cats' (1998) *American Journal of Veterinary Research*, Vol 59, No. 5, pp 575-582

¹⁷ Developed by TNO Nutrition Research (Zeist, the Netherlands).

**For more information please contact:
The British Union for the Abolition of Vivisection
16a Crane Grove
London, N7 8NN
Tel: 020 7700 4888
Fax: 020 7700 0252
E-mail: info@buav.org
Web: www.buav.org**

Updated: December 2005