



Rebecca Hosking and Tim Green, makers of the highly respected 'A Farm For The Future' film screened on BBC2 in 2009, turn their attention to the health of our domesticated dog population.

So much of permaculture design is about recognising the obvious, but in our muddled up world of advertising, self-delusion and false promises, this is, bizarrely, seldom *obvious*. A wake-up call is usually required. Being from farming stock, ours was the sudden realisation of the madness of fossil fuel dependent agriculture and the rapidly approaching limits to growth. Our search for solutions led us to discover holistic farming and then took us to permaculture.

With our newly discovered permacultural mindset, we'd sit and apply the rules of ecology and natural systems to increasingly broad subjects; the ecology of the forest and veg patch could apply to an entire farm, the whole of agriculture,

social organisations, trade networks, politics... The applications are endless. Yet as we sat by our computers researching, theorising and designing, our new best friend, a border collie, lay at our feet somehow immune to our new found common sense.

Above: Young Dave learning to herd. The sheep recognise him as a type of wolf, so why don't we?

Right: Tim Green and Rebecca Hoskins.



The Rules of the Wild

It was clear to us that our herd of cattle were really a herd of oddly patterned wild ox and our hedge-lined fields were open scrub woodland arranged roughly into rectangles. So why couldn't we see that our young collie, Dave, was just a wolf in dog's clothing?

Every breed of dog from a Pekinese to a Great Dane is a domesticated strain of grey wolf. They may differ dramatically in appearance but inside they are still wolves and the rules of the pack still apply. In the wild, wolves live in the way that suits them best and we should never fall into the trap of thinking that a life with us primates is an improvement. We are merely a less-than-perfect substitute for the pack. When we take on the responsibility of being a pet owner we take on all the responsibilities of the pack leader and, for the well-being of our dogs, we should strive to reproduce (as best we can) everything a wild pack provides.

The absolute essentials are love, shelter, exercise, water, discipline and healthy food. Every good pet owner provides the first five without a second thought. Getting the sixth one right, however, requires considerably more than a second thought.



A Healthy Diet

We all live busy lives, so understandably we delegate the responsibility of devising a healthy diet for our animals to the specialists. As most of us are on a budget, this means we trust the pet food manufacturers with their teams of scientists and the global purchasing power to source nothing but the best ingredients to formulate the perfect balanced diet for 'all your pet's needs'.

However, your pet's health is no more the principal concern of the big pet food manufacturers than human health is the main concern of a chain of burger bars. Make it cheap, sell lots, make a profit... This isn't a conspiracy theory, it's the prevailing business model.

Like the majority of pet owners, we trusted the pet food people and the 'wholesome meaty goodness' of our dog's food... until he got sick. Poor Dave's problems were serious and complicated. At only 11 months old he began having huge life-threatening seizures. Dogs can have seizures for many reasons, so we set about trying to identify the cause and started on a journey of discovery that went far beyond canine epilepsy.

We knew that dogs could have health problems but we were in no way prepared for the sheer range and ubiquity of canine illness. Dogs everywhere, it seems, have diseases of the joints, bones, heart, liver, kidney, immune system, eyes, ears, skin, teeth, gums, digestive system, nervous system; not to mention cancers and behavioural disorders. These conditions are not limited to aging dogs or those inbred for the showroom; sturdy mongrels and young pups are suffering as well.

Does What It Says On The Tin?!

We began asking whether this had anything to do with the commercial food we are now feeding our pets. I set about deciphering words like 'extracts of vegetable origin', 'meat derivatives' and 'oils' on a kibble packet and, after a few hours of code breaking, I had a list of ingredients in plain English.

We'd been feeding Dave a cocktail of low-grade cereal grains, miller's chaff scraped off the mill floor, woodchip, and diseased meat mixed with the old fat from restaurant fryers, all preserved with powerful anti-oxidants (banned in the UK for human consumption) proven to cause cancer, liver failure and neurological damage amongst other ailments. This wasn't some bargain basement food either; this had Her Majesty's Royal Seal stamped on the packet!

Euthanised Snacks – North America-Style

In North America 'mammalian meat and bone meal' – a key animal component in pet food – is known to contain the ground up remains of euthanised cats and dogs – collars, name tags, microchips and all – horrific!

We couldn't say if this junk food diet was the cause of Dave's illness but it most certainly wasn't helping. So what to do? The first reaction is to search around for a better brand of food. 80% of the world's pet foods are manufactured by just four companies – Mars, Nestle, Proctor & Gamble and Colgate-

Left: The natural diet for a wolf is raw meat. To maintain health, they will eat almost all of a kill including bone, skin and the internal organs.

Palmolive – so you can be fairly sure that most brands are much of a muchness. There are a few independent companies left that make a better pet food but this is still processed food.

The Natural Diet

We were determined to finally apply the rigours of ecological thinking to our dog's diet and bring it as close to a wild-type diet as we could manage. The glaringly obvious clues are in a dog's physiology and anatomy. A dog's carnassial teeth are one of its defining features; these have evolved over countless millennia to shear raw meat off the bone and crush them into digestible chunks.

It has a thick muscular gut to protect itself from bone shards, and very strong stomach acid to dissolve bone and destroy the pathogens found on scavenged meat (as well as antiseptic saliva). Dogs can manufacture their own vitamin C, which is deficient in a pure meat diet and their whole digestive system extracts energy from animal protein not carbohydrates. Unlike you, your dog is very much a carnivore.

The observation of wild canine behaviour is the other great source of information on how to feed our domestic friends. For instance, you don't see wild dogs cooking their food. The simple act of cooking meat tends to destroy much of its nutritional value. Obviously we're not suggesting this is why wolves don't have barbecues, merely that the way pet food is produced is totally at odds with their evolutionary history and dietary requirements.

After a pack has made a kill, the first thing they eat is the stomach. This is a very important component of the diet as the stomach of a herbivore contains large amounts of partially digested vegetable matter along with a host of digestive enzymes a carnivore cannot produce itself.

Plant matter is very rich in various vitamins and minerals but members of the dog family are unable to digest them in their natural state. The herbivores' gut does the work for them but also breaks down phytic acid which is found in most vegetable matter and which dogs and other carnivores are unable to digest. Phytic acid is referred to as an anti-nutrient and actually binds with essential vitamins and minerals in a dog's stomach and prevents them being absorbed. As an aside, the heaviest source of phytic acid is cereal grains and soya which both make up the bulk of commercial dog food.

Replicating the 'Wild Diet'

What to do with all this information is not as easy as you may think. We can't send our dogs out to kill a deer and feast on what they want so we have to compromise somewhere. Effectively replicating a wild diet is a task not to be taken lightly and I urge you to exhaustively research the options yourself before you start. The most useful resources we found to guide us are listed at the bottom of this article.

Living on a farm, we had access to a fair few rabbits, so for us that was a good place to start. As far as we could tell a small whole raw rabbit contained just about everything Dave needed in all the right proportions: guts, pre-digested vegetable matter, fur, bones, muscle tissue, organ meat, all perfectly balanced for a small carnivore. Feeding time was suddenly enjoyable and the entire bunny was demolished. Occasionally we'd throw him a reasonably fresh road-kill pheasant, which went the same way as the rabbits.

Even on a farm rabbits aren't always available so we'd fill the freezer when we could

Right: Dave finishes off the remains of a fresh road-kill pheasant. These along with rabbits, green tripe, hearts, livers and kidneys formed the basis of his new diet.

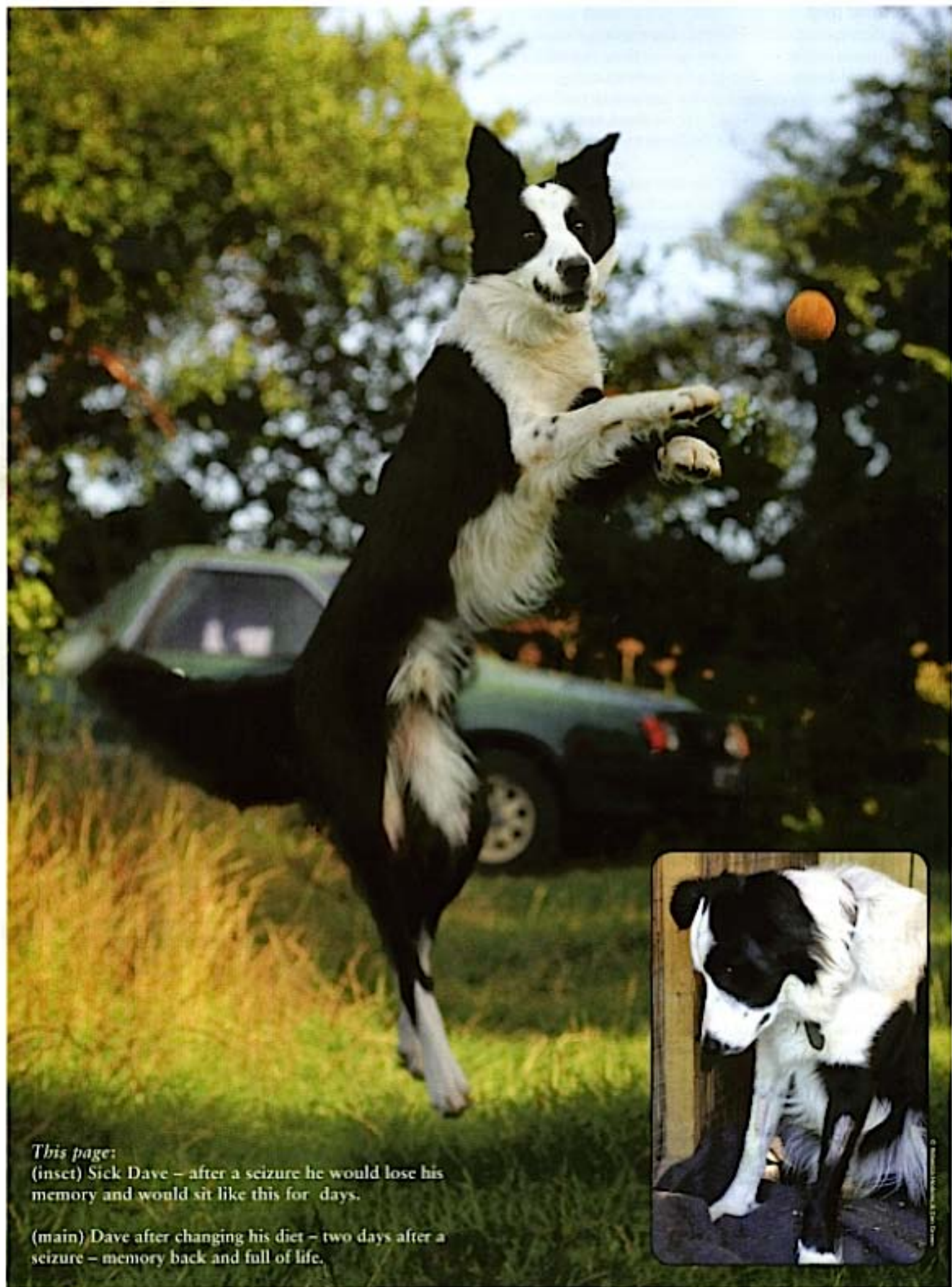
(paunches frozen separately) and had a stack of frozen meaty lamb bones courtesy of the local organic butcher. Then finally – and this isn't for the faint hearted – we'd occasionally pop down the local slaughterhouse and pick up a couple of complete sheep paunches that the slaughterman was more than happy to part with. We cut up the stomachs into meal size portions and froze them in pots with some of the lovely grassy gravy from inside. This is known as green tripe and really is magic food for dogs; you'll be pleased to know it is also available commercially, pre-frozen. The only things we ended up paying for were additional rabbits from a local shooter and a few lamb hearts, livers and kidneys from the butcher.

The Effect

So did this diet cure Dave? No, sadly it didn't. Dave's condition was progressive and we simply ran out of time. That's not to say the dietary change was a failure, far from it. In the three months we had Dave on a wild-type diet we saw some remarkable improvements in his overall health and condition.

Within days his rather manic behaviour had stabilized and he became a much more obedient, attentive dog.





This page:

(inset) Sick Dave – after a seizure he would lose his memory and would sit like this for days.

(main) Dave after changing his diet – two days after a seizure – memory back and full of life.

Also within days his coat became super glossy and he completely lost that dog smell we assumed was normal. His teeth became pearly white and any signs of gum disease and bad breath disappeared. This is actually very important as tooth and gum problems are the single commonest disease in domestic dogs and are the precursors to a whole host of secondary ailments and untimely deaths. The reason his dental condition improved so drastically was the chewing of tough raw meat, bones and fur. These are nature's toothbrushes for wolves and wild dogs.

Other things we noted were that his mild skin allergies cleared up after a week, his eyes became brighter, gums became noticeably darker (indicating possible anaemia before) and, for those of you interested in such things, his poos were transformed into small, hard pellets with next to no odour and absolutely no affinity for the soles of your shoes. For a while, even the severity of his seizures was reduced and he recovered from them in hours rather than days.

With all the vet bills for tests, medications and emergency treatments, our dear little Dave was as costly as a short university course, but what he taught us was priceless. We may have lost him but every dog we have from now on will be much happier and healthier as a result; and if you can apply the same detailed thinking to your pets as you do now for your permaculture garden, then so will yours 🌱

After retiring from full-time film-making Tim and Rebecca have quietly continued to live and work on their family farm. By studying the rules of nature around them, rediscovering some of the lost arts of farming and experimenting with the latest advances in ecological agriculture it is their aim to create a resilient farm that is both ecologically and economically sustainable. They both fully admit it is a lifetime's work. As an aside and hopefully a happy ending, they have a new working border collie puppy on the way – he will be called Wilf. Tim and Rebecca will be travelling up-country to collect Wilf at the end of October.

Resources

www.ukrmb.co.uk

Invaluable yahoo forum for fledgeling raw feeders

www.dogfoodproject.com

www.rawmeatybones.com

www.dogtorj.com

www.rawfeed.com

www.ukrmb.co.uk

www.truecarnivores.com/greentripe.shtml

The Complete Herbal Book for the Dog by Juliette De Bairacli Levy; second-hand copies available from Amazon in variable condition, from £4.67 - £25.00.

The Complete Herbal Handbook for the Dog & Cat by Juliette De Bairacli Levy; second-hand copies available from Amazon in variable condition, from £8.45 - £27.99.



Weaning Your Dog Off Commercially Produced Food

If you decide to wean your dog off commercial food there are some very important things to remember:

1. Do your research – there is a minefield of information out there, some good, some bad. Triple read, double check and cross reference everything. You are the one ultimately responsible and this is the welfare of your best friend we're talking about. If you're not certain then consult a holistic vet or canine nutritionist.

2. Beware the human food chain – your dog can deal with a lot of bacteria that would be harmful to us, but our industrial meat chain can culture pathogens dangerous to your dog. Select meats and bone wisely and know where they come from.

3. Never feed your dog cooked bones; they could splinter and rupture the gut.

4. Avoid bones with sawn sharp edges. Bones broken at the joints are much safer.

5. Don't feed 'bite-size' bits of bone or carcass, these could be a choking hazard. As a rule of thumb go for something the size of your dog's head.

6. Don't rush it – your pet may have been on junk food for a while and a change to a healthier diet could come as a bit of a shock to their system. Make the changes gradually.

7. Do even more research – the Resources at the end of this article were a great help to us (be sure to study the FAQs).