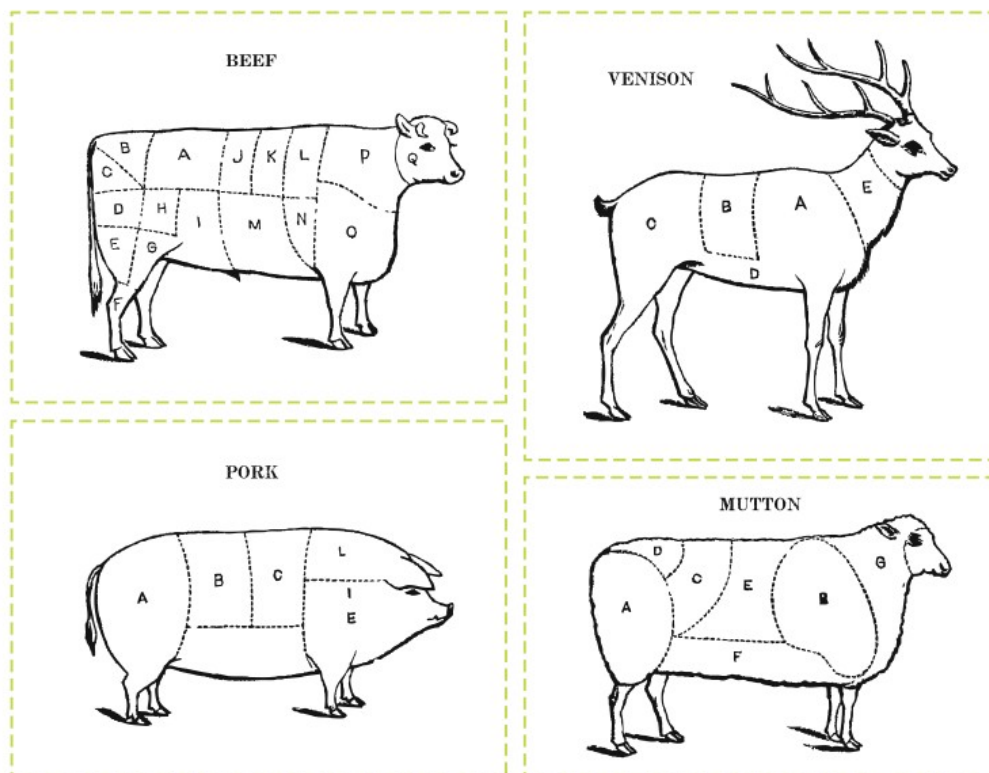


A Pound of Flesh

A survey of 1202 Australians about whether they're vegetarian or vegan and what their attitudes to animals are.



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1 Preliminary

Background

The survey was conducted by phone from 21 to 23 August 2009.

Its goal was to find out:

- 1) how many vegetarians and vegans there are in Australia
- 2) people's attitudes to animals.

The survey was run by Newspoll Sydney with a random, representative sample of 1202 people across Australia. Further details about how it was conducted are provided in section [5 - Method](#).

The survey was run for the Vegetarian/Vegan Society of Queensland. Questions were formulated by the Society in conjunction with Newpoll.

Voiceless, the animal protection institute, funded the survey with a generous contribution from Bio-Distributors in Tasmania.

Definitions

Vegetarian - Someone who doesn't eat animal flesh of any kind - including fish and other water animals - but eats milk products and/or eggs. More loosely, a vegetarian is simply someone who doesn't eat animal flesh - that is, s/he may or may not eat milk products/eggs.

Vegan diet - A diet free of animal flesh of any kind - including fish or other water animals - as well as milk products or eggs.

Vegan - Someone who, out of concern for animals, avoids using animal products for food, clothing or other purposes.

Note: Being vegetarian out of concern for animals poses a conflict, since animals used to obtain milk and eggs often suffer considerably and are normally killed at the end of their productive lives. Male chicks are also typically killed as part of the egg production process.

5 Main Capital Cities - Sydney, Melbourne, Brisbane, Adelaide, Perth.

Introductory Notes

Totals may not add to 100% due to rounding.

The language in the survey uses terms that

are in common use, some of which mask their relation to animals. Newpoll recommended using these terms, as they're clearly understandable for most people.

The Society accepts this, but not what they imply: that animals are property to be used for whatever purposes are legal. The terms don't reflect that animals are creatures with their own lives. Instead they obscure animals, reducing them to commodities.

For example, the flesh of animals, typically land animals, used as food, is referred to as 'meat.' Mother's milk meant for very young animals, usually calves, but used as human food instead is often called 'dairy.' Live animals intended for use as food are 'livestock.' Water animals used as food are 'seafood.' The treated skin of animals, usually cows, used for a range of purposes such as shoes and clothing, is 'leather.' The fur of sheep is 'wool', also used for a variety of purposes such as clothes.

The survey questions also use the expression 'vegan lifestyle.' An ethical commitment is at the core of being vegan, however a lifestyle doesn't necessarily have an ethical component eg 'party lifestyle', 'outdoor lifestyle.'

In this sense it may have been clearer to just refer to being vegan, or perhaps a vegan philosophy or approach.

Given our sample size of 1202 adults and an estimated adult population of 16,364,000, we can be 95% certain that the results for the full sample (of 1202 people) are within + or -3%.

The error range is higher for the various sub-groups such as men, women and age ranges, and varies up to 7%.

When comparing two groups, however, such as men and women, only statistically significant results have been reported - that is, results outside error ranges.

2 Summary

This report has a dual purpose:

- 1) to present survey results of
 - a - how many Australians are vegetarian or vegan
 - b - what their attitudes to animals are and
- 2) to reflect on these results.

The survey was conducted by phone from 21 to 23 August 2009 by Newspoll Sydney with a random, representative sample of 1202 adults across Australia.

Number of Vegetarians and Vegans

The survey found that 5% of Australians said they were vegetarian while 1% said they were vegan.

Though 5% of people said they were vegetarian, only 2% actually ate a vegetarian diet. This may mean they ate a vegetarian diet most of the time, or that they have a misunderstanding of what a vegetarian is.

A vegetarian is someone who doesn't eat animal flesh of any kind - including fish and other water animals - but does eat milk products and/or eggs.

Of the 1% of people who said they were vegan, only one person actually ate a vegan diet. The rest ate animal flesh, milk products or eggs at least some of the time.

The single person who ate a vegan diet, a female, also avoided using animal products generally eg clothes or shoes made of leather. That makes her a genuine vegan: someone who avoids using animal products for food, clothing or other purposes out of concern for animals.

This means around 0.06% of the Australian population are vegan. Based on a population of 16,364,000 people aged 18 and over this works out to be about 10,000 people.

What People Do

79% of Australians buy products made from animal skin (leather) or sheep fur (wool).

68% of Australians visit zoos, aquatic parks or aquariums. 40% attend or watch events like dog racing, horse racing, the circus or rodeos.

43% of Australians avoid buying products tested on animals.

What's Acceptable and What Isn't

99% of Australians are against cruelty to animals.

80% of Australians think it's unacceptable to test cosmetics on animals.

47% think testing medicine on animals is unacceptable, while 48% think it's ok. 52% think it's unacceptable to conduct other types of research experiments on animals.

46% of Australians are against breeding animals for pet shops, although 50% of people find it ok.

The Vegan Diet And Animal Farming

69% of Australians believe around 500 million farm animals are killed every year.

54% of Australians believe that vegan diets can be healthy.

53% of Australians don't think the livestock industry causes serious environmental problems, 38% think it does, while 8% don't know.

Reasons To Become Vegan

Overall, 56% of Australians say there are one or more things that would encourage them to become vegan. These are:

- evidence that many farming practices cause stress and pain for millions of animals every year (36%)
- evidence they can be healthy on a vegan diet (35%)
- evidence that being vegan is better for the environment (31%)
- more vegan menu items in cafes or restaurants (25%)
- being vegan costing less than their current lifestyle (23%)
- family or friends that are vegan (20%)
- more vegans in general (17%)

Farming Practices

86% of Australians think keeping egg laying hens in cages for their entire lives is unacceptable.

74% of Australians think castrating animals without anaesthetic is unacceptable.

72% of Australians think killing male chicks in egg production is unacceptable.

47% of Australians think making cows pregnant every year and taking their calves from them to obtain milk is unacceptable.

Discussion

Animal industries worldwide use and kill over 130 billion animals each year for food, clothing, experiments, profit and other reasons.

Food animals, for example, are not only killed by the billion for their flesh, but male chicks are ground alive or gassed in egg production because they can't become egg laying chickens and aren't profitable to raise for flesh. Cows are made pregnant every year, and their calves are taken away so people can get their milk.

Can exploiting animals this way be justified?

If we say yes, since humans are biologically also animals, would we be justified in exploiting other humans?

On the whole, people would say no. Why? On one level because we see human life as sacred, so allow people to be free and follow their interests (provided they don't harm others).

On another level, we're aware that people can feel pain, so don't want to intentionally make them suffer.

But these things are the same for other animals.

They aren't rocks, pieces of wood, or sheets of steel. Like us, they have feelings. Like us they experience pain.

It's logical to include them in a group with us, as fellow animals, and to regard their pain as important. Especially given that 99% of Australians are against cruelty to animals.

How can we justify using animals for our own purposes when, unlike rocks, they feel pain like us, and have interests like us? (Although their interests may be quite different to ours.)

Do we need to exploit them to survive?

Health

Most Australians believe that vegan diets can be healthy (54%).

Dietary authorities such as the American Dietetic Association agree that vegan diets can not only be healthy, but may offer protection against certain diseases and health problems such as ischemic heart disease, high blood pressure, hypertension, type 2 diabetes, overweight and cancer.

So there's no need to eat animal products to be healthy.

Animals Used for 'Entertainment'

Clearly we don't need to use animals for 'entertainment' to survive. Yet when 'entertainment' is the primary purpose in using animals, it follows that their welfare is secondary.

For example, 80-90% of racehorses suffer from gastric ulcers, and when owners can't afford to keep them, or horses aren't profitable, they often end up at a slaughterhouse.

The same applies to greyhounds used for racing. Thousands of animals that have been badly injured, aren't suitable for racing, or are considered too old to race, are killed.

Dogs also are used in experiments, and many are sent to Asia to race where activists say they end up as food.

Circuses constantly keep animals moving from place to place, keep them in small enclosures, and prevent them being part of a regular social group. They often display abnormal behaviour.

In rodeos, when animals are in chutes they may have electric prods used on them, be hit, beaten and whipped and have their tails pulled and twisted.

They may try to escape their chutes, but once out can take bad falls, slam into fences and break their legs and backs.

In one event, rope and tying, calves are released from chutes and roped. Once they reach the end of the rope they come to an abrupt, often violent, stop - called being 'clotheslined.' This can jerk them into the air. Riders then dismount and throw the calves on their sides. Calves are often injured, suffering broken legs, necks and internal haemorrhaging.

While the Australian Professional Rodeo Association claims yearly injury rates are around 0.08%, witness reports suggest the rate is around 200 times higher.

Zoos share problems similar to circuses: confinement and limited social groups.

In many cases enclosures are hundreds of times smaller than animals are accustomed to in the wild. In some cases they're thousands of times smaller.

Marine animals are subject to the same problem - dolphins, for instance, used to swimming many kilometres in the ocean.

Other usual behaviour such as climbing, exploring, taking part in social groups, scavenging, foraging and selecting partners may also be limited. Without enough mental stimulation, roughly 80 million animals worldwide engage in neurotic behaviour such as bar biting, head-bobbing, pacing, swaying, self mutilation, and even mothers rejecting and killing their young.

While the mental health of animals in captivity suffers, their physical health may as well.

Animals also often die because keepers aren't aware of how to properly care for them.

Zoos and aquatic parks may claim to help conserve species. However, in 1994, *The Zoo Inquiry* found that only 2% of land vertebrates were part of worldwide zoo breeding programs. It also found only 1,200 out of 10,000 zoos were registered for captive breeding and wildlife conservation.

Most animals such as lions, giraffes, elephants and tigers are 'crowd pullers' which increase attendance and therefore income.

Similarly, the *Aquatic Zoos* report of 2004 found that only around 3% of threatened fish were on display in UK public aquariums. It also looked at 13 restaurants, cafes or food kiosks in the aquariums. Of those, 85% had fish or aquatic invertebrates on the menu that were commonly displayed in aquariums. In 62% of places, these animals belonged to threatened species.

The report also found that around 99% of animals weren't a part of any official conservation breeding program and that none are released for conservation reasons (though they are for other reasons eg too many animals).

Animals often die because keepers aren't aware of how to properly care for them.

Worldwide, zoos have over 600 million visitors

a year, so they have a wide scope in influencing how people think of animals. However, the message they send is that it's ok to keep animals captive as though they're our possessions and that the animals they keep captive don't mind being there.

Keeping elephants in zoos is roughly 50 times more expensive than keeping an elephant and several other animals in protected natural habitat. Millions of dollars are spent on zoos, aquariums, marine parks and the animals to put in them all, when a more direct and effective option would be to protect natural animal habitats.

In terms of education value, nature documentaries show animals in their normal surroundings, are far cheaper, and are likely to provide more detailed information.

Animal Experiments

While using animals for food and 'entertainment', then, are both unnecessary and cruel, what about testing on animals for human benefits?

Millions of animals are tested on around the world every year, in painful, sometimes bizarre and even macabre experiments.

Yet results of experiments are often misleading. For instance, while animal tests indicated the arthritis painkiller Vioxx was safe, it was withdrawn from sale in 2004 after causing roughly 320,000 heart attacks, strokes, and cases of heart failure around the world.

Similarly, thalidomide was also withdrawn from sale in 1961 after causing thousands of birth defects around the globe.

Humans have fundamentally different physiologies from other animals, so tests on animals can't easily be applied to humans. Sheep, for example, can eat large quantities of arsenic, though it's a poison for humans. Dogs, rats, mice and hamsters can all survive without Vitamin C, while humans would develop scurvy.

The US Federal Drug Administration says that 92% of drugs found safe and effective in animal tests turn out to be toxic and/or inefficient in human trials. Of the 8% of drugs that are approved for release, more than half are withdrawn or relabelled due to severe side effects.

Even if animal testing didn't produce

misleading results, it's hard to conceive that the ingenuity and brilliance of humans can't devise tests that don't require the sacrifice of millions of animals a year.

Already testing technology that doesn't use animals is accurate and much faster. The US Environmental Protection Agency took 30 years to thoroughly test 2,500 possibly toxic substances using traditional methods. However, thousands of chemicals can now be tested at once using human cells put into more than 1500 small test tubes on a small glass tray.

Breeding Animals for Pet Shops

50% of Australians think it's acceptable to breed animals for pet shops.

They're likely unaware of the cruelty involved in breeding animals for pet shops, and the waste of life that results.

According to the Australian Companion Animal Council, in 2009 people lived with over 38 million other animals. Australians buy around 1 million dogs and cats alone each year, yet about 250,000 end up being euthanised the same year. This is about 685 animals a day, or more than one cat or dog every 5 minutes (in an 8 hour working day).

Not only is this a complete disregard for life, the situation is absurd. Animals bred to be sold create a crisis of unwanted animals that shelters and other agencies are left to deal with, in many cases by euthanasia.

Yet despite this, animals are bred in large numbers every year. People who don't desex their animals, or desex them later than necessary, can contribute to the problem of unwanted, homeless animals.

Female cats, for example, can already get pregnant at 4 months old. A Victorian survey showed that over 10% of cats have kittens before they're desexed.

It makes no sense to sell animals in pet shops or through other commercial channels eg the paper and internet. Thousands of animals that need good homes are available to people through shelters, pounds or agencies that work on their behalf.

Pet shops commonly get animals from pet mills and backyard breeders.

Backyard breeders may be individual owners or small operations. Both breed despite the

glut of animals, and often without regard for their welfare.

In the case of individuals, they breed for various reasons: their animals get pregnant before being desexed, owners want their children to experience birth, they think it's unfair to desex their animals and so on. In the case of small operations, breeding is done for profit with little concern for the welfare of animals.

In December 2008 a couple living near Townsville were raided by the RSPCA. Inspectors seized over 650 animals: 113 dogs, 1 cat, 488 rats, 73 mice along with several guinea pigs and birds. They also found a large freezer full of frozen puppies, guinea pigs, rats and fowl.

Animals were kept in small cages on top of each other in the couple's shed. Many of the dogs had little or no water, needed vet treatment for eye, ear and teeth problems and had fur matted with faeces and urine.

All needed several baths to get rid of their stench and they required grooming to remove the matting, as well as to cut overgrown nails.

The couple were taken to court where the RSPCA gave evidence that they were selling puppies online. The couple pleaded guilty to 131 charges under the *Animal Care and Protection Act 2001*.

Pet mills, or farms, are like backyard breeders that breed for profit, except they're larger operations. They sell their animals to all the places backyard breeders do, as well as overseas buyers. Puppy farms may also use a house as a 'shop front' so people don't see where animals are bred.

Animals are often kept in poor conditions where welfare follows a long way behind profit. They can be continually mated and permanently kept in cages. They may never be let outside their cages to exercise, play, have companions, or go to toilet.

Typical problems in pet mills include overbreeding, inbreeding (mating close relatives), not enough food, little or no veterinary care, poor hygiene, and housing that doesn't meet the physical and behavioural needs of animals. Death rates are high.

Animals often have long-term health and/or behavioural problems as a result of poor

housing conditions, poor maternal nutrition and lack of proper socialisation during the first few weeks of life.

Pain and Intelligence

Animal welfare laws around the country acknowledge that animals feel pain, as does the *Australian code of practice for the care and use of animals for scientific purposes*.

Even the *National Code of Practice for Recreational and Sport Fishing 2001* acknowledges that fish suffer.

Some people might object and agree that while animals feel pain, and it's not necessary to exploit them, exploiting them isn't that much of an issue since they aren't very intelligent.

Given pain in animals is similar to the pain we feel, however, intelligence isn't a relevant issue. If it was we could exploit babies, the mentally disabled and even the less intelligent.

Even so, while intelligence is peripheral to how we should treat other animals, is it even really the case that other animals aren't intelligent?

In 2007, research by Sana Inoue and Tetsuro Matsuzawa from Kyoto University in Japan found that adolescent chimps did better than adult humans at a particular test of recalling numbers.

The best performing chimp, Ayumu, who can buy snacks from vending machines, scored 76% in one test, while humans averaged 36%.

Chickens live in stable social groups that demonstrate sophisticated social behaviour. They recognize each other by facial features and can remember more than a hundred other chickens. They have over 20 cries they use to communicate, including alarm calls depending on whether predators are approaching by land or sea. They're good at solving problems and understand that items removed from sight continue to exist - something that small children can't do.

Fish are socially intelligent, have stable cultures, and cooperate to check on predators and catch food. They recognise members of their shoal, monitor the prestige of other fish, use tools, and build complex nests and bowers.

They're quick learners who can teach each other things, and can display impressive

memories. The Australian crimson spotted rainbowfish can remember how it escaped from a net 11 months later - the human equivalent of 40 years.

Examples of intelligence spread throughout the animal kingdom. This doesn't mean animal intelligence is the same, but just as men are different to women, we nevertheless extend the idea of equality to both sexes.

So while our treatment of animals should depend on their capacity to experience pain, rather than their intelligence, even if being unintelligent was a valid reason to exploit animals, our examples show that animals don't even meet this criterion.

The Environment

31% of Australians say that evidence that being vegan was better for the environment would encourage them to be vegan.

Just over half of Australians, 53%, though, don't think animal farming causes serious environmental problems.

However, the report *Livestock's Long Shadow*, released in 2006 by the Food and Agriculture Organization of the United Nations, tells us that animal farming is one of the top two or three major contributors to the most serious environmental problems in the world. The report says that animal farming is probably the largest source of water pollution and at the same time uses over 8% of the world's water, mostly for irrigation of feedcrops.

In Australia the amount of water the sector uses is even greater: 15% of our water supply, excluding dairy farming. Dairy farming adds another 12%, making a total of 27% of the water used in the country. While this is a significant amount, it excludes water used in other parts of the animal industry eg slaughterhouses. Brisbane's Canon Hill abattoir, for instance, uses more than 580 megalitres of water a year.

Animal farming is the major reason for deforestation in the world, and so may also be the main reason for reduced biodiversity. It's also one of the key forces in land degradation, pollution, overfishing, sedimentation of coastal areas and enabling alien species to invade.

In Australia, 300,000 hectares of land were cleared in the year to 2007. Most of this was in Queensland, which cleared over 230,000 hectares of land - an area equivalent to the ACT.

More than 90% of this was for pasture. The World Wildlife Fund estimated that 20 million birds, reptiles and mammals died as a result of this clearing.

Grazing degrades large areas of land, with animal farming accounting for over 70% of the globe's agricultural land and 30% of its surface area. In Australia grazing uses 47% of the country's total area while only 3% is devoted to crops.

Conclusion

Unless we ignore the spark of life animals have and reduce them to commodities like a box of Cornflakes or a pair of shoes - which animals are often made into - we can't justify exploiting them.

Other animals are on the same continuum we are.

We acknowledge other humans as individuals with their own interests and own capacity to feel pain. We hold to the idea that unless they do something to harm the interests of others, we leave them free to follow their interests.

Doesn't it follow that as living creatures, unlike rocks and steel, other animals deserve the same consideration? To be treated as individuals with their own interests and their own capacity to feel pain?

The animal industry is wreaking global environmental havoc causing extensive water pollution, deforestation, land degradation, devastation of fish populations, and reduction in biodiversity.

It also has a bearing on global food production. While cereal is the most important source of food in the world, around 1/3 of the world's total crop is fed to animals.

Going on figures from the late 1990s, farmers worldwide produce an average edible crop harvest of 4,600 kilocalories per person each day. Losses following harvest, such as transport and storage, mean around 2,800 kilocalories are available for supply. Of the 1,800 kilocalories lost to this point, 2/3 goes into animal feed.

On average, it takes around 10 times more energy to produce 1 kilocalorie of animal protein than 1 kilocalorie of corn. It also takes about 8 times more water to produce 1000 kilocalories of animal products than the same energy value of plant food.

Further, many plant foods use water more efficiently to produce the same amounts of protein and other nutrients. For example, using the same amount of water, potatoes produce 15 times more protein than cow flesh. Milk produces 40 grams of protein for every kilolitre of water, however wheat returns 74 and corn 77. Even rice produces 49 grams per kilolitre.

Despite this, billions of dollars across the world go into subsidies for animal foods.

Yet vegan diets use about 1/5 of the land that omnivore diets require.

Because of the cruelty involved in exploiting animals, its tremendous scale, and the many advantages a vegan diet offers the world, it not only makes sense for people to become vegan, but cries out for us to take advantage of its benefits.

Animal use is one of the key issues of our time. The loss of life that results from it in one year is far greater than any human tragedy - hundreds of times greater than the the number of people that died in World War II.

Yet becoming vegan has the potential to have an enormously positive impact on the planet. From eliminating the death of countless animals, to increasing production of food using less land, less energy and less water. Drastically reducing deforestation and water pollution while introducing an ethic that encourages us to be more careful in dealing with each other and our planet.

The 'technology' of being vegan offers wonderful benefits: it's simple, doesn't cost anything, can be implemented by anyone, and has revolutionary global consequences in terms of animal use, energy, land, water conservation, food production efficiency, pollution and so on.

Partly because of lack of knowledge, we abuse our power over other animals and condone their widespread abuse. Like dictators we dominate them and use them for our own ends. That we do this with the notion of abusing them 'humanely' clouds our responsibility, allowing us to think we can use animals as long as we treat them 'well'. Which, in any case, often doesn't happen.

Would we accept regarding other humans this way? Maybe by pulling their teeth without anaesthetic, but doing it 'humanely'? Or branding them with a hot iron on the

forehead? We consider this an outrage, an insult to humanity.

The same thing is true of animals. You can't mistreat them 'humanely'. A recognition of their lives, that they feel pain, demands that the only real 'humane' way they can be treated is to not regard them as means to our ends. That means being vegan.

While the use of animals for food, sport, entertainment and other purposes is commonly accepted, this doesn't mean it's a logical or even tolerable state of affairs. Numerous practices throughout history were considered acceptable and were even legal, although these wouldn't be considered the same way by modern standards. Slavery was a widespread legal practice throughout human history.

Does that mean it was right?

Even then, slaves weren't routinely skinned. Or used for clothing. Let alone eaten. Yet this is what happens to billions of animals every year.

Is there another way for the 21st century?

The answer is yes: to embrace being vegan.

3 Results

3.1 Are You A Vegetarian or Vegan?

The first question asked people whether they thought they were vegetarian or vegan. They weren't given definitions of these terms, so their answers are based on what they think the terms mean.

5% said they were vegetarian, 1% vegan. 92% said they were neither and 2% didn't know.

3.2 What Do You Eat?

This question asked people what they eat. Their responses were later compared to whether they said they were vegetarian or vegan (in question 1).

- 98% of Australians eat animals (including water animals).
- 98% eat milk products or eggs.
- 94% eat chickens or other birds.
- 88% eat fish, prawns or other water animals.
- 74% eat honey, royal jelly or other bee products.

While 5% of people said they were vegetarian, only 2% actually ate a vegetarian diet. This may mean they ate a vegetarian diet most of the time, or that they have a misunderstanding of what a vegetarian is.

A vegetarian doesn't eat animal flesh of any kind - including fish and other water animals - but does eat milk products and/or eggs.

Of the 1% of people who said they were vegan, only one person actually ate a vegan diet. The rest ate animal flesh, milk products or eggs at least some of the time.

The single person who ate a vegan diet, a female, also avoided using animal products generally eg clothes or shoes made of leather. That makes her a genuine vegan: someone who avoids using animal products for food, clothing or other purposes - out of concern for animals.

This means around 0.06% of the Australian

population are vegan. Based on a population of 16,364,000 people aged 18 and over this works out to be about 10,000 people.

3.3 What Do You Do?

This question asked people whether they take part in certain activities connected with animals.

- 79% of Australians buy products made from animal skin (leather) or sheep fur (wool).

People aged 35+ (83%) are more likely to buy products made from animal skin or sheep fur compared to those aged 18-34 (68%).

- 68% of Australians visit zoos, aquatic parks or aquariums.

People aged 18-49 (75%) are more likely to do this compared with those aged 50 or more (57%).

81% of people with children (up to 17) visit zoos, aquatic parks or aquariums compared with 59% of people without children, suggesting people see these as a good form of entertainment for kids.

- 40% of Australians attend or watch events like dog racing, horse racing, the circus or rodeos.

More men do this than women: 47% versus 33%.

- 43% of Australians **avoid** buying products tested on animals.

Women are almost twice as likely to do this as men: 57% versus 29%.

People 18-49 years old (49%) are more likely to avoid buying animal tested products compared to those aged 50+ (35%)

Many of the people who avoid buying products tested on animals also buy products made of animal skin (leather) or sheep fur (wool) (80%), visit zoos, aquatic parks or aquariums (70%), or watch or attend events like dog racing, horse racing, circuses or rodeos (33%).

3.4 What's Acceptable and What Isn't

This question asked people whether they found various practices involving animals

acceptable.

- 99% of Australians are against cruelty to animals, while 1% aren't sure.
- 80% of Australians think it's unacceptable to test cosmetics on animals, while 17% think it's ok and 4% aren't sure.
- 47% of Australians think testing medicine on animals is unacceptable, while 48% think it's ok. 5% don't know.
- 52% of Australians think it's unacceptable to conduct other types of research experiments on animals. 40% think it's ok and 8% don't know.
- 46% of Australians are against breeding animals for pet shops, although 50% of people find it ok. 4% aren't sure.

In total, 57% of Australians think it's acceptable to test medicine, cosmetics or do other types of research experiments on animals.

Testing Cosmetics on Animals

More women than men think testing cosmetics on animals is unacceptable: 87% compared with 72%.

Testing Medicine on Animals

More women than men think testing medicine on animals is unacceptable: 53% compared with 41%.

59% of 18-34 year olds also find it unacceptable versus 42% for people 35 and over.

51% of people who don't have a university education think that testing medicine on animals is unacceptable, compared to 36% of those who do have university education.

Other Research on Animals

Significantly more women than men think doing other research experiments on animals is unacceptable: 62% compared with 41%.

Breeding Animals for Pet Shops

Once again, more women than men think breeding animals to sell in pet shops is unacceptable: 54% against 37%.

People 50 years or older are more likely to find the practice unacceptable compared to people aged 18-49: 56% versus 39%.

Main household grocery buyers are also more likely to find breeding animals for pet shops unacceptable (51%) compared to those who aren't main grocery buyers (34%).

3.5 The Vegan Diet and Animal Farming

This question asked people about the vegan diet and issues concerned with animal farming.

- 69% of Australians believe around 500 million farm animals are killed every year. 12% think this is false and 20% don't know.
- 54% of Australians believe that vegan diets can be healthy. 38% think this is false. 8% don't know.
- 38% of Australians think the livestock industry causes serious environmental problems. 53% think this is false, while 8% of people don't know.

18-34 year olds are more likely to believe farming animals causes serious environmental problems (51%), compared to people aged 50 and over (31%).

Similarly, 51% of people with a university education are more likely to think animal farming causes serious environmental problems, compared to 34% of people without university education.

3.6 Reasons to Become Vegan

This question asked people what would encourage them to become vegan.

Overall, 56% of Australians identify one or more things that would encourage them to become vegan. These are:

- evidence that many farming practices cause stress and pain for millions of animals every year (36%)
- evidence they can be healthy on a vegan diet (35%)
- evidence that being vegan is better for the environment (31%)
- more vegan menu items in cafes or restaurants (25%)
- being vegan costing less than their current lifestyle (23%)

- family or friends that are vegan (20%)
- more vegans in general (17%)

44% of Australians wouldn't be encouraged to become vegan by any of these.

Environment

While 45% of part time workers say a better outcome for the environment would encourage them to become vegan, only 28% of full time workers and those who don't work share this view.

Animal Suffering

51% of part time workers would be influenced to try a vegan diet if they had evidence of the pain and stress farming practices cause animals, compared to 33% of people who work full time or not at all.

Price

Part time workers (37%) are more likely than full time workers or those who don't work (19%) to consider going vegan if it cost less.

3.7 Farming Practices

This question asked people whether they thought common farming practices were acceptable.

- 86% of Australians think keeping egg laying hens in cages for their entire lives is unacceptable. 12% of people think it's acceptable, 1% don't know, and 1% of people refused to answer the question.
- 74% of Australians think castrating animals without anaesthetic is unacceptable. 22% think it is acceptable, 3% don't know, and 1% refused to answer.

84% of women find this unacceptable, compared with 65% of men.

82% of people from the 5 main capitals find castration without anaesthetic unacceptable, compared with 63% of people from other areas.

- 72% of Australians think killing male chicks in egg production is unacceptable. 24% of people think it's acceptable, 3% don't know, and 1% refused to answer the question.

80% of women find this unacceptable, compared to 63% of men.

- 47% of Australians think making cows pregnant every year and taking their calves from them to obtain milk is unacceptable. The same percentage of people find it acceptable, 5% don't know and 1% refused to answer.

61% of women think this practice is unacceptable, while almost half as many men share this view: 33%.

4 Discussion

but for the sake of some little mouthful of flesh, we deprive a soul of the sun and light, and of that proportion of life and time it had been born into the world to enjoy.¹

Plutarch

4.1 Health

56% of Australians say there are one or more things that would encourage them to become vegan.

36% say the suffering of farm animals is one of these things. However, closely following suffering - and perhaps intertwined with it - is having evidence that a vegan diet is healthy (35%).

A central question about leaving animal products out of the diet is: can you be healthy as a vegan?

54% of Australians think so. Are they right?

The American Dietetic Association's position statement on vegetarian diets that say vegan diets can be as healthy as ones centred around animal products.²

The Dietitians of Canada also say that vegan diets can be healthy.³

The Dietitians Association of Australia agree, although stress that vegans need to make sure they're getting essential nutrients.⁴

In her book *healthy vegetarian eating*, nutritionist Rosemary Stanton, who isn't vegan, or even vegetarian, writes that:

I have always been interested in the many well documented health benefits that occur in people who follow a vegetarian diet. These are often ignored by health professionals. One can only wonder if this is due to a lack of knowledge or a fear of being called a crank... Fears of a backlash from the meat and livestock industry may also prevent some dietitians and health professionals from promoting a vegetarian way of eating.⁵

While there may be a few legitimate concerns about an all plant diet, such as lack of familiarity with it, surely a nation that prides itself on innovation and scientific development wouldn't maintain that the deaths of millions of animals year after year is necessary to deal with these concerns?

We should be able to turn our insight to resolving these problems quickly and deftly.

As law professor and philosopher Gary



Vegan bodybuilder and weightlifter Joel Kirkilis from Victoria
Photo courtesy of Melbourne Vegan Strength, <http://www.veganstrength.org>

In fact, they say vegan diets may protect against certain diseases and health problems such as ischemic heart disease, high blood pressure, hypertension, type 2 diabetes, overweight and cancer.

Francione asks, 'Is there anything that you want to eat that badly?'⁶ That is, are we willing to sacrifice the lives of millions of animals - billions worldwide - to satisfy our desire for animal foods? Do we really believe that the issues involved in switching to a vegan diet -

which can be minor - are insurmountable?

It's difficult to believe that the insight and intelligence of our analysts, engineers, scientists and so on, demand that we eat animal products and we can find no way around this.

If we can be healthy on a plant diet, doesn't it make sense to stop abusing, killing and eating animals for their flesh and other products?

In a country like Australia with such an abundance of plant food, is there any arresting reason to continue to eat animal products?

The dietitian Virginia Messina says that 'The strongest and most compelling reasons for going vegan are based on ethics and animal welfare. But vegans can also feel assured that their dietary choice is a healthful one.'¹⁷



Things You Can Do

* Don't support animal exploitation - be vegan.

* Check the resources in [Further Information](#) if you need help.



4.2 Farm Practices

Animals think and feel and have an interest in their own lives. That animals can suffer is acknowledged by anti-cruelty legislation. Yet farm animals don't have the same protection.

While a person who lived with a cat would be convicted for stunning then slitting its throat and gutting it, this practice is accepted as part of the animal food industry.

Question 5 of the survey asked people if they thought 500 million farm animals are killed in Australia each year. 69% of Australians think so.

The Australian Bureau of Statistics confirms they're right.⁸

However, we've seen from the previous section that eating animal products isn't essential for health. Given that, how can it be justified to end the lives of animals purely for taste or profit? Particularly when cruelty to animals while they're alive - and often when they're killed - is routine?

While very few people regard 'unnecessary cruelty' as acceptable, what's considered 'necessary' covers many cruel practices that take an animal's life for granted. That is, we as humans are arbiters of that life.

Egg Laying Hens In Cages and Killing Male Chicks

Question 7 asked people about various practices common on Australian farms. The first part asked people whether they thought keeping egg laying hens in cages all their lives was acceptable. 86% of Australians don't think so. Yet this is by far the most common way of housing egg laying hens.⁹

As the Victorian Department of Primary Industry points out, around 79% of eggs sold in supermarkets are cage eggs even though they're clearly labelled as such.¹⁰

So there's a discrepancy between what people find unacceptable, and what they do in practice - despite the availability of other types of eggs.

The problem isn't just housing hens in cages their entire lives, though. While this alone provides a dismal life for birds, 3-5 birds share cages, each with less space than an A4 sheet of paper.¹¹

Male chicks in hatcheries are killed by methods such as gassing and being ground alive.¹² This is because they can't become egg laying chickens and aren't profitable to raise for flesh.¹³ While 72% of Australians find killing chicks unacceptable, this practice goes on regardless of whether eggs are from cages, barns or free range.

Chicks commonly have part of their beaks seared off with a hot blade in a painful process that cuts through nerve tissue. No pain relief is provided. The aim of cutting beaks is to reduce cannibalism and pecking as well as lower the amount birds eat while increasing the number of eggs they lay.¹⁴

Cages prevent hens fulfilling natural urges to dust bathe and so keep feathers clean and free of parasites; to stand on a perch to keep their legs strong; to forage and nest; and to lay their eggs in privacy.¹⁵

Konrad Lorenz, the Austrian zoologist, said of hens that 'Their instinctive reluctance to lay eggs amidst a crowd of their cage mates is certainly as great as the one of civilised people to defecate in an analogous situation.'¹⁶

Birds may also lose many of their feathers from rubbing against their cages, and their feet can get tangled in the mesh they have to stand on all day.¹⁷

Over a quarter of birds break bones both while in their cages and through later handling.¹⁸

After a short lifetime of imprisonment in a cage, birds are sent off for slaughter at around 18 months of age to make things like cat food or flavouring for potato chips and stock cubes. They'd otherwise live to be around 12 years old.¹⁹

The typical slaughter process in Australia means birds are shackled - hung upside down by their legs - stunned in an electrical water bath, then killed by an automatic knife that cuts their throat.²⁰ However, not all birds are stunned. Small birds, or those that lift their heads, may miss the water bath. The current may not be sufficient to stun other birds.²¹ Not all birds are killed by the automatic knife either, so birds may be alive before reaching the scalding tank of hot water that loosens their feathers.²²

These are only some of the trials hens face in egg production - they're by no means exhaustive.

The answer isn't to buy other types of eggs - but to replace them altogether. This isn't an odd thing to do, although unusual in the current cultural context. There are millions of people around the world, particularly in India, that live without eggs. There are also many replacements for eggs, both common foods that can be used as substitutes and commercially available products. See [Further Information](#) for details.

Looking from a distance, letting other creatures suffer in the millions for something that can be easily replaced goes far beyond being odd, and becomes a desecration of life.

In making birds egg factories, we reduce their lives to nothing more than the average cost to produce a dozen eggs - at present 95c.²³

Castration Without Anaesthetic

74% of Australians think castrating animals without anaesthetic is also unacceptable, yet this is routine practice in Australia.²⁴ The most common method of castrating bulls uses a knife to cut open the scrotum and take out the testes.²⁵ An alternative is to put a tight rubber ring round the top of the scrotum so that it withers and falls off.

More women than men find castration without anaesthetic unacceptable: 84% compared to 65% of men.

Spaying - desexing female animals - is also commonly done without anaesthetic. The preferred method for cows - the Wills dropped ovary technique - means cutting the ovaries away from the abdomen and leaving them in the body cavity.²⁶

Making Cows Pregnant To Get Milk²⁷

47% of Australians find making cows pregnant every year and taking away their calves to get milk unacceptable. This is a considerably lower percentage than, say, people who find castrating animals without anaesthetic unacceptable. However, more women than men find making cows pregnant and taking their calves from them unacceptable: 61% compared with only 33% of men.

In any case, all these practices are part of the literally inhuman practice of animal farming. Like the example of cage hens, instances of cruelty aren't an isolated part of animal farming, but routine. This is independent of what type of farming system is used: intensive, free range or something in between. They all exploit animals to greater or lesser degrees and typically end up killing them.

Animal interests, and therefore their suffering, freedom and lives - are secondary to our unnecessary desire for animal food.



Things You Can Do

* Don't support animal exploitation - be vegan.

* Check the resources in [Further Information](#) if you need help.



4.3 Animal Skin (Leather) and Sheep Fur (Wool)

79% of people say they buy products made from animal skin (leather) or sheep fur (wool).

Both these practices are an accepted part of culture. Even so, while human skin has been made into leather,²⁸ most people wouldn't dream of walking around with human skin on their feet or bodies in the normal course of affairs. They'd find it horrifying. However, this

is exactly what happens with the skin of other animals. We wear them proudly, and in fact some of the 'finest' clothes and shoes are made of animal skin.

While cows are most commonly used to make leather, the skin of a whole range of other animals is also used such as sheep, goats, kangaroos, ostriches, crocodiles, and lizards.²⁹

While taking sheep fur doesn't cause the immediate death of animals, once sheep are no longer of use to the wool industry they're sent for slaughter.³⁰ While they're lambs, they'll likely be mulesed - have skin around their back end cut off - and have their tails removed without anaesthetic.³¹ Males may also be castrated without pain relief.³² Further, millions of sheep die in field each year for various reasons including fly strike, natural disasters, problems giving birth and exposure to bad weather.³³

Over 10% of the Australian sheep fur market is now ultra-fine fur. Sheep are kept inside in small individual pens and have nylon coats put on them to control their feeding and keep their fur as dust and dirt free as possible.³⁴

Sheep are highly social animals but can't form social groups due to the individual pens. Feed can be minimal and is quickly eaten, frustrating grazing behaviour which would normally take around half the day. Further, movement is confined, animals suffer constant stress, and as a result are more susceptible to illness.

The health and wellbeing of sheep become secondary to our desire for fine quality wool. This is the natural consequence of seeing animals as commodities.

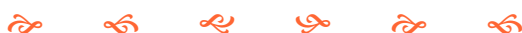


Things You Can Do

* Don't support animal exploitation - be vegan.

* Check the resources in [Further Information](#) if you need help.

* Use plant or synthetic options for clothes and shoes.



4.4 Animal Testing

Ask the experimenters why they experiment on animals and the answer is: 'Because animals are like us.'

Ask the experimenters why it is morally okay to experiment on animals, and the answer is: 'Because the animals are not like us.'

Animal experimentation rests on a logical contradiction.³⁵

Professor Charles R Magel

Millions of animals are tested on around the world every year, in painful, sometimes bizarre and even macabre experiments.

They're shot and blown up by the military, have cancers and other pathologies bred into them, have their skulls sawn open, and are forced into isolation. Many - most? - have no real lives. They're bred for experiments, made to suffer, then killed.

What gives us the right to do this to other animals?

In this survey, 80% of Australians think testing cosmetics on animals is unacceptable. Why? Possibly because they don't think cosmetics are an important enough reason to put animals through pain and death. They might also be aware that we can make safe cosmetics without animal testing.³⁶

In September 2004 the European Union (EU) banned animal testing of cosmetics.³⁷ In March 2009, they further banned animal testing of any cosmetic *ingredients* inside the EU, along with testing complete products or ingredients outside the EU - apart from 3 tests. These are also scheduled to be banned in 2013, resulting in a complete ban on testing and marketing of animal tested products there.

Australians are more divided on other kinds of testing. 47% think testing medicine on animals is unacceptable, while 48% think it's acceptable. 52% think doing other kinds of research experiments on animals is unacceptable.

More people in Australia than the US, though, find testing medicine on animals unacceptable. According to a May 2009 Gallup telephone poll of 1,015 Americans over 17, 57% thought animal testing was acceptable. The previous year's results were almost the

same: 56% thought testing was acceptable.³⁸

Even though 80% of Australians find cosmetic testing on animals unacceptable, 47% think testing medicine on animals is unacceptable, and 52% think other experiments on animals are unacceptable, only 43% of Australians say they avoid buying products tested on animals.

Even so, the proportion of people who aren't happy with testing on animals is a substantial. Are there shortcomings with animal testing?

- a standard toxicity test is the Lethal Dose 50 (LD50) test. This test gives animals an increasing dose of a product til half of them die. Symptoms can include convulsions, paralysis, tremors and bleeding from the eyes, nose and mouth. The test commonly runs for 14 days, at which point all the animals that haven't died are killed. Animals that don't die before being killed are often sick or near death.⁴²
- in the Lifetime Rodent Bioassay (LRB), rats



Electrodes in the brain of a monkey whose skull has been sawn open
Photo courtesy of the International Association Against Painful Experiments on Animals, <http://www.iaapea.com>

The most obvious one is that animal experiments are often severe. For example:

- the US army shot hundred of cats in the head with steel pellets to study their wounds.³⁹
- researchers in Edinburgh injected cellulose or asbestos into the abdominal cavities of 352 young rats, even though this had been done multiple times beforehand. The study was run for over 2 years until almost all the rats died from advanced abdominal cancer.⁴⁰
- research in Victoria trained and anaesthetized 18 marmoset monkeys whose skulls were sawn open so that recordings could be made of their brains while they were given visual signals.⁴¹

are exposed to potential carcinogens for up to 2 years. However, many chemicals cause false positives - cancer in the rats but not in humans - or false negatives - no cancer in rats, but cancer in humans.⁴³

- The Draize test is a standard for eye irritation. Substances are applied directly into the eyes of conscious rabbits. They're held in restraints or wear plastic collars that prevent them from rubbing their eyes with their paws. Rabbits being tested have sometimes broken their backs to break free of their restraints. Rabbits are used because they have large eyes and few tear ducts so aren't able to wash the product away. They're observed for a few hours or days then killed or used in other experiments. During this time effects may range from eye and skin irritation to ulcers, bloody scabs and blindness.⁴⁴

Apart from the often horrendous pain inflicted on animals, there are large differences between species that make results unreliable. For example, we could give botulin to a cat without ill effects, but kill the same cat with lemon juice. Sheep can eat large quantities of arsenic, though it's a poison for humans. Dogs, rats, mice and hamsters can all survive without Vitamin C, while humans would develop scurvy. 5 milligrams of scopolamine would kill a person, yet you could give 100 grams to a dog or cat without injury.⁴⁵

Despite millions of animal tests around the world every year⁴⁶, and the often harsh nature of these tests, testing is inefficient and even misleading:

- By 1963, human studies showed a strong link between lung cancer and smoking. In contrast, almost no tests produced cancer in animals. As a result, smoking health warnings were delayed for years while thousands of people died of cancer.⁴⁷
- Polio spread around the world in the 20th century. A vaccine for it was delayed due to deceptive results from monkeys.⁴⁸
- In 1971 the US declared 'War on Cancer.' Despite billions of dollars spent waging this war, rates of cancer increased until the early 1990s when a drop started to occur, mainly due to reduced levels of smoking. A central problem has been a devotion to animal testing, where key genetic, molecular, immune and cellular differences between humans and animals have blocked useful findings. Mice are the most commonly used animals in testing, yet the testing industry's *Lab Magazine* says, 'Mice are actually poor models of the majority of human cancers.'⁴⁹ Dr Irwin Bross, from the Roswell Park Memorial Institute for Cancer research said that while 'conflicting animal tests have often delayed and hampered advances in the war on cancer, they have never produced a single substantial advance either in the prevention or treatment of human cancer.'⁵⁰
- The arthritis painkiller Vioxx was withdrawn from sale in 2004 after causing roughly 320,000 heart attacks, strokes, and cases of heart failure around the world. While animals tests indicated Vioxx was safe, David Graham, the Associate Director of the US Federal Drug Administration's (FDA) Office of Drug Safety labelled Vioxx the 'single greatest drug safety catastrophe in the history of this country or the history of the world.'⁵¹
- Thalidomide was also withdrawn from sale in 1961 after causing thousands of birth defects around the globe.⁵² Chemie Grunenthal launched the drug in 1957 claiming it was 'completely non-poisonous' and 'completely safe.'⁵³ Yet animal testing failed to reveal its devastating effects. The drug was given as a sedative to counter morning sickness. Many children were born with phocomelia⁵⁴, which results in flipper like hands and sometimes feet, however others had 'stunted or missing limbs; deformed eyes and ears; ingrown genitals; absence of a lung; a great many of them still-born or dying shortly after birth; parents under shock, mothers gone insane, some driven to infanticide.'⁵⁵ In 1962 Time Magazine said that Thalidomide was released 'after three years of animal tests', although these tests have been criticized as shallow and incomplete. However, later animal tests were also conducted by companies licensing thalidomide in several European countries including England and Sweden. These also failed to raise any alarm. Some researchers claim that testing on pregnant animals would have revealed the drug's problems. However, tests on pregnant animals may have been done.⁵⁶ In any case, many later tests on pregnant animals also failed to raise any issue. As JL Schardein wrote in his book *Drugs as Teratogens* - substances that cause malformations of the embryo or fetus - 'In approximately 10 strains of rats, 15 strains of mice, eleven breeds of rabbit, two breeds of dogs, three strains of hamsters, eight species of primates and in other such varied species as cats, armadillos, guinea pigs, swine and ferrets in which thalidomide has been tested teratogenic effects have been induced only occasionally.'⁵⁷ While similar defects were eventually produced in White New Zealand rabbits and some primates, effects were variable, inconsistent, and only produced after high doses of the drug, 25-300 times more than for humans.⁵⁸ Researchers pointed out that diseases such as cancer could be caused by overdoses of almost any substance. Professor George Teeling-Smith wrote that:

There is at present no hard evidence to show the value of more extensive and more prolonged laboratory testing as a method of reducing eventual risk in human patients. In other words the predictive

value of studies carried out in animals is uncertain. The statutory bodies such as the Committee on Safety of Medicines that require these tests do so largely as an act of faith rather than on hard scientific grounds. With thalidomide, for example, it is only possible to produce specific deformities in a very small number of species of animal. In this particular case, therefore, it is unlikely that specific tests in pregnant animals would have given the necessary warning: the right species would probably never have been used.⁵⁹

So given the unclear test results overall, and that the specific animals reproducing birth defects may not have been tested before thalidomide's release, it's plausible thalidomide would have been approved anyway. Regardless, we know that a range of animal tests had already been run, and none raised any dangers.

Ironically, one of the consequences of the thalidomide disaster was that there was a general increase in animal testing, and a specific new requirement to test on pregnant animals.⁶⁰

Yet in his article *Monitoring for Drug Safety*, Professor RW Smithells stated that 'The extensive animal reproductive studies to which all new drugs are now subjected are more in... the nature of a public relations exercise than a serious contribution to drug safety.'⁶¹

The US FDA says 92% of drugs found safe and effective in animal tests turn out to be toxic and/or inefficient in human trials. Of the 8% of drugs that are approved for release, more than half are withdrawn or relabelled due to severe side effects.⁶²

Replacing Animal Tests

Are there alternatives to animal tests?

Many. Although Professor Pietro Croce, who used to experiment on animals himself⁶³, points out that:

There are no alternatives to vivisection, because any method intended to replace it should have the same qualities; but it is hard to find anything in biomedical research that is, and always was, more deceptive and misleading than vivisection. So the methods we propose for medical research should be called "scientific methods", rather than "alternative methods".⁶⁴

Here are some examples:

In Vitro Testing

In vitro literally means *in glass* (as opposed to *in vivo* - *in life*) and refers to tests done on cell or tissue cultures. These are quicker and cheaper than animal tests. Material for them can also be obtained from humans (often after death), so aren't subject to species differences.⁶⁵

For example, from the mid 1950s to mid 1980s the US National Cancer Institute (NCI) tested 400,000 chemicals as anti-cancer agents, largely on mice infected with mouse leukemia. However, the few substances that were effective against mouse leukemia were of little use against the main human cancers (in terms of the biggest killers).⁶⁶

Since then, the NCI switched to 60 human cancer cell lines, which are not only more reliable, but far cheaper. Similarly, *in vitro* testing with cells that have human DNA is much more likely to detect damage than animal tests.

Companies like Bioptra and Asterand only use human tissue, as results can be more accurately applied to humans than results from animal tests.

Computer Modelling

Following from the terms *in vitro* and *in vivo*, tests run on computers are referred to as *in silico*. Computer modelling is able to refer to an extensive range of medical databases, using existing knowledge of chemicals to predict their reaction in living cells. Experiments that would take months or years to conduct on animals can now be done in minutes or hours *in silico*.⁶⁷

Microdosing

Microdosing relies on sensitive analysis to give people taking part in research very small, safe doses of new drugs - less than 1% of a full amount - to assess their activity in the body. Results from microdosing studies are fairly accurate, with a 70% correspondence to full dose studies.⁶⁸

Microfluidic Circuits

Microfluidic circuits have separate compartments for cells from different human organs on a microchip base. Blood substitute moves between the compartments. Using these circuits, new drugs can be tested on a 'whole system', coming into contact with the various cells in the same order they would in the human body. Sensors in the chip provide information on reactions which are passed to computers for analysis.⁶⁹

In 2007, the US National Research Council, which advises congress and federal government on science, said that fast, automated tests called high-throughput assays could quickly evaluate hundreds of thousands of chemicals and replace animal tests.⁷⁰

The following year, 3 US agencies signed a 'Memorandum of Understanding' to eliminate animal tests - although despite their unreliability, they still thought the process would take around 10 years to validate the new tests.⁷¹

This view is reflected in government regulations and bodies that slow progress. The Lethal Dose 50 test, for example, is still a mandatory text of toxicity in the US. The Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) was formed in 1997 and since then has approved less than 10 tests that completely replace the use of animals.⁷²

Critics say that rather than facilitating the approval of new experiments, the ICCVAM has become an obstacle. They say the US panel is slow and biased towards animal tests which have never been subject to the same stringent scientific review.

Some US company officials and scientists say they've delayed or discarded plans to get tests approved as reviews are lengthy and expensive.

Neil Wilcox, a former FDA official who helped set up ICCVAM, said that 'One should ask why after years of existence they have reviewed so few tests... The fundamental reason, in my opinion, is that the ICCVAM process has become recognized as an obstacle to getting tests validated as opposed to helping having tests validated.'⁷³

Despite slowed progress, Christopher Austin, director of the Chemical Genomics Center at the US National Institutes of Health (NIH), says that thousands of chemicals can be tested at one time using a 3 x 5 inch glass tray with 1,536 miniature wells, each only part of a millimetre across.⁷⁴

A few hundred human cells grown in test tubes are placed in each well, then a machine guided by computer drops different chemicals into them. Following a period of time, the machine shines a laser through each well to find how many cells are left. A computer determines the toxicity of each substance

depending on how the cells respond.

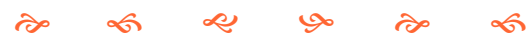
All results would be added to a public database.

In contrast, Elias Zerhouni, director of the NIH, says it's taken the US Environmental Protection Agency (EPA) 30 years to thoroughly test 2,500 possibly toxic substances using traditional methods.



Things You Can Do

- * Don't support animal exploitation - be vegan.
- * Check the resources in [Further Information](#) if you need help.
- * Don't support cruel and unreliable animal tests.
- * Don't give money to charities that support animal testing.
- * Find Australian charities that don't test on animals here: http://www.aahr.org.au/humane_charities/index.php
- * Avoid buying products that have been tested on animals



4.5 The Environment

After animal suffering and health, the environment is the next issue most likely to encourage people to be vegan.

31% of Australians say that evidence that being vegan is better for the environment would encourage them to be vegan.

Just over half of Australians (53%), though, don't think animal farming causes serious environmental problems.

However, the report *Livestock's Long Shadow*, released in 2006 by the Food and Agriculture Organization (FAO) of the United Nations, tells us otherwise.⁷⁵

That says:

The livestock sector emerges as one of the top two or three most significant contributors to the most serious environmental problems, at every scale

from local to global...

Livestock's contribution to environmental problems is on a massive scale and its potential contribution to their solution is equally large. The impact is so significant that it needs to be addressed with urgency.⁷⁶

Some of the specifics of this are that:

- Animal production is probably the largest sectoral source of water pollution.⁷⁷
- 'The livestock sector is a key player in increasing water use, accounting for over 8 percent of global human water use, mostly for the irrigation of feedcrops.'⁷⁸

While food animals use over 8% of the world's water, they use around 15% of Australia's water (including pasture but excluding dairy farming). Dairy farming uses about 12%, making a total of 27% of the water used in Australia.⁷⁹

While this is a significant amount, it excludes water used in other parts of the animal industry eg slaughterhouses. Brisbane's Canon Hill abattoir, for instance, uses more than 580 megalitres of water a year.⁸⁰

In an interview in Australia in 2006, the Director General of the World Water Institute, Frank Rijsberman, said that 'Agriculture drives water scarcity, and water scarcity drives environmental destruction in many places.'⁸¹

- 'the livestock sector may well be the leading player in the reduction of biodiversity, since it is the major driver of deforestation, as well as one of the leading drivers of land degradation, pollution... overfishing, sedimentation of coastal areas and facilitations of invasions by alien species.'⁸²

In Australia, 300,000 hectares of land were cleared in the year to 2007. Most of this was in Queensland, which cleared an area equivalent to the ACT.⁸³

That is, over 230,000 hectares of land, more than 90% for pasture.⁸⁴

The World Wildlife Fund estimated that 20 million birds, reptiles and mammals died as a result of this clearing.⁸⁵

The Australian government lists land clearing as an environmentally 'Threatening Process'

under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC).⁸⁶

- 'An analysis of the authoritative World Conservation Union (IUCN) Red List of Threatened Species shows that most of the world's threatened species are suffering habitat loss where livestock are a factor.'⁸⁷
- 'Extensive grazing still occupies and degrades large areas of land... livestock production accounts for 70 percent of all agricultural land and 30 percent of the land surface of the planet.'⁸⁸

Grazing uses more than 80% of agricultural land in Australia, compared to around 6% used for crops.⁸⁹

About 47% of Australia's total area is grazed - only 3% is devoted to crops.



Things You Can Do

* Don't support animal or environmental exploitation - be vegan.

* Check the resources in [Further Information](#) if you need help.



4.6 Horse Racing, Dog Racing, Circuses and Rodeos

Part of question 4 of the survey asked people whether they watch or attend events featuring animals, such as horse or dog races, circuses or rodeos. 40% of Australians say they do.

But what's wrong with horse racing, dog racing, rodeos and even circuses with animals? The first and most obvious thing is that again nonhuman animals are considered tools to be used for profit. When profit comes first, the animals used to create it typically come in a distant second - if that.

Horse Racing

Horses are commonly introduced to racing at 2 years of age. However, research shows that 85% of horses suffer at least one injury or illness racing as 2 year olds.⁹⁰ A study by Mason and Bourke of 74 two year old thoroughbreds found that during one season, over 40% of horses were unsound - had injuries that prevented training. They stated:

The problem of unsoundness in two year olds is clearly one of immaturity of the skeletal system. Basic to the problem, particularly in Australia, is the emphasis on early racing of two year olds.⁹¹

University of Melbourne research found that 90% of horses had blood in the lungs, while 50% had blood in the windpipe. Post mortems revealed that a 1/5 of horses had bruising at the back of the lungs, with the bruise more severe the more recently horses had raced. Racing commonly causes blood vessels around the lung to burst.⁹²

Various studies have also found that 80-90% of racehorses in training have gastric ulcers.⁹³ This is a painful condition which can lead to death if ulcers perforate. Studies of racehorses in New Zealand and the US have made similar findings.⁹⁴

According to research by More in 1999, 87% of horses didn't earn enough to cover training costs in their initial year of racing, about 50% earned less than \$450, and 40% earned nothing.⁹⁵

Similarly, in a study of standardbred (harness racing) horses, 90% of owners said their horses were unprofitable.

Another study in 2001 found it costs over \$9,000 to keep a thoroughbred horse in a rural area and over \$10,000 in an urban area – not including vet and farrier costs.

Horses that are unprofitable or too expensive to keep have a good chance of ending up at the slaughterhouse. In fact, in a 1998 study, the main reason standardbred owners gave up their horses was because they weren't happy with what they earned.⁹⁶

There are two types of slaughterhouse in Australia: knackeries and abattoirs.

Abattoirs are licensed to export horse flesh for human consumption - it's illegal to eat in Australia - while knackeries sell parts of horses for pet food and other products such as skin, hair, meat and bonemeal.⁹⁷

Rather than being cared for, many thousands of racehorses with an 'unsuitable temperament or behaviour'⁹⁸, that are too old, in poor condition, or are unprofitable or too expensive to keep are discarded like rubbish every year, to float the profit of knackeries and abattoirs.

Dog Racing

Greyhound racing is banned in South Africa and over 30 US states.⁹⁹ Yet the Australian industry is the third largest in the world and in 2004 generated \$25 million every week.¹⁰⁰

Despite the money greyhounds help generate, they suffer some of the same problems as horses in the racing industry do, including mistreatment and killing of 'surplus'.¹⁰¹

While greyhounds on average live to be 12 years old, some may be too slow at 2, others at 3, while injury can put an end to any dogs still racing past this age. No dogs older than 5 are typically raced.¹⁰²

As with horses, thousands of 'spent' dogs, along with those that've been injured beforehand or considered unsuitable for racing, wind up being killed.

Part of the problem is also that there are too many young dogs bred. Hugh Wirth, of the RSPCA, has said that 'There is no doubt one of the major problems in greyhound racing is over-production'.¹⁰³

Like so many other industries that put the lives of animals second to making a profit, racing authorities concede dogs are killed as a matter of fact. In 2004, the then head of Greyhounds Australasia, Geoff O'Connor, said that 'Anything to do with dogs becomes emotive. Where do you think the horses end up?'¹⁰⁴

When Greyhound Racing Victoria decided to end race meetings in Wangaratta from June 2009, Wangaratta Greyhound Racing Club manager Neville Tait cautioned there would be around 600 dogs that wouldn't be able to get races, saying 'there's no way they'll find new owners for 600 dogs — they'll have to be put down'.¹⁰⁵

Not all dogs are euthanised - 'put down' painlessly - though. RSPCA records reveal thousands of dogs are shot, drowned, clubbed to death and even buried alive.¹⁰⁶

In 2004 a greyhound was found buried alive in wasteland outside Hobart. The dog had been left to die under a sheet of tin, and one of its ears had been hacked off to remove identifying tattoos.¹⁰⁷

People in the industry claimed it was a 'one-off', done by people 'outside greyhound racing'.¹⁰⁸

However, the remains of other greyhounds were found nearby.¹⁰⁹ Two years earlier the press reported the cases of Vincent and Alfie. Vincent had also been buried alive with ears removed. Alfie had been set on fire or doused with a strong chemical.¹¹⁰

Greyhounds also end up in experiments. An investigation by the *Herald Sun* in June 2009 said some of the 1250 dogs (not all greyhounds) used for research each year came from the greyhound industry. A spokesman for Greyhound Racing Victoria confirmed the practice.¹¹¹

Others are given the tag 'China dog', an allusion to dogs that aren't top racers and are sent to China and other Asian countries.¹¹²

In a 2003 article, greyhound owner Mick Abbott said 'I love my dogs, and I don't want to see them put down just because they're a bit slow.' But he went on to say 'That's one of the great side effects of exporting to Asia; it means dogs that would be 'euthanised' here get a second chance. They get two to three more years of life racing in Asia before they're put down.'¹¹³

He explained that Asian buyers were willing to pay up to \$5,000 for dogs that are too slow to be competitive in Australia.

While Greyhounds Australasia said in 2004 that dogs that go to Asia aren't sold for food, animal activists such as Raven Haze from London based Greyhound Action International maintains they are, hung by their jaws and beaten to make their flesh tender, skinned alive and roasted with blowtorches.¹¹⁴

Circuses

Three of the chief problems with animals in circuses are that they're constantly moving from place to place, they're confined a lot of the time and aren't able to be part of a normal social group.¹¹⁵

While the circus moves, animals are locked in travel wagons. On site, they're held in cages, enclosures or a restricted area.¹¹⁶ They spend most of the day confined, about 1-9% performing or training and the rest of the time in exercise pens.¹¹⁷

As a result, animals in circuses often display stereotype behaviour such as pacing and swaying that demonstrate their frustration and boredom.¹¹⁸

Continual travel, confinement and artificial

social groups thwart their natural behaviours.¹¹⁹

Elephants in the wild, for example, travel several kilometres each day on average, and spend many hours foraging. They take frequent baths in dust, mud and water. The mud and dust protects them from the sun and insects. The mud also helps retain moisture. To stay cool they spray themselves with water, wallow in mud and seek out shade. They have complex social relationships with families of 6-12 individuals governed by a matriarch.¹²⁰

As well as the abnormal conditions animals endure in circuses, they can also be subject to outright abuse.¹²¹ Tom Rider, a former elephant groom with circuses in the US and Europe, says that 'I saw the beatings of elephants, horses being punched, and tigers whipped and jabbed with sticks.'¹²²

Former Hollywood elephant trainer Pat Derby supports this view with her statement 'You can not train an elephant without force or fear and have them perform consistently.'¹²³

As to any education value in seeing animals in circuses, Associate Professor Barry Spurr, Fellow of the Australian College of Educators, has said:

Circuses with performing animals serve no educational purpose whatsoever. Especially so far as children of impressionable age are concerned, they are anti-educational, as they contradict the education children receive in school and elsewhere about respect for animals in their natural environments and in their natural behaviour patterns.¹²⁴

Several countries such as Austria, Costa Rica, Israel and Singapore, as well as over 40 area governments in Australia, such as the Gold Coast, Ipswich, Lismore and Perth city councils, have banned exotic animals in circuses.¹²⁵

Domestic animals such as horses, however, are also used in circuses, and the same issues of continual travel, confinement and artificial social groups also apply to them.

This is confirmed by a 2006 report on travelling circuses which explains:

suffering is not restricted to wild (or exotic) species but is evident in all species, including domesticated species. Indeed the view that it is only 'wild' animals that might suffer appears to be based more upon

assumption than actual evidence.¹²⁶

Recognising this, in July 2009 Bolivia became the first country in the world to ban all animals in circuses, the law saying their use 'constitutes an act of cruelty.'¹²⁷

The law came about after investigations by the group Animal Defenders International (ADI), which found widespread abuse in circuses there.

However, the head of ADI, Jan Creamer, said that circus animals suffer from transport and tight quarters wherever they are - including countries like Australia, England and the US.

She remarked, 'It's rather as if you and I were asked to spend the rest of our lives living in our bathroom.'¹²⁸

Rodeos

Events featuring animals in rodeos are inherently cruel and dangerous.

In a submission to a Senate Committee on Animal Welfare, Glenys Oogjes for the Australian and New Zealand Federation of Animal Societies (now Animals Australia) said that:

because there is and always will remain the risk of injury and even death to animals, and because the only justification for rodeo... is as an entertainment or a spectacle, then it cannot be justified and should be stopped tomorrow.¹²⁹

Rodeos are banned in the UK and Netherlands as well as various part of the US and Europe.¹³⁰

Welfare groups in different countries are also against rodeos. The RSPCA in Australia, for example, says they're 'strongly opposed to rodeos because of the potential for significant injury, suffering, distress or even death to the animals involved.'¹³¹

The Australian Professional Rodeo Association outlines 6 standard events in rodeo, which they divide into 2 groups of 3, 'rough stock' or 'roughriding' events and timed events.¹³²

The 'roughriding' events are saddle bronc riding, bareback bronc riding and bull riding. The timed events are steer wrestling, rope and tying, and team roping.

The following text talks about men, since they're the ones who largely take part in these events.

Roughriding: Saddle Bronc Riding, Bareback Bronc Riding and Bull Riding

In these events, riders try to stay on a bucking animal for 8 seconds holding on with one hand to a rope rein in the case of saddle bronc riding, a handle in bareback riding and a handhold on rope pulled around the animal in bull riding.¹³³

As the names of the events imply, the rider has a saddle in saddle bronc riding, but not in bareback bronc riding.

A flank strap - also called a bucking strap - is tied at the rear of the animals, between the ribs and hip.¹³⁴ The horse strap is sheepskin lined or padded leather and for bulls it's a sheepskin covered rope. Riders also use blunt spurs.¹³⁵

The flank strap is left loose for horses while they wait in chutes and is then tightened by people around the chute when the horses leave. For bulls it's tied before release from the chute.¹³⁶ Various groups say that flank straps torment horses and bulls into bucking.¹³⁷

While rodeo advocates claim that horses buck naturally, and only horses that do this are chosen for events, horses typically stop bucking once straps are released. In 2007, Gold Coast Mayor Ron Clarke went to a rodeo at the Gold Coast Exhibition and Convention Centre. He said of his experience:

I've been told that animals love it but that's not how I saw it. I hated seeing what they do to animals to make them buck. They [pro rodeo people] say that they love bucking, so why do they stop bucking when the riders are off and the belts around them are loosened?

I thought it was horrifying and didn't stay long.

I'm an animal lover and get upset when I see them being tormented to act out of character. [Rodeos] are definitely human entertainment at the animals' expense.¹³⁸

In an experiment by the Humane Society of the United States, two gentle horses bucked when they had flank straps tied to them. However, when several rodeo circuit horses were released from a pen without flank straps, none bucked.¹³⁹

Flank straps can also cause chafing that results in open wounds. The American group, SHARK, says that their investigators document

these wounds at almost every rodeo they attend. Their website has video of horses with flank wounds.¹⁴⁰

Spurring animals aggravates the sensation of the flank strap, and in the case of horses,

They can suffer various injuries, including broken necks.

Rope and Tying

In rope and tying, a calf is let out of a chute and chased by a rider with a rope attached to



A calf being 'clotheslined'

Photo courtesy of Shark Online, <http://www.sharkonline.org>

actually gains riders points.¹⁴¹ Animals may also have electric prods used on them while still in chutes, as well as have their tails pulled and be hit, beaten and whipped.¹⁴²

In their frenzy, animals try to escape their chutes, take bad falls, slam into fences, and break their legs and backs.¹⁴³

Timed Events: Steer Wrestling

In this event, a steer is chased by two riders. When they catch up, they ride on either side of the steer so he doesn't veer in another direction. The contestant leans from his horse, grabs the steer by the horns, then jumps off and tries to throw him flat on his side by twisting his head, at times more than 300°.¹⁴⁴

There's a 30 second time limit to do this, although cowboys often go beyond it without being disqualified.

Steers fall heavily, sometimes head first, often twisting or flipping on their backs.

his saddle.¹⁴⁵ The calf is roped, the horse stops and the calf then also comes to an abrupt, often violent, stop at the end of the rope - this is called being 'clotheslined'.¹⁴⁶ The force is often strong enough to jerk calves into the air.¹⁴⁷

The rider dismounts and runs to the calf, relying on his horse to keep the calf from running away. After reaching calves, cowboys 'flank' them - throw them on their sides. If the calves are thrown off their feet when roped, cowboys are meant to let them up before flanking them.

Once calves are on their sides, cowboys tie 3 of their legs together with ropes they carried in their teeth. A judge records the time taken.

Cowboys then return to their horses and ride towards the calves a little, slackening the rope, to prove the tie will hold for at least 5 seconds. If calves kick free before a judge gives riders a 'fair time', no time is given. The limit for the event is 30 seconds.

Rope and tying means calf roping in all states except Victoria. There, only steers with a minimum weight of 200 kilograms can be roped. Elsewhere, the optimum weight of a calf used in rope and tying is 115 kilograms, with a maximum weight of 130 kilograms.¹⁴⁸

While rodeo is often seen as a 'sport' of tough men, the calves they use in this event are only babies, a few months old. They have soft bones and are still developing.¹⁴⁹

In America, the Professional Rodeo Cowboys Association (PRCA) renamed calf-roping 'tie-down roping' in 2003, apparently to draw attention away from calves being used in the event.¹⁵⁰ A similar thing happened in Australia.

Would an event even a quarter as harsh be allowed using human babies? Would any of the cowboys be willing to undergo what the calves do?

Practice also takes a toll on animals. One calf roper said that 'I keep 30 head of cattle around for practice at \$200 a head. You can cripple three or four in an afternoon. So it gets to be a pretty expensive hobby.'¹⁵¹

So that calves burst from their chutes, before they're released they can have their tails twisted, pulled or rubbed over chute bars, their ears pulled, and be hit round the head.¹⁵²

Once roped, contrary to national guidelines formulated in consultation with the Australian Professional Rodeo Association (APRA), they're regularly yanked backwards off their feet - 'jerked down'. They're also dragged along backwards by their necks after being tied, choking them. Both jerking down and dragging are meant to result in disqualification of contestants, but this often doesn't happen.¹⁵³

Cowboys also frequently flank calves by slamming them to the ground.

The result of the event is that calves are often injured suffering broken legs, necks and internal haemorrhaging. Injuries may not be evident, so if animals aren't killed, they can suffer slow, painful deaths.¹⁵⁴

Team Roping

In this event, two riders work together to rope a steer. The 'header' ropes the steer around the head, neck or horns. He then turns him around so the 'heeler' can rope both rear legs. The pair's time is recorded once their horses are facing each other with no slack in their ropes.¹⁵⁵

As contestants rope either end of the steer, this may mean he gets pulled in opposite directions.¹⁵⁶

In any case, he ends up stretched between the riders with his back legs roped and will usually fall down.¹⁵⁷

Would a human volunteer be willing to be chased by two riders? To be roped by the head or neck? 'Humanely,' so unlike steers, riders in theory would be careful not to break people's necks. Of course there'd be no guarantee.

A volunteer would then have to be willing to have one leg roped, since humans have two legs less than steers. Then agree to be drawn out between two riders so s/he falls down. Does this really seem like 'fun'?

Rodeo Rider

APRA claims that animals used in rodeo 'thoroughly enjoy what they are doing.' They further claim that 'Mistreatment of livestock, intentional or unintentional, is virtually unheard of at APRA rodeos.'¹⁵⁸

Yet in evidence to a Senate inquiry in 1991, Dr Ian Gollan, who APRA quotes on its website, said:

I think calf roping is one of the more dangerous events. In some cases it is horrific, with the calf running to the end of the rope and flipping over. Only fools would suggest that the calves enjoy that.¹⁵⁹

Along with the injuries recorded at rodeos by those not involved in the industry, and opposition by mainstream groups such as the RSPCA, APRA's claims seem to be largely made out of both love for their 'sport' and the financial rewards it provides.

Why would animals enjoy running into fences, being chased, falling over, being roped, having their necks twisted, being clotheslined and falling or being thrown down? Would APRA members be happy to volunteer in place of the animals they use?

Judging by what APRA claims, you'd think they might: 'Today, rodeo is an investment. It's most important to take care of these animals... To the stock contractor, those animals are like his family.'¹⁶⁰

If this were true, no animals would be allowed in rodeos, since presumably no stock contractor would let his family feature in rodeo events. Further, holding that 'rodeo is an

investment' while saying 'animals are like... family' appears to be a conflicting view. Doesn't family go beyond investment?

APRA's website states that a 1994 survey of their rodeos shows the injury rate of animals is 0.072%.¹⁶¹ The rate for both 2007 and 2008 is almost the same, at 0.08%. This represents all injuries at rodeos, not just serious ones.¹⁶² Yet these figures contradict the injuries (and violations of welfare guidelines) documented, in writing and video, by campaigners both here and overseas.¹⁶³

No Rodeo in South Australia say that there's a serious injury or death at 1 in 4 rodeos¹⁶⁴, and at least 20-25 animals suffer less serious injuries - such as ones that cause them to limp or bleed - at every larger rodeo.¹⁶⁵ This doesn't include any mental trauma they experience.

APRA says on their website that over 100 rodeos are run each year under their banner.¹⁶⁶

Based on this and the injury rates provided by No Rodeo, we can estimate around 1794 injuries a year - 26 serious or fatal and 1768 less serious.¹⁶⁷

While this represents an injury rate of 1700% on a per rodeo basis, APRA's injury statistics depend on the number of 'runs' animals have in events.¹⁶⁸

So spreading these injuries across 9,999 runs a year - the average for 2007 and 2008 - gives an injury rate of about 18%, which is over 200 times more than APRA's 2007 and 2008 rate of 0.08%.¹⁶⁹

The veterinarian Dr CG Haber, who worked for 30 years as a meat inspector for the US Department of Agriculture (USDA) has said:

The rodeo folks send their animals to the packing houses where... I have seen cattle so extensively bruised that the only areas in which the skin was attached was the head, neck, legs, and belly. I have seen animals with six to eight ribs broken from the spine and at times puncturing the lungs. I have seen as much as two and three gallons of free blood accumulated under the detached skin.¹⁷⁰

Similarly, in 1998, Dr Robert Fetzner, who at the time was the Director of Slaughter Operations for the Food Safety and Inspection Service (FSIS) of the USDA said:

Lots of rodeo animals went to slaughter. I

found broken ribs, punctured lungs, hematomas, broken legs, severed tracheas and the ligamenta nuchae were torn loose [leaving broken necks].¹⁷¹



Things you can do

- * Don't support animal exploitation - be vegan.
- * Check the resources in [Further Information](#) if you need help.
- * Don't go to see circuses with animals, rodeos, dog racing or horse racing - unless you're working to shut them down.
- * Give the Melbourne Cup a wide berth.



4.7 Breeding Animals for Pet Shops

While 46% of Australians find breeding animals for pet shops unacceptable, 50% think it's acceptable.

The fairly high proportion of people who think breeding animals for pet shops is acceptable are likely to be unaware of the cruelty involved and the waste of animal life that results.

The term 'pets' itself suggests that though we may treat animals with care, we keep them for our pleasure or companionship. Some owners may even think they're taking good care of their animals, yet be confining them to a prison.

For example, birds kept in cages, so they're never able to fly, their movement limited to the bars of the cage. Even human prisoners get more space than this in the time they have outside their cells.

Some people keep animals as long as they please them or it's convenient, and treat them as they see fit.

Once they no longer want them, however, they have little further obligation to them.

Australians keep more animals than there are people in the country. According to the Australian Companion Animal Council, people live with over 38 million other animals.¹⁷²

Going on figures from 2007, the most popular animals are fish – just over 20 million. Next are around 7.8 million birds, 3.7 million dogs and 2.2 million cats. About 2.8 million other animals – such as horses, guinea pigs, and rabbits make up the rest.

Yet despite these figures, animals are still bred in large numbers every year. People who don't desex their animals, or desex them later than necessary, can contribute to the problem of unwanted, homeless animals.

Female cats, for example, can already get pregnant at 4 months old.¹⁷³ A Victorian survey showed that over 10% of cats have kittens before they're desexed.

Cats breed in the warmer part of the year between November and April, creating a 'kitten tsunami' that results in a flood of kittens to shelters.¹⁷⁴

The Sydney Dogs and Cats home says that:

literally hundreds of cats and kittens... are brought in to our facility every year, particularly during the Spring/Summer months. These include dozens of mother cats, each with litters of anything up to seven kittens who have just been dumped by their owners – owners who were not responsible enough to have their cats (either male or female) desexed. Many of the cats that are brought in are already sick with Cat Flu, Diarrhoea or Ringworm.¹⁷⁵

Many animals, though, are bred specifically for sale. So much so, that Australians buy around 1 million dogs and cats alone each year¹⁷⁶, yet about 250,000 end up being euthanised the same year. This is about 685 animals a day, or more than one cat or dog every 5 minutes (in an 8 hour working day).¹⁷⁷

Not only is this a complete disregard for life, the situation is absurd. Animals bred to be sold create a crisis of unwanted animals that shelters and other agencies are left to deal with, in many cases by euthanasia.

It makes no sense to sell animals in pet shops or through other commercial channels eg the paper and internet. Thousands of animals that need good homes are available to people through shelters, pounds or agencies that work on their behalf.

Breeding animals for profit again demonstrates the idea of animals as commodities.

The Australian Companion Animal Council estimates that in 2007 people spent around \$287 million dollars buying animals as companions. They further estimate that the entire pet industry was worth about \$4.74 billion dollars that year - not far behind the animal flesh industry for human consumption at \$4.85 billion dollars.¹⁷⁸

Paula Spagnoletti, founder of Say No To Animals In Pet Shops in South Africa, says that:

I have come to realize that there is one and only one reason why pet shops should not be allowed to trade in domestic animals and that reason is that all pet shops are PROFIT DRIVEN. Money and profitability will always take preference over the life and wellbeing of an animal.¹⁷⁹

While not all pet shops sell animals, and of those that do, some help to rehome rescue animals¹⁸⁰, the profit motive commonly plays out in ways like these¹⁸¹:

1) Pet shops display cute animals and encourage people to buy on the spot.¹⁸²

Rather than prompting people to make a reasoned choice, and even trying to assess whether they'd make suitable carers for the animals they want to buy, many pet stores are happy to indulge them in impulse purchases.

A business guide for people interested in owning pet shops says:

The scenario is simple: Someone will walk by, fall in love with an animal and buy it. These sorts of impulse sales can add dramatically to your profits.

First-time browsers in a pet shop will not necessarily jump at the thought of spending \$50 to \$500 to bring a dog home or to set up an aquarium.

However, if your shop is accessible and your sales and service ability is convincing, it will not be long before you convert walk-in traffic into buying customers. The trick is to find a great location for walk-in traffic.¹⁸³

Key to this approach is a 'convincing' sales pitch – the welfare of animals isn't mentioned.

A former employee of a store in NSW said:

With this particular pet store, they would encourage their staff to sell a puppy to anyone, no matter their circumstance, in order to make budget. They even introduced a layby system to make the

pups seem more affordable and then they would play down all the ongoing costs involved in owning a pup. 1 out of 3 customers would call a day or two later to see if they could bring the puppy back as they had had time to think about their impulse buy and realised they cannot keep the puppy, but this pet store's policy did not allow us to take them back, therefore most of these puppies would end up in shelters.¹⁸⁴[Although since late 2008 it's mandatory in NSW to refund at least 50% of the cost within 3 days.]¹⁸⁵

Another person explained:

I have had sales staff (in pet shops) push animals onto me all the time. Including rabbits and a rat - I own and take good care of my rats and they are expensive animals to keep if kept correctly (vet bills!!).¹⁸⁶

2) Pet shops often don't provide people with information about the ongoing costs of animals. The former pet store worker also illustrates this in their earlier quote: 'They even introduced a layby system to make the pups seem more affordable and then they would play down all the ongoing costs involved in owning a pup.'¹⁸⁷ The head of the NSW RSPCA has said that 'Buying the animal is the cheapest part of owning an animal.'¹⁸⁸

3) For pet shops, money can be reason enough to sell animals. Again, the previous quote from a former pet store worker says that 'With this particular pet store, they would encourage their staff to sell a puppy to anyone, no matter their circumstance.'¹⁸⁹

The RSPCA say that 'One very important aspect that distinguishes the RSPCA from commercial animal sellers, such as pet shops, is that as well as assessing the suitability of animals for adoption [which pet shops may not do], we also assess the suitability of prospective owners.'¹⁹⁰

4) Many animals sold in pet shops have inherent genetic defects due to crossbreeding. The term 'designer dogs' is a convenient way to refer to popular dog breeds such as labradoodles, pugaliere (pug/cavalier King Charles spaniel), and spoodles.¹⁹¹ However, people often end up disposing of them due to deformities and disease.

Sue Whelan, from the Hahndorf Interim Animal Shelter, describes cross breeding as a massive industry without rules to prevent breeding defects.¹⁹²

John Carter, from the SA Canine Association, says crossbreeds are prone to 'hip dysplasia, eye problems, temperament problems - all kinds of things.

'And they are not under the control of anybody.'¹⁹³

5) Animals are routinely kept in small displays or cages all day long, severely limiting their movement. They're surrounded by bright lights, people and noise during the day and are left alone at night.¹⁹⁴

Since many animals go from where they're bred directly to pet shops, they're commonly not well socialised. Associate Professor Paul McGreevy, from the faculty of veterinary science at Sydney University, says the key period for socialization of dogs is between about 6 and 13 weeks of age:

Someone who wants to prepare a dog well for its future as a calm and pleasing member of society would be taking the dog out every day and socialising it with different people and objects. Pet shops do not undertake to do that.¹⁹⁵

Karin Bridge, President of the Association of Pet Dog Trainers Australia, adds that 'Puppies who fail to receive adequate early exposure and socialisation are sometimes never able to cope with modern, urban living. Training can then become a constant uphill battle. Typical problems resulting from a lack of early socialisation include shyness, sound sensitivity and fear aggression.'¹⁹⁶

6) Sick animals commonly aren't treated. To minimise costs, they're taken to the pound, left to die or even killed.¹⁹⁷

A former pet shop employee provides a graphic example:

I worked in a pet shop as I thought it would be a nice job as I have always loved animals. I became totally disillusioned with the pet industry as I realised it was purely a profit driven industry. After the shop closed one Saturday afternoon there were (4 or 5) kittens that had got cat flu. They looked a little sickly and from memory they had sticky eyes.

Rather than taking them to the vet the cheaper and easier method of disposal was decided upon by the store manager. My manager put the kittens in a cardboard box with a rag with chloroform on it and closed the lid tightly. I stood there quite horrified not really knowing at the time what was

going on as it all happened rather quickly. All I could hear was a whole lot of jumping and scratching around in the box-sounds of the kittens desperately trying to get out out there. After a minute or so it was quiet. To check they had all died I distinctly remember her picking up the box and shaking it to check there was no more movement.

This manager had no regard for the animals in the pet shop... they were treated merely as goods to sell in order make more profits for this major chain pet shop.¹⁹⁸

7) Animals sold in pet shops typically aren't desexed.¹⁹⁹ This can lead to the problem mentioned earlier where owners may desex too late - after an animal has already given birth. Some owners may not even desex their animals at all. This may be for reasons such as thinking it's unfair to the animals, or even because they want to make some money selling their offspring.²⁰⁰ However, desexing can confer benefits apart from stopping breeding: making animals healthier and reducing problem behaviours such as aggression in dogs and urine spraying in cats.²⁰¹

8) Pet shops commonly get animals from pet mills and backyard breeders.²⁰²

Backyard breeders may be individual owners or small operations. Both breed despite the glut of animals, and often without regard for their welfare.²⁰³

In the case of individuals, they breed for reasons outlined in point 5): their animals may become pregnant before being desexed, they want their children to experience birth, they think it's unfair to desex their animals and so on.²⁰⁴ In the case of small operations, breeding is carried out for profit with little concern for the welfare of animals.

Backyard breeders sell their animals through classified ads, direct, markets, the internet and pet shops. They generally have a large number of animals that are poorly taken care of and cause neighbourhood disputes. Often authorities become aware of them through public health concerns, noise, and animal cruelty or neglect.²⁰⁵

In July 2008 a couple living near Townsville were raided by the RSPCA. Inspectors seized over 650 animals: 113 dogs, 1 cat, 488 rats, 73 mice along with several guinea pigs and birds. They also found a large freezer full of

frozen puppies, guinea pigs, rats and fowl.²⁰⁶

Animals were kept in small cages on top of each other in the couple's shed. Many of the dogs had little or no water, needed vet treatment for eye, ear and teeth problems and had fur matted with faeces and urine.

All needed several baths to get rid of their stench and they required grooming to remove the matting, as well as to cut overgrown nails.

The couple were taken to court where the RSPCA gave evidence that they were selling puppies online. The couple pleaded guilty to 131 charges under the *Animal Care and Protection Act 2001*.

Pet mills are like backyard breeders that breed for profit, except they're larger operations.²⁰⁷ They sell their animals to all the places backyard breeders do, as well as overseas buyers.²⁰⁸ Puppy farms may also use a house as a 'shop front' so people don't see where animals are bred.²⁰⁹

Animals are often kept in poor conditions where welfare follows a long way behind profit. They can be continually mated and permanently kept in cages. They may never be let outside their cages to exercise, play, have companions, or go to toilet.²¹⁰

Typical problems in pet mills include overbreeding, inbreeding (mating close relatives), not enough food, little or no veterinary care, poor hygiene, and housing that doesn't meet the physical and behavioural needs of animals. Death rates are high.

Animals often have long-term health and/or behavioural problems as a result of poor housing conditions, poor maternal nutrition and lack of proper socialisation during the first few weeks of life.

The RSPCA say their 'inspectors have seized dogs from puppy farms where hundreds of breeding females have been kept in cages in appalling conditions. Both crossbreeds and purebreeds can be mass produced on puppy farms (although the purebreeds will not be registered as pedigree dogs).¹²¹¹

Ray Lord from the Victorian RSPCA said that a female in a puppy farm is simply treated as a 'breeding device'.¹²¹²

The national RSPCA states it's 'strongly opposed to puppy mills and considers the

mass production of puppies for profit to be completely unacceptable.²¹³

In the 1990s Animal Liberation Victoria (ALV) began to investigate what was at the time the largest puppy farm in Australia, Learmonth Kennels. This was owned and run by Ron Wells, a former Victorian MP and vet.²¹⁴



Puppies crammed in cages at a backyard puppy mill in Queensland
Photo courtesy of RSPCA Queensland, <http://www.rspcaqld.org.au>

Meg Gibson, who operated a puppy farm for ten years, acknowledged it was typical for puppy farmers in her area to shoot animals once they'd finished breeding:

I classed our place as a dog breeding business, but really, they are puppy farms, because it was a very sad life for the little dogs that were making you that money.

Wells at the time said he was trying to run 'a very scientific operation'²¹⁵, yet two former employees who'd worked there for 2 years said they'd seen the manager hitting dogs on the head with a hammer and swinging them against a fence post to kill them.²¹⁶

ALV investigations repeatedly found cases of unhygienic conditions, lack of water, poor housing and so on.²¹⁷

After many years of inaction by Ballarat City Council, the kennels were finally shut in 2005.

A former pet shop worker said that many puppies are sent to shops by air freight. She explained that:

I'd put my order in one week and get them delivered the next week. They were meant to be eight weeks of age; some were five weeks, some were dead. The condition was absolutely disgusting. In one dog crate there might be eight puppies shoved in there.

Sometimes the vaccination cards wouldn't match up with the breed of the dog so we'd just make up the breed ourselves depending on what was selling at the time. Whatever would fetch the most money, that's what we would call the dog.²¹⁸

They are being treated like breeding machines and some are being treated worse than others. And that's why now I cringe at puppy farms.

Ninety per cent of them are shot and I know that for a fact.

They've got pits, and those dogs are shot.²¹⁹



Things You Can Do

- * Don't support animal exploitation - be vegan.
- * Check the resources in [Further Information](#) if you need help.
- * Give a pound or shelter animal a good home.
- * Consider taking an animal that other people are less likely to eg an older animal.
- * Refuse to support any kind of animal breeder, even 'reputable' breeders, since they all profit from the sale of animals when there are thousands of animals without homes.

4.8 Zoos, Aquatic Parks and Aquariums

68% of Australians visit zoos, aquatic parks or aquariums.

But is it reasonable to keep animals in these facilities?

Small enclosure size, being confined, and an artificial environment create animals with both mental and physical problems, often resulting in death.

Enclosures for animals are typically many times smaller than the area they'd use in the wild. In British zoos, on average, they're 100 times smaller. In some cases they're thousands of times smaller. Lions, for example, have enclosures that average to 17,000 times smaller. Animals may be further confined at night.²²⁰

Birds are also severely restricted in movement, as they're prevented from flying away.²²¹ Marine animals are subject to the same problem, dolphins, for instance, used to swimming many kilometres in the ocean.²²²

They navigate by echolocation, but in enclosures their own sonar bounces off the walls. Jacques Cousteau, the underwater explorer, said that a captive dolphin's life 'leads to a confusion of the entire sensory apparatus, which in turn causes... a derangement of mental balance and behaviour.'²²³

Other usual behaviour such as climbing, exploring, taking part in social groups, scavenging, foraging and selecting partners may also be limited. Without enough mental stimulation, roughly 80 million animals worldwide engage in neurotic behaviour such as bar biting, head bobbing, pacing, swaying, self mutilation, and even mothers rejecting and killing their young.²²⁴

Virginia McKenna, who founded the Born Free Foundation with her husband Bill Travers and son Will, received an OBE in 2004 for work in arts and animal conservation. In the film *Born Free*, which inspired the organisation, she and her husband play real life characters Joy and George Adamson who raise three young lion cubs in the wilds of Kenya.

She said of the experience that 'We realised then that wild animals belonged in the wild, not imprisoned in zoos.' She added that 'Freedom is a precious concept, and wild animals suffer physically and mentally from

the lack of freedom captivity imposes.'²²⁵

Zoos and aquatic parks may claim to help conserve species. However, in 1994 *The Zoo Inquiry* found that only 2% of land vertebrates were part of worldwide zoo breeding programs. It also found only 1,200 out of 10,000 zoos were registered for captive breeding and wildlife conservation.²²⁶ Most animals such as lions, giraffes, elephants and tigers are 'crowd pullers' which increase attendance and therefore income.²²⁷

Similarly, the *Aquatic Zoos* report 10 years later found that only around 3% of threatened fish types were on display in UK public aquariums. It also looked at 13 restaurants, cafes or food kiosks in the aquariums.²²⁸ Of those, 85% had fish or aquatic invertebrates on the menu that were commonly displayed in aquariums. In 62% of places, these animals belonged to threatened varieties.

The report also found that around 99% of animals weren't a part of any official conservation breeding program and that none are released for conservation reasons (though they are for other reasons eg too many animals).²²⁹

In any case, breeding in captivity doesn't produce animals adapted to the wild. The longer they're captive, the more they tend to produce offspring geared to captivity and prone to otherwise rare and unfavourable genetic variations. Animals reared in captivity also don't have the survival skills they'd learn in nature. When zoos reintroduce them to the wild, their efforts often fail.²³⁰

Conservation efforts are also undermined by obtaining animals from the wild. In 1992, for example, 9 black rhinos were taken from the wild in Zimbabwe for an Australian zoo.²³¹

Still, while this is a problem in zoos, it's even more widespread in aquariums²³². Some animals are donated as bycatch from fishing, however they're also captured from the wild.

The *Aquatic Zoos* report states that 1996, over 70% of public aquariums surveyed in the US said they collected animals from the wild. In the UK, the report estimates that in 2004, 89% of animals in public aquariums came from the wild.²³³

While the mental health of animals in captivity suffers, their physical health may as well.²³⁴ This can start when they're captured in the wild or during transport.

For example, in 2003, 20 or so wild dolphins were taken from around the Solomon Islands to be sent to Mexico. International rules stipulate dolphins must be greased to prevent dehydration and carried in slings, not closed containers filled with water. However, TV footage showed coffin-like boxes being loaded to the plane the dolphins left on.²³⁵

Sue Fisher, the US director of the Whale and Conservation Society, said that 'The past experience is that when the aeroplane climbs at take-off, dolphins carried in boxes of water have simply drowned. There have been quite a few cases like that. I can't imagine they are all going to make it.'²³⁶

In Dhaka Zoo in 2009, 20 'rare' animals died up to September, including a lion, rhino, giraffe, tiger, two crocodiles, a baboon, wildebeest and tapir. At least 5 other animals were ill, and the lion that died had been unable to move for one year.²³⁷

An official for the zoo said that due to lack of funds, they couldn't ensure a 'semi-natural' environment for animals.

Reza Khan, a Bangladesh wildlife expert who heads Dubai Zoo, told the Agence France-Presse (AFP) that poor conditions and lack of expertise caused the deaths.

He added that 'Dhaka zoo is run by vets who don't know the eating habits and wildlife environment of the animals they keep.'²³⁸

Many free animals are under threat because they're losing the areas where they live. But rather than trying to breed them in captivity, it makes more sense to save land they can live on.

Zoos are unable to house the variety of animals and plants that exist in natural habitats, and as we've seen, restrict access so animals aren't able to interact in the way they would in the wild. After all, if there's not much natural area for these animals to live, what use is introducing them back to the wild?²³⁹

Keeping elephants in zoos is roughly 50 times more expensive than keeping an elephant and several other animals in protected natural habitat.²⁴⁰

The Dhaka Zoo spent \$800,000 bringing 38 animals from South Africa.²⁴¹ Melbourne Aquarium dwarfed this, spending \$28 million on a new penguin exhibit.²⁴²

However, the importation of 8 elephants from Thailand to Melbourne and Taronga zoos likely cost even more: up to \$50 million in creation of special enclosures, buying the elephants and bringing them to the zoos.

Former director of strategic planning management at Melbourne Zoo, David Hancocks, said that for only a small part of what was spent on the Taronga and Melbourne elephant exhibits, thousands of hectares of wild elephant habitat could have been protected. He remarked, 'This would have been real conservation.'²⁴³

Given that there are millions of dollars spent on zoos, aquariums, marine parks and the animals to put in them all, a more direct and effective option would be to protect natural animal habitats.

Since captivity restricts, harms and even kills animals, it doesn't represent animals in their wild state. So they can't possibly educate people about their normal behaviour. In any case, it appears many people aren't that interested in this.

A curator at the National Zoo in the US observed more than 700 visitors over 5 summers and found that they spent only a few minutes at each display. He concluded that 'officials should stop kidding themselves about the tremendous educational value of showing an animal behind a glass wall.'²⁴⁴

The *Aquatic Zoos* report of 2004 found that of 504 UK aquarium visitors studied, 95% didn't completely read the exhibit signs for live animals, and 83% read only a portion of the sign, perhaps the animal's name. Previous research confirms that people don't generally give much attention to exhibit signs. They also commonly ignore other signs, such as ones which tell them behaviour that is and isn't allowed.²⁴⁵

Some zoos, aquariums and marine parks offer limited or even misleading efforts at education.²⁴⁶ The *Aquatic Zoos* report found that 41% of animals in UK public aquariums didn't even have signs identifying animals. In several cases exhibit signs had the names of animals in other displays, and in other cases were wrong.

Worldwide, zoos have over 600 million visitors a year, so they have a wide scope in influencing how people think of animals.²⁴⁷ However, the message they send is that it's ok to keep animals captive as though they're our

possessions and that the animals they keep captive don't mind being there.

Captive breeding also produces 'surplus' animals that are sold to a variety of groups such as other zoos, breeders, 'game' farms, testing labs, and places that process them for skin or flesh.²⁴⁸

Breeding animals just to send them to 'game' farms and testing labs confirms their status as commodities. It doesn't seem to have much to do with caring for animals.

In terms of education value, nature documentaries show animals in their normal surroundings, are far cheaper (given the worldwide cost of all zoos and animals kept in them), and are likely to provide more detailed information. *Aquatic Zoos* found that while the documentary *The Blue Planet* featured around 300 species in natural habitats, the maximum number of species in the UK Aquariums it studied was 130.²⁴⁹

In their 2008 article *Animal rights and wrongs*, Royce Millar and Cameron Houston say 'zoos are expected to generate more of their own income than institutions such as museums, galleries and public parks. In Melbourne, admission to the National Gallery is free for adults and children. At the Museum of Victoria it is \$6 for adults, children free. Adult entry to the zoo is \$23, children \$11.'²⁵⁰

This tells us that the wellbeing of living creatures isn't that high - art and history are more important.

Up until the early 20th century, humans - for example, African Bushmen, Asians, Eskimos and Indians - were often exhibited in cages with animals.²⁵¹ Can we recognize the parallel and remove animals from zoos, just as we did humans? Can we see them as our relations in our earth journey, capable of pain just like us, and view them with the same care we give human children?



Things You Can Do

* Don't support animal exploitation - be vegan.

* Check the resources in [Further Information](#) if you need help.

* Stay out of zoos, aquariums and marine

parks - unless you're working to close them down.

* To learn more about animals, watch nature documentaries, read about them, or watch them unobtrusively in natural surroundings. This may even be your backyard!



4.9 Pain and Intelligence

A resounding 99% of Australians are against cruelty to animals.

Animal welfare laws around the country acknowledge that animals feel pain, as does the *Australian code of practice for the care and use of animals for scientific purposes*.²⁵²

Even the *National Code of Practice for Recreational and Sport Fishing 2001* acknowledges that fish suffer.²⁵³ It also states that fish can die quickly out of water. Fishers are advised to treat fish 'humanely' by returning unwanted or illegal fish and following procedures to achieve this, such as reviving unconscious fish.

However, this is no more 'humane', for example, than beating someone for 2 minutes rather than 15. While the shorter beating is definitely 'better' than the longer one, it still causes pain.

Legislation and codes of practice (when adhered to), only protect animals from harm to a certain degree. While law generally protects humans from unwarranted physical attacks, other animals have a far more limited and specific protection.

On the one hand we're obliged to provide at least basic care for companion animals, yet on the other it's legal for us to subject other animals to a whole array of painful practices such as cutting their beaks, castrating them without anaesthetic, removing their horns, keeping them confined in cages their whole lives, as well as killing them and eating them.

These types of laws carry a conflicting message - that animals feel pain, yet it's ok to inflict pain under certain circumstances.

They suggest that there are cases when inflicting pain has a greater benefit.

However, who's the greater benefit for? Humans. It's not a greater benefit for the animals made to suffer. The idea of a greater

benefit assumes that human interests, at least under certain circumstances, are more important than the interests of other animals.

Let's put aside this issue of the supremacy of human interests, though, and assume that harming animals is justified if there's a greater benefit to humans.

What then makes a benefit 'greater'?

Remembering the 99% of Australians opposed to animal cruelty, concern for the welfare of other animals would have to mean that the benefits would be essential and couldn't be obtained any other way. We wouldn't want them to be frivolous or unnecessary, otherwise the benefit would be no greater than the pain and/or loss of life animals would endure.

However, as we've seen, using animal products for food isn't essential for health. We've also seen that using animals for tests that harm them isn't only unfruitful and unnecessary, but often impedes progress and can result in harming humans as well.

Similarly, entertainment or 'sport' using animals is not only unnecessary, but often destructive for the animals.

Another objection might be that while animals feel pain, and it's not necessary to exploit them, exploiting them isn't that much of an issue since they aren't very intelligent. Given pain in animals is similar to the pain we feel, however, intelligence isn't a relevant issue. If it was, we could experiment on and otherwise exploit people with mental disabilities and even babies.

Some people might object that babies and people who are mentally disabled are still human, and so part of a wider human family. That still doesn't prevent us from applying similar reasoning to other animals - they're also part of a wider animal family.

If people then argue that humans are superior, this must have some basis beyond simple difference. Without this, Muslims could justify killing Christians because they're different. Whites could justify killing blacks. Men could justify domination of women. People from one nation could justify initiating war with those of another.

If we claim intelligence, that leads back to being able to exploit babies, the mentally disabled and even the less intelligent. (This is

even supposing we can clearly define what intelligence is, given different theories of intelligence, including multiple intelligence.²⁵⁴)

Even so, while intelligence is peripheral to how we should treat other animals, is it even really the case that other animals aren't intelligent?

In 2007, research by Sana Inoue and Tetsuro Matsuzawa from Kyoto University in Japan found that adolescent chimps did better than adult humans at a particular test of recalling numbers.²⁵⁵

The best performing chimp, Ayumu, who can buy snacks from vending machines, scored 76% in one test, while humans averaged 36%.

Professor Matsuzawa said that 'No human adults reached Ayumu's level.'²⁵⁶

While results varied for other tests, anthropologist Jill Pruetz of Iowa State University commented that 'Rather than taking such findings as a rare example or a fluke, we should incorporate this knowledge into a mindset that acknowledges that chimpanzees - and probably other species - share aspects of what we think of as uniquely human intelligence.'²⁵⁷

George Watson, Professor of Health Sciences at Curtin University, says that 'In almost every language there is a joke about birds, particularly chickens, being dumb. But birds, in general, have smarter brains than most mammals. They run rings around dogs and probably dolphins, too. Most birds have incredibly good memories, learning and problem-solving abilities.'²⁵⁸

He goes on to say that 'birds' brains have to be even more efficient than mammals' because their brains have to be small and light in order for them to fly. Land mammals have the luxury of having any sized brain as long as they have the neck muscles to support it, but birds have a power-to-weight issue so they have very clever brains in a very small space.'²⁵⁹

He points out that impressions of chickens as 'dumb', resting on the lives they lead in factory farm cages, are mistaken: 'Chickens have brains as good as any other bird, but we just don't allow them to develop it. They lead incredibly deprived lives. If you stuck humans in a stainless steel cage all their lives and didn't allow them to do anything or go anywhere, they wouldn't look too bright either.'²⁶⁰

Professor of Psychology at Macquarie University, Dr Chris Evans, explains that chickens live in stable social groups, recognize each other by facial features, have 24 separate cries that communicate a range of information, including whether predators are approaching by land or sea, and they're good at solving problems.²⁶¹

He also says they understand that objects removed from sight continue to exist – something that small children aren't able to do.

Joy Mench, Professor of Animal Science at the University of California, Davis, adds that 'Chickens show sophisticated social behavior. That's what a pecking order is all about. They can recognize more than a hundred other chickens and remember them. They have more than thirty types of vocalizations.'²⁶²

Fish are also intelligent. In their 2003 article *Learning in fishes: from three-second memory to culture*, Keven Laland, Culum Brown and Jens Krause say that fish are:

steeped in social intelligence, pursuing Machiavellian strategies of manipulation, punishment and reconciliation, exhibiting stable cultural traditions and co-operating to inspect predators and catch food. Fish not only recognise individual shoal mates, but they monitor the social prestige of others and track the relationships of the third-parties. They also use tools, build complex nests and bowers and can even exhibit impressive long term memories. Although it may seem extraordinary to those comfortably used to prejudging animal intelligence on the basis of brain volume, in some cognitive domains, fishes can even be favourably compared to nonhuman primates.²⁶³

[In line references omitted.]

Dr Theresa Burt de Perera says the public view of fish 'is that they are pea-brained numbskulls that can't remember things for more than a few seconds.'²⁶⁴

However, as Dr Culum Brown of Macquarie University points out, the common notion of a goldfish with a 3 second memory is a myth: 'It's completely ridiculous that an animal could survive without a memory.'²⁶⁵ In an interview on the ABC's Catalyst he elaborated by saying 'There's no way a fish could survive in the real world, with that many challenges, if they didn't remember things.'²⁶⁶

In fact, Dr Brown found that the Australian

crimson spotted rainbowfish was able to remember how it escaped from a net 11 months later – the human equivalent of 40 years.²⁶⁷

He says that fish are quick learners who are able to teach each other things, including how fish reared in captivity can manage in the sea.²⁶⁸

When it was suggested to him that people don't tend to regard fish as animals, his response was 'No, it's an odd thing, I mean, how many vegetarians do you know that say, I'm a vegetarian, but I eat fish!'²⁶⁹

Sylvia Browne, who at the time was chief scientist of the US National Oceanic and Atmospheric Administration put it a little differently in an interview with the New York Times in 1991:

I wouldn't deliberately eat a grouper any more than I'd eat a cocker spaniel. They're so good-natured, so curious. You know, fish are sensitive, they have personalities, they hurt when they're wounded.²⁷⁰

Examples of intelligence spread throughout the animal kingdom. This doesn't mean animal intelligence is the same, but just as men are different to women, we nevertheless extend the idea of equality to both sexes.

So while our treatment of animals should depend on their capacity to experience pain, rather than their intelligence, even if being 'pea-brained numbskulls' was a valid reason to exploit animals, our examples show that animals don't even meet this criterion.

Just as social equality doesn't mean exactly the same thing for every person – for example, men and women – we don't need to think of equality to other animals the same way. But out of respect for life, out of respect for the suffering animals can endure, we can accord them, as we do with other humans, a right to live their lives freely unless they act to harm us.



Things You Can Do

* Don't support animal exploitation – be vegan.

Check the resources in [Further Information](#) if you need help.

4.10 Vegetarians and Vegans in Australia

While 5% of Australians say they're vegetarian, and 1% vegan, based on what they eat, only 2% of people are vegetarian and 0.06% vegan.

People may mean they're largely vegetarian or vegan, rather than totally, however following the most common and authoritative definitions of these terms²⁷¹, being a vegetarian or vegan is like an on/off switch - you either are or you aren't.

People that call themselves 'mostly vegetarian' or 'mostly vegan', dilute the terms 'vegetarian' and 'vegan' and may produce confusion as to what a vegetarian is. Many vegetarians, for example, are asked whether they eat chicken or fish.

This may be partly due to people who call themselves vegetarian but sometimes eat flesh, or to the more recent trend of using terms like 'pesco vegetarian': a person who eat fish but is otherwise vegetarian.

Terms like this, however, contradict that vegetarians don't eat **any** flesh, whether it's from chickens, fish or other animals.

This is something that even many food establishments aren't clear on. A common issue among vegetarians at these places is a poor understanding of what vegetarian or vegan food is. Again, this may be due in part to those people who say they're vegetarian but are only vegetarians at times, or describe themselves as things like 'pollo vegetarian' or 'flexitarian'.

The first Vegetarian and Vegan Societies in the world were both created in England. Both make clear the ethical connection in using animal products and forbid animal products to differing degrees.

The Vegetarian Society, formed in 1847, says that 'A vegetarian does not eat any meat, poultry, game, fish, shellfish or crustacea, or slaughter by-products.'²⁷²

The term 'vegan' was created almost 100 years later in 1944, out of specific concern with cruelty in producing milk and eggs. The term was introduced in the first newsletter of the Vegan Society, which explained that 'our present civilisation is built on the exploitation of animals, just as past civilisations were built on the exploitation of slaves.'²⁷³

Today the Vegan Society of the UK makes clear that 'A vegan is someone who tries to live without exploiting animals, for the benefit of animals, people and the planet. Vegans eat a plant-based diet, with nothing coming from animals - no meat, milk, eggs or honey, for example. A vegan lifestyle also avoids leather, wool, silk and other animal products for clothing or any other purpose.'²⁷⁴

The 1995 National Nutrition Survey was run by the Australian Bureau of Statistics (ABS) using a sample of 13,858 people across Australia. In that, 3.7% of people over 18 identified themselves as vegetarian - 4.9% women and 2.6% men.²⁷⁵

Only 2.3% of children 2-11 and 1.3% of children 12-15 were described as vegetarian in that survey. While the figure rose to 2.8% for 16-18 year olds, most were female (5.1%) while only 0.6% were male.

This contrasts with Roy Morgan's 2004 Young Australians survey of 1,853 children throughout Australia, which found that 23% of kids aged 6-13 liked vegetarian food. Further, 90% said they liked fries or hot chips, 87% pizza, 81% fish and chips, 80% chicken nuggets, and even 56% salads and soups.²⁷⁶

Making no comment on the desirability of having these items as a regular part of children's diets, they're all items that, if they aren't already vegan, have vegan alternatives, with vegan analogs to chicken nuggets and fish closely resembling the original, without the cruelty or other negative aspects. Further development in this field could produce a much greater variety of these types of food.

In September 2000, Sanitarium research conducted by Newspoll found that 2% of Australians identified as vegetarian. It also found that 18% of people prefer vegetarian meals and that 43% ate more vegetarian meals than a couple of years before.²⁷⁷

According to Roy Morgan research from December 2008, about 8.7% of Australians agreed that what they eat is all, or almost all, vegetarian.²⁷⁸ These results are similar to Roy Morgan research from two years before, which found that 9.1% agree that 'the food I eat is all, or almost all, vegetarian.'²⁷⁹

Roy Morgan also produce some interesting results on the vegetarian preference of various football supporters, but these are more of a curiosity from a general perspective.²⁸⁰

With 5% of people in this survey saying they're vegetarian, these results are positioned between the earlier ABS and Sanitarium research and the Roy Morgan research of 2006 and 2008. Since the figure from this survey is within about 4 percentage points of the others, this supports the 5% figure as a reasonable estimate of the proportion of Australians that consider themselves vegetarian.

As our results, show, however, only 2% of people are actually vegetarian.

Understanding of the term 'vegan' is either more confused than the term 'vegetarian', or there are a significant number of 'part time' vegans - which would not only erode the meaning of the term 'vegan', but also seems unlikely.

4.11 Vegetarians and Vegans Outside Australia

The country with by far the most vegetarians is India - 40%. Most are lacto vegetarian (31%), while 9% are ovo vegetarians. The bulk are vegetarian due to inherited cultural traditions.²⁸¹

According to the European Vegetarian Union (EVU), 10% of Italians are vegetarian, 9% of Germans and Swiss, and 8.5% of Israelis. However, these figures may have come from surveys that asked people to identify themselves as vegetarian, so may reflect the same misunderstanding of the term people had in this survey.

The EVU also say 4.3% of people in the Netherlands are vegetarian, 3.7% in Croatia, and 3% in Austria.

They further say that a number of countries have 2% or less. For example, Belgium (2%), Norway (2%), the Czech Republic (1.5%), and Denmark (1.5% - estimate).²⁸²

Research during the 1990s in Sweden apparently put the proportion of vegans in the general population at between 0.27% and 1.6%.²⁸³ Although this seems to be at odds with a 1996 study of over 67,000 students between 16 and 20 due to the lower proportion of vegans: 0.1%.²⁸⁴

A more recent 2008 study of food consumption in Germany put the figure of vegans there at 0.1% of females and 0.05% of males.²⁸⁵

Research in the UK and US is far more

abundant and easier to verify.

UK research goes back over 20 years, including rationing records from 1945.²⁸⁶ While figures for the number of vegetarians in the UK have sometimes gone over 5% this may, again, reflect a misunderstanding of what being vegetarian means. For example, a May 2004 British Market Research Bureau study apparently found that 7.6% of people in the UK 15 and over considered themselves vegetarian.²⁸⁷

Research since 2000 by the Food Standards Agency (FSA), though, suggests the level is around 2-3%. Their *Public Attitudes to Food* study released early in 2009 involved face to face interviews with 3,219 people across the UK in October and November 2008. That found 3% of people were 'completely vegetarian' as distinct from 'partly vegetarian'.²⁸⁸

While the survey asked people whether they were vegan, it didn't report on them, suggesting the proportion of them was too low in round percentage terms.

This is supported by the Agency's *Consumer Attitudes to Food Standards* report released a year earlier. This provided results of 2,627 face to face interviews with UK adults conducted between August and October 2007. 2% of people interviewed considered themselves 'complete vegetarians', while this time the proportion of vegans was given as 0%. (There probably were some vegans, but at a level that rounded to 0.)²⁸⁹

Another survey by DEFRA carried out in April and May of 2007 (Department for Environment, Food, and Rural Affairs) interviewed 3,618 English people in person.²⁹⁰ 3% of people in that survey called themselves vegetarian, although there was no explanation of what 'vegetarian' meant. However, responses were coded as follows: 'Yes - Vegetarian', 'Yes - vegetarian who eats fish', 'Yes - vegetarian who eats chicken', 'Yes - vegetarian who eats both fish and chicken', 'Yes - Vegan', 'No', 'Don't know'.

As we've already discussed, describing a vegetarian as someone who eats any kind of animal is a contradiction. However, DEFRA captured, at least to some extent, common understanding of the term. 5% of people were classed as vegetarians who ate chicken, fish, or both. This is separate to the 3% who said they were vegetarian only ('Yes - Vegetarian'), but could still mean that some of the 3% ate animals at times.

That same DEFRA study found 2% of people were vegan - on top of the 3% of vegetarians - although again, no description of a vegan was given. Based on:

- the difference to the FSA studies mentioned
- the closeness to the proportion of vegetarians
- a 5% total of vegetarians and vegans (3% vegetarians and 2% vegans)
- the poor understanding of the term 'vegan' in this survey (of Australians)
- interviews not giving an explanation of what a vegan is

it seems plausible that 2% of vegans is overstated.

Even so, the interviews were conducted only in England, rather than the whole of the UK, so it's possible - remotely perhaps - that the 2% figure reflects the true situation.

Figures the Vegetarian Society of the UK (VSUK) provides for the 1980s on their website are similar to the 2-3% level of vegetarians there today. Several surveys during the 1980s were done for Realeat, and the meaning of 'vegetarian' they used may have been less open than some surveys in the 1990s.²⁹¹

According to VSUK details for the 1990s, the proportion of vegetarians ranges from 3-7%.²⁹² These levels may have some connection with the mad cow scare that gained prominence in the mid 1980s through 1990s,²⁹³ although could reflect the same misunderstandings, mentioned earlier, of what a vegetarian is.

So while closer study of these figures may reveal an upward trend from the 1980s, there's no obvious sharp rise, and possibly even a drop since the 1990s.

The only study VSUK lists that gives a clear figure for vegans in the 1990s is a 1992 National Consumer Council survey of 1,053 people 15 or over who'd eaten out in the 6 previous months. That found 1% of people who said they were vegan.²⁹⁴

In the 2000s, apart from the surveys that have already been mentioned, the only other one that provides a figure for vegans is a *Today Programme* poll of over 1000 adults in March 2001.²⁹⁵ 3% of people described themselves as vegan, however this is more than the 2% that called themselves vegetarian. Given these were self-descriptions, it seems plausible that

confusion over what a vegan is contributed to the 3% figure.

Taking into account the variation in figures for vegans from 0-3%, and the room for misunderstanding of what being vegan means, it's difficult to say whether there has been any increase in the level of UK vegans since the 1980s.

Based on the rationing records VSUK give for 1945, however, if there were only 100,000 vegetarians in the UK at that time, and the population was around 47 million, the level of vegetarians at that time would be 0.2%²⁹⁶. So regardless of how they were defined, that suggests there's been at least a 10 fold - or 1000% - increase in the number of vegetarians there in the last 60 plus years.

Studies of children (under 18) in the UK, like some adult studies, may over exaggerate the level of vegetarians and vegans in Britain.²⁹⁷ The Vegetarian Resource Group polls in America, asking children to specify which foods they 'never' eat, produced results similar to their adult polls (discussed a little further on).²⁹⁸

A 2004 Agriculture and Agri-Food Canada study of 1,600 Canadians found that, depending on what they said they eat in an 'average week', 3% might be vegetarian (including vegans).²⁹⁹ The Dietitians of Canada refer to a 2002 National Institute of Nutrition study that found around 4% of people there who were vegetarian. However, they don't make clear whether these are simply people who describe themselves as vegetarian.³⁰⁰

In America, like the UK, surveys asking whether people are vegetarian go back many years, at least to 1978.³⁰¹

4% of people who took part in an online poll of 10,007 American adults by Time/CNN in July 2002 considered themselves vegetarian. However, further questioning revealed that of that 4%, 57% said they were 'Semi-vegetarian.' That leaves 1.72%. 0.2% said they were vegan.³⁰²

A later 2004 telephone survey by the Vegetarian Resource Group asked 1000 Americans over the age of 18 about foods they 'never' eat.³⁰³ 2.3% said they don't eat any flesh, while 1.4% said they don't eat milk products or eggs. So 2.3% ate a vegetarian diet, and 1.4% a vegan, or close to vegan diet, since there wasn't a question about whether people ate bee products.

While being vegetarian is overtly centred around diet, many vegetarians have a concern that extends beyond diet to exclude animal products other than food eg leather (even though they're mistaken that being vegetarian is a largely cruelty free way of living).

On the other hand, the 1.4% of people that followed a vegan or close to vegan diet may not all have done it for ethical reasons. Some, though perhaps not many, do it mainly for health or environmental reasons. However, veganism is an intrinsically ethical philosophy that extends beyond diet, so eating a vegan diet doesn't necessarily make a person a vegan.

For example, a man that eats a vegan diet for health, but buys wool dresses for his wife and leather shoes for himself, isn't a vegan.

In 2008, the *Vegetarian Times* released the report *Vegetarianism in America* which was based on a survey of 5,050 adults around the country. That said 3.2% of Americans followed a 'vegetarian-based' diet, of which about 0.5% were vegan.³⁰⁴

Between 1 and 5 May 2009, the Vegetarian Resource Group ran an online poll of 2,397 American aged 18 or more. Like their previous 2006 poll, people were asked about things they 'never' ate, this time adding honey. The results gave 3.4% of people who don't eat animal flesh, with 0.8% also not eating milk products, eggs or honey.³⁰⁵

In a 1978 Department of Agriculture survey of 37,135 Americans, 1.2% answered yes to the question 'Are you vegetarian?'³⁰⁶ The survey also showed, however, that some of these people ate flesh. If we generously said that 1% of these people are actually vegetarian, this may mean that figures from the 2000s of 2-3% represent at least a doubling in the number of vegetarians in over the past 40 years or so.

Surveys in the 1990s done for the Vegetarian Resource Group (VRG), found around 1% of Americans were vegetarian, with about 0.05%-0.5% of them vegan.³⁰⁷ These figures seemed to make a sharp increase in 2000, when they reported 2.5% vegetarians and 0.9% that follow vegan diets.³⁰⁸

As they point out, while increases of less than $\pm 3\%$ from survey to survey aren't statistically significant³⁰⁹, the fact that later surveys in the 2000s gave similar results suggests they may have some validity. The 2008 *Vegetarian Times* study also seems to confirm this.

It could be then, that if the 1% level of vegetarians from 1978 is close, the doubling (or more) of vegetarians that seems to have occurred in the past 40 years has largely taken place this decade.

Another alternative is that the level of vegetarians in 1978 was lower than 1%, so there may have been an increase from then to the 1% level in the 1990s, followed by a larger jump in the 2000s.

In either case, the 2000s seem to have shown a jump in the number of vegetarians. If this is right, it could be due to the rise of the internet and the information it makes readily available about farming practices and being vegetarian.

So while India is the clear leader in terms of vegetarians, Australia doesn't seem that far behind USA or the UK. That said, it's sobering to remember that rates of 2-3% of vegetarians and 1% or below for vegans are very low. Which is why it's important for people to be told about the ethics and other benefits of being vegan.

4.12 History and Growth

This survey has established that the proportion of adult vegetarians and vegans in Australia - and many other countries - is fairly low: 2% for vegetarians and 0.06% for vegans.

Even so, these figures represent a significant number of people: around 270,000 vegetarians and 10,000 vegans.

If the English rationing records from 1945 are anything to go by, there's been a significant increase in the number of vegetarians in England since then. They suggest that the increase from then til now is around 10 fold, or 1000% (from around 0.2% to about 2%).

Australia's first Vegetarian Society, perhaps surprisingly, was formed, like the UK Society, in the 19th century - 1886. A culture centred around meat consumption was possibly as strong then, if not stronger, than it is today.³¹⁰

Robert Jones, the Society's second president, was a school principal, journalist, and publisher who also wrote educational textbooks. He described his childhood diet as 'the usual colonial diet, eating flesh every day, often twice, sometimes three times a day.'³¹¹

A vegetarian for a couple of years before the Society was formed in 1886, he later became vegan, well before the word was coined in 1944. He urged people to:

Cease their consumption of that grossest of all foods, dead flesh, to obtain which, nameless cruelties and barbarities, to our eternal disgrace, are inflicted on the defenceless dumb - barbarities which will not bear naming, much less looking at, so hideous are they. The sufferings of gentle, domestic animals by land and sea, in railway-trucks and cattle-steamers, from thirst, hunger, cold, heat, overcrowding, fatigue, blows, terror, and sickness, not to mention their death-agonies, and the other unspeakable horrors of the slaughterhouses, are such as no pen can describe; they are horrors, comparable only to the worst brutalities of the infamous slave trade.³¹²

His descriptions of the suffering animals endure to produce 'meat' remain valid over 100 years later. Methods have changed, but the transport, conditions and impending death remain valid.

James Cook claimed NSW for Great Britain in 1770. The first British colony in Australia was established in NSW within 20 years, in early 1788. Given that the Australian Vegetarian Society only formed around a 100 years after that, like the UK, we've probably made small but significant advances in that time as well.

Being vegan, while still marginal today, has potential for enormous growth, for us to finally release our fellow animals from their bondage and realise the wonderful environmental and other advantages that being vegan holds.

4.13 Conclusion

Exploiting animals for food, experiments, profit and other reasons can't be justified unless you reduce them to commodities like a table, a box of Cornflakes or a pair of shoes (which animals are often turned into).

However, doing this immediately contradicts what it means to be an animal. Humans are animals. Other animals are on the same continuum we are. They aren't rocks, pieces of wood, or sheets of steel.

Like us, they have feelings. Like us they experience pain. So if we played the game *Which is the odd one out?*, it would be more logical to put them in a group along with us - as animals - than with rocks, soil and water.

It doesn't make sense, then, to treat other animals like rocks - using them for our own purposes - when unlike rocks they feel pain like us, and have interests like us. (Although

their interests may be quite different to ours.) As they're similar to us as living creatures able to experience pain, how can it be we think we have the right to use them for our ends, simply because we have the power to?

Following that logic, the strong people in our society could subjugate the weak, using them for their own purposes like Idi Amin or Pol Pot. The disabled, sick and elderly could all be dominated by stronger people.

Living this way produces a state of constant uncertainty and fear, particularly for those who aren't in the elite. However, even the elite are open to threats from each other, or attempts to kill them by the people they oppress. This approach reduces humans to tools for the benefit of the elite.

Why then do we seek to do the same things to other animals?

We acknowledge other humans as individuals with their own interests and own capacity to feel pain. So we hold to the idea that unless they do something to harm the interests of others, we leave them free to follow their interests.

Doesn't it follow that as living creatures, unlike rocks and steel, other animals deserve the same consideration? To be treated as individuals with their own interests and their own capacity to feel pain? Why do we instead make them subservient to us, tyrants of the animal world?

Animal use is one of the most important issues of our time.

Worldwide, over 60 billion farm animals are killed for food each year.³¹³ The number of fish and other sea animals killed for food, not including animals killed for testing, skin, hunting, fur and so on, is about 73 billion.³¹⁴

This gives us a conservative global figure of around 130 billion animals killed a year for food alone.

This is around 1600 times the number of people killed in World War II and more than 18 times the entire human population. What's even more staggering is that this isn't over a period of a few years, but in one year.

Yet addressing the very same problem of animal use by becoming vegan would also have a significant positive impact on many of the other problems facing the world.

As discussed earlier, the animal industry is wreaking global environmental havoc, causing extensive water pollution, deforestation, land degradation, devastation of fish populations, and reduction in biodiversity.

70% of what used to be forest in the Amazon is used as pasture.³¹⁵

Cereal is the most important source of food in the world.³¹⁶ In 2007, Jean Ziegler, who at that time was the UN Special Rapporteur on the Right to Food, called biofuel a 'crime against humanity', since it diverted cereal away from feeding the hungry to produce fuel.³¹⁷

A child dies every 6 seconds from hunger and there are over 1 billion hungry people in the world.³¹⁸

In 2008, almost 100 million tonnes of grain went to producing biofuel. However, over 7 times that was fed to animals raised for food.³¹⁹ In fact they're fed around 1/3 of the world's total cereal crop,³²⁰ and 7% of the world's water is used to produce feed for them.³²¹ (In Australia, food animals are fed more than 7 times the grain that humans eat.³²²) Only around half of the world cereal crop feeds people.³²³

Going on figures from the late 1990s, farmers worldwide produce an average edible crop harvest of 4,600 kilocalories per person each day. Losses following harvest, such as transport and storage, mean around 2,800 kilocalories are available for supply. Of the 1,800 kilocalories lost to this point, 2/3 goes into animal feed.³²⁴

On average, it takes around 10 times more energy to produce 1 kilocalorie of animal protein than 1 kilocalorie of corn.³²⁵ It also takes about 8 times more water to produce 1000 kilocalories of animal products than the same energy value of plant food.³²⁶

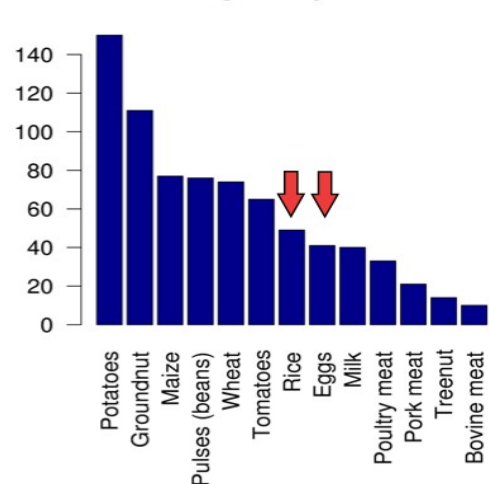
Further, many plant foods use water more efficiently to produce the same amounts of protein and other nutrients.

For example, using the same amount of water, potatoes produce 15 times more protein than cow flesh.³²⁷

Milk produces 40 grams of protein for every kilolitre of water, however wheat returns 74 and corn 77. Even rice produces 49 grams per kilolitre.

The following diagram illustrates:

Protein in grams per 1000 litres



From *Vegetarian Bites Newsletter*, Summer 2008: 2.
 Newsletter of the ACT Vegetarian Society. Available at
<http://vegetariansociety.org.au/new.html#newslettersonline>

Based on D Renault and WW Wallender, *Nutritional productivity and diets*, *Agricultural Water Management*, 45, 2000: 282.

Despite this, billions of dollars across the world go into subsidies for animal foods.³²⁸

While some people say that grain fed to other animals isn't of high enough quality to feed humans,³²⁹ even where this is the case, the argument avoids why resource and subsidy intensive animal agriculture is favoured in place of producing plant food for humans.

Other arguments that animals can graze land that wouldn't suit cropping,³³⁰ may mean that large open field crops on this type of land aren't practical, although other crops such as fruit and nut trees, along with some types of vegetables, are.³³¹

In 2007, Simon Fairlie considered how much land would be required to support typical omnivore and vegan diets in Britain.³³² He looked at 3 different farming methods in each case: conventional agriculture using chemicals, organic production and permaculture.

Comparing the same type of farming method - for example, vegan permaculture with omnivore permaculture - he found that regardless of the method used, vegan diets needed the least amount of land.

A permaculture vegan diet fed almost twice as many people as those on a permaculture omnivore diet, while a vegan diet using chemicals fed around 3½ times more people than an omnivore diet using chemicals

(although of course there are other reasons to avoid chemicals).

These figures seem to be conservative. Other studies have shown that omnivore diets require more than 3 times the land that vegetarian diets (including milk and eggs) do.³³³ Gerbens-Leenes and others have suggested that the land omnivore diets require 'could be much larger than the factor of three.'³³⁴ Based on their work, the The Vegan Society have calculated that typical European omnivore diets need about 5 times the land that vegan diets do.³³⁵

The director of the Center for Global Food Issues, Dennis Avery, while not a vegan, acknowledged the efficiency of a vegan diet when he said 'The world must create five billion vegans in the next several decades, or triple its total farm output without using more land.'³³⁶

While this was meant to suggest that the way we farm for an omnivorous diet need to become more efficient, doesn't it make more sense to follow a naturally more efficient diet that doesn't exploit animals or rely on billions of dollars of subsidies?

Vegan food, and more broadly the entire vegan approach, holds fantastic promise for the world. It means food could be produced more cheaply, more efficiently and without harming billions of animals every year.

No loss of nutrition would be necessary, and in fact could even produce nutritional benefits such as more fibre, fruit and vegetable consumption and no added cholesterol.

While some people adapt readily to vegetarian protein from foods such as tofu, legumes and tempeh, others don't find this as satisfying or find that extra fibre from legumes create digestive problems.

These problems can be solved with analogs that resemble familiar animal products such as mince, sausages, chicken nuggets and schnitzel. These are made with combinations of cereals and processed legumes that remove some of the fibre eg soy and chickpea flour.

Milk products including yoghurt and cheese can also be made with vegetable foods.

While not all of these products closely resemble their animal counterparts, some do. If more companies took up producing analogs, however, it's likely they could produce a far

wider range of satisfying products.

These could be made into innumerable foods, not only those that resemble familiar animal products, but also those that make no attempt to emulate them eg chickpea chips.

Some products would also offer advantages in storage and transport. For example, textured vegetable protein, or products resembling it, is a dry product that can be rehydrated in place of mince. (Products range through unflavoured to preflavoured varieties.)

In an article for World Watch, Robert Goodlund, who worked for many years at the World Bank, and Jeff Anhang, who continues to do so, point out that:

In developing countries, where per-capita meat and dairy consumption is lower than in developed countries, consumers often see meat and dairy products as part of a better diet and a better life, and have not yet been informed about their adverse impacts. Yet meat and dairy analogs can yield even better outcomes, particularly if they are marketed with such intent.³³⁷

They later expand on this:

Meat and dairy analog projects will... help ease the global food crisis, as it takes a much smaller quantity of crops to produce any given number of calories in the form of an analog than a livestock product. Analog would also alleviate the global water crisis, as the huge amounts of water necessary for livestock production would be freed up. Health and nutritional outcomes among consumers would be better than from livestock products. Analog projects would be more labor intensive than livestock projects, so would create both more jobs and more skilled jobs. They would also avert the harmful labor practices found in the livestock sector (but not in analog production), including slave labor in some areas such as the Amazon forest region. Workers producing livestock products can easily be retrained to produce analogs.³³⁸

The most decisive statistic from this survey is that 99% of Australians are against cruelty to animals.

However, this discussion has provided examples of the many ways in which animals are extensively and systematically abused for food, clothing, entertainment, sport and science.

We've seen that experiments on animals, as well as being far reaching and often cruel, can

recklessly divert scientific advances.

Similarly, we've seen that animals are hurt, cut up and killed for food even though nutritional authorities tell us that animal products aren't necessary in healthy human diets.

Since eating animals or using them for entertainment is unnecessary, and Australians say they don't find cruelty acceptable, appeals like 'meat tastes good' or 'it's fun to shoot birds' have a hollow ring.

We can't maintain that our desire for something alone makes it legitimate. If this was the case, we could justify all kinds of crime. People could purchase slaves because they enjoy having them. Someone walking down the street could bash someone else because they wanted their watch. The murderer Katherine Knight could have served part of John Price up - as we do with animals - and left his head in a pot of vegetables without recrimination.

The Golden Rule holds that we should treat others as we wish to be treated. Whereas we might throw rocks, step on them or grind them into a powder, we wouldn't see this as a problem in terms of the Golden Rule, since rocks don't feel pain. We feel pain, however, so throwing people around, stepping on them or grinding them alive into a mince would defy the Golden Rule.

Yet while animals feel pain, like us, we cast the Golden Rule aside. We desex them without anaesthetic, we clip their teeth, remove their horns, take their children, drive bolts into their heads and even mince them alive (chicks in hatcheries). Along with many other practices that pay their lives little regard.

Would we do these things to another human? Generally, no, because we have respect for human life - we regard that person as more than simply a means to an end. However, we don't show a similar respect for other animals. We don't apply the Golden Rule to them.

This doesn't mean we need to regard other animals the same as us or give them exactly the same rights. They're obviously different to us. However, just as it's our aim to respect differences of nationality, intelligence and sex as part of our regard for other human lives, so other animals should have a basic right to life and freedom from violence.

Our society has a distaste for crimes of power

such as organized crime, 'white collar' crime, crimes of dictators, and crimes against children, weaker partners or the disabled.

Yet partly because of lack of knowledge, we abuse our power over other animals and condone their widespread abuse. Like dictators we dominate them and use them for our own ends. That we do this with the notion of abusing them 'humanely' clouds our responsibility, allowing us to think we can use animals as long as we treat them 'well'. Which, in any case, often doesn't happen.

Would we accept abusing other humans this way? Maybe by pulling their teeth without anaesthetic, but doing it 'humanely'? Or branding them with a hot iron on the forehead? We consider this an outrage, an insult to humanity.

The very same thing is true of animals. You can't mistreat them 'humanely.' A recognition of their lives, that they feel pain, demands that the only real 'humane' way they can be treated is to stop using them as means to our ends. That means becoming vegan.

In an interview, the lawyer Marybeth Wosko said:

So often I hear people say, "you do your thing, I'll do mine. You may choose to eat vegetables and fruit and nuts and grains, I choose to eat meat and dairy"...

That argument is basically and dangerously flawed, because the most interested person - the one being killed - is not party to the discussion...

The argument ignores the basic rights of the individual most affected... A wise person once said, "I would defend to the death your right to believe what you believe... but that right stops where your fist hits another's nose."³³⁹

While dismay or horror is expressed over the terrible casualties that war inflicts, these type of casualties occur to nonhumans every day, away from our eyes.

If these deaths were nothing to object to, there'd be no need to hide these practices away. However, slaughter of millions of animals is an unrelenting machinery that's removed, or at least kept away from, the eyes and minds of most people.

Many animals today are in a far worse position than slaves. They suffer terrible conditions, are exploited for their skins and products like

milk and eggs, cut up, killed, cooked then eaten.

Animals, including us, are live, thinking, feeling creatures. Borrowing the words of the 19th century philosopher Jeremy Bentham, just as we wouldn't think of human flesh as 'meat' to be eaten, or treated human skin as 'leather' to be worn, terms like meat and leather 'degrade' the status of other animals as living, thinking, feeling creatures 'into the class of *things*.'³⁴⁰

While the use of animals for food, sport, entertainment and other purposes is commonly accepted, this doesn't mean this is a logical or even tolerable state of affairs.

Numerous practices throughout history were considered acceptable and were even legal, although these wouldn't be considered the same way by modern standards. Slavery was a widespread legal practice throughout human history. (Millions of people are illegally still kept as slaves to this day.³⁴¹) Does that mean it was right?

Even then, slaves weren't routinely skinned. Or used for clothing. Let alone eaten. Yet this is what happens to billions of animals every year.

If you work in an animal industry, put yourself in place of the animals you depend on for your livelihood. Rather than having an immediate gut reaction, ask yourself honestly, 'Would I be happy to experience the same things the animals do?' Rather than focusing on your livelihood, ask yourself 'Am I happy living off animals for profit?' Or is there something else you could do that, in turn, would also benefit you?

If you're someone who doesn't work in an animal industry, but uses animals for food or other purposes, again, ask yourself honestly, 'Would I be happy to experience the same things the animals do?' Ask yourself, 'Is my convenience and pleasure really more important than the suffering and death of billions of other animals?'

Is there a another way for the 21st century?

The answer is yes: to embrace being vegan.

5 Method

Information from Newspoll:

Sample

Conducted nationally among 1202 respondents aged 18 years and over.

Respondents were selected via a random sample process which included:

- a quota being set for each capital city and non-capital city area, and within each of these areas, a quota being set for groups of statistical divisions or subdivisions
- random selection of household telephone numbers using random digit dialling (RDD)
- random selection of an individual in each household by a "last birthday" screening question.

Interviewing

Conducted by telephone over the period of 21-23 August 2009 by fully trained and personally briefed interviewers.

To ensure the sample included those people who tend to spend a lot of time away from home, a system of call backs and appointments was incorporated.

Weighting

To reflect the population distribution, results were post-weighted to Australian Bureau of Statistics data on age, highest level of schooling completed, sex and area.

ISO 20252 - Market, Social and Opinion Research

This study was carried out in compliance with ISO 20252 - Market, Social and Opinion Research.

Demographic Questions

Given on the next page.

Survey Questions

See following pages.

DEMOGRAPHICS

1 To make sure we're speaking to a cross-section of people, please tell me if you are aged...? **READ OUT 01-04 IF AGED 18-34 OR 05-11 IF AGED 35 AND OVER**

18-19.....	01	40-44.....	06
20-24.....	02	45-49.....	07
25-29.....	03	50-54.....	08
30-34.....	04	55-59.....	09
35-39.....	05	60-64.....	10
		65+.....	11
		REFUSED.....	12

2 **RECORD SEX** MALE..... 1
FEMALE..... 2

3 Are you the person who is **most** responsible for doing the household grocery shopping?
IF UNSURE / SHARED EQUALLY WITH SOMEONE ELSE CODE AS "YES" IE CODE 1 YES..... 1
NO..... 2

4(a) How many people aged 18 years or over live in your household, including yourself?		---4(a)--- ADULTS	---4(b)--- CHILDREN
	ONE.....	1	1
	TWO.....	2	2
4(b) And how many children aged 17 years or younger live in your household?	THREE.....	3	3
	FOUR.....	4	4
	FIVE.....	5	5
	SIX+.....	6	6
	NONE.....	-	7
	DON'T KNOW / REFUSED.....	8	8

5 Are you in paid employment full time, part time or not at all?
IF UNSURE / CASUAL / SELF EMPLOYED Is that closer to full time or part time hours?

FULL TIME.....	1
PART TIME.....	2
NOT AT ALL.....	3
DON'T KNOW / REFUSED.....	4

6 To help us ensure we have a representative sample could you please tell me the highest level of primary or secondary school you personally have completed? Was it...? **READ OUT 1-3**

YEAR 9 OR BELOW.....	1
YEAR 10.....	2
OR, YEAR 11 OR 12.....	3
DON'T KNOW / REFUSED.....	4

7 And **apart** from primary and secondary school, what is the highest level of education you personally have **completed**? Was it...? **READ OUT 1-3** **SR**

A DIPLOMA OR CERTIFICATE FROM A COLLEGE OR TAFE, INCLUDING AN APPRENTICESHIP.....	1
A DEGREE OR DIPLOMA FROM A UNIVERSITY.....	2
OR, NONE OF THESE.....	3
REFUSED / DON'T KNOW.....	4

8 Which **one** of the following best describes your present marital status? **READ OUT 1-6** **SR**

NEVER MARRIED.....	1
DEFACTO OR LIVE TOGETHER.....	2
MARRIED.....	3
SEPARATED BUT NOT DIVORCED.....	4
DIVORCED.....	5
WIDOWED.....	6
REFUSED.....	7

9 Could I please have the occupation of the main income earner of your household?
IF NECESSARY Could I also have the position or job title of the main income earner of your household?

10 Is your household's combined annual income from all sources, before tax... **READ OUT A-D**. Would that be...? **READ OUT 02-04 IF 30 TO 59, 06-08 IF 60 TO 89 OR 10-11 IF 90 THOUSAND OR MORE**

INTERVIEWER INFORMATION

UNDER \$30,000 PA IS UNDER \$577 PER WEEK
\$30,000-\$39,999 PA IS \$577-\$769 PER WEEK

\$40,000-\$49,999 PA IS \$770-\$962 PER WEEK
\$50,000-\$59,999 PA IS \$963-\$1,154 PER WEEK
\$60,000-\$69,999 PA IS \$1,155-\$1,346 PER WEEK
\$70,000-\$79,999 PA IS \$1,347-\$1,538 PER WEEK

\$80,000-\$89,999 PA IS \$1,539-\$1,731 PER WEEK
\$90,000-\$99,999 PA IS \$1,732-\$1,923 PER WEEK
\$100,00-\$109,999 PA IS \$1,924-\$2,115 PER WEEK
OVER \$110,000 PA IS OVER \$2,115 PER WEEK

A) UNDER 40 THOUSAND DOLLARS
 UNDER 30 THOUSAND..... 01
 OR, 30 TO 39 THOUSAND DOLLARS..... 02
 REFUSED / DON'T KNOW..... 03

B) 40 TO 79
 40 TO 49 THOUSAND..... 04
 50 TO 59..... 05
 60 TO 69..... 06
 OR, 70 TO 79 THOUSAND DOLLARS..... 07
 REFUSED / DON'T KNOW..... 08

C) OR, 80 THOUSAND OR MORE
 80 TO 89 THOUSAND..... 09
 90 TO 99..... 10
 100 TO 109..... 11
 OR, 110 THOUSAND DOLLARS OR MORE... 12
 REFUSED / DON'T KNOW..... 13
REFUSED..... 14
DON'T KNOW..... 15

SECTION X - PROG NOTE: ASK ALL RESPONDENTS

X1 Thinking now about yourself. Would you say you personally are...? **READ OUT**

PROG NOTE:
- **SINGLE RESPONSE**

1	A vegan (PRON vee-gan)
2	A vegetarian
3	Or, neither of these
4	DO NOT READ Don't know

X2 Thinking now about **food**. Which of the following do you eat either regularly or from time-to-time? **READ OUT**

PROG NOTE:
- **MULTI RESPONSES ALLOWED**
- **IF CODE 1-5 SELECTED THEN CANNOT SELECT CODE 6**

1	Honey, royal jelly or other bee products
2	Dairy or eggs, including foods that contain them
3	Fish, prawns or other seafood
4	Chicken or other poultry
5	Beef, lamb, pork or other meat
6	DO NOT READ None \ don't know

X3 Which of the following, if any, apply to you? **READ OUT**

PROG NOTE:
- **MULTI RESPONSES ALLOWED**
- **RANDOMISE 1-2 THEN 3-5 LAST**
- **IF CODE 1-4 SELECTED THEN CANNOT SELECT CODE 5**

1	You buy products made from leather or wool
2	You actively avoid buying products that have been tested on animals
3	You sometimes visit zoos, aquatic parks or aquariums
4	You sometimes attend or watch other events that feature animals, such as horse racing, dog racing, the circus or rodeos
5	DO NOT READ None \ don't know

X4 Please say whether you personally think each of the following is **acceptable** or **unacceptable**. Firstly...? **READ SCALE IF NECESSARY**

PROG NOTE:
- **SINGLE RESPONSE REQUIRED PER ROW**
- **RANDOMISE A-B THEN SHOW C, THEN RANDOMISE D-E**

		Acceptable	Unacceptable	DO NOT READ Don't know
A	Testing medicines on animals	1	2	3
B	Testing cosmetics on animals	1	2	3
C	Conducting other types of research experiments on animals	1	2	3
D	Breeding animals to sell in pet shops	1	2	3
E	Cruelty to animals	1	2	3

X5 Thinking now about a vegan (**PRON vee-gan**) diet, which is when a person does **not** eat any meat, seafood, dairy or eggs.

Please say if you think each of the following statements are **true** or **false**. Firstly... **READ SCALE IF NECESSARY**

PROG NOTE:

- **SINGLE RESPONSE REQUIRED PER ROW**
- **SHOW A FIRST THEN RANDOMISE B-C**

		True	False	DO NOT READ Don't know
A	Vegan diets can be healthy	1	2	3
B	The livestock industry causes serious environmental problems	1	2	3
C	Around 500 million farm animals are killed in Australia each year	1	2	3

PROG NOTE: ASK IF DON'T FOLLOW VEGAN LIFESTYLE IE NOT (CODE 1 IN X1 AND CODE 2 IN X3 AND NOT CODE 2-5 IN X2 AND NOT CODE 1 IN X3). (CODE 1 IN X1 AND CODE 2 IN X3 AND NOT CODE 2-5 IN X2 AND NOT CODE 1 IN X3) GO TO X7

X6 Thinking now about a vegan (**PRON vee-gan**) lifestyle, which is when a person follows a vegan diet, and also **avoids** products that have been tested on animals, or made with animal ingredients, such as leather or wool. Which of the following, if any, would **encourage** you to adopt a vegan lifestyle? **READ OUT**

PROG NOTE:

- **MULTI RESPONSES ALLOWED**
- **RANDOMISE 1-7 THEN 8 LAST**
- **IF CODE 1-7 SELECTED THEN CANNOT SELECT CODE 8**

1	Evidence that you personally can be healthy on a vegan diet
2	Evidence that a vegan lifestyle is better for the environment
3	Evidence that many farming practices cause stress and pain for millions of animals every year
4	If you had friends or family who followed a vegan lifestyle
5	If more people in general followed a vegan lifestyle
6	If cafes or restaurants had more vegan menu items
7	If a vegan lifestyle were cheaper than your current lifestyle
8	DO NOT READ None \ don't know

PROG NOTE: ASK ALL RESPONDENTS

X7 The following question may contain information that is sensitive to some people, however it is an important topic and we would appreciate your opinion. Please say whether you personally find each of the following farming practices **acceptable** or **unacceptable**. Firstly... **READ SCALE IF NECESSARY**

PROG NOTE:

- **SINGLE RESPONSE REQUIRED PER ROW**
- **RANDOMISE A-D**

		Acceptable	Unacceptable	DO NOT READ Don't know	DO NOT READ Refused
A	Keeping egg-laying hens in cages for their entire lives	1	2	3	4
B	Castrating animals without using an anaesthetic	1	2	3	4
C	Making milk producing cows pregnant every year and taking their calves from them so their milk can be used by humans	1	2	3	4
D	Killing male chicks because they can't become egg laying chickens	1	2	3	4

6 Further Information

Not all views expressed in the following videos and websites are necessarily endorsed by this report.

Also, while sites are essentially vegan, this report doesn't endorse advertisements or views that aren't vegan.

Animal Product Replacements

- 1) Act Now For Animals, *Vegan Products*
<http://www.actnowforanimals.com/products.aspx>
- 2) VegWeb, *Meat, Dairy and Egg Alternatives*
<http://vegweb.com/index.php?board=150.0>
- 3) Vegetarian Resource Group,
Egg and Dairy Replacers
<http://www.vrg.org/nutshell/vegan.htm#egg>

Books

- 1) Gary L Francione
*Introduction to Animal Rights:
Your Child Or The Dog?*
Temple University Press, Philadelphia: 2000

A compelling introduction to animal rights with some good historical background.

Health

- 1) VeganHealth.org
<http://www.veganhealth.org>
- 2) VegFamily
Vegan Nutrition with Dina Aronson, MS, RD
<http://www.vegfamil.com/dietician-dina/index.htm>

Ideas

- 1) Animal Rights: The Abolitionist Approach
<http://www.abolitionistapproach.com/>
- 2) Abolitionist Online
<http://www.abolitionist-online.com>
- 3) HumaneMyth.org
<http://www.humanemyth.org>

Recipes

- 1) VegWeb, *Recipes*
<http://vegweb.com/index.php?action=recipecategories>

A vast collection of searchable recipes arranged by category.

- 2) The Vegan Chef
<http://www.veganchef.com>

- 3) chooseveg.com, *Recipes*
<http://www.chooseveg.com/vegan-recipes.asp>

A broad selection of recipes arranged by type, with cooking tips and a vegan food guide.

Video

- 1) ALifeConnected.org, *A Life Connected*
<http://www.youtube.com/watch?v=33luqyxA8LO>

About 12 minutes long.

- 2) Nation Earth, *Earthlings*,
Burbank, California: 2005
<http://www.earthlings.com>

A short excerpt from the video can be viewed online.

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Figures calculated values from those given: 440.1 million hectares, or about 57% of Australia's total land area is devoted to agriculture. Therefore approximate total land area = (440.1 million hectares/57) x 100 = 772.1 million hectares. Crops take up 26.1 million hectares, while grazing uses about 368 million hectares. The proportion of agricultural land cropped is 26.1 million hectares/440.1 million hectares = 0.0593, or around 6%. The proportion of agricultural land grazed is 368 million hectares/440.1 million hectares = 0.8362, or around 84%. The proportion of all land cropped is 26.1 million hectares/772.1 million hectares = 0.0338, or around 3%. The proportion of all land grazed is 368 million hectares/772.1 million hectares = 0.4766, or around 47%.

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Organic omnivore diet: 2 hectares of land feed 7.5 people. Therefore 1 hectare of land feeds 3.75 people. Organic vegan diet: 1 hectare of land feeds 8 people. This is just over twice as many people as the organic omnivore diet.

Permaculture omnivore diet: 1.8 hectares of land feeds 8 people. Therefore 1 hectare of land feeds 4.44 people. Permaculture vegan diet: 1 hectare of land feeds 8.5 people. This is almost twice as many people as a permaculture omnivore diet.

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