



A GUIDE THROUGH VEGANISM

A vegan actively avoids all animal products, not just in food (dairy, eggs, honey, meat, poultry, seafood, etc.) but in clothing, entertainment, and experimentation, recognizing that the use of animals is unnecessary. The moral imperative to switch to a vegan lifestyle is more pronounced than ever. Countless domesticated animals are trapped in a system of human use while wild animals are forced into smaller and smaller spaces and placed under the control of Game Commissions and the like. Anything that doesn't fit society's expectations or needs is manipulated or eliminated.



PEACE **ADVOCACY** NETWORK

vegan guidebook

DOMESTICATED ANIMALS

Domesticated animals are those who have been bred to live in close proximity to humans, usually creating a dependency on humans, and who are altered physiologically, behaviorally, or reproductively as a result.¹

Domesticated animals are found at every turn - used for food, used for entertainment, used for clothing, used for experimentation, used for personal care products, used for whatever pleases humans. The food uses range from the more obvious items like beef, chicken, fish, dairy, and eggs, to the less obvious ingredients such as gelatin, in desserts, made from the ligaments, bones, and skins of animals, and whey, a dairy derivative, in baked goods such as soft pretzels, in the dough conditioner or L-cysteine, made from fur or feathers, in bagels. Entertainment uses run the gamut from the entertainment industry itself with dogs, horses, and more appearing in TV, movies, and live theater, to circuses with lions and elephants to horse-drawn carriages to the pet industry. Leather, wool, silk, and fur (sometimes wild), including fur trim, are all parts of animals.

The bottom line with animal use from an industry perspective is financial gain. Regardless of finances, domesticated animals are always at the mercy of their human owners, whether they are kind or not, whatever level of care the owner wants to give or not. The animal is forced to live under human rule. In animal agribusiness, the sector that turns animals into food, it's a given that the animals' interests will never be a priority, especially since an unnaturally short life is built into the system.

Our use of animals, especially domesticated animals, has opened up a Pandora's box of problems for not only the animals being used, but for humans and wild animals alike. The following sections examine some of these problems as they specifically related to using animals for food.

VEGAN SURVIVAL GUIDE

Handling parties and other social events

Parties and social outings are meant to be fun, and being vegan doesn't stop that. A few simple modifications are all that is needed to handle social situations with food.

Catered events are becoming increasingly easy to handle as professional chefs likely have experience with preparing special vegan meals when given proper notice. For those chefs who aren't experienced, be ready to offer a few of your favorite recipes, preferably with easy-to-find ingredients, to the chef.

For parties at individuals' homes or similar situations, there are several options. Some folks prefer to eat in advance and focus on socializing at the event. Usually, there will be items like fresh, cut vegetables or chips that are vegan if a little munching is required. Another alternative is to offer to bring your favorites party food as your contribution to the party. If the host insists on preparing something vegan and you want to be sure the items is, indeed, vegan, ask for the recipe in advance under the guise of wanting a particular recipe like that but that you couldn't find it. Or, ask if the host has had any difficulty finding special ingredients - "Do you need me to get you a vegan Parmesan for the pesto?" or "Do you want me to give you some of my egg replacer for your cookie recipe?"

Dining at restaurants is similar to catered events in that many chefs have experience with vegan meals. Advanced notice is helpful as is checking the menu in advance. If a vegan menu is available, great! If not, talk to the chef about what can be made vegan. Ingredients to watch out for include fish sauce at Thai restaurants, dairy at Indian restaurants, lard in beans at Mexican restaurants, hidden ingredients in items like noodles (egg), breads and baked goods (especially items like dairy derivatives and eggs), and meat-based stocks in soups.

Mixed Households

Being the only vegan in an otherwise non-vegan household can require creativity at times to keep everyone happy. If convincing your housemates has failed to work, there are solutions for meal time. Dinner tends to be the meal that brings a family or friends together in a household. Creative dinner ideas that can accommodate everyone include the following:

- **BUILD-YOUR-OWN BURRITOS, TACOS, WRAPS**
Build-your-own meals allow for a variety of fillings of each individual's choice. For example, taco night could consist of corn taco shells on one plate with fillings such as refried beans, tomatoes, avocados, shredded lettuce, onions, rehydrated texturized soy protein, a shredded vegan cheese - and nonvegans who insist on animal products may add those separately. By serving these items on the side and allowing everyone to build their own, the vegan can still have his/her vegan meal with relatively little fuss.
- **VEGAN SIDES AND AN ENTREE CHOICE**
Having the side dishes, starches such as rice or potatoes, various vegetables such as broccoli, carrots, or leafy greens, be completely vegan while offering both a vegan and a non-vegan entree such as a vegan meatless loaf if non-vegans choose to eat meat loaf, minimizes the need to prepare completely separate meals as only one extra dish needs to be prepared.
- **PERSONAL PIZZAS**
Using any of a number of vegan pizza crusts and tomato sauces, pizzas can be topped with a variety of toppings. There are several brands of vegan cheeses that melt well and taste good, and no-miss veggies such as bell peppers, mushrooms, and olives are always great. Non-vegan toppings can be made available to keep those who insist on them happy - but only on their pizzas!
- **STIR-FRY**
A vegetable-based stir fry can be prepared completely vegan with the option of adding something vegan like baked tofu strips or something non-vegan for those who insist on it. Again, it's only a little extra preparation instead of preparing completely separate meals.

While the added items for each meal can be made along with the rest of the meal, the chef also has the option of preparing the added items in larger batches and reheating throughout the week as needed. Other meals can be developed to fit the pattern above based on your household's eating style.

ENVIRONMENT: THE CONSEQUENCES OF FOOD CHOICES

This section explores the environmental devastation caused by raising livestock, as well as the environmental effects of aquatic animal consumption, a topic that is just as pressing if we want to avoid devastating consequences. Consumption of both land and sea animal products contributes significantly to global warming. Consumption of both causes devastation to important natural areas – deforestation on land, especially of rain forests, and destruction of mangrove forests and coral reefs in the sea. Consumption of both results in unspeakable destruction – polluted waterways, reduced and displaced wildlife, and the extinction of species with more species threatened and endangered.

The United Nation's report "Livestock's Long Shadow," released in November of 2006, pointed out that food production of terrestrial-based land animal products (meat from cows, pigs, chickens, sheep, etc, and dairy and eggs) is the leading cause of global warming.¹ This ground-breaking report should have been powerful enough to put a nail in the coffin of animal agribusiness. Several years later, the World Watch Institute analyzed the data and found that the UN's report significantly under-estimated the damage caused by animal products! Using animals for food is causing more damage than anyone realized.

Commodities

One of the most promising articles in bringing problems with meat to the public appeared in the New York Times on January 27, 2008. The article “Rethinking the Meat-Guzzler” by Mark Bittman begins with a wonderfully accurate comparison of meat and crude oil: “The two commodities share a great deal: Like oil, meat is subsidized by the federal government. Like oil, meat is subject to accelerating demand as nations become wealthier, and this, in turn, sends prices higher. Finally – like oil – meat is some thing people are encouraged to consume less of, as the toll exacted by industrial production increases, and becomes increasingly visible.”² Unfortunately, the encouragement to consume less of these items has not been working.

Consider these consumption statistics³: ~ Since 1961 individual meat consumption has doubled, and average consumption of meat, poultry, and fish in the US is close to 200 pounds per year. ~World meat consumption is expected to double by 2050. The bulk of corn and soy grown in the world feeds farmed animals, while 800 million people on the planet currently suffer from hunger or malnutrition. Animal products are inefficient converters of energy; a person consuming animal products consumes two to 10 times more calories from feed crops than if he/she had eaten the crops directly.⁴

Climate Wars

Global warming, to which the animal products contribute significantly, is taking its own toll directly on the lives of those who are suffering the most from malnutrition and poverty. According to the UN's Intergovernmental Panel on Climate Change, which is leading research on the issue, global warming will disrupt and potentially devastate the lives of billions of people. Dire predictions about the impact of global warming on humanity are already coming true. The year 2007 was plagued with global warming mega disasters - floods, droughts, and storms - according to Sir John Holmes, The United Nation's emergency relief coordinator. The UN Office for the Coordination of Humanitarian Affairs (OCHA) figures indicate that these disasters made 66 million people in South Asia homeless or otherwise affected them, while millions more were devastated in Africa by disastrous floods in Sudan, Mozambique, Madagascar, Zambia and Uganda, and severe droughts in Swaziland and Lesotho.⁵

The situation was no better for 2008. It was one of the most expensive years as far as climate-related disasters costing about \$200 billion⁶, and the United Nations reports parts of the world such as the Pacific Islands will have difficulty producing food because of climate-related disasters. The trend of consuming animal products is just not sustainable, and literally has deadly consequences.

The worst appears yet to come. Global warming catastrophes will likely affect over 100 countries plaguing them with political chaos and mass migration. Climate wars threaten billions of people. The most threatened areas are Africa, Asia and South America, but even Europe is at risk.⁷

Add to these disasters the rising sea levels. Ice sheets in Antarctica and Greenland are melting faster than before.⁸ As ice sheets and glaciers melt into the oceans, sea levels rise. This rise may be over 6' by the year 2100.⁹ Not only does this result in more flooding of coastal areas as well as erosion of beaches, but it means coastal cities and towns will be gone completely, thus adding more stress to our already limited arable land resource.¹⁰

The Veggie Difference

Gidon Eshel, a geophysicist at the Bard Center, and Pamela A. Martin, an assistant professor of geophysics at the University of Chicago, calculated that reducing American meat consumption by just 20% would be like switching “from a standard sedan – a Camry, say – to the ultra-efficient Prius.”¹¹ In a second study by the same two authors, two meals were compared – a vegetable and rice stir fry and a steak dinner. Both had virtually identical caloric content - 310 and 320 calories.

Considering greenhouse gas (GHG) emissions due to energy alone, the vegetarian meal was 16 times less GHG intensive than the steak. Considering both CO2 and non-CO2 GHGs (CH4 and N2O), the difference in emissions becomes a factor of 24. That means the steak dinner results in emitting 24 times more GHGs than the vegetarian stir fry dinner.¹²

According to a 2007 study by the National Institute of Livestock and Grassland Science in Japan, the production of 2.2 pounds of beef yields the same carbon dioxide emissions as driving the average European car for 155 miles, and it wastes enough energy to keep a 100-watt bulb lit for nearly 20 days.¹³

Water Pollution

About 75% of all water quality issues in the United States waterways is attributed to the meat-intensive agriculture.¹⁴ According to Eshel this is because polluting our waterways is free: "If dumping this stuff becomes costly — even if it simply carries a non-zero price tag — the entire structure of food production will change dramatically."¹⁵ Likewise, aquaculture, or fish farming, takes its toll on water. Fish farms are intensive farming operations that have some of the same problems as animal farming. Like terrestrial-based animal products, aquaculture requires both land and water, the very resources that are most in demand globally. Diverting water for fish farming has already taken its toll in some coastal areas. When that water is flushed from the ponds into surrounding coastal or river waters in exchange for fresh supplies, its heavy concentrations of fish feces, uneaten food, and other organic debris can lead to oxygen depletion and contribute to harmful algal blooms.¹⁶

Habitat Loss

Animal farms now use 30% of the earth's entire land surface. That's like turning over all of the Americas to animal farms. Feed crop production uses 1/3 of all arable land. At the same time, herds cause wide-scale land degradation, with about 20% of pastures considered as degraded through overgrazing, compaction and erosion. This figure is even higher in the drylands where animal farming contributes to advancing desertification.¹⁷

Dr. Mike Hudak, author of *Western Turf Wars*, describes the tolls grazing takes on wildlife and natural habitats this way¹⁸:

Mammals. Cattle consume vegetation that provides cover from predators, leading to excessive predation that eventually decimates the populations of prey species. Lack of sufficient prey can then lead to the severe decline of predator species.

Overgrazing by cattle can extirpate native vegetation, thus allowing invasion by weeds that are useless as cover and forage for mammalian species.

Domestic sheep, which also graze on public lands, can transmit diseases that are lethal to bighorn sheep.

Birds. By consuming alder and willow shoots, cattle initiate the destruction of stream-side forests in which many birds nest. Cattle also consume stream-side forbs and grasses, which are home to ground-nesting birds.

Long-term cattle grazing can alter the structure of upland forests, replacing widely spaced, large trees with densely packed smaller trees. Dense forests are inhospitable to birds like the Northern goshawk, which requires large trees in which to build nests and open spaces between trees in which to locate and pursue prey. Cattle also harm grassland birds through their consumption of vegetation that birds use as cover from predators and for nesting and forage.

Reptiles. Cattle compete with reptiles for forage in vegetation-sparse desert regions. Cattle also spread unhealthy pathogens in their waste. In the case of the desert tortoise, cattle have been known to collapse burrows and destroy eggs.

Amphibians. Cattle excrete nitrogen-rich waste into streams. The nitrogen fertilizes algae, the excessive growth of which depletes stream water of oxygen that amphibians require to survive.

Fish. Many freshwater fish require clear, cool water. To achieve these conditions in the arid West, a healthy stream is typically sinuous, relatively deep for its width, and often shaded by willows or alders.

When cattle consume streamside forbs and grasses, flowing water erodes the banks and straightens the channel. A straight channel allows water to flow more swiftly and erode even more soil. Cattle also consume the shoots of

willow and alder, so that when old trees die off there are no replacements, and streams are left unshaded. Major consequences of these changes include silt-laden water that can clog fish gills and smother fish eggs. High water temperatures also mean less dissolved oxygen, thus making fish sluggish. Sufficiently high water temperatures can be lethal to many fish species.

Mollusks. To survive in deserts, cattle are provided with water extracted from wells. Water pumping lowers water tables, drying up springs and streams in which mollusks live. Stream flow is also diminished by diversion for irrigating alfalfa, which is fed to cattle during winters.

Insects. Vegetation on which insects depend is consumed or trampled by cattle.

Tropical rainforests, covering only about 7% of drylands, are home to half of all species of life on Earth. Since 1970, more than 232,000 square miles of Amazon rain forest have been destroyed and countless species have become extinct with many more on the verge of extinction. These extinctions pose a threat to all life on Earth including humans.¹⁹ In the Amazon, about 70 % of this deforestation happened to make way for cattle ranches.²⁰

Rainforests aren't the only diverse areas that have been destroyed. Several hundred million acres of grasslands in the Western United States, specifically in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming, have been decimated by cattle grazing. Native perennial grasses have disappeared, soil erosion abounds, stream beds have been destroyed, native animals have become extinct or endangered.²¹

In addition to the aforementioned grazing problems, less-intensive animal production has even more drawbacks. Feed conversion ratios are less efficient since the animals burn off more calories moving around. Additionally, the land mass required for the animals themselves is significantly greater. In other words, our limited land becomes even more limited. No matter how idyllic a farm may seem, it is the result of a significant loss of wildlife diversity.

Ocean Woes

While beef may be the Hummer™ of terrestrial-based animal products, shrimp consumption is the “bulldozer” of the sea. Shrimp is the most commonly consumed aquatic animal product in the US.²² The method for catching shrimp in the wild is trawling. Trawling involves dragging nets larger than football fields along thousands of miles of ocean floor. Anything that can't squeeze through the mesh of the net gets scooped up. After scraping the ground clear of coral, ocean plants, and all the fish and marine animals in their path, trawlers leave huge gashes in the ocean floor. Think about the size of shrimp. Think about the net that is used to trawl for shrimp and how tight the mesh needs to be to capture them. Everything bigger than the shrimp that's in the area gets caught, too. This method results in by-catch levels of up to 85%. That means that in some cases only 15% of the catch was the target species; most of the by-catch is discarded.²³ Few of these fish and other animals will survive, or they are already dead when thrown over. In 2002, the United States' by-catch levels were among the highest with 1.06 million tons of fish being discarded out of the 3.7 million tons of fish that were caught.²⁴ Much like intensive animal agriculture depletes the land, fishing is depleting the oceans. Today's stocks of large fish are only at 10% of what they were in 1950. The scientific journal *Nature* estimates that it only takes 10-15 years to deplete 90% of a fisheries stocks. At current rates, stocks are expected to be completely depleted by 2048. With consumption expected to increase by 25% by 2015, this collapse could happen sooner.²⁵

Much like the loss of rain forests for farm animal production in the Americas, coastal Asian mangrove forests are being destroyed for aquaculture. From 1987 to 1993 alone, Thailand shrimp farming was responsible for the destruction of more than 17% of its mangrove forests. Destruction of mangroves leaves coastal areas exposed to erosion and flooding, and has altered natural drainage patterns, increased salt intrusion, and removed a critical habitat for many aquatic species.²⁶ Raising carnivorous species of aquatic animals like salmon and shrimp puts more pressure on ocean fish stocks because these species depend on feed formulated from fishmeal — a blend of sardines, anchovies, pilchard, and other fish, while grain is fed to the noncarnivorous species, continuing to burden the land.²⁷

Manure Lagoons

Huge open-air waste lagoons, often as big as several football fields, are prone to leaks and spills. In 1995 an eight-acre pigwaste lagoon in North Carolina burst, spilling 25 million gallons of manure into the New River killing about 10 million fish.²⁸ From 1995 to 1998, 1,000 spills or pollution incidents occurred at farm animal feedlots in 10 states and 200 manure-related fish kills resulted in the deaths of 13 million fish.²⁹ Runoff of chickens and pigs from farms in Maryland and North Carolina contributed to outbreaks of *Pfiesteria piscicida*, killing millions of fish and causing skin irritation, short-term memory loss and other cognitive problems in local people.³⁰ Large hog farms emit hydrogen sulfide, a gas that most often causes flu-like symptoms in humans, but at high concentrations can lead to brain damage. In 1998, the National Institute of Health reported that 19 people died as a result of hydrogen sulfide emissions from manure pits.³¹

Water Use

The most pressing problem facing the world in the next decade is that of growing water shortages.³² Current statistics from the UN are scary enough³³:

- Around 700 million people in 43 countries suffer today from water scarcity.
- By 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity, and two-thirds of the world's population could be living under water stressed conditions.
- With the existing climate change scenario, almost half the world's population will be living in areas of high water stress by 2030, including between 75 million and 250 million people in Africa. In addition, water scarcity in some arid and semi-arid places will displace between 24 million and 700 million people.

Orlando, FL, Atlanta, GA, Tucson, AZ, Las Vegas, Fort Worth, TX, San Francisco Bay Area, San Antonio, TX, Phoenix, Houston, and Los Angeles are expected to face severe water shortages in the near-term future with many more cities at risk.³⁴

Given the pressing water issues facing the human race, and all Earthlings, analyzing one's diet for water use - and making the necessary adjustments to reduce water consumption - seems prudent. Consider these water use figures for animal products: One pound of beef requires 1,799 gallons of water; a pound of pork, 576 gallons of water; a pound of chicken, 468 gallons of water. A gallon of milk requires 880 gallons of water. By comparison, a pound of soy beans only requires 216 gallons; and a pound of potatoes, 119.³⁵ The conservative figures for the animal products do not include water polluted by run-off and other aspects of animal agribusiness.

The environmental devastation caused by animal products is overwhelming. Resources are limited. Global warming is exacting an ever greater toll on the planet. As a species we need to learn how best to feed ourselves while minimizing our impact on the environment. Eating primary energy sources (plants) is the crux of limiting environmental damage. (Keep in mind that all energy comes from the sun and is converted by plants into a form that we can use.) The consumption of animal products is a problem; eliminating this consumption is the only dietary solution.