

THE OFFICIAL VEGARIANT STARTER KIT





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WELCOME!

Thank you for signing up to take part in Veganuary and pledging to try vegan for 31 days. This guide will answer all your basic questions, from Where do I get my protein? to How does what I eat affect the environment?

Veganuary is a charity registered in England & Wales which works globally to create a kinder world where animals are not bred, fattened and slaughtered for products that damage our environment and can cause serious health problems in us. Instead, we show that there is another way, and that each of us can have a major impact on the world around us simply by making small changes to the way we eat.

Over the next month you will also receive your 31 inspirational and fact-packed emails to guide you through those first few weeks. Who knows what you might discover along the way, or how much better you might feel in yourself?

SO, LET'S GET YOUR VEGANUARY OFF TO A FLYING START!





WHAT IS VEGAN?

Veganism is often defined by what we don't eat: meat, fish, eggs, dairy and honey, plus some of the animal ingredients that are hidden away in products, such as whey, gelatine and cochineal.



But really, we should focus on all the great stuff that vegans do eat. And in reality, the difference isn't all that huge. Instead of meaty burgers, sausage and steaks, we eat plant-based versions. Instead of dairy cheese on a pizza or cows' milk in our coffee, we choose the non-dairy versions. For almost every animal-derived ingredient and product, there is now a vegan alternative, and this means that a vegan meal may look and taste exactly like a non-vegan meal, it just doesn't come with the animal suffering, or the same environmental impact.

ALICIA SILVERSTONE, ACTRESS AND VEGANUARY AMBASSADOR, SAYS:

"Despite all of our recycling, energy-saving, and water conservation (all of which are great), most people still don't know that they can have the greatest impact on our precious Planet Earth by adopting a plant-based diet."



NUTRITION

Please be reassured that every single nutrient we need is available from non-animal sources, and if we eat a balanced diet based on wholegrains, legumes, fruits, proteins and healthy fats we won't go far wrong. We discuss some of the major health benefits of a vegan diet in the **WHY VEGAN?** section of this guide, but here we have also included additional information on the six nutritional gueries that crop up most often.



PROTEIN

The first question asked of vegans is often where do you get your protein? And it surprises us because protein is in almost every single food we eat. Of course, there are better sources than others, but it is not difficult to reach the recommended daily intake as a vegan.

Some of the best sources include tofu, tempeh, vegan sausages made from pea or soy protein such as Linda McCartney or Quorn; lentils, chickpeas, black beans, baked beans and edamame; seeds, nuts and nut butters; quinoa, oats, rice and grains. Even vegetables contain protein!

A typical day's food that exceeds our protein requirement might be:

- Oatmeal with a sprinkle of almonds or seeds 12g
- One hummus and falafel wrap with a three-bean salad
 24g
- Veggie sausages with potatoes, peas and broccoli 30g

CALCIUM

Just as meat does not have the monopoly on protein, milk does not have the monopoly on calcium! Beans and greens tend to be calcium-rich, so eat plenty, including black turtle beans, kidney beans, soya beans, kale, watercress, okra and broccoli. You'll also find calcium in sweet potato, butternut squash and tofu, and if you snack on dried figs and almonds, you'll be getting a calcium hit again. Plant milks, including milkshakes, and yogurts are often fortified with it, too.

Vitamin D helps absorb calcium, and many people are low in this vital vitamin particularly in the winter months, irrespective of their diet. Be out in the sunshine as much as possible and look out for dairy-free margarines, breakfast cereals and breads that are fortified with it. In the winter months, it is recommended we all supplement with vitamin D.



IRON

Although iron-deficiency anaemia is not uncommon, research suggests that those who eat a plant-based diet are no more at risk than those who eat meat.

Start your day with a breakfast of oats, or a cereal that is already fortified with it.

Sprinkle some seeds and dried fruit on top, and you may just have reached your daily intake before you even leave the house!

Other foods to help boost your iron intake are: edamame beans, lentils, chickpeas and beans, tofu, tempeh, quinoa, blackstrap molasses, watercress, kale and other dark green leafy vegetables, nuts, sesame seeds and dark chocolate.

Be sure to eat plenty of vitamin C to help you absorb it and avoid drinking coffee or tea with your meal.

OMEGA-3 AND OMEGA-6

Our bodies are able to make almost all the fats we need for the proper functioning of our tissues, but there are two we must get from our food, and for this reason they are known as Essential Fatty Acids.

Omega-6 can be found plentifully in leafy vegetables, seeds, nuts, grains and most vegetable oils. It is very easy to get sufficient omega-6 on a balanced vegan diet but this fat competes with omega-3 for use in the body, and so we need to make sure we are getting sufficient omega-3 every day. The best sources are: leafy green vegetables (Brussels sprouts, kale, spinach), walnuts, rapeseed oil, ground flaxseed and flaxseed oil, soya beans and tofu.

IODINE

lodine can be tricky to get right because having either too much or too little can cause thyroid problems. There are small amounts in nuts, bread, fruit, vegetables and beans but the best plant sources are seaweed and iodized salt, though the amounts in seaweed can vary quite widely. Brown seaweeds can contain a lot of iodine so eating them just once a week will be sufficient.¹ Those who dislike seaweed and need to reduce salt intake should consider a supplement.



VITAMIN B12

This is the one vitamin that can be trickier to obtain as a vegan. It is present in animal products, but it isn't made by the animals themselves but by the bacteria inside them.

We can get B12 by eating yeast extract, nutritional yeast, breakfast cereals and plant-based milks that are fortified with it. However, everyone who maintains a vegan diet beyond their Veganuary pledge should take a B12 supplement to ensure they are getting a sufficient amount.



VEGAN KIDS

When we change our own diets, it is normal to think about nutrition in a way that perhaps we didn't before and to consider what this means for our family. The good news is that the British Dietetic Association says that vegan diets can be suitable for people of any age, including children. There are bad vegan diets, of course, in the same way that there are bad meat-inclusive diets, and so it is important to get the nutrients right.

So, what to feed them? The following advice from the NHS is a great place to start.²

Growing kids burn a lot of energy and need a high-calorie intake; too much fibre will cause small stomachs to feel full before they've actually got enough. Wholegrain versions of cereals are therefore not usually recommended. Adding vegetable oils to meals to increase calorie count, and feeding your children smaller, more frequent meals and snacks are some strategies that can help to deal with this.

Good sources of protein include beans, chickpeas, lentils and soya products.

They'll need calcium from fortified plant milks and breakfast cereals, green veg and tofu to help meet their requirements. Yeast extract and some non-dairy milks boost vitamin B12, but a supplement should also be taken.

There are hundreds of thousands of people around the world who are bringing up vegan children, so why not connect with some on social media? They will be only too happy to help, advise, and allay any fears you may have.



"It is the position of the Academy of Nutrition and Dietetics that appropriately planned vegetarian, including vegan, diets are healthful, nutritionally adequate, and may provide health benefits for the prevention and treatment of certain diseases. These diets are appropriate for all stages of the life cycle, including pregnancy, lactation, infancy, childhood, adolescence, older adulthood, and for athletes."



VEGAN KIDS

PROTECTING THEIR FUTURE

While getting the nutrition right for our kids is vital, there are some wider issues around feeding your children vegan foods. One is that vegans of all ages are less likely to suffer from bugs like campylobacter, salmonella, listeria and E. coli that infect so many animal products, and which can be fatal to people. And thanks in large part to animal agriculture, antibiotic resistance to campylobacter and other diseases is growing. If we don't want our children to live in a world where even minor infections cannot be treated, we need to end our reliance on meat, eggs and milk. Of course, if we want them to have an inhabitable planet at all, then we must tackle climate change and one of the biggest human-generated contributors to that is animal farming.

When we feed our children vegan food, we teach them about the environment and compassion, about sharing the world and taking care of themselves and others. Some people may criticise vegans for 'inflicting' their views on their children, forgetting perhaps that they do the exact same thing when they feed their own children meat. In reality, all parents make choices for their children when they are young, and as they grow it is up to them whether they continue with that choice or they choose a different path.



KELLIE BRIGHT, ACTOR AND VEGANUARY AMBASSADOR, SAYS:

"My children deserve a future and so do yours. If you care about climate change, make a difference and do Veganuary."



OUR TOP TEN TIPS TO GET YOU STARTED

1. IT'S ALL IN THE PLANNING!

Don't wake up on the first day of your vegan adventure without having thought about what you might eat! That is the absolute quickest way to fall off the wagon. Ahead of time, have a think about your first day's meals and buy plant milk for your breakfast and coffee or tea, some dairy-free butter for toast or sandwiches, and something tasty for your dinner.

2. LOOK OUT FOR ACCIDENTALLY VEGAN FOODS

There are so many everyday foods that just happen to be vegan, so open up your cupboard and take a look. Pasta, rice, peanut butter and Marmite, most breads, tinned tomatoes, chickpeas and kidney beans, jam and marmalade, coconut milk, curry pastes, tomato puree, baked beans, many crisps, crackers and biscuits, herbs and spices, many gravy granules, tea, coffee and fruit juice... There is a good chance that half the foods you already eat are vegan!



3. EASE YOURSELF IN

There is no need to reinvent your whole eating habits. If you like a sausage sandwich, have one – just make sure the sausages are vegan. If you want ice cream, go ahead. There are dozens of different delicious flavours out there. You can have almost everything you had before in a vegan version, so just switch like for like.

4. VEGANISE YOUR FAVOURITE DISHES

Again, there is no need to adopt a whole new eating regime. If your signature dish is lasagne, make a vegan version with soya mince and plant milk for the béchamel. If you love a morning fry-up, you can make it with vegan bacon and sausages. Whether you cook curries, casseroles, soups, stews, pies and pasties, roast dinners, cakes, desserts or anything else, simply veganise it.

5. WHEN YOU'RE READY, BRANCH OUT

Many people find that becoming vegan opens up a whole new world of recipes and ingredients, and rekindles their love of great food. Once you've got the hang of the basics, why not jump in and try some brand-new recipes (there are thousands online) and see if it ignites your culinary passions.





6. KEEP SNACKS TO HAND

Don't get caught out! It's really easy to pick up vegan snacks in most places but not everywhere, so make sure you keep a bag of nuts, a chocolate bar or some fruit in your bag or car just in case.

7. PERSISTENCE PAYS

Not every vegan product will work for you but just because the first cheese you try or the first latte you make doesn't hit the spot, don't rule out all other cheeses and plant milks. There are so many different ones to try – cream cheese, melty cheeses, nutbased, coconut-based, soya-based, all flavours and lots of different brands and styles; and as for milks, you'll find oat, hemp, almond, coconut, rice and soya. Try them all, and you will soon find your perfect match.

8. HAPPYCOW

Like eating out? Download the HappyCow app onto your phone and let it guide you to your nearest restaurant, café or shop where you can find vegan food wherever you are in the world.

9. FIND YOUR TRIBE

It's easy to feel isolated as a new vegan but there are millions of us out there. Find your local vegan meetup group and make like-minded friends in real life or search online for vegan groups that interest you. From vegan runners to bakers to knitters; from vegan weightlifters to fashionistas to activists. They're all there waiting for you.

10. BE KIND TO YOURSELF

Everyone makes mistakes. Whether you ate something non-vegan accidentally or simply gave in to temptation, it's OK. It doesn't mean you are no longer vegan; it just means you are human! Chalk it up to experience and move forward.

JASON GILLESPIE, FORMER INTERNATIONAL CRICKETER, CURRENT COACH AND VEGANUARY AMBASSADOR, SAYS:

"I was exploring healthier ways to eat and live and stumbled upon the "Earthlings" documentary. After watching it I simply went vegan overnight - it affected me so much. I just could not justify the treatment of animals by humans and the meaning of the word "speciesism" really resonated with me."

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MEAL PLANNING

Some people find making a weekly meal planner helpful, so they always know what they need to shop for and what they will be eating. Here are some ideas to get you started.

BREAKFAST

- Toast with vegan butter, peanut butter, yeast extract, jam, hummus, avocado, sliced tomato, or dairy-free cheese
- Oatmeal with your choice of plant milk. Add seeds, nuts and fruits
- Breakfast cereals with dairy-free milk or yogurt. Add seeds, nuts and fruit
- Full vegan sausages and bacon,
 scrambled tofu, hash browns, grilled tomatoes, mushrooms and baked beans
- Tea, coffee and fruit juice

LUNCH

- Soup and roll homemade or shopbought
- Sandwiches and wraps homemade (vegan BLT; cheese and pickle; 'ham' and mustard; hummus and carrot) or shop-bought
- Pasta salad or a hot pasta dish
- Jacket potato with salad, dairy-free cheese, baked beans or chilli, or make a delicious vegan tuna salad
- Sushi homemade or shop-bought



DINNER

- Pizza with vegan cheese, ham and chorizo, sundried tomatoes, basil, sweetcorn, artichoke, olives and capers, pineapple, jalapeños
- Spaghetti Bolognese made with lentils or soya mince, or a combination
- Curry Thai, Indonesian, Indian, Bangladeshi, or 'veganise' your old favourite recipe
- Burger in a bun with a fresh green salad
- Chilli non carne with nachos, refried beans and guacamole
- Bangers and mash with fresh vegetables
- Steak and chips yes, there are now vegan steaks available!



OUR FAVOURITE RECIPE SITES AND BOOKS

It's so hard to choose just five sites and five books when there are so many excellent resources out there, but we hope you'll find something here to love.



OUR FAVOURITE SITES

- So Vegan Ben and Roxy offer up rich, flavour-packed everyday dishes that are simple to make and very satisfying
- Rebel Recipes by Niki Webster.
 Everything from wholesome vegetablerich mains to deliciously indulgent and decadent treats
- Wicked Healthy Chefs Chad and Derek Sarno bring inspired mains, bites and desserts to our vegan table
- 4. Heart of a Baker Abby offers up breads, cakes, tarts, pies, croissant, desserts and doughnuts plus some great tips for vegan baking
- One Arab Vegan Neda shares some beautiful Middle eastern-inspired vegan recipes that burst with freshness and flavour

And don't forget, there are hundreds of delicious recipes at <u>veganuary.com/recipes</u>. There, you will find everything from a power-packed breakfast to an indulgent dinner party dessert.

OUR FAVOURITE BOOKS

- Bosh! Simple Recipes. Amazing Food.
 All Plants by Henry Firth and Ian
 Theasby. 140 simple but imaginative recipes that you will love cooking and eating
- 2. Bento Power by Sara Kiyo Popowa. Full of Japanese-inspired lunchbox ideas that are delicious, healthy and surprisingly simple to make
- 3. The Green Roasting Tin by Rukmini Iyer.
 Delicious and innovative plant meals
 cooked in one tin and revolutionise
 midweek meals
- 4. Feed Me Vegan by Lucy Watson. A modern classic packed with simple yet satisfying recipes. Great for those starting out on their vegan journey
- 5. Rachel Ama's Vegan Eats. Taking inspiration from Rachel's Caribbean and West African roots, you can expect vibrant, bold recipes that are easy to follow



EATING OUT

Eating out as a vegan is not only possible, but in most places it couldn't be easier.

Every high street chain restaurant has vegan options or full vegan menus. You can get cheesy pizzas and meaty burgers and fried chi*ken in almost every town! Check out Zizzi, Pizza Express, Pizza Hut, KFC, Wagamama, Yo! Sushi, Pho, Wetherspoons, Loungers, Turtle Bay, Giraffe and Las Iguanas, though you will also find vegan food at every other chain restaurant, too.

Independent restaurants often have vegan options on the menu, too. If you're unsure or their menu is not displayed online, call ahead of time to check. Even if there is nothing on the menu, chefs are often happy to adapt an existing dish or create something special just for you.

Thai, Mexican, Indian, Ethiopian and Chinese restaurants often have plenty of vegan menu items. Just look out for fish sauce and ghee.

And, of course, there are a wealth of vegetarian and vegan restaurants all over the world. If you haven't already, download the HappyCow app, type in your location, and it will show you all the local restaurants that serve vegan meals.

For more information on the very best places to eat out, visit www.veganuary.com/eating-out.

ON THE GO

So, what happens when you are travelling or do not have time to sit down for a meal? Most supermarkets stock vegan sandwiches or wraps, as well as ready-to-eat snacks like pasties, pakora and salad bowls.

High street chain Greggs offers several vegan choices and so does fast food outlet Leon, which can be found at many train stations, as well as on high streets.

Coffee shops like Caffè Nero, Costa and Starbucks also have vegan items including toasties, and there are always vegan sandwiches and soups in Pret. Subway is also a good option for grabbing vegan food on the go.







WHY VEGAN?

There are lots of reasons why people decide to switch to a plant-based diet, but most people say it is for one of three reasons: to end their contribution to the suffering of farmed animals, to better protect the environment and reduce their climate impact, and to improve their own health. What is really interesting is that often people try vegan for one reason but decide to stay vegan for all three. This is why ...

ANIMALS

Most of us feel uncomfortable about the factory farming and slaughter of animals. We find images and films upsetting and prefer not to think about it, and yet we know deep down that not thinking about it doesn't change anything at all. Rather than turning away, we would urge people to have courage and read on.

NO ANIMAL ESCAPES THE HORRORS OF FARMING, NOT EVEN THOSE WE THINK ARE HAPPY IN FIELDS.

Did you know that sheep have hormone-soaked sponges inserted into their vaginas to control their fertility, and that many are inseminated surgically? And that there is a whole raft of 'mutilations' that are legal and commonplace, from tail docking and teeth clipping to dehorning, ear-clipping and tattooing. The lives of farmed animals are characterised by suffering, fear and loss.

CHICKENS

Chickens are probably the most exploited animal on earth. Typically, tens of thousands of birds are crammed together in a warehouse, on a farm that may hold millions of birds. Here, the farmer's first job each morning is to pick up the bodies of those who did not make it through the night and to wring the necks of the weakest, the smallest and the sick. Individual care is not possible when there are so many birds, and so these victims suffer and die out of sight. They will never scratch in the earth, sunbathe or do any of the things that make life worthwhile for a bird. Their first breath of fresh air will be on the day they are transported to the slaughterhouse, at the age of just six weeks.

Chickens farmed for their eggs are a different breed to those reared for meat. Although tiny battery cages are banned in the UK, slightly bigger cages are not, and 40 per cent of hens on UK egg farms still live their lives inside cages. There is no doubt that they suffer as a consequence of those cramped, unnatural conditions. And when their productivity declines, they too are sent to the slaughterhouse.



PIGS

Life is no better for pigs. As smart and charismatic as dogs, mother pigs are treated as breeding machines, kept alive only so long as they keep churning out litter after litter of piglets. On factory farms, they must give birth inside farrowing crates - metal cages so small that each mother cannot turn around, or even take a step forward or back. She can stand up or lie down, and that is all. In the wild, she would build a nest and her instincts still tell her to try, and so she will work in vain trying to create a nest even though it is impossible inside the crate. If her piglets are sick, she is not able to reach them to nuzzle or care for them but can only watch them suffer. When her own fertility declines, she will find herself on the same truck that took her piglets to slaughter when they were just six months old, headed for the same destination.

Not eating farmed animals saves wild animals too! Because so much land is needed to produce animal products, ancient habitats are destroyed to make way for it. This means, wild animals the world over are being killed for our meat habits.

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COWS

Like all mammals, cows produce milk to feed their young, and this means they must first be made pregnant. And to keep the milk flowing, cows are impregnated over and over - but what happens to the babies that the milk was made for?

Well, it's the milk that is valuable, not the calves, so first they are taken from their mothers to stop them from drinking it, and then their fate will depend on their sex.

Females may be put into solitary hutches, reared on a milk substitute and then follow their mothers into the repeated cycle of insemination, birth, separation from young and near-constant milking. If male, their future is less certain. They are the wrong breed for beef, and they cannot produce milk, so they may end up as veal or simply be shot at birth.

Cows are wonderful, loving and protective mothers, and the loss of their young affects them deeply. They may grieve for days,³ calling in vain for the return of their calves.

To find out more about animal farming and slaughter, and to support campaigns to end the worst practices, visit www.AnimalAid.org.uk and www.Viva.org.uk. For more information on antibiotic use on farms and how animal farming impacts on wildlife, check out www.ciwf.org.uk.



WHY VEGAN?



HEALTH

Not all vegan food is automatically healthy. You could eat a dozen delicious flavours of vegan ice cream for breakfast, a stack of pancakes doused in syrup for lunch, and a dinner of cakes, cookies, meringues and cheesecakes. It's great that we can make or buy all these wonderful vegan treats but no one would think for a moment that they are healthy.

A healthy diet must include putting plants at the centre of our meals, though this does not mean we have to sacrifice pleasure or flavour. And if we choose wholefoods, legumes, nuts, fruits, spices, herbs and some of the 20,000 edible plants that exist in the world, we can experience an incredible improvement in our health while enjoying some wonderful flavours.

Some of the most common reports we receive from Veganuary participants is that after 31 days vegan they experience an improvement in their digestion, skin, hair, sinuses and sleep. We have also been told of improvements in arthritis, chronic fatigue and energy levels. Some people report better mental clarity, others that their

depression symptoms were relieved.

Many find that sporting performance improves. We can't promise everyone that their niggling conditions and chronic illnesses will disappear after 31 days of plant-based eating, but for lots of people, a month without eating animal products brings a stark, often unexpected, improvement.

These short-term changes can feel miraculous, but the real power of a whole food plant-based diet is over a longer period as that's where the life-changing benefits really lie.

Dr Michael Greger is an internationally recognised speaker on nutrition, food safety, and public health. He has devised a list of foods we should all aim to eat every day for optimal health. This is Dr Greger's Daily Dozen.



OBESITY

Almost 30 per cent of adult Britons and 20 per cent of children leaving primary school are obese. It's a serious, life-limiting and life-threatening condition, which makes heart disease, type 2 diabetes and stroke more likely.

Studies have regularly shown that vegetarians are slimmer, and vegans appear to have the lowest Body Mass Index of all.⁵ Researchers increasingly believe that this may be connected to a plant-based diet positively affecting the gut and promoting 'a diverse ecosystem of beneficial bacteria to support both human gut microbiome and overall health'.⁶ This is not the whole story,

though. Animal products contain significant amounts of saturated fats, while plants and wholegrains contain plenty of fibre that help keep us feeling fuller for longer.



HEART DISEASE

Animal products contain high levels of saturated fat that can raise cholesterol and increase our risk of developing heart disease. Conversely, the majority of plants are low in saturated fat and none contain cholesterol, so a diet full of plant products such as whole grains, beans, fruits and vegetables can help to lower blood cholesterol and provide a heart-healthy diet. The great news is that it's never too late to start protecting your heart. A growing number of doctors are finding they can halt and even reverse heart disease in patients who undertake a programme that includes eating a whole food plant-based diet.

Our recommended reading:

Undo It!: How Simple Lifestyle Changes

Can Reverse Most Chronic Diseases

by Dr Dean Ornish

TYPE 2 DIABETES

The fact that type 2 diabetes is so common – around 5 million Britons live with it⁷ – should not detract from just how serious this condition is. It can lead to complications including heart disease and stroke, nerve damage, kidney disease, blindness, leg ulcers and peripheral vascular disease, which in turn can lead to foot or limb amputation. It is a devastating condition, but it can be prevented and even reversed through lifestyle changes.⁸ And those who eat a plant-based diet have just a small fraction of the occurrences of diabetes compared to those who regularly eat meat.⁹

For more information on reversing diabetes with a plant-based diet, visit <u>The Physicians</u> Committee for Responsible Medicine.



CANCER

In 2015, The World Health Organization announced it had sufficient evidence from epidemiological studies to classify all processed meat as carcinogenic to humans. ¹⁰ Bacon, sausages, chorizo, salami, hot dogs and any other meat that has been smoked, cured or otherwise processed can cause cancer ¹¹ and no amount is safe.

Furthermore, unprocessed red meat was also classified as being 'probably carcinogenic' to humans, with the strongest evidence relating to colorectal cancer as well as there being evidence of links with pancreatic cancer and prostate cancer.¹²

On the flip side, plants are protective. The World Cancer Research Fund says there is strong evidence that wholegrains and fibre decrease the risk of colorectal cancer; that non-starchy vegetables decrease the risk of cancer of the mouth, pharynx, larynx, oesophagus, lung and breast; and that fruit reduces the risk of oesophagus and lung cancer. There is also some evidence that fruits and veggies reduce the risk of stomach and bladder cancer, too.¹³





GLOBAL HEALTH

ZOONOTIC DISEASES

Eating animal products, as we have seen, can raise the risk of diseases that rob us of our health, our wellbeing and the people we love the most. But animal farming has the power to kill people on a devastating scale, through the diseases it breeds and the antibiotics that it uses.

Many infectious diseases that people suffer from today – including whooping cough, leprosy and measles - are thought to have originated in the animals we farmed, and this transfer of diseases from farmed animals to people is far from over. Avian influenza ('bird flu'), for example, still infects and kills people every year. 14 Such viruses mutate, and when they do there is a chance they can be spread more easily and become more deadly, which is what happened in both 1918 and 1957 when millions of people died.¹⁵ There is a clear connection between the current COVID-19 crisis and the global food system based on animal products, which contributes to the destruction of ecosystems and can lead to the transmission of infectious diseases from wild animals to humans, according to leaders at the UN, WHO and WWF International.16



ANTIBIOTIC RESISTANCE

The vast majority of farmed animals are reared intensively in cramped, filthy conditions that weaken their immune systems while simultaneously exposing them to squalor. Unsurprisingly, diseases on such farms are rife. But instead of providing better conditions, the industry doses the animals with antibiotics and in overusing them, it has helped antibiotic-resistant strains of superbugs to emerge.

In 2016, Dr Margaret Chan, Director-General of the World Health Organization said: 'Antimicrobial resistance, as I say again and again, is a slow-motion tsunami. It is a global crisis that must be managed with the utmost urgency.'¹⁷

In order to reduce the vast amounts of antibiotics given to animals, we must end factory farming, and we can only do that when people stop buying animal products.

SARA PASCOE, COMEDIAN AND VEGANUARY AMBASSADOR, SAYS:

"I decided that I was going to do 100 days being vegan, and I was going to write it up and see how I felt. But within a week I felt so much better in my body that it then became oh I am definitely going to do this forever."

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WHY VEGAN?

THE HEALTH OF OUR PLANET

Evidence is increasingly revealing just how big an impact our food choices have on the living world, and environmentalists are switching to plant-based diets to minimise the damage caused in food production. Because animal agriculture impacts our planet in so many ways Joseph Poore, an environmental researcher at Oxford University, concluded that 'A vegan diet is probably the single biggest way to reduce your impact on planet Earth.'¹⁸

CLIMATE CHANGE

Animal agriculture is one of the leading contributors of climate-changing emissions. In fact, the United Nations Food and Agriculture Organization has stated that animal agriculture is responsible for 14.5 per cent of human-induced emissions – which makes animal products more damaging than the fuel emissions from every car, plane, bus, truck, train and ship on the planet.¹⁹



PETER EGAN, ACTOR AND VEGANUARY AMBASSADOR, SAYS:

"I believe in love and respect for all. I can't think of a kinder, gentler life than that which wishes to preserve our planet and all the species that inhabit it."

In Sweden, researchers analysed 39 peer-reviewed articles, carbon calculators and government sources and came up with the four most impactful ways each of us can reduce our footprint. These are: adopt a plant-based diet, limit flying, stop driving and limit the number of children we have.²⁰ These four key actions are not usually included in government and environmental recommendations, which instead tend to advocate small, incremental changes, such as recycling or switching to reusable shopping bags, which, while positive, are not enough to avoid catastrophe.

We must take meaningful action now. The United Nations' Intergovernmental Panel on Climate Change (IPCC) has warned that urgent and profound changes to the way we live must be made if we are to keep global temperature rise to no more than 1.5 degrees above pre-industrial levels. Anything beyond this will significantly worsen the risks of drought, floods, extreme heat and poverty for hundreds of millions of people.²¹



WATER SHORTAGES

Those of us who have abundant fresh water at the turn of a tap rarely give a thought to worldwide water shortages, yet 844 million people have no access to clean water, and 300,000 children die each year of diarrhoea, linked to dirty water and poor sanitation.²² The situation is expected to worsen as the effects of climate change hit home, with the world's poorest most likely to suffer the consequences.

Without water, nothing can live but just three per cent of the world's water is fresh, and just one-third of that is readily available for human use.²³ We must be careful how we use this precious resource.

Globally, agriculture uses an astonishing 70 per cent of all available water,²⁴ but it is animal agriculture that demands the most. This is because it takes a staggering 9,000 litres to produce one pound of beef but just 60 litres to produce one pound of potatoes.²⁵ The largest pig farms use enough water to supply an entire city.²⁶

Switching to a plant-based diet is probably the biggest thing we can do to save water.²⁷

"A vegan diet is probably the single biggest way to reduce your impact on planet Earth, not just greenhouse gases, but global acidification, eutrophication, land use and water use." ²⁸

JOSEPH POORE, RESEARCHER AT THE UNIVERSITY OF OXFORD, 2018

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POLLUTION

Animal farming is a key polluter of air, land and waterways.

The air inside animal farms contains high levels of organic dust, which is known to lead to respiratory problems. Such farms may also emit air pollutants into the atmosphere, including ammonia and hydrogen sulphide, as well as microorganisms and toxins. Both farm workers and neighbours can be seriously affected.²⁹

Land is polluted by the vast amounts of slurry produced by billions of farmed animals. It is known to be noxious and should be stored securely but all too often it is either deliberately spread on the land or accidentally leaks onto it. (Half of all slurry storage facilities in the UK are thought to be inadequate.³⁰) Either way, the effects can be devastating.³¹

Slurry and other agricultural pollutants regularly contaminate rivers, where they poison the water and decimate aquatic life. Pollution incidents are recorded every week in the UK, and most of them involve dairy farms.³² Worldwide, farmed animals' slurry is a key factor in the growth of ocean dead zones.³³



DEFORESTATION AND SPECIES LOSS

Animal agriculture uses 85 per cent of our farmland but provides us with just 18 per cent of our calories.³⁴ It is a wasteful, highly inefficient, land-hungry practice. In order to make way for grazing livestock and to grow the vast amount of crops needed to feed them, whole swathes of forests and other ancient habitats have been razed to the ground. The people and animals who once lived there are displaced or killed.

Such wanton destruction has driven whole species to extinction. Already, 60 per cent of the world's animal populations have been wiped out just in the last 50 years,³⁵ and researchers identified three main causes, all of them relating to our desire to eat meat:

- Destruction of habitats, largely to create farmland
- 2. Wild animals being eaten into extinction
- 3. Overfishing³⁶

Whole ecosystems are collapsing, species are being lost forever and the loss of plants and sea life will reduce the Earth's ability to absorb carbon. This will exacerbate the effects of climate change³⁷ and drive even more species to extinction.



DYING OCEANS

More than 30 per cent of the world's fisheries have already been pushed beyond their biological limits or are in need of dramatic action to restore them.³⁸ Entire aquatic populations are on the verge of collapse,³⁹ and all for a product we do not need to eat.

Vast nets drag trillions of fish from the oceans, but they do not discriminate.

Among the 'target' species are accidental 'by-catch', including whales, dolphins, porpoises, sharks, starfish, sponges, turtles, and even diving sea birds. Decies such as Maui's dolphin and North Atlantic right whale are being pushed to the very brink of extinction.

Switching to farmed fish does little to protect wild fish, as many farmed fish – including salmon and trout – are carnivorous so their feed is made up of wild-caught fish who were dragged from the oceans. Often, to compound the problem, their feed also includes soya, grown on deforested land.

Moreover, most of the plastic pollution in the ocean actually comes from fishing vessels.⁴³ Ending our consumption of fish will do more to restore the oceans than any other action we can take. And if we stop eating meat, we are also helping fish! This is because farmed animal slurry pollutes waters and creates ocean dead zones where no marine species can survive.⁴⁴



SUSTAINABILITY

FEEDING THE WORLD

Animal agriculture is incredibly wasteful. It uses vast amounts of land, water and energy, while giving us fewer calories back in meat, milk and eggs than we fed to the animals. It is no way to feed a growing human population and is not sustainable.

In all, one-third of the world's cereal harvest and 90 per cent of the world's soya harvest is fed to farmed animals.⁴⁵ To produce these vast amounts of food, the land is pushed to its limits with the application of fertilisers, pesticides and other soil-damaging practices.

Ninety-five per cent of our food is grown in the uppermost layer of soil, making topsoil one of the most important components of our food system. But conventional farming practices mean that nearly half of the world's most productive soil has disappeared in the last 150 years. In the US alone, soil on cropland is eroding 10 times faster than it can be replenished.⁴⁶

We need to take pressure off the soil and feed the growing world population, and we can do both those things if we switch to a plant-based diet.



LOCAL VERSUS VEGAN

Some people argue that eating local is better for the planet than eating vegan, but the evidence does not bear this out. Transport is a very small part of our food's carbon footprint (typically less than 1 per cent for beef)⁴⁷ so it being local does not alter its impact all that much. Research found that animal foods tend to have a higher footprint than plant-based foods.⁴⁸ So, even if you shipped bananas six times around the world, their impact would still be lower than for local beef and lamb.⁴⁹

What about soya? Isn't that the worst of all? Actually, no. Research from Oxford University found that even the most sustainable dairy was still worse overall than the least sustainable soya milk.⁵⁰

CHRIS PACKHAM, TV PRESENTER, NATURALIST AND VEGANUARY AMBASSADOR, SAYS:

"As I've become more and more aware of our impact, the impact our diet has on the environment – and of course the species that live in it – I've become increasingly concerned to minimise the negative aspects of that impact."

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TEN COMMONLY ASKED QUESTIONS ABOUT VEGANISM



1. WHAT DO VEGANS EAT?

When we talk about removing all animal products from our diet, it can be tricky to see what is left. But the truth is, vegans are just normal people, who like to eat the same foods as everyone else and the recent vegan food revolution means they can do just that. There are now vegan versions of everything from sausages, burgers, kebabs and steak to fish fingers, scampi and tuna. You can choose from a wide variety of plant milks, yogurts and ice cream, and even find vegan mayonnaise and cheesecakes.

All these items and more are available in supermarkets, alongside the vegan foods you already buy, perhaps without thinking of them specifically as vegan. This includes pasta, rice, peanut butter, Marmite, jam, tinned tomatoes, baked beans, bread, crackers and crisps, coconut milk, curry pastes, tomato puree, tomato ketchup, tea, coffee and fruit juice.

All this means, we can make our favourite meals just the way we like them, but in an animal-free version. Shepherd's pie, chilli non carne and spaghetti Bolognese can be made in the same way as their meaty versions just by switching to soya mince, and for lasagne, using plant milks in the béchamel sauce. For fajitas, there are meaty strips. For curries, casseroles and stews, there are meaty chunks.

Supermarkets are increasingly catering to the vegan ready-meal market, and you can find vegan mac 'n' cheese, pizzas, Bolognese, Thai green curry, dhal, mushroom carbonara, paella, chilli, burritos, a variety of pies and many more options on the high street.

As a new vegan, it can take a few weeks to adjust to buying new ingredients and products, but very quickly people discover that their new diet is far from restrictive. In fact, people often find that they discover a wealth of new foods and report that they have never enjoyed such a varied diet.



2. DO FISH FEEL PAIN? DO PLANTS FEEL PAIN?

The short answers to these two questions are: almost certainly, and almost certainly not.

Pain is a difficult thing to assess in any species, even humans. We cannot see someone else's pain, but we can hear them describe it and trust what they say is true. But it is not so simple to assess the pain in species that do not speak our language. So, scientists have come up with two ways to determine whether other species are likely to feel pain: first, do they have all the necessary physiological equipment that would allow them to feel pain? And secondly, do they behave as though they feel pain?

In the case of fish, the answer to both these questions is yes. Fish have pain receptors, which would be strange if they weren't able to feel pain. They also produce substances known as enkephalins that mediate pain in the same way as in vertebrates like us.

Research has also shown that many aquatic species have an aversion to noxious substances. When harmed they rub

themselves in the affected area or hide from the thing that hurts them. In other words, they behave in the exact same way as we would if we were in pain but couldn't speak.

The evidence is strong and getting stronger all the time, but even if it wasn't, shouldn't we err on the side of caution and treat aquatic species with care and compassion?

As for plants, while we know that they can 'feel' sensations, they have no brain and no central nervous system. Nor are they equipped to move away from the thing that harms them, and so feeling pain would be of no benefit to them. In the future, we may find out more about what exactly they can feel but for now, it is safe to assume that, whatever it is, it is not pain.

But, if you are more worried about plants that (probably) don't feel pain than animals that definitely do, then you should still switch to a plant-based diet. Contrary as it sounds, meat eaters consume a lot more plants than vegans via the plant-eating animals that they eat.





3. IS SOYA THE CAUSE OF DEFORESTATION?

The problem isn't soya itself. It is the amount of soya that is grown to feed farmed animals that is driving the environmental damage. Yes, that's right, farmed animals, including chicken and fish – and by extension the people who eat them – consume 75 per cent of the world's soya harvest. This means that the average European consumes around 61kg of soya every year, largely through eating animal products such as chicken, pork, salmon, cheese, milk and eggs. 52

This question goes to the very heart of the sustainability problems associated with meat consumption: many more crops are required to feed farmed animals than if we just ate the plants themselves. And because the available farmland is not sufficient to grow the soya and other feedstuffs that the billions of farmed animals require, rainforests and other habitats are cut down in vast swathes.



The Worldwatch Institute reports that "the human appetite for animal flesh is a driving force behind virtually every major category of environmental damage now threatening the human future – deforestation, erosion, fresh water scarcity, air and water pollution, climate change, biodiversity loss, social injustice, the destabilization of communities, and the spread of disease".⁵³

Soya is not the problem. Animal products are.



4. WHAT WOULD HAPPEN TO THE ANIMALS IF WE DID NOT EAT THEM?

Animal agriculture – like all businesses – is about supply and demand. Animals are bred, reared and slaughtered only because people buy the products, and as we stop buying them, fewer animals will be created. This is great news for our planet and also for animals, as fewer will have to endure the legally-permitted mutilations, the filth of factory farms, the sadness at losing their young, the terror of long-distance transportation and the horrors of slaughter.

Since the whole world will not go vegan overnight, it will be a steady reduction, and that means farmers will not just turn out their animals to fend for themselves. When individual animal farmers become vegan, as an increasing number are, we see them find sanctuary places for the animals who are left.

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Another issue that some people worry about is that certain species will become extinct if we don't breed them to eat. This could happen in some cases and it would be a very good thing. Farmed animals are not natural species. Wild turkeys are not the same as farmed turkeys; wild boars are not the same as farmed pigs.

Farmed animals are bred specifically for their money-making traits, such as a high milk yield or their ability to have more offspring in a litter, and this often comes at the expense of their welfare. Turkeys and chickens reared for their meat, for example, are bred to put on a lot of weight as quickly as possible. As a result, their joints are painful, their hearts are weak, and their bones can break beneath them. It's right that these poor creatures are not bred to suffer this way.

And if we are truly worried about species becoming extinct, we should remember that eating meat is actually driving countless species to extinction. As forests are razed to the ground to make way for grazing for farmed animals, the demise of wild species is accelerating. Research has found that we have lost 60 per cent of all animal species since 1970, with animal farming being a significant driver of this.⁵⁴

For the sake of all animals – both farmed and wild – we would do well to stop eating meat, milk and eggs.

5. WHY DOES PLANT MILK CURDLE IN HOT DRINKS AND HOW DO I STOP IT?

If your first experience at making a hot drink with plant milk has ended up with a cloudy mess in a cup, don't be disheartened. Due to the heat and acidity of tea and coffee, this can sometimes happen but there are some tricks and tips to avoid that unsightly reaction and to make sure you get the perfect drink every time.

First, tackle the heat issue by letting your tea or coffee cool down a little before you mix it with the milk. (Some people find that warming the milk helps, others say it makes it worse - try it for yourself and see!) Another tip is to pour the milk into the cup first, then add the tea or coffee slowly. This allows the temperature to increase more gently and avoid curdling.

As for the acidity, some tea brands have started producing tea bags specifically for vegan milks. You'll also find that some teas and coffees are naturally less acidic than others, so switch it up and see if that helps.

Finally, many dairy-free milk brands have started producing 'barista' milks that have been specially developed to mix perfectly with tea or coffee. Our hot tip: try Oatly Barista







6. AREN'T ALMONDS WATER-HUNGRY AND THEREFORE REALLY BAD FOR THE ENVIRONMENT?

It is true that almonds require more water than any other dairy alternative, requiring 130 pints of water to produce a single glass of almond milk. But we should not judge this nut based on just one metric. When we factor in land use, pollution, and greenhouse gas emissions, the picture changes significantly.

A glass of cows' milk produces almost three times more greenhouse gas and uses nine times more land than any type of plant milk.⁵⁵ Plus, many of the worst pollution incidents are related to dairy farming where the amount of slurry produced is vast. This toxic waste gets into our rivers and waterways and decimates wildlife.⁵⁶

It is little wonder, then, that a 2018 University of Oxford study concluded that all plant milks are better for the environment than dairy⁵⁷ but even so, some plant milks are better than others.

Hazelnuts are a great choice. Not only do they grow on trees that pull carbon from the atmosphere, which means they store carbon rather than emit it, but they are pollinated by the wind and grow in areas where water shortages are less of a problem.⁵⁸

Soya is also a good option, with one Oxford University researcher stating that the least sustainable soya was still better for the planet than the most sustainable dairy.⁵⁹ And oats are a good choice, too.

Sustainability researchers are clear: drink whatever plant milk you like because even those with shortcomings are better for the planet than dairy.⁶⁰

7. WHAT SHOULD I DO WITH LEATHER BAGS AND SHOES?

Some new vegans – particularly those who became vegan to protect animals – decide they no longer want to wear their old leather shoes, woollen jumpers, silk scarves and feather-filled jackets. It's perfectly understandable, and for some people donating them to charity shops and buying non-animal replacements feels like the right thing to do.

For others, this could be an expense they cannot justify, or they can see that getting rid of an item bought a long time ago will not protect any animals now. Instead they vow to replace them with non-animal versions when they wear out.

Both approaches are equally valid, and whatever feels right for you is right.



8. CAN YOU BE A SUCCESSFUL VEGAN ATHLETE?

Ask Lewis Hamilton, Morgan Mitchell and Hector Bellerin! Ask Chris Smalling, Venus Williams and Kendrick Farris! These elite athletes – and many more — are vegan and have reported significant health and performance benefits since adopting a plant-based diet.

If you haven't seen the film The Game Changers yet, it's definitely worth watching. In it, the science behind what a plant-based diet can do for athletes is explained by researchers and doctors who are experts in this field.

The film, which was executive produced by Arnold Schwarzenegger, Jackie Chan, Lewis Hamilton, Novak Djokovic among others, features some of the strongest, fastest and most powerful athletes in the world. Becoming vegan has given them more energy, less inflammation and a quicker recovery time, all with no loss of power or muscle mass.

From sprinters and cyclists to footballers and strength athletes, going vegan is prolonging careers and enhancing performance.

DUSTIN WATTEN, OLYMPIC VOLLEYBALL PLAYER AND VEGANUARY AMBASSADOR, SAYS:

"Vegan for my body and mind, the animals and the future. It's a decision that is in our control and everyone benefits."

9. DO YOU NEED MILK FOR STRONG BONES?

No. We need calcium for strong bones, along with vitamin D, and we can get calcium from a wide variety of sources. Dairy does not have the monopoly on it!

Calcium can be found in many of the plant milks and yogurts that are readily available. It can also be found in beans (especially black turtle beans, kidney beans and soya beans), kale, collards, watercress, broccoli, sweet potato, butternut squash, tofu and dried figs.

Getting enough calcium as a vegan is not difficult so long as you eat a varied diet. But eating calcium-rich foods alone is not enough. We need vitamin D, known as the sunshine vitamin, to help absorb it, so spending some time outdoors each day will help this. Over the winter months, however, we cannot rely on the sun and must make sure we have another source. In terms of foods, mushrooms are a great source, and many breakfast cereals, breads and vegan butters are already fortified with it. Since getting sufficient vitamin D in winter is difficult for everyone, no matter what their diet is, it is advisable to take a supplement just to be on the safe side.

For optimal bone health, we are also advised to limit caffeine and avoid smoking, as both increase calcium loss from the body, and to do regular weight-bearing exercise such as walking, running, dancing, playing football or lifting weights.





10. WHAT DIFFERENCE CAN ONE PERSON MAKE?

In our lifetimes, it is estimated that each of us will eat more than 7,000 animals, so simply choosing not to do this spares a lot of lives. That's a lot of factory farming, long-distance live transportation, antibiotic usage and slaughter that just won't happen.

Our carbon emissions will also be significantly reduced, and a lot less land and water will be needed to grow our food. While these are significant benefits, and we should each be proud of the contribution we make, our impact is magnified because we are not going vegan alone. We influence others around us, and the positive ripples travel the world.

There are now millions of people choosing to eat only animal-free foods and together we are having a powerful impact. We are helping to limit the effects of climate change, we are sparing billions of animals, and through needing less land for our food, we are allowing natural habitats to provide homes for wildlife.

It is easy to feel disempowered and wonder what difference you can make but remember this: when we drop £1 into a charity box, we don't for a moment think our contribution will fund a hospice all by itself; it needs thousands of others to also drop in a coin. But what if no one gave because they felt their contribution was too small?

If we do all that we can, alongside the millions of other compassionate people around the world who are also becoming vegan, that's when things get exciting!

That's how we can – and will – change the world.

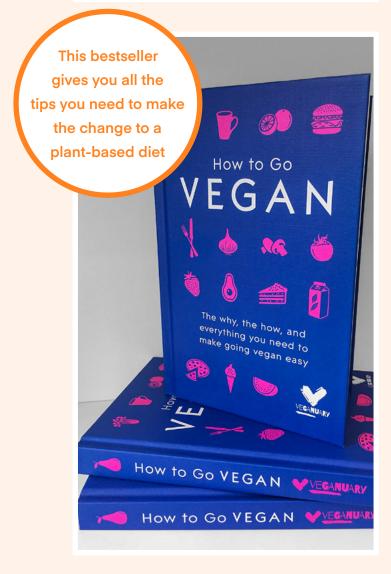




FIVE LIFE-CHANGING BOOKS TO READ



1. How to Go Vegan by Veganuary



- 2. How Not to Die by Michael Greger
- 3. Why We Love Dogs, Eat Pigs, and Wear Cows by Melanie Joy
- 4. Dead Zone: Where the Wild Things
 Were by Philip Lymbery
- 5. Eating Animalsby Jonathan Safran Foer

JAMES MOORE, ACTOR AND VEGANUARY AMBASSADOR, SAYS:

"I'm vegan all year round but if you give it a go in January you will help the planet, animals, and especially your health. What do you have to lose?"



FIVE LIFE-CHANGING FILMS TO SEE

1. Cowspiracy (2014)

Follow the shocking, yet humorous, journey of an aspiring environmentalist, as he seeks to find solutions to the most pressing environmental issues of our time

2. Dominion (2018)

A powerful exposé of the dark underbelly of animal agriculture captured by drones, hidden and handheld cameras

3. Forks over Knives (2011)

Researchers explore the possibility that people changing their diets from animal-based to plant-based can help eliminate or control diseases such as cancer and diabetes

4. Earthlings (2005)

Still the most powerful indictment of how humans treat our fellow animals. Life-changing but not an easy film to watch

5. The Game Changers (2019)

The evidence that elite athletes thrive as vegans. Executive produced by Arnold Schwarzenegger, Lewis Hamilton and Novak Djokovic

CARL DONNELLY, COMEDIAN AND VEGANUARY AMBASSADOR, SAYS:

"It was the best decision I ever made. It's hard to explain this to people, they probably think you're exaggerating, but I'd say that within about a week I felt like a different person."

EVANNA LYNCH, ACTOR AND VEGANUARY AMBASSADOR, SAYS:

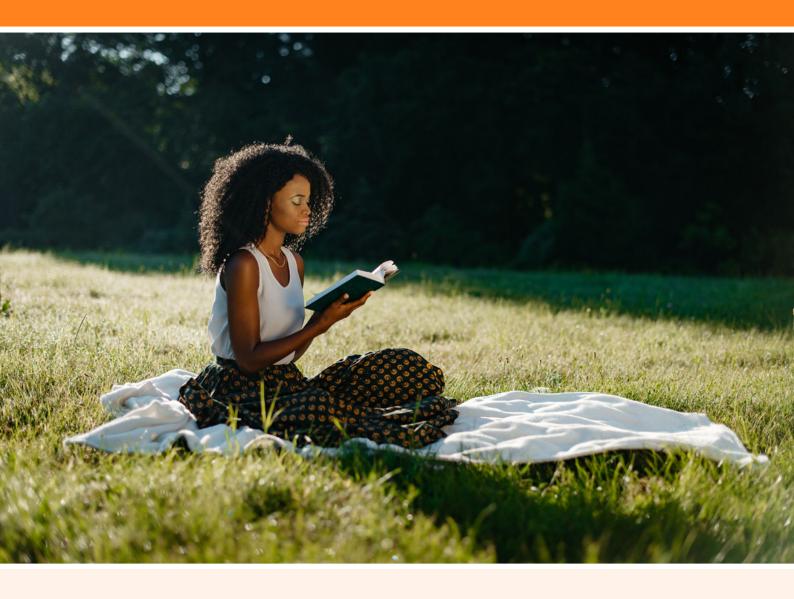
"It was just the right path for me.
I felt like as soon as I went vegan,
I was more myself, like I was just
living according to what I believed,
which is such a freeing thing once
you finally commit to it."

MELODY KANE, DJ AND VEGANUARY AMBASSADOR SAYS.

"For me being vegan continues to enrich and improve my life physically, mentally & spiritually."



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