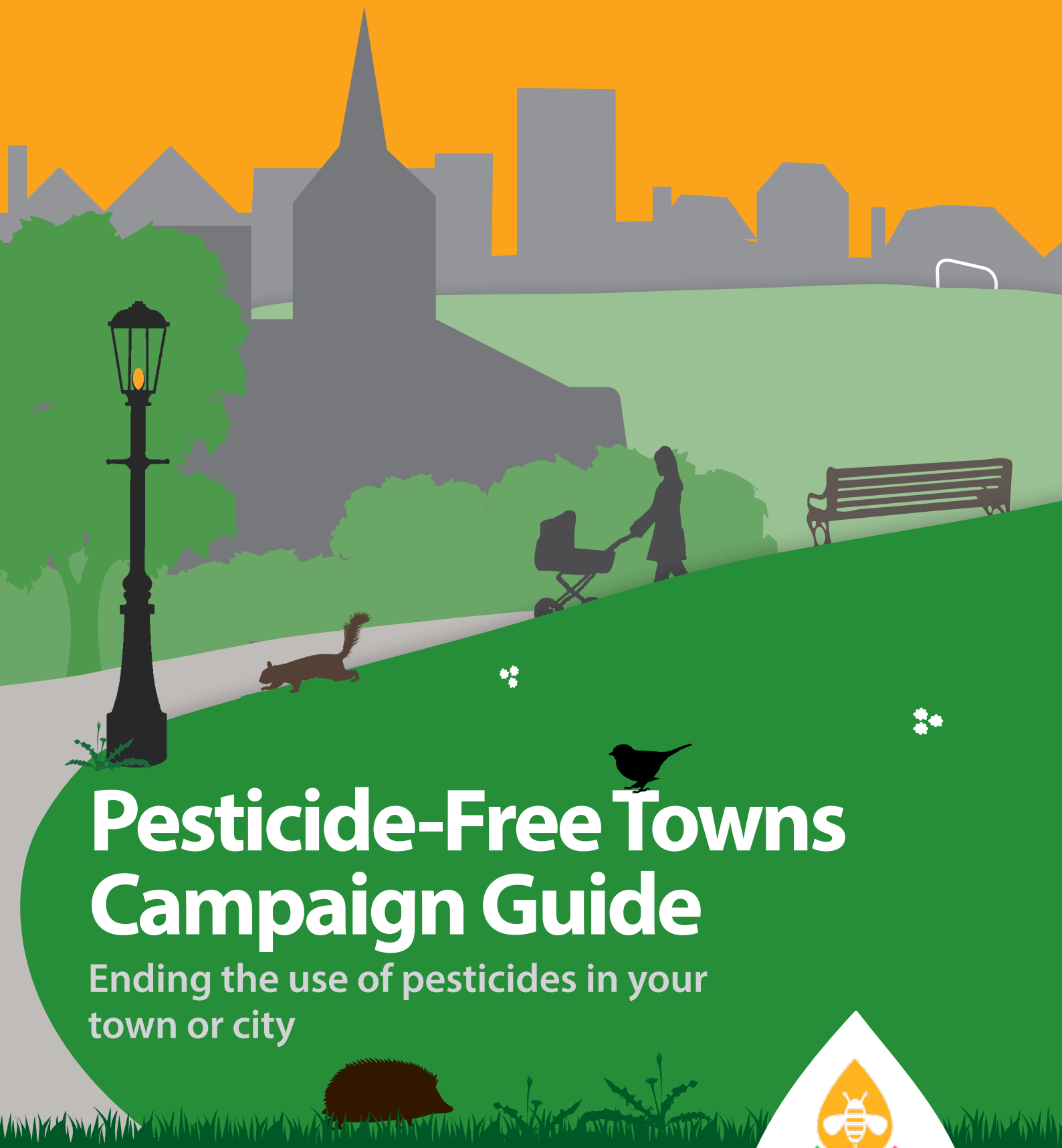

Pesticide-Free Towns Campaign Guide

Ending the use of pesticides in your town or city

PESTICIDE ACTION NETWORK *UK*

Pesticide-FREE

Pesticide-Free Towns Campaign Guide

Ending the use of pesticides in your town or city

Introduction

Every year, hundreds of tonnes of pesticides are used in the streets, parks, playgrounds and other open spaces of our towns and cities. At last count, there were 38 different types of pesticides used, a potentially hazardous cocktail applied directly to the areas where the majority of us spend time.

Many of these pesticides have the potential to cause serious diseases like cancer, or have been linked with birth defects and reproductive disorders. Vulnerable groups such as children, the elderly and pregnant women tend to be most at risk. The use of pesticides also harms urban biodiversity, wildlife and contaminates our natural resources including water.

The good news is that most – if not all – of this pesticide use is unnecessary: well-tested, cost effective and safe non-chemical alternatives exist and are already being used in towns and cities across the world, including a growing number in the UK. We should no longer be exposed to toxic chemicals when safer alternatives are available.

In fact, all of the towns and cities of both Belgium and France are now pesticide-free. Hundreds of other cities, towns and villages around the world, from Copenhagen in Denmark to Seattle in the USA, successfully manage their public spaces without pesticides. It is high time that all UK councils follow suit and go pesticide-free.

This Pesticide-Free Towns campaign guide gives an overview of the key problems with pesticide use. It offers advice on how to campaign to make your local area pesticide-free and provides case studies of UK communities that have already done it. We have kept it short but there is more information on our website (www.pan-uk.org/pesticide-free) and do feel free to contact us directly if you have additional questions using the details found on the back of this guide.

We hope that this guide will inspire you to become part of the Pesticide-Free Towns campaign – a movement that's sweeping across the UK!

What are pesticides?

Pesticides are poisons designed to kill living organisms; that is the job of a pesticide, to kill things. And they do this very effectively. When we talk about pesticides we are referring to thousands of different active substances designed to kill plants (herbicides, commonly referred to as 'weedkillers'), insects (insecticides), and mould and fungus (fungicides). An active substance is the chemically active part of a manufactured pesticide product. For example, glyphosate is the active substance found in the pesticide product RoundUp.

Whilst these chemicals are designed to be toxic to a variety of different pests and weeds, those same toxic properties also make them potentially hazardous to people and other non-target organisms, such as bees.

The problems associated with pesticides have been well documented over the years — from Rachel Carson's Silent Spring, published in 1962, that highlighted the devastating effects insecticides were having on health, environment and wildlife in the US; to the current crisis being faced by our bees, pollinators and other insects; to the growing body of evidence of the human health effects caused by exposure to glyphosate. It is abundantly clear that something urgently needs to change and we can start that process today in our towns and cities.

Where are pesticides used?

Pesticides are used widely; in agriculture, towns, cities, homes and private gardens. By far the highest use of pesticides is in agriculture but significant amounts are used in non-agricultural settings. In fact, other than residues in food, the most common way for the majority of people in the UK to be exposed to pesticides is through spending time in urban, public areas. Removing them from our towns and cities is a relatively easy way of reducing our exposure to harmful chemicals.

The main use of pesticides in towns and cities is to control 'weeds', such as dandelions, from growing through cracks in the pavement and to keep our towns and cities looking spick-and-span. A wide range of pesticides are also used in the parks where our children play and around the schools where they learn. They are sprayed around hospitals, housing estates and shopping centres, on road verges and pavements and used in cemeteries, public gardens and sports pitches, including golf courses.

Herbicides (or 'weedkillers') account for 98.8% of the total pesticides applied in UK towns and cities. Meanwhile, glyphosate – the world's most widely used weedkiller – makes up more than three-quarters of the overall total.

Should you be concerned?

Health impacts

Pesticides are toxic and exposure to them has been linked to a range of serious illnesses and diseases in humans, from respiratory problems to cancer.

Direct exposure to pesticides can cause acute, short-term, health problems such as;

- Respiratory tract irritation/sore throat/ cough
- Allergic sensitisation
- Eye and skin irritation
- Nausea / vomiting / diarrhoea
- Headache
- Loss of consciousness
- Extreme weakness
- Seizures

Of perhaps more concern, but much harder to prove, are the long-term (chronic) effects caused by pesticides. Chronic exposure is when a substance causes harmful effects over an extended period, usually following repeated or continuous exposure to very low doses. Low doses don't always cause immediate effects, but over time, they can cause very serious illnesses.

Long-term pesticide exposure has been linked to the development of Parkinson's disease, asthma, depression and anxiety and cancer, including leukaemia. Exposure to glyphosate – which makes up 77% of all pesticides used in the UK towns and cities – has been linked to a form of cancer called non-Hodgkin's lymphoma that develops in the lymphatic system.

In terms of health impacts, pesticides fall, for the most part, into the following four categories;

- **Carcinogenic** – a substance is considered carcinogenic when there is evidence that it can cause cancer. There are many different types of cancer, but all of them can be characterised by the development of abnormal cells that begin to divide without control and spread into surrounding tissues. Single exposure events rarely cause cancer but repeated contact (whether through ingestion or the eyes, skin or lungs) with the carcinogenic substance, even at very low doses, can lead to cancer.
- **Developmental toxin** – these are substances that can have an effect upon unborn children. If an expectant mother is constantly and repeatedly in contact with this type of substance the foetus can be affected, with adverse effects manifesting at any point during the lifespan of the child.
- **Reproductive toxin** – these are substances which can induce adverse effects on sexual function and fertility in adults. The effects can include abnormal sexual behaviour, infertility and altered birth processes.
- **Endocrine disruptor** – these are substances that interfere with hormones and hormonal balance. Hormones are chemical messengers of the body and are necessary to regulate different functions, in particular growth and reproductive functions.

Endocrine effects can be activated by very low concentrations (doses) of chemicals. They manifest in a wide array of health impacts from cancers to diabetes and obesity.

Combined effects

One of the most worrying issues related to pesticide exposure is the fact that the effects of individual chemicals can be enhanced or altered when combined with one or more other such substances. It is often referred to as the 'cocktail effect'. Every day we are exposed to a cocktail of chemicals and the fact is that nobody knows what impact this consistent low level exposure to such a mixture of chemicals is having on us. Not only are the effects not understood, there is no attempt within current pesticide regulation to address the issue since our system only assesses the safety of individual chemicals. We are, in effect, being experimented on.

Pesticides and Children

Children are at more risk from pesticides because they have higher exposure rates than adults and are more vulnerable to their effects:

- Their behaviour – crawling and playing in areas treated with pesticides or putting contaminated objects in their mouth – increases their exposure. Children spend more time in areas like parks and playgrounds where pesticides are used. They sit, lie and play on the ground and can readily come into contact with the freshly applied pesticide or dust contaminated with pesticides.
- They absorb pesticides more easily through their skin. Not only is a child's skin more permeable than an adult's but their skin surface area relative to body weight is also higher making it easier to absorb higher rates of pesticides – in fact, infants will absorb around three times more pesticides than adults from similar exposure episodes.
- They take in more air, water and food relative to their body weight compared to adults, which increases their total exposure. For example, the breathing rate of a child in its first twelve years is roughly double that of an adult. As a result, the amount of airborne contaminants reaching the surface of the lung can be much higher.

Not only is exposure likely to be higher, but the systems that our bodies use to deal with toxins are not as developed in children and this can make them less able to cope with these substances than adults.

As they grow, children's brains and bodies undergo complex changes that effect tissue growth and organ development — these developmental processes can be irreversibly altered by exposure to pesticides.

The upshot is that incidents of pesticide exposure that would be tolerated by adults can cause irreversible damage to unborn babies, infants and adolescents.

To find out more about why children are more vulnerable to pesticides download the report '*Poisoning our Future: Children and Pesticides*' at www.pan-uk.org/effects-pesticides-women-children/

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Environmental impacts

It is not just people that are suffering the effects of pesticides, our wildlife is too. Bees and other pollinators are in serious decline. In fact, recent evidence has revealed that more than 40% of insect species are declining and a third are endangered, and there is no doubt that pesticides are a major part of the problem.

In the UK we have seen a 50% decrease in farmland bird species since the 1970s; a 97% decrease in hedgehog numbers since the 1950s and 95% of our wildflower meadows have been lost.

Our towns and cities can be havens for our beleaguered biodiversity. Due to habitat loss and the large quantities of pesticides used in UK agriculture, wildlife is increasingly seeking refuge in urban areas. For bees, pollinators and other insects there can be an incredible diversity of plants for them to feed on. Similarly there is evidence that some farmland bird species are moving ever closer to urban areas to feed and forage. However, the overuse of pesticides is destroying many of the areas where they can forage for food and contaminating the natural resources they depend upon. Herbicides are used to turn parks into 'green deserts' where only grass grows. They kill all other plants, many of which are relied upon by birds, insects and other wildlife. In addition, many of the pesticides used are highly persistent meaning that they stay around in the environment long into the future.

When used on hard surfaces such as pavements and paths pesticides tend to run off, contaminating water courses and harming aquatic wildlife in the process. They also find their way into our drinking water. It is estimated that water companies spend in excess of £30 million per year removing pesticides from water, the cost of which is passed on to us via our water bills.

Is there proof that going pesticide-free is possible?

Effective alternatives to the use of pesticides in our towns and cities already exist! In fact, more and more urban areas around the world are moving away from pesticides and taking up non-chemical alternatives that are safer for people and the environment.

France is perhaps the most forward thinking country in terms of ending the use of non-agricultural pesticides. Along with many towns and cities across the country, Paris has been pesticide-free for fifteen years and the recent 'Labbe's law' introduced a ban on the use of all non-agricultural pesticides (including in urban areas) throughout the entire country.

Meanwhile all of the towns and cities in Belgium are now managed without the use of pesticides, including the city of Ghent which has been pesticide-free for the last 25 years. There are many other towns and cities across

Europe that have banned or severely restricted the use of glyphosate in particular and a list of current bans and restrictions can be found on the Pesticide-Free Towns page of the PAN UK website (www.pan-uk.org/pesticide-free).

This growing pesticide-free movement is not restricted to Europe. In Canada, eight of the ten provinces have instigated bans or restrictions on the use of urban pesticides, as have cities across the US, such as Portland and Miami.

In the UK, an ever-increasing number of councils are taking action to end their pesticide use. The District of Lewes in Sussex has gone pesticide-free in all its public parks and green spaces, as have the London boroughs of Lambeth and Croydon. Also in London, Hammersmith & Fulham Council hasn't used any pesticides since 2016. Bristol Council recently adopted a motion to phase out the use of all pesticides across the city by 2021; this includes the creation of a pesticide taskforce, aimed at encouraging major land managers other than the council to follow suit in order to create a truly pesticide-free Bristol.

These towns and cities clearly show that it is perfectly possible to do away with using toxic pesticides in urban areas and adopt methods that pose less risk to citizens or the environment.

What non-chemical alternatives are available?

There are many non-chemical techniques available to replace pesticides and deal effectively with weeds in public places. These include mechanical processes such as flame, foam or hot water treatments; electronic control systems which are particularly suited to dealing with invasive species such as Japanese knotweed; acetic acid dilutions which can be effective at controlling weeds on hard surfaces; and manual methods including hand weeding and hoeing, mulching, steel brushing and sweeping.

In addition, as a number of areas have done, it is also possible to eliminate a large proportion of urban pesticide use by altering the council's and general public's attitude to weeds. They are, after all, arguably just plants considered to be in the wrong place. Some weeds provide food and habitat for a great number of species, including bees, which need all the help they can get. Many towns and cities have significantly reduced their pesticide use by learning to love their weeds and agreeing that a higher level of 'weediness' is a small price to pay for not contaminating citizens and the environment with unnecessary pesticides.

So leaving weeds in place and encouraging councils to mow less helps our urban biodiversity to thrive whilst reducing our exposure to pesticides – a win-win situation for all!

For more information on non-chemical alternatives visit www.pan-uk.org/pesticide-free and download the 'Going Pesticide-Free: A Guide to Local Authorities'.

Treating weeds with Foamstream, Manchester Ship Canal © Weedingtech

Focus on Glyphosate

What is glyphosate?

Glyphosate is the most widely used herbicide in the world, accounting for around a quarter of all global sales. It is used in agriculture, amenity and home and garden settings where it is mainly used to control a variety of weeds and other 'undesirable' plants. Glyphosate is by far and away the most widely used pesticide by councils in the UK, making up 77% of the total.

The active substance, glyphosate, was invented in the early 1970s by Monsanto and made available to the public under the trade name RoundUp in 1974. Glyphosate went out of patent in 2000 and now around 400 products containing glyphosate are available for use in the UK.

How does it work?

Glyphosate works by entering the plant and killing it. Plants absorb "systemic" herbicides like glyphosate through their leaves and other green parts. Once absorbed, it disrupts the functioning of the plant and kills it completely from the leaf to the root. Glyphosate is commonly applied in salt or liquid form to enhance its penetration into plants.

Is it safe?

Once marketed by its manufacturers as one of the safest substances that can be used to control weeds, concerns are now increasingly being raised about the health effects of glyphosate. It has been linked to neurological disorders such as Parkinson's disease, birth defects and behavioural problems in children.

In May 2015, the International Agency for Research on Cancer (part of the World Health Organization) concluded that glyphosate was 'probably carcinogenic' to humans. Three years later, in August 2018, a jury in the US ruled that Monsanto's Roundup – which contains glyphosate as its key ingredient – was liable for a terminally ill man's cancer and ordered the company to pay $78 million in damages. This was the first case of its kind but there are a further 11,000 similar cases pending in the USA alone.

Although we haven't had any such court cases yet in the UK, we have an ever-growing range of powerful voices calling for glyphosate to be banned and replaced with safer alternatives. In 2018, the GMB Union, which represents around 630,000 workers including those most at risk from exposure to the chemical such as parks staff, gardeners and agricultural and forestry workers, said that 'glyphosate must be treated as a severe health risk to the general public' and called for the UK government to introduce an immediate ban.

What restrictions have other countries introduced?

Due to health concerns, many countries have taken steps to stop or limit the exposure of workers and the general public to glyphosate. For example;

- In November 2018, **Germany** announced its intention to impose restrictions on glyphosate use in agriculture. The government is also planning to implement a ban on its use in private gardens and parks.
- In **Italy** the government has placed restrictions on the use of glyphosate, banning it for some agricultural uses. There has also been a ban placed on the use of glyphosate based products in public areas such as parks, gardens and sports pitches.

Elsewhere, municipalities, towns and cities such as **Miami, Brussels, Toronto, Paris** and **Kerala**, as well as all the towns and cities in France and Belgium, have taken their own actions to ban or severely restrict the use of glyphosate. And this list will continue to grow as more and more citizens around the world make their concerns known to their local and national political representatives.

Pesticide-Free Towns campaigners lobbying their council (or other land managers) to stop using glyphosate come up against the same objections time and time again. PAN UK has produced a 'Glyphosate Myth Buster' to help campaigners like you counter these responses. Visit the PAN UK website to download it (www.pan-uk.org/pesticide-free).

What can we do about it?

As has been proven time and time again, the most effective way of getting politicians to take action is when local people shout about what's important to them. That's where you come in.

There are already more than seventy Pesticide-Free Town campaigning groups around the UK. As a result of their work, many councils have already taken action to ban, or severely restrict, their pesticide use.

PAN UK has prepared a range of materials to help people start their own Pesticide-Free Towns campaign where they live, work, study or play. All of our materials are free to use and share and we are always keen to help you with advice or information to make your campaign a success. If you feel you need extra expertise, we will also do our best to accompany you to council meetings or speak directly to councillors on your behalf.

Here are some tips for getting your local council to go pesticide-free:

- **Get informed** – Visit the PAN UK website for guidance and materials you might need. In addition to more detailed information on pesticides and non-chemical alternatives, you will also find details of where there are existing Pesticide-Free Towns campaigns, case studies of places that have gone pesticide-free, letter templates, posters to download and an ever-growing bank of other useful materials.
- **Get connected** – Check the Pesticide-Free Towns webpage or contact PAN UK directly to find out if there is an existing campaign in your area and connect with other local activists to help amplify your voice by joining with others.
- **Get online** – Join the UK-wide movement by linking up with other campaigners across the UK on the Pesticide-Free Towns Facebook page and group. Share opinions on what tactics have worked and what haven't and be inspired by others' ideas.
- **Get advice** – contact PAN UK directly to get help and advice on how best to develop your local campaign.
- **Get specific** – you will need to find out if your council is using pesticides. The vast majority do use pesticides so a quick google search to see if your council has gone pesticide-free in the past five years should be sufficient. However, if you're still not sure you can contact PAN UK and we might know. If we aren't able to help, then it's worth contacting your council directly to ask. If they won't tell you, then you can draft a Freedom of Information request, which we would be happy to help you with.
- **Get support** – to attract more concerned citizens to the campaign, try organising a public meeting or raising the issue at already existing meetings of like-minded people (e.g. local environmental groups). You might also reach out to businesses in your area or local celebrities to see if they might add their voice to the campaign.
- **Get attention** – Write letters to your local media, run street stalls, talk to your neighbours, friends and colleagues about your concerns. Print off our leaflets and posters and put them up in local shops, libraries and anywhere else you can think of. If there is an area that you know is pesticide-free (a local park, allotment or even your own garden) you could put up one of our 'Pesticide-Free Zone' signs to raise awareness about the issue. These are available for free from the PAN UK website.
- **Get political** – start a petition demanding that your local council goes pesticide-free and begin collecting signatures on it. Some councils will have a facility on their website where local people can start a petition, or you can use one of the many online petition sites available such as Change.org. You can also choose to do a paper petition. Just make sure to check the council's website to understand their petition criteria, such as who can sign, what information they must include and what format it needs to be in. These criteria will vary from council to council so make sure to check carefully. Elections are a great time to get commitments from prospective councillors. Check to see if there is a council (or mayoral) election coming up in your area and try to get the candidates to pledge to go pesticide-free on all council land if elected.

- **Get strategic** – in addition to a general petition aimed at the whole council, you may want to target particular councillors, either those you know might be allies, those who represent the ward you live in or perhaps those who hold a relevant portfolio such as Head of the Environment Committee. Every council is structured differently, so do some research on how yours works and consider reaching out to potential allies directly. You could write them a letter, email and/or perhaps ask for a meeting to discuss the issue. Instead of treating councillors as targets, try working with them as allies and presenting the journey towards going pesticide-free as a joint mission which you want to help them with.
- **Get campaigning** – every campaign will be different because each one is being run in a distinct local context. However, PAN UK is here to assist you with whatever your campaign needs so do get in touch and we will do everything we can to help.

Grassroots campaigns can have a big impact

Lewes District Pesticide-Free Campaign – a success for local activists

In 2016, local residents banded together to start a campaign to end the use of pesticides in Lewes town and district in East Sussex.

They began by organising regular meetings for the core campaigning group in a local café. The original group consisted of a handful of concerned local residents, sympathetic town and district councillors and a representative of PAN UK. The group decided that gathering local support from other residents was key to achieving success and so a petition was drawn up calling on the council to ban the use of pesticides across Lewes. Whilst in this day and age it is more common to use online petition tools in this case it was thought more powerful to have an old fashioned paper petition. This would allow the team to go out and actually meet other residents to discuss the matter and garner support. In the end the petition attracted over 2,000 signatures, easily meeting the 1500 required to trigger a formal response from the council.

At the same time as petition signatures were being collected, the councillors on the core campaign team approached the parks and green spaces manager for Lewes District in order to gain his support which was crucial for the campaign. This outreach was a success and the parks and green spaces manager was convinced that a high level of maintenance could be achieved without the use of herbicides.

The core campaign group then arranged for the council's contractor to give a demonstration of a new non-chemical alternative it had been trialling – a system based on hot foam. Lewes District Council was incredibly impressed with its capabilities.

In May 2017, a little less than one year from the start of the campaign, Lewes District Council adopted the recommendation from the parks and green spaces manager that Lewes District would no longer treat its green spaces with herbicides. The Council also agreed to put in place a pesticide use reduction plan throughout the District.

Driven by local residents working in conjunction with elected councillors and key council officers, the campaign managed to deliver great results in a very short time. It is an example of how persistence and collaboration can combine with knowledge and experience to make significant and lasting change at the local level.

Bristol – big city, big plans

In June 2015, a group of parents decided to start a campaign for a pesticide-free Bristol after witnessing glyphosate being sprayed in areas where their children were playing. The new group was concerned about the IARC's designation of glyphosate as a 'probable human carcinogen' and the effects it might have on their children.

The new group met a few times and reached out to local environment, food and parents groups to gain their support. Four months later, this expanded group launched the Pesticide Safe Bristol Alliance (PSBA), demanding an end to the routine use of toxic weed killers in public spaces. By December, through direct advocacy, they had convinced a few local schools to stop using glyphosate in play areas.

In March 2016, the PSBA launched an offline survey asking local residents about their opinions on urban pesticide use. The survey revealed that one in two Bristol residents supported a total ban on the use of herbicides in public spaces. At the same time, the PSBA also launched a petition and succeeded in collecting enough signatures to trigger a full council debate. Following this debate, a trial of alternatives was started in the Cotham Ward of Bristol. Unfortunately the trial was poorly designed since it relied on simply replacing pesticides with vinegar, instead of the context-specific suite of approaches required to go pesticide-free. Local residents complained that the area smelt of fish and chips!!! The trial was criticised by the media and the PSBA.

In the run up to the Bristol Mayoral election in May 2016, the PSBA asked all the candidates to make a statement about their position on the use of pesticides. Marvin Rees, the eventual winner and current Mayor of Bristol, promised to 'seek an alternative to glyphosate-based pesticides'.

Despite this promise, no positive action was taken and the campaign continued to work with local residents, schools and other key stakeholders across Bristol as well as initiating another public petition. As part of the ongoing campaign, by April 2017 hundreds of households in Bristol had signed up as individual 'Pesticide Free Zones', pledging to maintain gardens, allotments and other outdoor spaces without the use of toxic chemicals.

Eventually in November 2018, the second petition was submitted to the council triggering another full debate on the issue. At the same time a group of local organisations in Bristol wrote an open letter to the Mayor of Bristol, asking him to form a Land Managers Task Force with the goal of phasing out glyphosate across the whole of Bristol, going beyond just land managed by the council.

In January 2019, a Motion put forward by Liberal Democrat Councillor Anthony Negus – long-time supporter of the pesticide-free Bristol campaign – was adopted unanimously by Bristol Councillors from all political parties. The adopted Motion called for the phasing out of pesticide use over a three year period and the establishment of a Task Force to ensure that all land managers in Bristol, not just the council, work closely together over the next three years to deliver a truly pesticide-free city for the residents of Bristol.

Who are Pesticide Action Network UK?

We are the only UK charity focused on tackling the problems caused by pesticides and promoting safe and sustainable alternatives in agriculture, urban areas, homes and gardens.

We work tirelessly to apply pressure to governments, regulators, policy makers, industry and retailers to reduce the impacts of harmful pesticides to both human health and the environment.

Find out more about our work at: **www.pan-uk.org**

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It doesn't have to be this way...

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