

Amenity - Best Practice

Using Pesticides in the Community





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This booklet aims to ensure all users of pesticides understand the duty of care for their safe use and the need for 'Best Practice' at all times.

For more information please visit www.amenity.org.uk

The Crop Protection Association

The Crop Protection Association (CPA) represents members active in the manufacture, formulation and distribution of pesticides products in the agricultural, amenity, home and garden sectors.

Introduction

Pesticides are chemical or biological substances used to control plants and pests that harm our food, health or the environment that we work, travel and play in.

There are four types of pesticide:

- **Herbicides** to control weeds and unwanted vegetation such as thistles and nettles;
- **Fungicides** to combat harmful diseases that infect the plants we use;
- **Insecticides** to control insect pests such as aphids and leatherjackets;
- **Plant Growth Regulators** to control plant-growth including grass.

But like the pesticides used on farms and in our homes and gardens, pesticides can pose some risks if they are not used with due care. Their registration and use is therefore strictly regulated and controlled.



Pesticide use in our community

PESTICIDES PLAY A KEY ROLE IN MAINTAINING THE QUALITY OF OUR PARKS, GOLF COURSES AND SPORTS PITCHES, AND ENSURING THE SAFETY OF OUR RAILWAYS AND ROADS.

Pesticides ensure we have access to sufficient quantities of good quality, reasonably priced foodstuffs, and clean urban environments. They help maintain safe and efficient transport infrastructures and quality sports facilities, and control invasive, damaging plant species.

- Local Authorities use herbicides to control weeds on roads, footpaths and parks.
- Herbicides keep our motorways and railways safe by protecting them from weed damage and ensuring our safety by maintaining visibility.
- Plant growth regulators help reduce grass-mowing on roadside embankments, saving money and reducing levels of activity on busy roadsides.
- Retail parks and industrial sites control weeds to reduce fire risk and create a pleasant environment.

- Pesticides are widely used on sports grounds and golf courses to control problem weeds, pests and diseases, ensuring safe, high quality playing surfaces.
- Utility companies use herbicides to maintain the safety and accessibility of power lines and supply networks.
- Herbicides are used on waterways to control excessive weed-growth, maintain water quality and reduce the risk of flooding.

Pesticides are cost-effective tools for use in all amenity areas for reasons of safety, efficiency and aesthetic value, and to comply with public health and legal requirements.



Pesticide safety and legislation

THE USE OF MODERN PESTICIDES IS GENERALLY SAFER TODAY THAN EVER BEFORE FOR PEOPLE, ANIMALS AND OTHER NON-TARGET SPECIES.

Factors that have contributed to this include:

- Enhanced effectiveness of products in targeting specific pests;
- Progress in formulation technology and packaging;
- Better application through improvements in sprayer and nozzle technology;
- Development of technology allowing more targeted pesticide applications;
- Improved advice on when and how best to use pesticides.



Defra's '**Code of Practice for using plant protection products**' gives advice to users on how to use pesticides safely and within legislation. Technical specification, tender evaluation and project supervision for pesticides use should only be carried out by people with the appropriate technical qualifications, for example a BASIS¹ Certificate in Crop Protection (Amenity). All pesticide users need to adopt 'Best Practice' to deliver continued improvements on pesticide use in accordance with the EU Directive on the Sustainable Use of Pesticides.



¹ BASIS (Registration) Limited is an independent, self regulatory registration, standards and certification scheme serving the pesticide, fertiliser and allied organisations and interests.

THE EUROPEAN UNION THEMATIC STRATEGY FOR PESTICIDES

The EU's Sixth Environmental Action Programme committed the European Community to developing a Thematic Strategy for Pesticides. The Strategy seeks to ensure more sustainable use of pesticides through new and existing legislation and to minimise pesticide use.

THE EUROPEAN UNION WATER FRAMEWORK DIRECTIVE (2000/06/EC (WFD))

To ensure surface and ground-water pollution by herbicides is significantly reduced or eliminated operators are legally required to be qualified and use carefully targeted applications. This is covered by the EU Water Framework Directive, the most substantial piece of European water legislation to date requiring Member States to put into place a range of environmental controls, including controls on point source and diffuse source pollution.



THE UK PESTICIDES STRATEGY

The UK Pesticides Strategy provides a framework for pesticide legislation, policies and initiatives to promote sustainable development. The Strategy aims to minimise the risk of adverse impacts of pesticide use through a range of statutory and voluntary controls, implementing the requirements of the EU Thematic Strategy for Pesticides and the EU Water Framework Directive.

NATIONAL ACTION PLANS

To achieve the strategic outcomes in the UK Pesticides Strategy, activities are focused into targeted Action Plans. These cover water, biodiversity, amenity use, amateur use, product availability and human health.

Special measures are targeted at the amenity and amateur products sectors with an Action Plan that aims to safeguard the availability of products for amenity use. This also considers the scope for promoting the use of 'alternative' products and techniques to replace conventional pesticides.

Many pesticide users already take specialist advice before, during and after applications and are adopting practices which exceed the statutory requirements.



Why use pesticides

USING PESTICIDES TO CONTROL WEED VEGETATION AND PESTS CAN:

- Improve the **SAFETY** of our transport infrastructure and urban environment by removing hazards;
- Increase **EFFICIENCY** of manual labour and equipment in controlling vegetation and pests;
- Enhance the **AESTHETIC VALUE** of our surroundings;
- Eliminate **PUBLIC HEALTH** risks;
- Conform with **LEGISLATION** on weed control;
- Reduce **COSTS** incurred by local authorities and organisations in using traditional and alternative control methods.

SAFETY

Pesticides control weed growth that otherwise would:

- obscure warning and direction signs reducing driver visibility at junctions and corners;
- hide dangerous obstacles;
- damage tarmac, concrete and paved areas creating trip points;
- block drainage channels causing carriageway or footway deterioration or flooding during heavy rainfall increasing risk of aquaplaning by cars;
- create a fire hazard when dry or dead;
- cause people to slip and injure themselves especially moss growth on hard surfaces.



EFFICIENCY

Using herbicides and growth regulators can improve efficiency by:

- allowing a person to eradicate weeds over a much larger area in a shorter time than with a hoe or a mechanical cutter;
- achieving a longer-lasting kill by destroying foliage and roots;
- reducing maintenance work and replacement of fences, walls, roadways, and pavements;
- avoiding physical damage to trees, shrubs and other items by mechanical tools;
- keeping waterways clear of weed growth which can impede flow, leading to flooding, silting and increased pumping costs.

AESTHETIC VALUE

Pesticides can contribute to the visual appeal and use of our parks and leisure facilities by:

- Removing unsightly weeds from path edges, around trees and shrubs in pavements, public parks, cemeteries and other open spaces;
- Improving the growth of trees and shrubs by removing competition for nutrients and water;
- Eradicating unwanted weeds, diseases and pests in turf, especially where good playing surfaces are essential on golf courses, bowling greens, tennis courts, football and cricket pitches;





- Clearing weeds from kerbs and other areas where rubbish can become trapped;
- Improving the appearance of unkempt areas, discouraging vandalism, graffiti and fly-tipping.

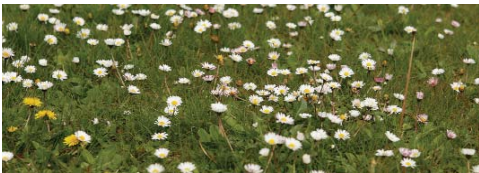
LEGISLATION

Herbicides are used to comply with specific legislation on the control of weeds including:

- the Noxious Weeds Act (1959) that requires landowners to eliminate scheduled weeds such as ragwort, various thistles and docks to prevent their seeds contaminating neighbour's land;
- the Wildlife and Countryside Act (1981) which specifies control of certain plants such as giant hogweed and Japanese knotweed.

PUBLIC HEALTH

Herbicides can eliminate vegetation in waste areas that harbour vermin rats and mice. Insecticides can control disease-bearing pests such as fleas, flies, cockroaches and mosquitoes.



ECONOMICS

Controlling weeds, pests and diseases with pesticides can be significantly cheaper and better value than using mechanical control methods or hand-weeding. Clearing weeds from kerbs and other areas where they can trap unsightly rubbish can also reduce the cost of litter collection.

	Hand and/or mechanical control programme	Basic herbicide programme	Annual saving using pesticides
Roadside verges and central reservations	£850-1,000/km per cut	£75-100/km per application	Over 600 km = £540,000
Leisure and amenity areas	£85/100m ²	£5/100m ²	Over 60 ha = £480,000
Footpaths	£1200/km	£34-50/km	Over 600 km = £690,000

'Best practice' pesticide programmes

Pesticides have a very important role throughout the transport, leisure and amenity sectors but the public needs assurance that they are being applied in a responsible manner.

The amenity sector has worked to establish 'best practice' in the use of pesticides including:

- protecting users and workers by minimising exposure to pesticides;
- protecting residents and bystanders by minimising exposure from spray operations;
- reducing water pollution caused by pesticides;
- reducing the impact of pesticides on biodiversity;
- minimising the risk to users and the environment;
- encouraging the introduction of cost-effective, more sustainable alternative approaches and greater use of integrated pest management (IPM).

Before any pesticide is applied there must be an evaluation of whether control is really required. The setting of clear and realistic management objectives for a site is the cornerstone of the successful control of amenity vegetation.

Factors such as site location, soil type, frequency and type of use influence the level of management and inputs such as pesticides and fertiliser used. An intensively managed formal landscape will differ from a low managed area of rough land with differing tolerances to weed populations, species and plant size.

Failure to assess carefully the requirements of a site could result in potentially wasting time and money and could lead to unnecessary pesticide applications. A completely clean site may not be either necessary or an achievable objective.

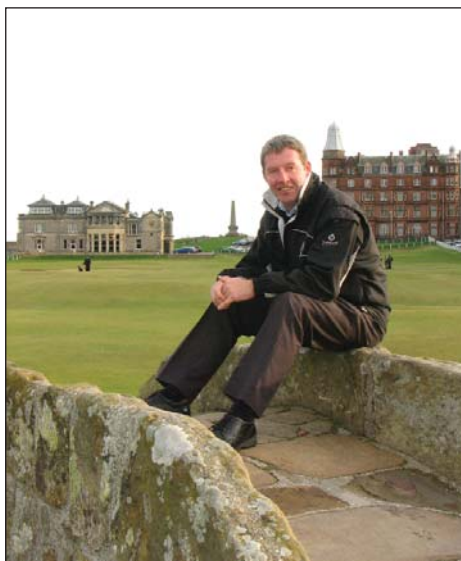
It may also depend on the source of the problem. Symptoms may be down to poor management, such as poor drainage or incorrect or untimely cultural treatment, and the use of pesticides can be avoided. Some weeds are relatively harmless; other species require urgent treatment.

Where help is needed to identify the cause of the problem the user must consult a fully qualified BASIS adviser to ensure the most appropriate and correct action is being taken.



INTEGRATED PEST MANAGEMENT (IPM)

As part of the EU Thematic Strategy, the amenity sector is required to follow an IPM programme, in conjunction with lower pesticide inputs, to control weeds, pests and diseases wherever possible. IPM programmes use a variety of complementary strategies including mechanical control, biological control and cultural management techniques as well as pesticide application. The aim is to minimise the use of pesticides while managing the problem at an acceptable level, using cost-effective practices and products with the lowest risk to health and the environment.



“A practical Integrated Pest Management policy is vital in the successful conditioning of St Andrews Links, including that of the world famous Old Course. We aim to present the courses in as natural condition as possible, encouraging the finer, indigenous grasses throughout, including the roughs.

“Using a selective herbicide on a restricted basis rather than carrying out a blanket application is an important part of that objective.”

Gordon Moir, Director of Greenkeeping,
St Andrews Links



“As part of an Integrated Pest Management programme pesticides play a vital role in keeping the tennis courts and surrounding areas of the Club clear of weeds, pests and diseases. Without them it would be virtually impossible to maintain the high standards expected today of our playing surfaces. The process would be considerably more labour intensive and expensive.”

Eddie Seaward, Head Groundsman,
The All England Lawn Tennis and Croquet
Club, Wimbledon

Pesticide application

Pesticides can be formulated as liquids, granules or powders. They can be applied at different stages of a plant's development. They also vary in their mode of action, from molecules that take effect on contact, through to systemic products that are absorbed by the target pest or plant.

WEED CONTROL



When choosing a herbicide for use in planted areas, it is important to ensure that the plants will tolerate the treatment. Application rate is also important as this can both affect the range of weed species controlled, the period of control and tolerance of the planted species.

Herbicides that act throughout the whole plant are the most appropriate method of control. Optimum control is usually obtained by application in the summer and autumn when the plant is actively growing, building reserves for next season's growth.

Single herbicides may not control all weed species. Many products are available as formulated combinations of two or more active ingredients. Alternatively tank-mixing two or more different products can overcome any deficiencies, although any mixes must be approved on the product label.

Any weeds missed by a residual treatment can be spot-treated. Care should be taken to ensure that only the target weeds are treated, accidental treatment of green plant material can result in either unsightly leaf damage or death of the whole plant.

WATER



Specialist herbicides have been developed that can be used in water without impacting on aquatic life. These are subject to strict regulations and before use prior agreement of the Environment Agency or Scottish Environment Protection Agency must be obtained.

TURF



There are few herbicides available for the control of grassweeds in turf. Management practices include pH control, fertiliser use and management of cutting height. Pesticide labels must be checked for mixing recommendations and guidelines if combining fertiliser with herbicide.

HARD SURFACES



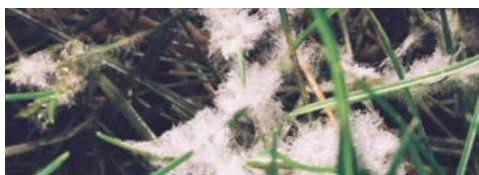
Run-off from treating hard surfaces can lead to contamination of surface water and should be avoided. Spot-treatment with an amenity herbicide will give optimum acceptable control, whilst minimising the risks of contaminating water.

GRAVELLED AREAS



If gravel is overlying a permeable surface such as soil, then the use of a residual herbicide will give longer lasting control and may reduce the number of sprays required.

DISEASE CONTROL



Like any private garden, amenity areas are prone to disease attack. Diseases such as blackspot, rust and mildew can be especially disfiguring to ornamental plants, while outbreaks of turf disease can have a significant economic impact on high quality sports turf. Diseases must be correctly identified to ensure appropriate fungicide treatment. Specialist advice from a fully qualified BASIS adviser is recommended.

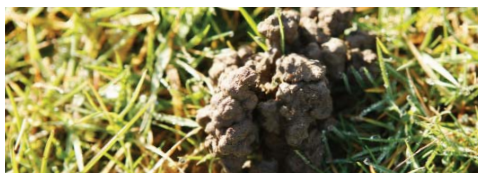
Fungicides are grouped according to their mode of action. Repeated use of fungicides with the same mode of action can lead to the development of resistance. A resistance management strategy should be used, including alternating the use of fungicides with different modes of action within an IPM programme.

PLANT GROWTH REGULATORS



Plant growth regulators are used to reduce the need for mowing. They are especially effective in areas which are difficult or dangerous to mow such as motorway embankments. They are also useful for maintaining sightlines and safety strips on road verges. New generation PGRs are also widely used on managed amenity turf areas to improve grass sward density and encourage a harder wearing turf.

INSECT CONTROL



Grubs of various flies, especially leatherjackets, the larvae of the crane-fly or daddy-long-legs, cause direct and sometimes dramatic damage to turf. Damage can be made worse by secondary attack from birds and animals feeding on the grubs.

Insecticides are available to control insect pests, including leatherjackets, chafer grubs and frit-fly. However, by the time symptoms appear the damage has often already been caused. In extreme cases reseeding is the only option. Vigilance for insect pests, particularly leatherjacket damage in the autumn and early spring, is essential.

Earthworms are important for soil aeration and breakdown of organic matter, but can leave casts on fine turf. Earthworms can be controlled by some fungicides that also have approved worm control recommendations.

ACKNOWLEDGEMENTS

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FURTHER INFORMATION

Crop Protection Association :

www.cropprotection.org.uk

CPA Amenity :

www.amenity.org.uk

Defra :

www.defra.gov.uk

Chemicals Regulation Directorate

- Pesticides :

www.pesticides.gov.uk

Defra : UK Pesticides Strategy: a strategy for the sustainable use
of plant protection products

Defra : Pesticides: code of practice for using plant protection products

ALWAYS READ THE LABEL — USE PESTICIDES SAFELY



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