Weedkillers for Home Gardeners

RHS Advisory Service
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Royal Horticultural Society
Sharing the best in Gardening

Introduction

The active ingredients listed here under their manufacturers' names, may be available as 'own brand' from larger retailers such as DIY superstores. It is not practical to list all of these. The name of the active ingredient must, by law, appear on the label, but it may be in small print. In a number of cases, a product that works by physical action may not indicate its active ingredient on the label.

Please note that inclusion of a product on a leaflet does not indicate a recommendation of that product by the RHS. It must also be emphasised that the RHS is not in any way liable for any consequences that may ensue from the use of herbicides by home gardeners.

All garden chemicals on sale in the United Kingdom are safe when used according to the manufacturers' instructions. Most proprietary products have been issued with a MAPP or HSE number which can be found on the pack. Some products on this leaflet, such as the seaweed extract for patio cleaning, do not require MAPP or HSE numbers.

For the most effective and safe use of herbicides, rules should be observed:

1. Use chemicals only when they are really necessary. Many weeds can be kept down by good cultivation techniques such as hoeing, mulching, mowing and digging.

2. You must select a chemical which is recommended for the particular purpose you have in mind. Always read the label before choosing a product.

3. Don't buy large amounts of pesticides that will take many years to use up. If only a few plants require treatment, a ready-to-use spray is likely to be the best answer.

4. Read the manufacturers' label and check for specific limitations or precautions you should take. As an added precaution you could wear rubber gloves, particularly when handling concentrates and spraying.

5. Follow the instructions on the product label and apply the chemical at the stated rate and in the manner described. It is a legal requirement to comply with the Statutory Conditions indicated on the label.

6. Make sure you are spraying at the correct times and intervals. This is often crucial for the control of a weed.

7. It is illegal to mix two chemicals together to give a combined spray unless this is recommended on the label or leaflet.

8. Avoid contact with exposed parts of the body, particularly the eyes. Wash off any splashes immediately with clean water.

9. Avoid breathing in sprays. Wash after using sprays.

10. Make sure no children or animals are in the vicinity when spraying.

11. Do not smoke, eat or drink while spraying.

12. Spray sufficiently to wet the plants without excessive run-off or drift, but thoroughly wet the stems, buds and the underside as well as the upper surface of the leaves.

13. Do not spray on windy or very sunny days.

14. Clean all equipment after spraying. DO NOT use apparatus that have contained herbicides for the application of other substances such as fertilisers or water.

15. Always try to make up only sufficient solution for the task. Left-over spray must not be poured down the drain.

16. Store chemicals in a safe place away from children and pets, keeping them tightly closed and in their original containers.

Online www.rhs.org.uk **Email** gardeningadvice@rhs.org.uk **Tel** 0845 260 8000 **Follow us on**
Write to RHS Advisory Service, Wisley, Woking, Surrey GU23 6QB

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Choosing weedkillers available to home gardeners

The following list comprises herbicides that should be readily available in garden centres, DIY stores, etc. You should be aware that it is ESSENTIAL you check the statutory conditions of use and directions of use on the herbicide label to check the situation in which the individual herbicide can be used. For more information on approved chemicals and safe pesticide use, visit the website of the Pesticides Safety Directorate: www.pesticides.gov.uk/garden_home.asp

1. Hormone-type Herbicides

Chemicals such as 2,4-D, mecoprop-P, MCPA and dicamba are described as 'hormone' weedkillers as they mimic plant hormones, causing characteristic twisted or distorted growth when applied to weeds. These herbicides are selective, targeting broad-leaved weeds and leaving narrow-leaved plants (grasses) unharmed at the normal dilution rate. Because of this they are used on lawns or rough grassland. Hormone weedkillers are foliar-acting and translocated, moving down into the weeds' roots when applied to the foliage. They also tend to be slightly residual, remaining in the soil for a few weeks after application.

Avoid using lawn herbicides on newly-turfed or seeded lawns and do not use the first lawn clippings after application on the compost heap. Products containing clopyralid can be especially persistent. Again, the first clippings should not be composted and the next three mowings should be used as a mulch only after composting for at least 9 months. To avoid possible contamination of compost, do not collect the clippings at all but mow frequently and allow the short clippings to remain on the surface of the lawn. These will quickly disperse to leave an acceptable finish. Very often lawn weedkillers are combined with fertilisers and/or mosskillers.

a) Rough grassland weedkillers

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
triclopyr	SBK Brushwood Killer	Vitax Ltd	liquid concentrate
triclopyr	SBK Brushwood Killer Ready to Use	Vitax Ltd	ready-to-use spray

b) Lawn weedkillers

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
2,4-D/dicamba/mecoprop-P/ MCPA	Lawn Weedkiller Ready to Use 3	Bayer CropScience Ltd	ready-to-use spray
2,4-D/dicamba/mecoprop-P/ MCPA	Lawn Weedkiller Concentrate	Bayer CropScience Ltd	liquid concentrate
2,4-D/dicamba/mecoprop-P/ MCPA	Doff Lawn Spot Weeder	Doff Portland Ltd	ready-to-use spray
2,4-D/dicamba/mecoprop-P/ MCPA	Resolva Lawn Weedkiller Concentrate	Westland Horticulture Ltd	liquid concentrate
MCPA/dicamba/mecoprop-P	Resolva Lawn Weedkiller Ready to Use	Westland Horticulture Ltd	ready-to-use spray
clopyralid/2,4-D/MCPA	LawnClear 2	Vitax Ltd	liquid concentrate
clopyralid/2,4-D/MCPA	LawnClear 2 Ready to Use	Vitax Ltd	ready-to-use spray
fluroxypyr/MCPA/clopyralid	Verdone Extra	Scotts Company (UK) Ltd	liquid concentrate
fluroxypyr/MCPA/clopyralid	Verdone Extra Ready to Use	Scotts Company (UK) Ltd	ready-to-use spray

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c) Lawn weedkillers with fertiliser (N = nitrogen, P = phosphorus, K = potassium)

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
2,4-D/dicamba plus NPK	Scotts Lawn Builder Lawn Food plus Weed Control	Scotts Company (UK) Ltd	granules
MCPA/dicamba plus NPK	Green Up Lawn Liquid Feed & Weed	Vitax Ltd	liquid concentrate
MCPA/mecoprop-P/dicamba plus N	EverGreen Feed & Weed Liquid	Scotts Company (UK) Ltd	liquid concentrate

d) Lawn weedkillers with fertiliser and mosskiller

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
ferrous sulphate/2,4-D/ mecoprop-P plus NPK	3 in 1 Lawn Feed, Weed & Mosskiller	Doff Portland Ltd	granules
ferrous sulphate/2,4-D/ mecoprop-P plus NPK	Lawn Feed, Weed & Mosskiller	Garden Direct	granules
ferrous sulphate/2,4-D/ mecoprop-P plus NPK	Green Up Lawn Feed & Weed Plus Mosskiller	Vitax Ltd	granules
ferrous sulphate/2,4-D/ mecoprop-P plus NPK	Lawn Feed, Weed & Mosskiller	Westland Horticulture Ltd	granules
ferrous sulphate/2,4-D/ mecoprop-P plus NPK	Aftercut All-in-One	Westland Horticulture Ltd	granules
MCPA/mecoprop-P/ ferrous sulphate, NPK	EverGreen Complete	Scotts Company (UK) Ltd	granules
MCPA/dichlorprop-P/ ferrous sulphate, NPK	J. Arthur Bower's Lawn Feed Weed & Mosskiller	William Sinclair Horticulture Ltd	granules
MCPA/dichlorprop-P/dicamba/ferrous sulphate plus NPK	EverGreen Complete Soluble	Scotts Company (UK) Ltd	soluble powder

2. Mosskillers, Algae and Water Butt Purification

Mosskillers have been formulated to control moss on lawns, borders and/or hard surfaces (check manufacturers' statutory conditions). Mosskillers work by contact action, only some being selective when used at the correct concentration. Never use ferrous sulphate on hard surfaces as it will stain.

Algae killers also work on contact and are mainly approved for use on hard surfaces, although the products based on pelargonic acid and fatty acids have approval for use around trees and ornamental plants. Most are water-soluble and so have poor residual properties, providing little long-term control.

Please note *that a number of the products in sections b) and c) are non-chemical and work through mechanical, enzymatic or microbial action. Other garden cleaning products are also available.*

a) Lawn mosskillers (continued overleaf)

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
ferrous sulphate	Green Up Mossfree	Vitax Ltd	soluble powder
ferrous sulphate plus N	Lawn Sand	Garden Direct	sand
ferrous sulphate plus N	Lawn Sand	Westland Horticulture Ltd	sand
ferrous sulphate plus N	Green Up Lawn Sand Moss Control	Vitax Ltd	sand

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Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
ferrous sulphate plus N	J. Arthur Bower's Lawn Sand	William Sinclair Horticulture Ltd	sand
ferrous sulphate plus N	Lawn Builder Lawn Food plus Moss Control	Scotts Company (UK) Ltd	granules
ferrous sulphate plus NPK	EverGreen Autumn	Scotts Company (UK) Ltd	granules
ferrous sulphate plus NPK	EverGreen Mosskill Soluble	Scotts Company (UK) Ltd	soluble powder
ferrous sulphate plus NPK	Scotts Lawn Builder Lawn Food plus Moss Control	Scotts Company (UK) Ltd	granules
ferrous sulphate plus NPK	Autumn Lawn Feed & Moss Killer	Westland Horticulture Ltd	granules
ferrous sulphate plus NPK	J. Arthur Bower's Autumn Lawn Food & Mosskiller	William Sinclair Horticulture Ltd	granules

b) Moss and algae killers (not lawn)

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
acetic acid	Algon Organic Path and Patio Cleaner	Algon Ltd	liquid concentrate
acetic acid	Weedol Fast Acting Gun!	Scotts Company (UK) Ltd	ready-to-use spray
acetic acid	Weedol Fast Acting	Scotts Company (UK) Ltd	liquid concentrate
benzalkonium chloride	Patio Magic	Brinton Products Ltd	liquid concentrate
benzalkonium chloride	Super Concentrate Path Patio and Decking Cleaner	Doff Portland Ltd	soluble sachet
benzalkonium chloride	Easy Clean	Vitax Ltd	ready-to-use spray
enzyme action	Growing Success Concentrated Greenhouse cleaner	William Sinclair Horticulture Ltd	liquid concentrate
fatty acids	Moss Killer	Bayer CropScience Ltd	ready-to-use spray
garden cleaner/ disinfectant based on para-chloro-meta-cresol	Jeyes Fluid	Jeyes UK	liquid concentrate
nitrilo triacetic acid/trisodium salt	Path & Patio Cleaner	Bayer CropScience Ltd	liquid concentrate
non-acid surface cleaner	Jeyes Fluid Path & Patio Cleaner	Jeyes UK	liquid concentrate
quaternary ammonium compounds	Green Cleaner	Bayer CropScience Ltd	soluble sachet
surfactant	Path & Patio Liquid Cleaner	Vitax Ltd	liquid concentrate
surfactant based on seaweed	Just Patio and Concrete Cleaner	Just Green Ltd	liquid concentrate
surfactant based on seaweed	Just Glasshouse Cleaner	Just Green Ltd	liquid concentrate

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c) Water butt purification

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
naturally-occurring micro-organisms	Aquahydrotech Water Butt Fresh	Eco Pond Ltd	liquid concentrate
naturally-occurring plant extract	Water Butt Treatment	Biotal Ltd	liquid concentrate
naturally-occurring plant extract	Just Water Butt Cleaner	Just Green	liquid concentrate
potassium permanganate	Potassium permanganate	Garden Direct	crystals

3. Contact Herbicides

Contact herbicides are non-selective and non-residual and work simply by scorching off weed foliage. This makes the ready-to-use formulations ideal for controlling annual weeds and perennial weed seedlings growing in between garden plants, which can simply be protected using polythene, cardboard or an upturned bucket. **These products work by both contact and systemic action*

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
acetic acid	Weedol Fast Acting Gun!	Scotts Company (UK) Ltd	ready-to-use spray
acetic acid	Weedol Fast Acting	Scotts Company (UK) Ltd	liquid concentrate
diquat	Weedol 2	Scotts Company (UK) Ltd	water soluble granules
fatty acids	3 Hour Weedkiller	Bayer CropScience Ltd	ready-to-use spray
fatty acids	Natria Super Fast Weedkiller	Bayer CropScience Ltd	ready-to-use spray
*glyphosate/diquat	Resolva 24H Liquid Concentrate	Westland Horticulture Ltd	liquid concentrate
*glyphosate/diquat	Resolva 24H Ready to Use	Westland Horticulture Ltd	ready-to-use spray
pelargonic acid	24/7 Superfast Weedkiller	Doff Portland Ltd	ready-to-use spray

4. Systemic Herbicides

Systemic herbicides are non-selective and non-residual. They differ from contact herbicides in that when applied to the foliage the herbicide moves down into the root system of the weed. This makes systemic herbicides ideal for controlling deep-rooted perennial weeds. The most effective time for spraying glyphosate is mid- to late summer when the weed has a large surface area.

**These products work by both contact and systemic action.*
***These products contain a selective broad-leaved contact weedkiller as well as glyphosate.*

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
glyphosate	Garden Rootkill Weedkiller	Bayer CropScience Ltd	liquid concentrate
glyphosate	Garden Rootkill Ready to Use	Bayer CropScience Ltd	ready-to-use spray
glyphosate	Tough Rootkill Ready to Use	Bayer CropScience Ltd	ready-to-use spray
glyphosate	Garden Super Strength Weedkiller	Bayer CropScience Ltd	soluble sachet
glyphosate	Tree Stump Killer	Bayer CropScience Ltd	soluble sachet

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Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
glyphosate	Doff Tree Stump & Tough Weedkiller	Doff Portland Ltd	soluble sachet
glyphosate	Knockdown Super Strength Glyphosate Weedkiller	Doff Portland Ltd	soluble sachets
glyphosate	Glyphosate Weedkiller	Doff Portland Ltd	liquid concentrate
glyphosate	Maxi Strength Glyphosate Weedkiller	Doff Portland Ltd	liquid concentrate
glyphosate	Glyphosate Weedkiller Ready to Use	Doff Portland Ltd	ready-to-use spray
glyphosate	Path & Patio Weedkiller Ready to Use	Doff Portland Ltd	ready-to-use spray
glyphosate	Tumbleweed	Scotts Company (UK) Ltd	liquid concentrate
glyphosate	Tumbleweed Ready to Use	Scotts Company (UK) Ltd	ready-to-use spray
glyphosate	Fast Action Roundup Ready to Use	Scotts Company (UK) Ltd	ready-to-use spray
glyphosate	Roundup Gel Ready to Use	Scotts Company (UK) Ltd	gel
glyphosate	Roundup Ultra 3000	Scotts Company (UK) Ltd	liquid concentrate
glyphosate	Roundup Tree Stump & Rootkiller	Scotts Company (UK) Ltd	liquid concentrate
glyphosate	Roundup XL Tough and Deep Root Weedkiller Ready to Use	Scotts Company (UK) Ltd	ready-to-use spray
glyphosate	Weedfree Concentrate	Vitax Ltd	liquid concentrate
glyphosate	Weedfree Ready to Use	Vitax Ltd	ready-to-use spray
glyphosate	Deep Root Ultra Path & Patio Weedkiller Ready to Use	William Sinclair Horticulture Ltd	ready-to-use spray
glyphosate	Bramble Killer Ultra Ready to Use	William Sinclair Horticulture Ltd	ready-to-use spray
glyphosate	Nettle Killer Ready to Use	William Sinclair Horticulture Ltd	ready-to-use spray
glyphosate	Deadfast Weedkiller	William Sinclair Horticulture Ltd	soluble sachet
glyphosate	Deep Root Ultra Tree Stump & Weedkiller	William Sinclair Horticulture Ltd	liquid concentrate
glyphosate	Resolva Xtra Tough Concentrate	Westland Horticulture Ltd	liquid concentrate
*glyphosate/diquat	Resolva Path & Patio	Westland Horticulture Ltd	liquid concentrate
*glyphosate/diquat	Resolva Path & Patio Ready to Use	Westland Horticulture Ltd	ready-to-use spray
*glyphosate/diquat	Resolva 24H Liquid Concentrate	Westland Horticulture Ltd	liquid concentrate
*glyphosate/diquat	Resolva 24H Ready to Use	Westland Horticulture Ltd	ready-to-use spray
**glyphosate/ pyraflufen ethyl	Weedol Rootkill Plus	Scotts Company (UK) Ltd	liquid concentrate
**glyphosate/ pyraflufen ethyl	Weedol Gun! Rootkill Plus	Scotts Company (UK) Ltd	ready-to-use spray

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5. Residual Herbicides

Residual herbicides can be soil-acting or foliar-acting, the herbicide remaining in the soil for weeks or months, depending on the active ingredients' properties. Some can be used around plants, whereas others can only be used in uncultivated areas and/or hard surfaces. Check the label before use.

** Option on the label to use around large shrubs, trees and woody plants*

Active Ingredient	Proprietary Name	Manufacturer/Source of Supply	Formulation
*glyphosate/flufenacet/ metosulam	Path Weedkiller Ready to Use	Bayer CropScience Ltd	ready-to-use spray
*glyphosate/flufenacet/ metosulam	Path & Drive Weedkiller	Bayer CropScience Ltd	soluble sachet
*glyphosate/flufenacet/ metosulam	Ground Clear weedkiller	Bayer CropScience Ltd	soluble sachet
*glyphosate/flufenacet/ metosulam	Long Lasting Ground Clear Ready to Use	Bayer CropScience Ltd	ready-to-use spray
glyphosate/diflufenican	Pathclear Weedkiller PC	Scotts Company (UK) Ltd	soluble powder
glyphosate/diflufenican	Pathclear Weedkiller LC	Scotts Company (UK) Ltd	liquid concentrate
glyphosate/diflufenican	Pathclear Gun! Weedkiller plus Preventer	Scotts Company (UK) Ltd	ready-to-use spray

ALWAYS READ THE LABEL
USE HERBICIDES SAFELY

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Herbicide Legislation

Some garden herbicides have been withdrawn from the market recently (see individual sections) or have had their label recommendations changed. If you possess any out-of-date chemicals, contact your local authority's waste disposal section for advice on suitable disposal sites.

Manufacturers/Distributors

Company Name	Address	Telephone	Website
Algon Ltd	Unit 3, Ribble Saw Mill, Paley Road, Preston, Lancashire PR1 8LT	(01772) 823370	www.algonorganics.co.uk
Eco Pond Ltd	Odessa Farm, Hoggington Lane, Southwick, Trowbridge, Wiltshire BA14 9NS	(01225) 767919	www.ecopond.co.uk
Bayer Garden	Bayer CropScience, 230 Cambridge Science Park Milton Road, Cambridge CB4 0WB	(01223) 226500	www.bayergarden.co.uk
Biotal Ltd	Collivaud House, Ocean Way, Cardiff CF24 5PD	(029) 2047 5550	www.biotal.co.uk
Brinton Products	24 Roseneath Road, London SW11 6AH	(0845) 2505976	www.brintonproducts.co.uk
Doff Portland Ltd	Aerial Way, Watnall Road, Hucknall, Nottingham NG15 6DW	(0115) 9834300	www.doff.co.uk
Garden Direct	The Garden Centre, Birchall Lane, Cole Green, Hertford SG14 2NR	(0845) 2170788	www.gardendirect.co.uk
Jeyes UK, Jeyes Ltd	Tennyson House, Brunel Way, Thetford, IP24 1HF	(01842) 757575	www.jeyes.com
Just Green Ltd	Unit 14 Springfield Road Industrial Estate, Burnham-on-Crouch, Essex CM0 8UA	(01621) 785088	www.just-green.com
Scotts Company (UK) Ltd	Salisbury House, Weyside Park, Catteshall Lane, Godalming, Surrey GU7 1XE	(0845) 1901881	www.lovethegarden.com
Vitax Ltd	Owen Street, Coalville, Leicestershire LE67 3DE	(01530) 510060	www.vitax.co.uk
Westland Horticulture Ltd	Alconbury Hill, Huntingdon, Cambridgeshire PE28 4HY	(0870) 0663566	www.gardenhealth.com
William Sinclair Horticulture Ltd	Firth Road, Lincoln LN6 7A	(01522) 537561	www.william-sinclair.co.uk

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