

Wildflower Turf®

Shade Tolerant

Product Specification

Contents

Technical Specification	1
Species List	2
BNG Details	3
Appendix	
Installation Guide	4
Maintenance Plan	5


Product Code:

WFT-Shade-41-Bio

Manufacturer:

Wildflower Co.

Manufacturer Contact Details

 01256 771 222

 wildflower@wildflowerexperts.com

 www.wildflowerexperts.com

Technical Specification

Manufacturer	Wildflower Co.
Turf dimensions	1m x 1.2m slabs or 0.77m x 1.62m rolls, 15-35mm thickness (depending on age)
Weight	16-20kg per metre.
No of species	47 species (43 wildflowers, 4 non-invasive grasses) See full species list for further details.
Grass:flora sowing ratio	80% UK native wildflowers*, 20% grasses
Flowering period	April - October
Established height	25-150cm
Time to establish	2-3 months (at least 1 year for plants that need vernalisation period)
Soil types	Suitable for all soil types
Seed provenance and testing	Grown in England using UK native species. Seed analysis results available on request.
Recyclability	Packaging 100% recyclable, product 100% biodegradable
BNG suitability	17 Lowland Meadow species, 15 Lowland Calcareous Grassland species Also suitable for ONG - Refer to Habitat & Condition assessment.
Root system	Intact/uncut**
Reinforcing material	Bio-based, biodegradable netting
Substrate features	Contains Hydropor™ for greater moisture retention
Seed mix	Calibrated using seed weight analysis

How can I tell if a contractor has used Wildflower Turf®?

Peel up a corner and you should be able to see our white bio-based netting amongst the roots - no-one else uses a white membrane.

* Actual % may vary, based on environmental factors and seed availability. You may not see every species listed as the product is designed to adapt to individual settings, including a wide range of soil types and environmental conditions. Many species may not flower within the first year.

** Growing system: Wildflower Turf® is a soil-free, whole root turf system that is nursery grown to produce a mat of wildflower plants that retains 100% of its root system. A biodegradable, plant-based netting is included within the turf to support the root structure and enable the turf to retain its structural integrity. More information.

Wildflower Turf® Shade Tolerant

Product code: WFT-Shade-41-Bio

Get a Quote: www.wildflowerexperts.com

Species List

Wildflower Turf® Shade Tolerant

Product code: WFT-Shade-41-Bio

All seed grown by Wildflower Co. is tested to stringent standards for germination and purity.

Seed analysis results are available on request.

*You may not see every species listed as the product is designed to adapt to individual settings, including a wide range of soil types and environmental conditions. Many species may not flower during the first year.

Get a Quote: www.wildflowerexperts.com

Species
Wildflower Species
Autumn Hawkbit (<i>Scorzoneroides autumnalis</i>)
Betony (<i>Betonica officinalis</i>)
Birdsfoot Trefoil (<i>Lotus corniculatus</i>)
Bladder Campion (<i>Silene vulgaris</i>)
Cats Ear (<i>Hypochaeris radicata</i>)
Common Agrimony (<i>Agrimonia eupatoria</i>)
Common Knapweed (<i>Centaurea nigra</i>)
Common Sorrel (<i>Rumex acetosa</i>)
Common Toadflax (<i>Linaria vulgaris</i>)
Common Vetch (<i>Vicia sativa</i>)
Cowslip (<i>Primula veris</i>)
Greater Knapweed (<i>Centaurea scabiosa</i>)
Hedge Bedstraw (<i>Galium album</i>) (prev. <i>mollugo</i>)
Hedge Woundwort (<i>Stachys sylvatica</i>)
Hemp Agrimony (<i>Eupatorium cannabinum</i>)
Hoary Plantain (<i>Plantago media</i>)
Kidney Vetch (<i>Anthyllis vulneraria</i>)
Lady's Bedstraw (<i>Galium verum</i>)
Meadow Buttercup (<i>Ranunculus acris</i>)
Meadow Cranesbill (<i>Geranium pratense</i>)
Meadow Vetchling (<i>Lathyrus pratensis</i>)
Meadowsweet (<i>Filipendula ulmaria</i>)
Nettle-leaved Bellflower (<i>Campanula trachelium</i>)
Oxeye Daisy (<i>Leucanthemum vulgare</i>)
Perforate St John's Wort (<i>Hypericum perforatum</i>)
Ragged Robin (<i>Silene flos-cuculi</i>)
Red Campion (<i>Silene dioica</i>)
Ribwort Plantain (<i>Plantago lanceolata</i>)
Rough Hawkbit (<i>Leontodon hispidus</i>)
Sainfoin (<i>Onobrychis vicifolia</i>)
Salad Burnet (<i>Sanguisorba minor</i>)
Self Heal (<i>Prunella vulgaris</i>)
Upright Hedge Parsley (<i>Torilis japonica</i>)
White Campion (<i>Silene latifolia</i>)
Wild Carrot (<i>Daucus carota</i>)
Wild Marjoram (<i>Origanum vulgare</i>)
Wild Red Clover (<i>Trifolium pratense</i>)
Wood Anemone (<i>Anemonoides nemorosa</i>)
Wood Forget-me-not (<i>Myosotis sylvatica</i>)
Wood Sage (<i>Teucrium scorodonia</i>)
Wood Violet (<i>Viola odorata</i>)
Yarrow (<i>Achillea millefolium</i>)
Yellow Rattle (<i>Rhinanthus minor</i>)
Grasses
Annual Meadow Grass (<i>Poa annua</i>)
Crested Dog's-tail (<i>Cynosurus cristatus</i>)
Sheep's Fescue (<i>Festuca ovina</i>)
Yellow Oat Grass (<i>Trisetum flavescens</i>)

Flowering Time	Ultimate Height	Colour	Life Cycle
June - Oct	50	Yellow	P
June - Aug	60	Purple	P
May - Sept	30	Yellow	P
May - Sept	100		P
June - Sept	45	Yellow	P
June - Sept	80	Yellow	P
June - Sept	100	Purple	P
June - Aug	80	Red	P
June - Nov	75	Yellow	P
Apr - Sept	75	Purple	A
Apr - June	25	Yellow	P
June - Sept	100	Purple	P
June - Sept	100		P
June - Sept	100	Pink	P
July - Sept	150	Pink	P
May - Aug	30		P
June - Sept	25	Yellow	P
June - Sept	50		P
May - Aug	90	Yellow	P
June - Sept	90	Purple	P
May - Aug	120	Yellow	P
July - Aug	120		P
June - Sept	100	Purple	P
May - July	90		P
June - Aug	150	Yellow	P
June - Aug	100	Pink	P
Apr - July	100	Pink	P
Apr - Oct	90		P
June - Sept	50	Yellow	P
June - Aug	80	Pink	P
June - Aug	65	Red	P
May - Sept	30	Purple	P
July - Aug	150		P
May - Sept	100		SLP
June - Oct	150		P
June - Aug	100	Pink	P
May - Sept	50	Pink	P
Mar - May	25		P
June - Aug	30	Blue	P
July - Sept	60		P
Feb - May	15	Purple	P
June - Aug	90		P
May - July	50	Yellow	SLP
Year-round	30	Green	A
June - Aug	75	Green	SLP
May - June	30	Green	P
June - July	60	Brown	P

Biodiversity Net Gain (BNG) Projects

BNG Habitat & Condition Assessment

The below information is subject to ecologist & LPA approval/report and is dependent on [installation guide](#) and [maintenance instructions](#) provided by Wildflower Co. being correctly followed.

What BNG habitat can Shade Tolerant create?			
	Lowland Meadow	Lowland Calcareous	Other Neutral Grassland
No of indicator species	17	15	N/A
Condition on installation	Moderate	Moderate	Good
Condition at 5 years <i>(providing management plan followed)</i>	Good	Good	Good
Condition at 30 years <i>(providing management plan followed)</i>	Good	Good	Good

Time to Target Condition

Wildflower Turf® can provide a quicker method of establishing habitats with a high number of species per m² as the plants are mature on installation. This can dramatically improve 'Time to Target Condition'.

Ensuring Success - Consultancy and Handover

[Our consultancy offers](#) several options for ensuring long term success of wildflower installations. High value projects will benefit from early advice on the practicalities of planning, establishment, handover and long-term maintenance, verifying products meet specifications and objectives for wildflower habitat creation.

We can also ensure the installation and maintenance contractor understands specification, product and maintenance requirements at any stage of the project. This is particularly valuable at site handover, in advance of maintenance work or where contracts and/or contractors change during the lifetime of the project.

An Installation Certificate can be provided upon installation as part of some consultancy packages to certify that the product has been installed correctly.

[View consultancy and BNG consultancy packages here.](#)

Wildflower Turf® Shade Tolerant

Product code: WFT-Shade-41-Bio

Get a Quote: www.wildflowerexperts.com

Preparation and Installation

For a project to thrive, correct installation and management plans must be planned for from the offset.

• Soil Conditions and Fertility

Ensure soil is not waterlogged or compacted prior to laying the turf. The soil does not need to be fertilised before or after laying the turf. We would advise not stripping back the topsoil to reduce soil fertility before using Wildflower Turf® as it needs some level of fertility to get well-established initially and is an unnecessary ground preparation step. However, where soil is fertile, particular attention must be paid to the maintenance regime - see maintenance section.

• Soil Preparation

Existing vegetation should be killed or removed. Dig over or rotovate the soil to at least 100mm deep and rake over to create a reasonably fine tilth. Remove large stones, roots or clods of earth so that the roots of the plants in the turf are all in close contact with the soil. There is usually no need to import topsoil unless the levels on site are not sufficient or there is just sub-soil. In this case, a thin layer of 25-50mm (minimum) of low fertility topsoil is recommended. Avoid compaction of subsoil layer. Please contact Wildflower Co. if unsure.

• Laying the Turf

Turf should be laid on the day of delivery. The turf needs to be laid on a minimum of 100mm (4 inches) of growing medium or topsoil, the deeper the soil depth the greater capability of moisture retention and less irrigation required. Care should be taken to ensure that all joints are butted up correctly to prevent the growth of weeds. Use WFT-Finisher at this stage. Do not overlap the turf at the joints or create tension so joints pull apart or shrink.

• Watering

Once laid, water the turf thoroughly for the first couple of weeks (weather dependent), until the turf is rooted in. Ensure the soil underneath the turf is damp to be sure you have given it adequate water. Do this by lifting a corner of the turf. Do not allow the turf to dry out while it establishes, which should take approximately 2-3 weeks (weather dependent). Do not over water the turf, as this can promote grass domination in the sward. Once established the wildflowers can be fairly drought tolerant and shouldn't need watering again.

• BNG Considerations

To ensure condition assessment criteria are met, ensure cover of bare ground is between 1-5% and weed species such as bracken, bramble, thistle, dock, nettle, creeping buttercup, greater plantain, white clover and cow parsley are completely removed prior to installation. A post installation management plan must also be in place to ensure longevity of the habitat - [see maintenance plan](#).

Wildflower Turf® Shade Tolerant

Product code: WFT-Shade-41-Bio

Get a Quote: www.wildflowerexperts.com

Maintenance

For a project to thrive, correct installation and management plans must be planned for from the offset.

Wildflower turf should be well established within a few weeks and once established requires little maintenance other than an essential annual maintenance cut.

The cut is an important part of the meadow's life cycle and ensures re-growth and species diversity year-on-year. The annual maintenance cut should be done in late September, early October. There is no need for a set date, but this timing will allow the plants in the meadow to regenerate before the first frost typically in November.

You can choose to cut only half of the meadow area at one time to allow time for fauna to migrate to the uncut meadow. Allow some regrowth of the cut area before cutting the second half, but aim to have finished all cutting by the end of the first week of October. Over time alternate the areas that are cut early and the areas that are left, as this will benefit species diversity.

It is important to cut the meadow down to 2-3 inches off the ground and remove all cuttings. This can be done by strimming and raking, or using a mower and collecting the cuttings. Cuttings should not be left on the meadow, as they add undesirable fertility to the ground. It is also important to remove all leaf litter that falls onto the area.

Managing for BNG

Ensure the sward height is varied throughout the year to provide microclimates for wildlife. Cover of bare ground should be kept between 1-5% and physical damage must account for less than 5% of the total area. Cover of species of sub-optimal condition (including thistles, dock, nettles, creeping buttercup, greater plantain, white clover and cow parsley) and scrub should be kept below 5%, and bracken cover should be kept below 20%. Weeds such as these can be managed through physical or chemical removal, being careful not to damage the surrounding plants.

Managing fertility

On fertile sites or where you might have species dominance or too vigorous early growth, a second cut at the end of May, beginning of June, can be introduced.

This high cut, approx. 8-10 inches off the ground, to remove the flower heads but leaving enough plant stems and leaf area to regenerate, and removal of all cuttings, will help to knock back some species dominance, reduce soil fertility and open up the sward to more light and air circulation to promote the diversity of lower growing species. Once the cutting has been completed and all cuttings removed, give the area a good soaking with water to encourage the next flush of growth. Introducing this early summer cut and removal will mean your second autumn cut and removal will be later that year, up to the end of October.

Fertiliser

No fertiliser is needed, although in some circumstances, for example on a green roof or where the turf is on very low fertility soil such as sand or gravel, the addition of a light dose of fertiliser in the spring may improve plant development.

Wildflower Turf® Shade Tolerant

Product code: WFT-Shade-41-Bio