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## **Suitable Sites For Wild Flora Projects**

#### **Road Construction**

Sites that have benefited from the use of wild flowers are increasing. New road development can be seen as the enemy to environmental campaigns, however the development of a new road provides the ideal opportunity to provide diverse wildlife corridors in urban and rural areas along the length of the construction.

#### **Golf Courses**

Golf courses can also provide these corridors between different holes in rough areas on the course. Not only does this provide an attractive, low maintenance, wildlife-rich feature, but also defines the different holes well and provides a challenging aspect to a round of golf should one be unfortunate enough to have to play a shot from here!

#### Mining

Mineral extraction has been devastating to some areas of the country. However, with the natural resources spent these areas can be transformed into species-rich grassland in a few short years given the correct sowings and subsequent maintenance.

#### **Domestic**

Even small areas of your garden can be transformed with woodland edge species for shaded areas under trees or lay meadow species with poppies and cornflowers in rough cut grass areas.

The list really is endless. However two issues hold the key to success:

- 1. The correct seed mixture specification and sowing
- 2. The subsequent maintenance (cutting regime)

It is also essential that we spend a little time looking at the type of soil that is on site. As a rule, wild flower mixtures generally prefer poor, low fertility soils, so the vast majority of soils are suitable. In very extreme cases of soil conditions, careful mixture selection is needed. Acid grassland communities can be established on a soil pH as low as 4 and limestone mixtures on a soil pH of up to 9-10.

#### pH Scale







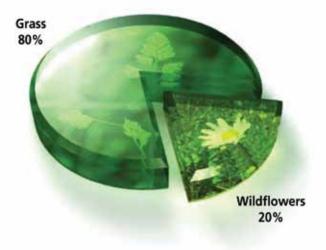
## **Seed Mixture Specification and Sowing**

When creating a wildflower area from bare ground it is important that we get the correct balance of mixture. As the wildflowers can take varying amounts of time to establish depending on species our mixture must include something that will establish to protect the bare ground from air and soil borne weed invasion and erosion, but will also not be vigorous enough to hinder the future establishment of our wildflowers.

Such a mixture is called a "nurse crop" and usually takes the form of an open growing non-competitive grass seed mixture. Given the correct future maintenance, this nurse crop will gradually form a smaller and smaller contingent of the sward, being replaced by the wildflowers as they establish and mature.

If, however, the seed is being sown on a small area, perhaps in a garden where weed control will not be a problem as it can be carried out manually, then the cover crop can be omitted.

#### Content of wild flora mixture



### Sources of the native wild flower seeds

The seeds in your mixture will probably have originated from a wild flower production field. This seed will have been multiplied in single species plots from seed sourced in the wild. This is normally sourced from areas of ancient grassland or Sites of Special Scientific Interest (SSSI) with the permission from landowners or site protection agencies. From seeding to harvesting it can take two growing seasons before a seed crop is produced. Once harvested, the seed is cleaned in order to remove the inert matter and provide high purity seed. Some species such as Medicago lupilina (Black medick) or Anthylis vulneria (Kidney vetch) will also need "pummelling" in order to remove seeds from the pods. Producing seed in this way ensures mixtures contain only pure seed, and not large quantities of worthless chaff. Only two harvests are taken from each field to ensure the resulting seed is never more than two generations away from its natural genotype.

#### **Mixture composition**

Reputable seed houses have a standard range of ready-to sow wildflower mixtures suited to different soil types and habitats. For example, acidic soils or shaded areas. The specific composition is determined by habitat and location.

This is what Germinal Seeds have based their 'RE' range on and the product is formulated by seed numbers not weights. The 'RE' range from Germinal Seeds is a range of mixtures based on naturally occurring plant communities. These communities were surveyed by the National Vegetation survey from 1976 to 1979 as outlined in the "British Plant Communities" by J S Rodwell and classified by grassland type. These different classifications are the basis of the RE mixture range.

You may of course formulate your own wildflower mixture, quoting species as a percentage by weight. Be aware that some species are only available in small quantities and can be very expensive. A reputable seed house will be able to advise you on creating a mixture, which is realistic for the job in hand and financially sensible. Remember your nurse crop though. Keep the proportions of the mixture balanced. (80% by weight nurse crop: 20% wildflowers) to prevent weed invasion without suppressing the wildflower establishment.





#### **Sowing rates**

In most cases, wildflower mixtures should be sown at  $5g/m^2$ . Given the usual make up of a wildflower mixture this equates to  $4g/m^2$  of noncompetitive grass mixture (nurse crop) with  $1g/m^2$  of wild flowers. It is tempting to increase the sowing rate or aid more rapid stabilisation. Unfortunately, this will only encourage the grass cover crop to dominate the sward and inhibit wildflower establishment. Wildflower mixtures are about striking a balance between the nurse crop and the flower seed and this should not really be altered unless unusual site conditions exist.

#### Speeding up establishment

In some extreme cases such as on steep slopes where rapid stabilisation is required, we have no option but to employ a system that will provide almost instant stability. In terms of wildflower mixtures there are several options open to you. Firstly, you can use an artificial matting which is bought impregnated with the seed and fastened to the steep bank. Other options include different types of 'cellular' soil holding mats which can be sown directly onto the surface or in other cases 'hydra-seeding', a process where seed is sprayed onto the bank in a liquid adhesive carrier. All these options of course mean a cost implication, but there is a more natural alternative. Within the wildflower seed mixture a cover crop of wheat or barley can be used. Depending on the variety, these will grow to approximately 600 to 900m tall and if sown correctly will allow the wildflower mixture to establish beneath them. The resulting cereal crop should be mown away to leave the developing grass/wildflower meadow to fend for itself before the cereal crop comes into seed.

#### **Sowing times**

Generally speaking wildflower mixtures can be sown all year round. See the calendar below for the optimum times to sow the different types of mixture.

IDEAL SOWING TIMES							
	100% Cornfield Annuals	Mix containing Annuals	Mix containing Perennials	Cereal Nurse Crops			
Jan							
Feb							
Mar							
Apr							
May							
Jun							
Jul							
Aug							
Sept							
Oct							
Nov							
Dec							
Sowing of the seed should not, however, be in periods of extreme drought or waterlogging							



# Dormancy in Wildflower Seeds Vernalisation

Many species exhibit a natural dormancy which prevents them from germinating in the wrong conditions. For example, grass seed has a very low dormancy, easily broken by moisture and warmth, which triggers germination. Wildflowers are designed to protect their seed embryo and have been known to have germinated tens of years after seeding once they have been exposed to moisture and warmth. A natural survival mechanism!

#### Types of dormancy in wild flora

Generally speaking there are 3 types of dormancy.

**1.** Cornfield Annual species (i.e. Papaver rhoeas, Agrostemma githago, Chrysanthemum segetum.)

These have quite a low natural dormancy. Sow in early spring for a display in the summer. Sowing in autumn also gives germination in early spring for a flora display in the summer.

#### **Perennial Species**

**2.** Hard Seeded Species (i.e. Geranium pratense, Onobrychis vicifolia, Vicia sativa) requiring scarification.

These species have a tough seed coat that prevents water penetrating. The coat is naturally broken down with time spent in the soil. Sow from spring to autumn/winter for flowering the following summer.

**3.** Temperature controlled dormancy (i.e. Daucus carota, Primula veris, Iris pseudacrus, Reseda lutea, Filipendula ulmaria). These species require what is known as 'stratification'. The dormancy is broken after exposure to sustained low temperatures. In the wild this occurs over

winter. Sow in the spring through to late autumn for flowering the following summer. If you are sowing small areas of a single species you can artificially break the dormancy of the seeds.

#### **Species requiring scarification**

Scarification can be carried out by rubbing the seed carefully in coarse sandpaper. This allows moisture to penetrate the seed coat to facilitate germination.

#### Species requiring stratification

The seeds can be mixed with moist compost and placed in the fridge for about 6-8 weeks at 2°C. Ideally, sow in spring for flowering in the summer.



## Sowing the Seed and Weed Control

#### Sowing the Seed

Before we look at sowing the seed we should first look at how to prepare the ground prior to sowing. As we have already discussed, wildflower mixtures tend to prefer less fertile soils, but they do require good ground preparation. In general, the ground preparation should provide the following.

- **A.** Ground should be free of weeds (particularly docks and thistle).
- **B.** Stability particularly on gradients unless a specialist nurse crop or artificial stabilisation method is being used.
- C. Medium tilth to allow the seed to be worked into the very top of the root zone.

In most cases the two factors in ground preparation most within our control are to ensure that the ground is weed free and that it has a good tilth to work with.

#### **Weed Control**

There are two forms of weed control available.

Cultural – Removing existing vegetation by physical means. On small sites this may mean removing noxious species by hand or if on a larger scale by ploughing. Ploughing to a depth of 150 to 220mm will bury any existing ground cover whilst bringing less fertile material to the surface, ready to be prepared as a seed bed.

If, however, the site is already reasonably free of ground cover and of a reasonable workable substrate, it may be quicker to apply a non-residual herbicide.

Chemical – An application of a herbicide for total kill of unwanted vegetation. Herbicide can be applied to kill off any unwanted ground cover. This usually takes 3 to 6 weeks between application and kill depending on the product used. For further details on the chemicals to use and suitable method of application, please consult a reputable chemical supplier. In extreme cases it may be useful to use both types of control.

## **Preparing the Seedbed**

Bearing in mind that we are trying to create a workable seedbed with a medium tilth in order for the seed to be sown and incorporated into the top of the root zone, it may be that two cultivations are needed.

#### 1. Primary cultivation

As previously described, ploughing is a useful method of burying unwanted ground cover as well as bringing less fertile material to the surface. Unfortunately it won't provide a workable seedbed so a second cultivation is needed.

#### 2. Secondary cultivation

After primary cultivation or, if there is no ground cover and the soil is of a reasonable composition so ploughing is not needed, we should cultivate the soil. There are various types of machinery available that can do this from tractor mounted discs or tried cultivation, right down to pedestrian rotovators. Clay soils will require more effort than sandy soils.

The soil material available is often in the form of a compacted substrate. These soils are notoriously difficult to prepare to a tilth, however every effort should be made to do so. On the positive side however these soils are least likely to carry any "seed bank" (numbers of dormant seeds lying in the soil whose germination is triggered after the surface) of unwanted weed species.

The more workable soils are more likely to have higher levels of fertility and therefore, higher levels of weed species in a seed bank. It may be necessary to return to such sites even after seeding in order to remove any particularly invasive species such as docks, thistles, mares' tail or brambles. These should either be manually removed or individually chemically treated with an appropriate applicator.

Remember, ploughing and cultivation work should be carried out when the soil moisture level is reasonably low, allowing it to crumble. Cultivation when wet and saturated will damage the soil structure leaving the whole area unworkable with very poor drainage.

#### Sowing

As wildflower mixtures are sown at such low rates (typically 3-5g/m²) it is important to ensure that any equipment being used is capable of sowing at these levels. To get around this it may be necessary to "bulk out" the seed with an inert carrier such as silver sand. In all cases, however, it will be necessary to regularly mix the seed during the sowing process to prevent separation of the various species.

#### **Broadcasting**

Seed can be applied by means of a tractor mounted broadcasting distributor. This technique can give a degree of seed separation during distribution (heavier seeds will be thrown further).

#### **Drilling**

A tractor mounted seed drill is the most precise method of sowing, however, it is important to monitor the depth of the drill. Wildflower seed should not be drilled any deeper than 7mm to maximize germination. As wildflower seed mixture consists of seed of different sizes, it is not suitable for direct precision drills.

#### By hand

The most practical way of sowing small areas is by hand. In order to sow at the correct rate the seed should be mixed with an inert carrier such as silver sand. This will also serve the purpose of "marking" areas you have already sown.

#### **Hydra-seeding**

Hydra-seeding is a technique used where a site offers steep gradients that may be prone to erosion or where soil preparation isn't possible. The seed is then sprayed onto the surface in a liquid mulch. The mulch provides soil stabilisation and also a medium into which the seed can germinate. In all cases it is advantageous to gently roll the seed in where possible, perhaps with one or two runs with a Cambridge (ringed) roller to ensure good soil/seed contact.





## **Wild Flora into Grass**

In an ideal world, all wildflower sowings should be made into clean, weed-free ground. However, it is possible, given time, to introduce species into established grass. This can be done in three ways:

#### Yellow Rattle (Rhinathus minor)

Yellow rattle is an annual species that produces attractive yellow flowers, seeding usually in July. The plant is semi-parasitic, with its roots coming into contact with grass roots and removing nutrients for its own use. In this way yellow rattle can actively stunt and suppress grass growth.

Being an annual, yellow rattle needs to be allowed to seed every year before cutting. It is important therefore to note that meadows containing yellow rattle should not be out until after July. If the species is cut or grazed before it seeds, the species will be absent from the meadow in the following year.

#### **Plug Plants**

Plug plants can also be used to introduce wildflower species into a grassland, ideally with the use of yellow rattle.

Plug plants are raised in trays of between 150-200 small plants with a planting rate typically between 6-15 plants/ $m^2$  depending on budget. The best season for planting plugs is in the Autumn as there is less

chance of the newly planted plugs being subjected to prolonged dry weather whilst establishing. The root system does develop over winter leaving the plant well equipped to face competition from the growing grass in the spring. Early spring planting is also acceptable, however, care should be taken to water plants in well and to ensure the plants don't get swamped by the more aggressive grass plants. Planting in late spring/summer should be avoided unless substantial "spot" irrigation can be administered.

#### **Create Scrapes**

As the name suggests a scrape is an area where the ground is disturbed and wildflower seeds are sown. Ideally the top layer of turf is literally scraped off and the soil underneath is worked into a tilth and new seed is sown. Alternatively you can rotovate a strip or area and sow new seed into that area or degrade the existing sward with a heavy scarifier and sow seed. Scrapes can be any size or shape depending upon requirements. The areas around the scrape can be managed in anyway depending upon the desired effect. If you want the area of wildflowers to spread it is recommended that you keep the surrounding grass area tidy but not intensively mown. Appropriate management would be 4-6 cuts a year down to 40mm -70mm and on each occasion create some soil disturbance (scarify), this stops the surrounding sward becoming too thick or tight and facilitates the spread of perennial wildflower species, as well as creating an environment for new seeds to germinate. This disturbance is especially important toward the late summer and autumn.





## **Maintenance**

#### The management approach

Many wild flora mixtures soon degenerate into rough grassland within only a few years. This is often the result of poor initial site evaluation, but the most important factor is the lack of maintenance. To date, results from our current trials demonstrate that unmanaged plots achieved far lower percentage mean cover of each flora species compared with their managed counterparts. This is a clear indication that cutting the sward is a vital component in achieving good results.

For flower-rich habitats to survive and remain stable over a long term period, competition from grasses and problem weeds such as docks and thistles needs to be kept under control. This can be achieved by choosing sites of lower fertility. These support fewer weeds and do not encourage rapid growth of grasses. The stress induced upon grass by mowing will allow the broad leaved wild flora species to compete within a grassland.

Unlike standard amenity grassland, the management of wild flower mixtures is more complex due to the wider range of growth characteristics between species. Factors such as rate of growth and flowering date will all influence the maintenance programme. For example, a cut at the wrong time of the year may result in a plant not producing seed.

This would result in short lived perennial and biennial species being lost from the sward. The survival of certain species relies on a return of seed into the soil to form new plants.

#### **Maintenance objectives**

It is essential, particularly in the first twelve months to manage the sward to aid seedling development and maintain a balanced composition from one year to the next. Wild flowers in most cases require a lower maintenance input with a more flexible approach than our traditional amenity grasslands.

Mixtures which have been established during the autumn, for example, are unlikely to require cutting until the following spring. By this time there should be a sufficiently developed sward of companion grasses. This will be growing faster than the flora content of the mixture. To reduce the grass canopy and allow established broad leaved species to develop a cut will be required. The timing of the first cut will depend mainly on the rate of growth of companion grasses.

A rule to follow can be to cut the sward once the height exceeds 10cm (late March/early April) reducing the height to between 4-7cm according to evenness of the ground. The lower the cutting height, the slower the re-growth of grasses.

A second cut could be required if re-growth exceeds 10cm by the end of April/early May. This will be very much influenced by local growing conditions such as rainfall and ground temperatures. The greatest influence will be soil fertility. Subsoil may not require any more than one cut in comparison to a fertile site, which may need 3-4 cuts during the first year.



## Wild Flora Meadow Management

## MIXTURES CONTAINING PERENNIAL SPECIES ONLY

#### **AUTUMN SOWN (First Year)**

March Cut to 4-7cm if there is

sufficient material.

May Cut to 4-7cm in early May.

September Cut to 4cm after flowering. In

all cases, remove the clippings.

Maintenance thereafter:

March/April

 $Cut \,to \,4\text{--}7cm \,to \,remove \,excess$ 

grass.

September/October Cut to 4cm after flowering. In

all cases, remove the clippings.

#### **SPRING SOWN (First Year)**

6 weeks after sowing Cut to 4-7cm if there is

sufficient material.

May Cut to 4-7cm if sufficient

material (sward at 10cm or

above).

September/October Cut to 4cm. In all cases,

remove the clippings.

Maintenance thereafter:

March/April

Cut to 4-7cm to remove excess

grass.

September/October Cut to 4cm after flowering. In

all cases, remove the clippings.

## MIXTURES INCLUDING CORNFIELD ANNUALS (eg. WFG2, WFG11, WFG15)

100% Cornfield Annual mixtures such as WF10 do not

require maintenance.

The following maintenance schedule is for combined

Annual and Perennial mixtures.

**AUTUMN SOWN** 

March/April Cut to 7cm if required no later

than the end of April.

September/October Cut to 4-7cm to prevent

grasses and annuals out competing Perennial

Species.

Maintenance thereafter: March/April

Cut to 4-7cm to remove excess

grass.

September/October Cut to 4cm after flowering. In

all cases, remove the clippings.

**SPRING SOWN** 

August/Sept/October Cut to 4-7cm after flowering.

(NB: a late spring sowing will result in later flowering)

Maintenance thereafter:

March/April

Cut to 4-7cm to remove excess

grass.

September/October Cut to 4cm after flowering. In

all cases, remove the clippings.

A 100% Cornfield Annual sowing will not last for more than one year. Reseeding must be done to give an annual display. After several years of reseeding, a seed bank will have built up in the soil and simple soil disturbance in early spring will be sufficient

to regenerate the flowers every year.

## 8 Stages Of Wild Flora Meadow Establishment



1 - Select Site

5 - Cultivate

2 - Analyse Soil

6-Sow

3 - Select Mixture

7 - Maintain

4 - Prepare Ground

8 - Enjoy!

## **Wild Flora**

Shown by Latin name and in alphabetic order this chart provides details of plant type, height, soil pH, flower colour and flowering period.

Plant name	Flowering	рН	Height (cm)	Flower	Туре
Achillea millefolium YARROW	June - August	4-8	15-60		Perennial
Agrostema githago CORN COCKLE	June - August	4-8	Up to 90		Annual
Ajuga reptans BUGLE	May - July	5-6.5	10-30		Perennial
Alliaria petiolata GARLIC MUSTARD	April - June	5.5 - 8	Up to 100		Biennial
Allium ursinum RAMSONS	May - June	5-8	30		Perennial
Anthemis arvensis CORN CHAMONILE	July - August	5-8	10-40		Annual
Anthyllis vulneria KIDNEY VETCH	June - September	5-9	20-60		Perennial
Borago officinallis BORAGE	June - October	5 - 7.5	Up to 60		Perennial
Caltha palustris MARSH MARIGOLD	March - July	5-7	30		Perennial
Campanula glomerata CLUSTERED BELLFLOWER	June - July	5-8	100		Perennial
Campanula rotundifolia HAREBELL	July - September	5-8	30-40		Perennial
Cardamine pratensis CUCKOO FLOWER	April - June	4.5 - 8	15-50		Perennial
Centaurea cyanus CORN FLOWER	June - August	4-8	Up to 100		Annual
Centaurea nigra COMMON KNAPWEED	June - September	5.5 - 8	40-60		Perennial
Centaurea scabiosa GREATER KNAPWEED	July - September	5.5 - 8	50-90		Perennial
Chrysanthemum segetum CORN MARIGOLD	June - August	4-8	Up to 50		Annual
Clinopodium vulgare WILD BASIL	July - September	6-8	30-50		Perennial
Conopodium majus PIGNUT	May - June	5.5 - 8	Up to 30		Perennial
Daucus carota WILD CARROT	June - August	5 - 7.5	Up to 60		Biennial
Digitalis purpurea FOXGLOVE	June - September	3.5 - 7	Up to 120		Biennial
Dipsacus fullonum TEASEL	July - August	4-7	Up to 180		Perennial
Echium vulgare VIPERS BUGLOSS	July - October	5 - 7.5	30-90		Biennial
Eupatorium cannabinum HEMP-AGRIMONY	July - September	4-7.5	30 - 150		Perennial
Filipendula ulmaria MEADOW SWEET	June - August	5-8	40 - 120		Perennial
Filipendula vulgaris DROPWORT	May - August	5 - 7.5	60-80		Perennial
Fragaria vesca WILD STRAWBERRY	April - May	6-8.5	5-30		Perennial
Galium verum LADY'S BEDSTRAW	July - August	5-7	Up to 60		Perennial
Geranium pratense MEADOW CRANESBILL	June - September	5.5 - 7	120		Perennial
Geranium robertianum HERB-ROBERT	June - October	5-7	40		Annual/Biennial
Geum rivale WATER AVENS	May - September	4.5 - 8	30		Perennial
Geum urbanum WOOD AVENS	June - August	5-7	50		Perennial
Hippocrepis comosa HORSESHOE VETCH	May - August		40		Perennial
Hyacinthoides Non-scripta BLUEBELL	May - June	3.5 - 6.5	30		Perennial
Hypericum perforatum PERFORATE ST JOHN'S WORT	June-September	5-8	100		Perennial
Hypochoeris radicata CAT'S EAR	June - September	4.5 - 6.5	30		Perennial
Iris pseudacorus YELLOW IRIS	May - July	5-7	Up to 150		Perennial
Knautia arvensis FIELD SCABIOUS	July - September	6-8.5	Up to 100		Perennial
Lathyrus pratensis MEADOW VETCHLING	May - August	5 - 7.5	30 - 120		Perennial



Plant name	Flowering	рН	Height (cm)	Flower	Туре
Leontodon hispidus ROUGH HAWKBIT	June - September	3.5 - 8	Up to 50		Perennial
Leontodon autumnnale AUTUMN HAWKBIT	June - October	3.5 - 8	Up to 40		Perennial
Leucanthemum vulgare OXEYE DAISY	June - August	5-8	30-60		Perennial
Lotus corniculatus COMMON BIRDSFOOTTREFOIL	June - September	5.5 - 7	5 - 40		Perennial
Lotus uliginosus MARSHTREFOIL	June - August	5-7	20-35		Perennial
Lychnis flos-cuculi RAGGED ROBIN	May - June	5-7	30-50		Perennial
Lycopus europaeus GIPSYWORT	June - September	4-7	30-60		Perennial
Lythrum salicaria PURPLE LOOSTRIFE	June - August	5-8	Up to 120		Perennial
Medicago lupulina BLACK MEDICK	May - August	4.5 - 7.5	5 - 50		Annual
Malva Moschata MUSK	June - September	4.5 - 7.5	30-90		Perennial
Onobrychis vicifolia SAINFOIN	June - August	5.5 - 8	30-80		Perennial
Ononis repens COMMON RESTHARROW	June - September	5-8	30-60		Perennial
Papaver rhoeas POPPY	May - October	4.5 - 7.5	50-60		Annual
Plantago lanceolata RIBWORTH PLANTAIN	April - August	55-8	10-45		Perennial
Plantago media HOARY PLANTAIN	May - September	5-8	10-15		Perennial
Primula elatior OXLIP	April - May		30		
Primula veris COWSLIP	April - May	6-7	10-30		Perennial
Primula vulgaris PRIMROSE	March - May	5-7	Up to 15		Perennial
Prunella vulgaris SELFHEAL	June - September	4.5 - 8	Up to 30		Perennial
Pulicaria dysenterica COMMON FLEABANE	August-September	4.5 - 7	20-60		Perennial
Ranunculus acris MEADOW BUTTERCUP	May - July	4-8	Up to 90		Perennial
Reseda lutea WILD MIGNONETTE	June - August	5-8	Up to 60		Biennial
Reseda luteola WELD	June - August	5-8	Up to 150		Biennial
Rhinanthus minor YELLOW RATTLE	May - August	4.5 - 8	Up to 60		Annual
Rumex acetosa COMMON SORREL	May-June	3.5 - 7	Up to 100		Perennial
Sanguisorba officinalis GREAT BURNET	August - October	4-7.5	90		Perennial
Scabiosa columbaria SMALL SCABIOUS	July - August	5-8	20-70		Perennial
Silene alba WHITE CAMPION	May - August	5.5 - 8	30 - 100		Perennial
Silene dioica RED CAMPION	May - June	3.5 - 8	30-90		Perennial
Stachys officinalis BETONY	June - September	45 - 6.5	30-40		Perennial
Stachys sylvatica HEDGE WOUNDWORT	July - August	4.5 - 7.5	Up to 100		Perennial
Stellaria holostea GREATER STITCHWORT	April - June	4.5 - 8.5	Up to 60		Perennial
Succisa pratensis DEVIL'S BIT SCABIOUS	June - October	3.5 - 8	30 - 100		Perennial
Teucrium scorodonia WOOD SAGE	July-September	4-8	30		Perennial
Torilis japonica UPRIGHT HEDGE-PARSLEY	July - August	3.5 - 7	Up to 120		Annual
Tragopogon pratensis GOAT'S BEARD	June - July	3.5 - 7	30-70		Annual
Verbascum nigrum DARK MULLEN	June - September	4-7	Up to 120		Biennial
Veronica chamedrys GERMANDER SPEEDWELL	March - July	4-7	Up to 30		Perennial
Vicia cracca TUFTED VETCH	July - Aug	6-8.5	Up to 200		Perennial
Vicia sativa COMMON VETCH	May - September	6-8.5	Up to 120		Perennial
Viola tricolor WILD PANSY	April - September	6-8.5	Up to 30	+white	Perennial

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 $Wild \ flor a \ mixtures \ can \ be \ ordered \ from \ Germinal \ Seeds \ in \ the \ following \ ways:$ 

Telephone/fax or email your regional office.

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