



Alyth Community Support Group

Wild Flower Project

Proposal for PKC

August 2020

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Preamble

Members of ACSG have expressed an interest in sowing / planting wild flowers. They believe that this could brighten up the town and add interest at the same time as reducing PKC's maintenance burden by planting wild / meadow flowers and grasses. These would be on the roadside verges and incidental green space and would reduce the need for regular mowing while adding colour and especially educational interest.

We recognise that there is a significant differences in what many see as wild flowers. That difference ranges from attractive meadow flowers, that could perhaps be described as "Bee Bombs", to more wild native plants that some may shun as weeds. They both have their place in the countryside and the spectrum of biodiversity. Going forward we should seek to satisfy the wider spectrum by providing varying emphasis on planting.

Such projects are wide spread throughout the UK and popular with residents and local government alike and it is important to make this an Alyth project. The area is well known for its deciduous woodland and it is important that we strive not introduce non native plant species. This being the case we would seek only to sow seeds or plant flowers that are natural and genetic to the area and Scotland.

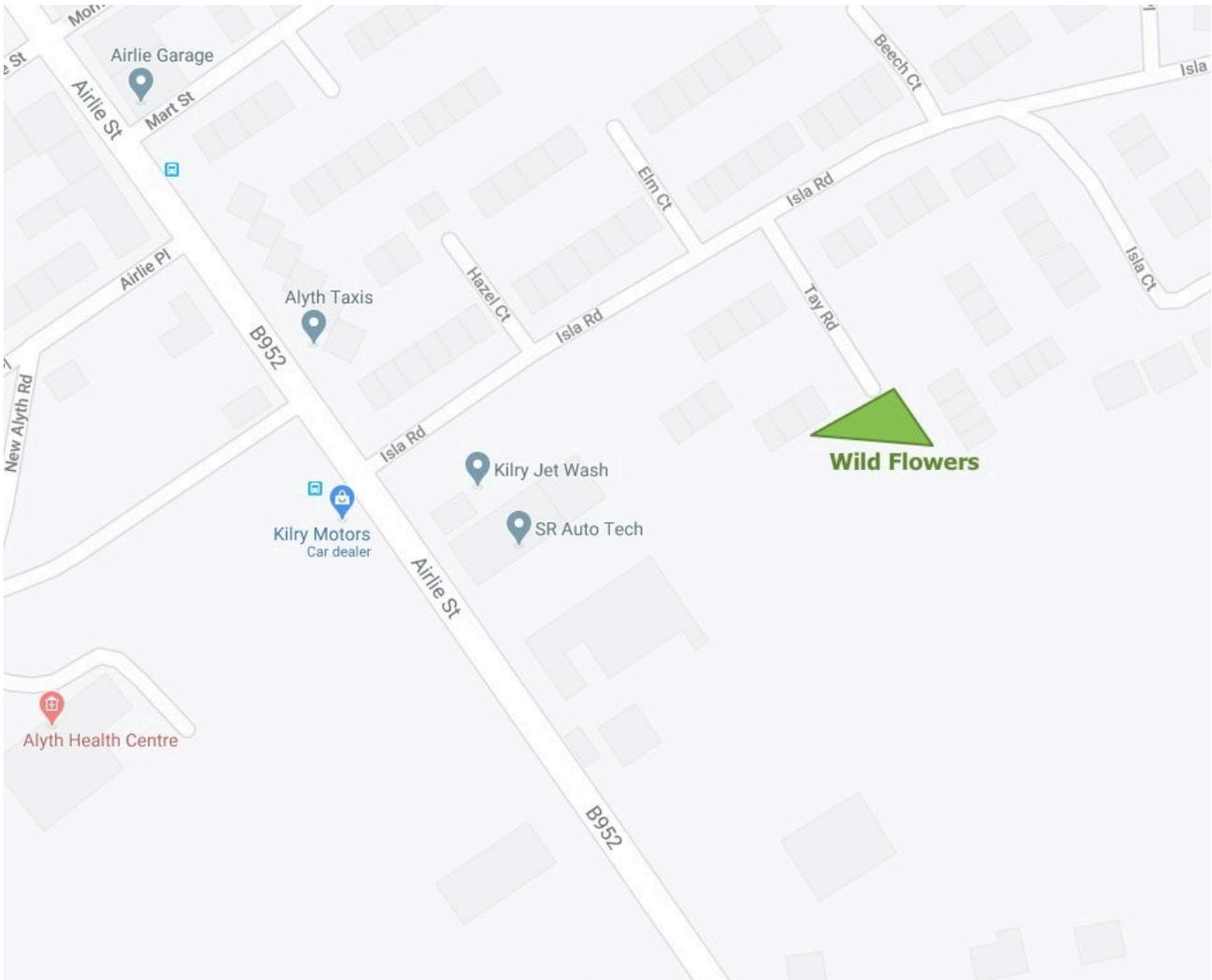
To gain experience and understanding ACSG plan to start a small trial site that can be monitored by the group and which will be visible to the towns folk. These will be started in 2020 to flower in 2021 and be accompanied by explanatory signage and information posted on social media.

The project will reach out to local schools and Alyth Youth Partnership with teacher packs provided to help with engagement.

In preparation we have consulted local expertise and seed suppliers who will support us as the project moves forward;

- Dr Marian Bruce, a director of Highland Boundary, has areas of meadow and wild flower at Kirklandbank farm. Marian is a biologist but has gained expertise in this specific botany.
- Scotia Seeds, Brechin, are notable suppliers of wildflower and meadow seeds native to Scotland and with Scottish specific genetics.

Test Site Location



ACSG Wild Flower Test Plots

	Meadow Seeds	Perennial Plants	Rattle
Grass	X		X
Turned Turf	X	X	
Bare Earth	X	X	

Sewing / Planting Methods

Exactly how the ground is prepared and sewing or planting is performed will be part of the first year trial and whether we are sewing seeds or planting plugs.

The areas may be prepared as whole plots or alternate squares of planting and grass cut into existing grass. The options for preparation are;

- The best option is to scrape the ground clear to expose bare earth.
- Existing grass may be cut short and then harrowed so that seeds can make contact with the soil.
- Turfs can be cut and placed upside down and planted through.

Where perennial plants are being planted these will be collected in clumps from Kirklandbank Farm, Alyth, and divided into individual plants before being planted into the soil or through the turf.



Annual seeds will be scattered across the ground and watered and trodden in.

Wherever we are planting some Yellow Rattle should be included to reduce the grass in time. It may be practical / desirable to prepare other areas for 2022 for example by close cutting and sewing Yellow Rattle.

In order to get good results with planting and seed germination all this work requires carrying out as soon as possible in September/October/November and certainly before the ground freezes.

Test Plot Species

The meadow flower seed mix will be “Mavisbank Mix” from Scotia Seeds - see attached for details. This is a general mix for well-drained, loamy soils in open sites, this provides a range of plants for a type of species-rich grassland widespread in Scotland. There are 17 wildflower & 6 grass species in this mix.



Plots that are to be wild flowers will include;

Red Campion, Ox-eye Daisy, Yarrow, Cow Parsley, Field Scabious, Wild Chamomile, Comfrey, Common Knapweed, Ribwort Plantain

These will be sourced from Kirklandbank Farm, as plugs and / or seeds, and which if were not already established there originate from Scotia Seeds.



Maintenance

Once established areas of wildflower and meadow will require less maintenance than conventional verges and grass spaces.

Annual plants such as meadow flowers that propagate from seed will possibly need re-sewing every year and the ground disturbing so that the seeds make contact with the soil.

A narrow margin will be required to be mown between the plants and roads and pavements to avoid fall over.

Undesirable plants such as Nettles, Willow Herb and Fox Gloves will require weeding out otherwise they will quickly take over.

It is envisaged that these areas will require less maintenance time and machinery than is currently required. They may also require a lighter touch than the current machinery / operator method. This would represent a cost saving to PKC and going forward ACSG may be able to take on some this work on behalf of PKC.

This would be minimal in 2021 with just a few test sites but would be noticeable in 2022 and beyond.

Note:- Part of the signage mentioned above would be to protect the areas from accidental mowing.

Others Involved

There are undoubtedly others involved with communal spaces in and around Alyth, either officially or otherwise. As the project develops ACSG will endeavour to contact and work with them.

In particular Alyth in Bloom already has a claim to decorative planting and associated tidiness. We have already opened discussion with them and don't see any conflict between their work and this project. Between us we are agreed about the benefits and are able to work together.

Included Documents

Sowing Grass)
Yellow Rattle) Scotia Seeds Ltd
Mavisbank Meadow Mix)

Establishing a meadow by adding wildflowers to existing grassland

Trying to change an existing grassy area into a wildflower meadow is much less effective than sowing into a seed bed of open, clean soil as the competition that grass provides is often too much for wildflowers to establish. Seed may not make good contact with the soil and fail to germinate or if the seed germinates, seedlings are smothered by the more vigorous grass. Steps can be taken however to maximise chances of successful establishment of wildflowers into existing grassland, by disturbing grass that has become a dense sward.

Sowing

Our meadow mixes can be provided as 'wildflower only' mixes to add to existing grassland, at a rate of 2g/m².

The grassy area to be sown should be harrowed or rotovated robustly to produce open soil and discourage the grass. Seed should be hand sown across the surface area and rolled, or trodden in.

Preparation

If possible, long-term preparation before sowing as above can greatly increase successful wildflower establishment.

Establishing Yellow Rattle (*Rhinanthus minor*) over several seasons is very helpful. Yellow Rattle is an attractive, yellow-flowered annual plant that is a good source of nectar for bees. This plant species is a hemi-parasite which photosynthesizes for itself but also parasitizes the roots of some plants, especially grasses. Because it removes nutrients from the grasses, they produce less growth and the balance of competition is changed in favour of the wildflower species in a mixture. Yellow Rattle can also build up in patches and then die out as its host grasses thin out. The bare patches are then open for colonization by wildflowers. It is also known as Hay Rattle and is part of most ancient, wildflower-rich grassland communities.

Yellow Rattle should be sown in late autumn, to ensure that it receives the prolonged period of cold required for its germination. It is most successful where grass is cut back and then harrowed or rotovated before sowing, as very healthy grass, with access to high levels of nutrients can resist the attempted parasitization of Yellow Rattle. Alternatively the area could be grazed by animals before sowing, this provides additional benefit of animals 'poaching' the ground and opening up the grass sward. The 'Rattle' seed can be sown onto the harrowed or poached areas and then trodden or rolled in - all it really needs is good contact with the soil. Yellow Rattle germination occurs in spring and the annual plant grows and sets seed which then spreads through the meadow area.

It is worth noting that Yellow Rattle must be sown in autumn. Unlike other plant species that require a period of cold to germinate but can have an artificial cold treatment (stratification), in a fridge for example, in the case of Yellow Rattle the time required for a cold treatment is impractically long (several months) and in practice is ineffective as Yellow Rattle also apparently needs to develop a relationship with its host's roots to survive. Consequently it is not successfully grown or transplanted independently of a grass sward. Yellow Rattle seed also does not store well and so using germination tested or fresh seed is advisable. As Yellow Rattle does not readily spread into healthy vigorous grassland, neighbouring areas managed for hay, silage or lawns are unlikely to be affected. Cutting the plants before they set seed is an effective way to control the Rattle if it is no longer wanted.

Using Yellow Rattle may not always be desirable or possible and an alternative, in the season preceding sowing wildflowers, is to cut the grass as often and as short as possible and remove the cuttings.