Project: Helios - Grassland Management.

Site: BAE Systems Samlesbury.

General:

The contractor Juwi has provided a specification for maintenance cutting of the grassland that includes the following.

1 early spring cut, 1 late spring cut , 1 early summer and 1 mid-summer cut.

The arisings are to be removed from the site.

The proposed cutting regime is considered suitable in principle, however the possibility of introducing the wildflower species yellow rattle to the sward in this area has been discussed. This species is semi-parasitic on grasses and naturally reduces their vigour and subsequent dominance, allowing other wildflower species greater opportunity to thrive.

A species list for the area is presented at the end of this report which shows that low-growing grasses dominate the grassland, which together with the general impoverished nature of the sward, make it unlikely that small adjustments to the mowing regime will have any adverse effects on the functionality of the arrays.

Yellow rattle is an annual species which means its presence is dependent on being able to set seed annually, as the dispersed seed provides the source of the following years plants. Therefore it is suggested that the mowing regime be adjusted to allow seed dispersal to occur.

Suggested mowing regime for 2016 onwards is therefore 1 early spring cut, 1 late spring cut, 1 cut end of May, and 1 final cut no earlier than end of July.

It should be noted that the mowing regime will not adversely affect the perennial herbs ability to flower and set seed.

Seed Source:

Surveys show that there is an abundant yellow rattle seed source on the wider runway site, this can be gathered by hand and introduced manually to the sward in small plots. Excess seed can be broadcast into the existing sward following the last summer cut.

Seeds are naturally dispersed by wind action or by livestock. Therefore plots should start at the westernmost end of the site, the species in theory should then spread naturally across the rest of the site due to the prevailing wind.

Surveys show that yellow rattle was absent on site in 2007 but abundant in one part of the site in 2011. The surrounding fields are not suitable for yellow rattle, therefore it's presence is attributed to seed travelling into the site on agricultural machinery.

Feedback from the maintenance contractor would also be useful in respect of any of the comments above regarding the proposed mowing regime for the site.

Target Note for the site from June 2011 is provided below which might be useful for the contractor to look at.

The plant species were recorded and given abundance values according to the standard DAFOR scale, where:

D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare.

Some of these values can be prefixed by the letter L (locally), or V (very) to provide more subtle biogeographical data. For example 'LA' meaning 'locally abundant' or 'VLF' meaning 'very locally frequent'.

Target Note 18:

This is a continuation of the semi-improved poor grassland described in TN17 but there is a distinct variation in species dominance and species composition

Despite the variation the grassland remains very uniform in height and general structure.

Localised open patches of compact rush are present.

Species:	**Abundance:**
Sweet vernal-grass	D
Common bent	D
Yorkshire-fog	A
Meadow buttercup	A
Ribwort plantain	A
Red fescue	LA
Compact rush	VLA
Common sorrel	LF
Meadow vetchling	LF
Hard rush	LF
Field horsetail	LF
Field wood-rush	VLF
Red clover	VLF
Meadow fescue	VLF
Hairy tare	VLF
False oat-grass	VLF
Glaucous sedge	VLF
Marsh ragwort	VLF
Dandelion sp.	O
White clover	O
Ragged-Robin	O
Common vetch	O
Oval sedge	O
Selfheal	O
Tufted hair-grass	VO
Meadowsweet	VO
Common spotted-orchid	R

The species list indicates that shorter grasses are dominant and abundant. The taller species such as false oat-grass and tufted hair-grass are very localised being 'very locally frequent' and very occasional' respectively.

None of the herb species are particularly tall, except perhaps meadowsweet which is again 'very occasional'. i.e. <occasional but >rare. Rare being 1 or two individual plants.