

PLANA-GNÌOMHA
ÀRAINN IS
ACHAIDHEAN
IS OIREAN
ARBHAIR

CEREAL FIELDS
& MARGINS
HABITAT
ACTION PLAN

WESTERN ISLES LOCAL
BIODIVERSITY ACTION PLAN

PLANA-GNÌOMHA
BITH-IOMADACHD
IONADAIL NAN EILEAN SIAR



1. HABITAT PROFILE

Habitat Definition

The cultivation of cereal crops provides a variety of habitats during the normal cycle of both winter and spring sown crops. All cereal crops grown in the Western Isles are spring sown. Valuable nesting, cover and feeding habitats are provided during cultivation (open ground), establishment (light cover), summer growth (late cover), harvest and fallow.

'Cereal Field Margin' refers to the outer edge of cereal crops and to strips of land located between cereal crops and either the field boundary or adjacent crop. Because of the small individual areas of cropping in crofting areas, cereal field margins make up a much more significant percentage of the crop than when grown on a farm scale.

UK Biodiversity Status

Cereal Field Margins - Priority Habitat
 Cereal Fields - Local Interest

Statutory Protection

There is little direct statutory protection afforded to the cereal fields and margins habitat as it is found in the Western Isles, unless it forms part of an area managed under an agri-environment scheme such as the Rural Stewardship Scheme (RSS), Environmentally Sensitive Area (ESA) or Corncrake Management Scheme (CMS). Under these schemes, EC Regulation 445/2002 Article 20 requires participants to adhere to a standard of good farming practice and agreed General Environmental Conditions. These standards cover the application of pesticides, where the crop bounds

Common Name	Scientific Name
Long-headed poppy	<i>Papaver dubium</i>
Charlock	<i>Sinapis arvensis</i>
Corn Marigold	<i>Chrysanthemum segetum</i>
Field Pansy	<i>Viola arvensis</i>
White campion	<i>Silene latifolia</i>
Corn spurrey	<i>Spergula arvensis</i>
Fathen	<i>Chenopodium album</i>
Dove's Foot Crane's Bill	<i>Geranium molle</i>
Common Stork's Bill	<i>Erodium cicutarium</i>
Sun spurge	<i>Euphorbia helioscopia</i>
Bugloss	<i>Anchusa arvensis</i>
Common Forget-me-not	<i>Myosotis arvensis</i>
Corn salad	<i>Valerianella locusta</i>
Scentless Mayweed	<i>Tripleurospermum inodorum</i>
Creeping buttercup	<i>Ranunculus repens</i>

with a water margin or with unimproved grassland, machair and dune grassland. A significant majority of the cereal crops grown in the Western Isles form part of a RSS, ESA or CMS plan. Under the Food and Environment Protection Act (FEPA) 1985, it is illegal to spray pesticides directly into hedge bases or on the banks of a watercourse, unless there is a specific label recommendation or a specific off label approval.

Associated habitats and species

Most cereal crops in the Western Isles and their associated margins form part of a traditional cropping rotation on machair land. In this context, the management is closely associated with species rich machair grassland through a cropping rotation, including fallow ground, with native grass regenerating from the soil seed bank. In other situations, small areas of crops are grown on low pH soils on croft land and may be associated with the management of grazed or mown grassland. In a small number of cases,

cereal field margins will be associated with water margins on the field boundary or areas sheltered by drystone dykes or shelterbelts/hedges. A number of farmland birds such as Skylark, Corn Bunting, Corncrake and Song Thrush benefit from cereal crops and their margins; Lapwing may nest on the bare soil in spring. Although herbicide use is minimal in Western Isles cereal crops, field margins and fallows are in their own right important for a variety of plant species, examples of which are provided above.

There is little direct statutory protection afforded to the cereal fields and margins habitat as it is found in the Western Isles



1. CUNNTAS ÀRAINN

Mineachadh àrainn

Tha àiteach gràn-bhàrr a' toirt àrainnean eadar-dhealaichte ann an cuairt àbhaisteach arbhair a tha air a chur anns a' gheamhradh agus an earrach. Tha a h-uile gràn-bhàrr anns na h-Eileanan Siar air a chur as tearrach. Tha iad nan àrainnean luachmhor airson neadachadh, còmhdach agus biathadh aig àm àiteach (talamh fosgailte), stèidheachadh (còmhdach aotrom), fàs samhraidh (còmhdach fadalach), buain agus talamh bàn.

Tha 'Oir Achadh Arbhair' a' bruidhinn air oir a-muigh an arbhair agus air pìosan fada talmhainn eadar an arbhair agus an dara cuid crìoch an achadh-buana no a' bhàrr ri thaobh. Leis cho beag 's a tha clàran arbhair fa leth ann an sgìrean croitearachd, tha oirean achaidhean arbhair a' dèanamh suas tomhas sa cheud mòran nas motha den bhàrr na tha bàrr a tha air a chur air sgèile tuathanais.

Inbhe Bith-iomadachd na RA

Oirean Achaidhean Arbhair -
Prìomh àrainn
Achaidhean Arbhair - Ùidh Ionadail sa Chùis

Dion reachdail

'S e glè bheag dìon reachdail dìreach a tha aig an àrainn achaidhean is oirean arbhair mar a gheibhear e anns na h-Eileanan Siar, mur eil e na phàirt de àrainn air a rianachd fo sgeama àiteachais-àrainneachd mar an Sgeama Stiùbhartachd Dùthchail (RSS), Ceàrn le Àrainneachd Chugallach (ESA) no Sgeama Rianachd an Traoin (CMS). Fo na sgeamaichean sin, tha Riaghailt EC 445/2002 Alt 20 ag iarraidh air com-pàirtichean cumail ri inbhe deagh chleachdadh aontaichte airson tuathanachas agus Cùmhnantan Coitcheann Àrainneachd. Tha na h-inbhean sin a' gabhail a-steach cleachdadh phuinnseanan-bhiastagan, far a bheil am bàrr a' cumail crìoch ri oir uisge no ri talamh-feòir, machair agus muran neo-leasaichte.

Tha a' mhòr-chuid den ghràn-bhàrr a tha air a chur sna h-Eileanan Siar na phàirt de phlana RSS, ESA no CMS.

Fo Achd Dion a' Bhidhe agus na h-Àrainneachd (FEPA) 1985, tha e mì-laghail puinnseanan-bhiastagan a stealladh dìreach a-steach fo challaidean no air bruaichean srutha, mur eil moladh sònraichte sgrìobhte air no cead shònraichte air fhaighinn air dhòigh eile.

Photos (left to right):

Cereal crop, Newton, North Uist; Farmland birds such as song thrush benefit from cereal crops.

Dealbhan (clì du deas):

Gràn-bàrr, Port nan Long, Uibhist a Tuath; Tha eòin talamh-aitich mar an smèorach a' faighinn buannachd bho gràn-bhàrr.

Àrainnean agus gnèithean co-cheangailte ris

Tha a' chuid as motha den gràn-bhàrr sna h-Eileanan Siar agus na h-oirean co-cheangailte riutha nam pàirt de chuaireachadh bàrr traidiseanta air machair. San t-suidheachadh seo, tha an rianachd dlùth-cheangailte ri talamh-feòir air machair le mòran lusan tro chuaireachadh bàrr, a' gabhail a-steach talamh bàn, le feur nàdarrach a' fàs às ùr bho bhanca sil na h-ùire.

Ann an suidheachaidhean eile, bithear a' cur raointean beaga de bhàrr air ùirean le pH ìosal air croitean agus dh'fhaodadh e a bhith co-cheangailte ri rianachd talamh-feòir air ionaltradh no air a spealadh. Ann am beagan chùisean, bidh oirean achaidhean arbhair co-cheangailte ri oirean uisge air crìoch an achaidh no àiteachan le fàsghadh bho ghàrraidhean cloiche no criosan-fasgaidh/callaidean.

Tha grunn eòin talamh-aitich mar an Uiseag, a' Ghealag-bhuachair, an Traon agus an Smeòrach a' faighinn buannachd bho ghràn-bhàrr agus na h-oirean aca; 's dòcha gu neadaich an Gille-brìghde air an talamh lom as tearrach. Ged nach eil mòran puinnsean-lusan ga chleachdadh ann an gràn-bhàrr nan Eilean Siar, tha oirean achaidhean agus talamh bàn cudromach annta fhèin airson diofar ghnèithean lusan, agus tha eisimpleirean dhiubh air an toirt shìos.

Ainm cumanta	Ainm saidheansail
Crom-lus Fad-cheannach	<i>Papaver dubium</i>
Sgeallan	<i>Sinapis arvensis</i>
Bìle-bhuidhe	<i>Chrysanthemum segetum</i>
Luibh chridhe	<i>Viola arvensis</i>
Coirean Bàn	<i>Silene latifolia</i>
Corran-lìn	<i>Spergula arvensis</i>
Càl slapach	<i>Chenopodium album</i>
Crobh Preachan Min	<i>Geranium molle</i>
Gob Corra	<i>Erodium cicutarium</i>
Foinne-lus	<i>Euphorbia helioscopia</i>
Lus Teanga an Daimh	<i>Anchusa arvensis</i>
Lus Midhe Àitich	<i>Myosotis arvensis</i>
Leiteis an Uain	<i>Valerianella locusta</i>
Buidheag an Arbhair	<i>Tripleurospermum inodorum</i>
Buidheag	<i>Ranunculus repens</i>

'S e glè bheag dìon reachdail dìreach a tha aig an àrainn achaidhean is oirean arbhair mar a gheibhear e anns na h-Eileanan Siar



2. OBJECTIVES AND TARGETS

	Objective	Target
1	Gather SEERAD statistical information from past 3 year's agricultural census to give baseline data on cropping in each parish of the Western Isles.	By March 2006.
2	Increase the number of holdings with cereal cropping as part of an RSS plan. Ensure no loss of arable cropping on machair in ESA-RSS transition.	Increase number of holdings with cropping by 10% by 2006. Maintain area of land and total number of parcels cropped under ESA during conversion to RSS by end of conversion period. Monitor uptake of RSS in former ESA annually with adjustment to payment rate made if necessary.
3	Instigate development programme to increase the area of cereal crops in the Western Isles. Maintain appropriate provenance for seed (i.e. grown locally).	Increase cropping area by 25% by 2008. Investigate economic, social and technical impediments to small-scale cereal growing by end 2005.
4	Set up a series of 5 practical cereal husbandry projects to demonstrate techniques and good practice.	Demonstration projects established by 2007.
5	Set up training programmes for contractors, crofters and farmers applying pesticides and fertilisers.	Training course content agreed 2005. Courses written and delivered by 2007.
6	Develop criteria for recognising cereal cultivation techniques of High Nature Value so they can be reflected in support schemes.	Draw up criteria and present to SEERAD by end 2005.

3. CURRENT STATUS

SEERAD agricultural census data from 2001 shows the area of the cereals in the Western Isles to be 362ha. Cereals account for 43% of crops grown in the Western Isles. Cereal cropping amounts to 0.12% of the agricultural area (including common grazings) or 1.48% of improved (in-bye) land. This compares with the Scottish crop covering 23% of in-bye land.

Assuming that the average size of cropped field is 0.5ha, a 6m margin of the field would amount to 33% of the cropped area, giving a cereal field margin habitat in the Western Isles of 119.9ha (0.5% of the in-bye land area).

The area of cereal cropping in the Western Isles has fallen in recent years from 400ha in 1998 (a fall of 10%). Table 1 shows the area of cropping between 1998 and 2001 in each Western Isles parish. The greatest declines in cropping have been in Barra (a fall of 55%), Harris (fall of 43%) and Lewis (fall of 37%), with North Uist having a fall of 13% while South Uist has a rise of 3%. The ESA scheme may have prevented the decline in cropping seen in Lewis and Harris occurring in Uist.

Although the Western Isles cereal crop represents a very small proportion of the total Scottish crop (0.08%), it is a huge conservation resource supporting a wide variety of interesting wild flowers (arable weeds) and providing a source of food and shelter for many farmland birds which have otherwise disappeared from mainland Scotland. In addition, the crop is important locally for winter feed for cattle.

The area of cereal cropping in the Western Isles has fallen in recent years...



Left: Cereal crops are important for birds such as skylark.

Clì: Tha gràn-bhàir cudromach airson eòin mar an uiseag.

2. AMASAN AGUS CUIMSEAN

Amas	Cuimse
1 Àireamhan SEERAD bho chunntas àiteachais nan 3 bliadhna mu dheireadh a chruinneachadh gus am faighear dàta bunaiteach air bàrr anns gach sgìre sna h-Eileanan Siar.	Ro Mhàrt 2006.
2 Na tha de fhearann le gràn-bhàrr na phàirt de phlana RSS a mheudachadh. Dèanamh cinnteach nach caillear bàrr air a chur air machair ann an atharrachadh ESA-RSS.	Na tha de fhearann le bàrr a mheudachadh 10% ro 2006. An tomhas agus an àireamh de phìosan talmhainn le bàrr fo ESA a chumail a' dol fhad 's a thathar ag atharrachadh gu RSS ro dheireadh na h-ùine atharrachaidh. Sùil a chumail gach bliadhna air tagraichean airson RSS ann an ceàrnaidhean a bha fo ESA roimhe agus an ìre pàighidh atharrachadh ma bhios feum air.
3 Prògram leasachaidh a thòiseachadh gus cur ri na tha de achaidhean arbhair anns na h-Eileanan Siar. Cumail suas tùs iomchaidh airson sil (i.e. air fhàs gu h-ionadail).	An tomhas de ghràn-bhàrr air a chur a mheudachadh 25% ro 2008. Bacadh eaconamach, sòisealta agus teicneolach air gràn-bhàrr air beag-sgèile a rannsachadh ro dheireadh 2005.
4 Sreath de 5 pròiseactan àiteachas arbhair prataigeach a chur air dòigh gus sealltainn dòighean-obrach agus deagh chleachdadh.	Pròiseactan taisbeanaidh a stèidheachadh ro 2007.
5 Prògraman trèanaidh a chur air dòigh do chunnradairean, croitearan agus tuathanaich a' cleachdadh puinnsean-bhiastagan agus tothar.	Susbaint a' chùrsa trèanaidh air aontachadh 2005. Cùrsaichean air an sgrìobhadh agus air an libhrigeadh ro 2007.
6 Slatan-tomhais a chur ri chèile airson dòighean àiteach arbhair le Luach Àrd Nàdair aithneachadh gus am bi iad air an sealltainn ann an sgeamaichean taice.	Slatan-tomhais a shuidheachadh agus an cur gu SEERAD ro dheireadh 2005

3. INBHE LÀTHAIREACH

Tha dàta cunntas àiteachais SEERAD bho 2001 a' sealltainn gu bheil an tomhas de arbhar air a chur anns na h-Eileanan Siar aig 362ha. Tha gràn a' dèanamh suas 43% den bhàrr a tha air a chur sna h-Eileanan Siar. Tha cur gràn-bhàrr a' dèanamh suas 0.12% den fhearann (a' gabhail a-steach ionaltradh coitcheann) no 1.48% de thalamh leasaichte (àitich). Tha seo co-ionann ri bàrr na h-Alba a' gabhail a-steach 23% de thalamh-àitich.

Nam biodh meud cuibheasach achadh arbhair 0.5ha, bhiodh oir 6m den achadh a' dèanamh suas 33% den raon arbhair, a' toirt àrainn oir achadh arbhair sna h-Eileanan Siar de 119.9ha (0.5% den talamh-àitich).

Tha na tha de ghràn-bhàrr air a chur anns na h-Eileanan Siar air a dhol sìos anns na bliadhnan mu dheireadh bho 400ha ann an 1998 (sìos 10%). Tha Clàr 1 a' sealltainn an fhearainn le bàrr eadar 1998 agus 2001 anns gach sgìre sna h-Eileanan Siar. Tha an crìonadh as motha ann am bàrr air a bhith am Barraigh (sìos 55%), na Hearadh (sìos 43%) agus Leòdhas (sìos 37%), le Uibhist a Tuath sìos 13% ach tha Uibhist a Deas suas 3%. 'S dòcha gun do chum an sgeama ESA an crìonadh ann an bàrr a chunnacas ann an Leòdhas agus na Hearadh gun tachairt ann an Uibhist.

Ged nach eil ann an gràn-bhàrr nan Eilean Siar ach cuibhreann glè bheag de bhàrr iomlan na h-Alba (0.08%), 's e stòras glèidhteachais air leth mòr a th' ann a tha a' toirt taic do dh'iomadh seòrsa dìthean fiadhaich inntinneach (luibhean àitich) agus a' toirt biadh agus fasnachadh do iomadh eun tuathanais a tha air falbh bho thìr-mòr na h-Alba mur b' e sin. Cuideachd, tha am bàrr cudromach gu h-ionadail airson biadh gearraidh do chrodh.

Clàr 1: Talamh le Arbhar a rèir Sgìrean nan Eilean Siar

Bho - SEERAD:ASD1
(1) Sgìrean nan Loch, Steòrnabhaigh,
Bharabhais & Ùige.

Table 1: Cereal Areas by Western Isles Parishes

Source - SEERAD:ASD1 (1) Lochs, Stornoway,
Barvas & Uig parishes.

Tha na tha de ghràn-bhàrr air a chur anns na h-Eileanan Siar air a dhol sìos anns na bliadhnan mu dheireadh...

Gràn-bhàrr/Bliadhna Cereal Crop/Year	Sgìre/Parish Group									
	Barraigh/Barra		Na Hearadh/Harris		Uibhist a Tuath/ North Uist		Uibhist a Deas/ South Uist		Sgìrean Leòdhais(1) Lewis Parishes(1)	
	holdings	hectares	holdings	hectares	holdings	hectares	holdings	hectares	holdings	hectares
1998	18	9.09	20	42.16	44	136.77	126	203.60	33	8.29
1999	16	6.18	25	43.61	42	146.47	118	193.45	28	8.14
2000	16	5.42	19	19.72	38	120.62	110	179.78	21	5.20
2001	12	4.05	18	24.02	43	119.40	112	209.24	18	5.27



4. ECOLOGY AND MANAGEMENT

Cereal fields occur, when an area of land is cultivated (normally by ploughing), fertilised using seaweed or manure and sown with cereal seed. The margins of the cereal crop interact with uncultivated land adjacent to the crop, with adjacent fallow areas and with sheltered areas created by field boundaries such as drystone dykes, to form a continuous habitat ranging from the cereal crop into the adjacent area. The cereal density around the field margin is normally less than in the main cropping area because of soil compaction caused by machinery turning at the edge of the cultivated area, less effective cultivation, lower levels of nutrient application and a lower cereal seedrate. This effect is compounded because of the small areas cropped and the combined effect of exposure and seed broadcasting resulting in a 'domed' shape to the crop and wide plant species diversity in the field margin.

Cereal cropping ensures a number of different habitats on the same area of land within a single growing season. These include; bare soil in the late spring, increasing levels of crop cover (with tall cover in the summer) and stubble of cereal

stalks and self seeding arable wildflowers in the autumn and winter. In situations where the cereal crop is stooked, the un-threshed grain provides cover and a food supply to farmland birds. Stooking also provides a much higher rate of grain spillage than either cutting green or combining - another factor increasing its importance for finches and buntings.

Cereal crops are particularly important on croft and machair land in the Western Isles to the corncrake species, because of mid and late season cover provided and the interaction with small areas of grazed and mown grassland in the immediate area.

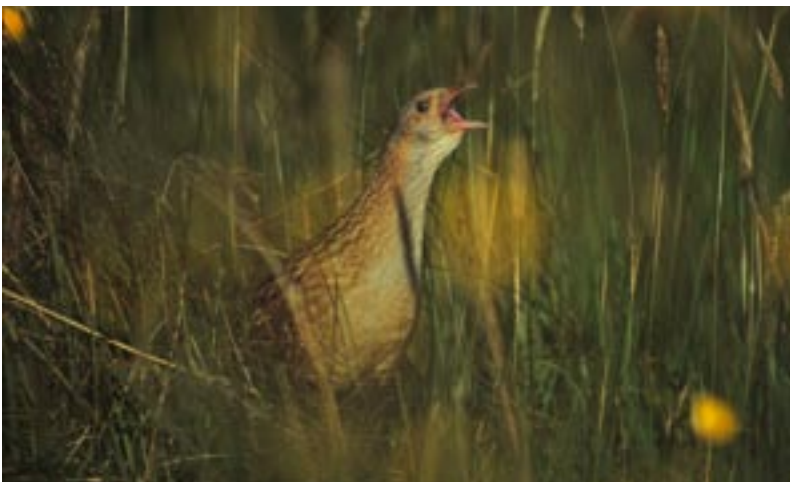
5. BIODIVERSITY CONTEXT

Cereal fields and margins are a common habitat in the UK and EU, but have a restricted distribution in the north west of Scotland and in the Inner and Outer Hebrides. The low levels of cereal cropping in the Western Isles make cereal fields and margins a rare habitat, especially in Lewis and Harris. Uist cereal fields and margins are locally important because of their interaction with UKBAP priority bird species such as Corncrake, Corn Bunting, Twite and Linnet. The Corncrake is a nationally important species because it breeds only in the offshore Scottish islands including the Western Isles. Western Isles' cereal fields and margins are particularly valuable for the wide variety of wildflowers (arable weeds) which occur as a result of the lack of herbicide use. Many of these plant species have otherwise disappeared from the remainder of the UK.

The UK Action Plan for Cereal Field Margins can be viewed at:

www.ukbap.org.uk/ukplans

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...the un-threshed grain provides cover and a food supply to farmland birds



4. EAG-EÒLAS AGUS RIANACHD

Tha achaidhean arbhair air an cruthachadh, nuair a tha pìos talmhainn air àiteach (mar as trice ga threabhadh), air a mhathachadh le feamainn no todhar agus pòr air a chur ann. Tha oirean a' ghràn-bhàrr ag eadar-obrachadh le talamh neo-àitichte ri taobh an arbhair, le talamh bàn ri thaobh agus le àiteachan fasnach air an cruthachadh le crìochan mar gàrraidhean-cloiche, agus a' dèanamh àrainn leantainneach a' dol bhon ghràn-bhàrr a-steach don fhearann ri thaobh. Mar as trice chan eil an t-aon tiughad arbhair timcheall air oir an achaidh 's a tha a-staigh sa bhàrr mar thoradh air an ùir air a chruadhachadh aig innealradh a' tionndadh aig oir a' chlàir, àiteach nach eil cho soirbheachail, ìrean nas lugha de mhathachadh agus ìre sìl nas isle. Còmhla ri seo le na clàran arbhair beag agus fosgailte agus an siol a' sgaoileadh tha cumadh 'cruinn' a' tighinn air a' bhàrr agus tha mòran ghnèithean lusan ann an oir an achaidh-buana.

Tha cur gràn-bhàrr a' dèanamh cinnteach gum bi grunn àrainnean eadar-dhealaichte air an aon phìos talmhainn anns an aon ràithe fais. Tha iad sin a' gabhail a-steach; talamh lom aig deireadh an earraich, barrachd ìrean de chòmhdach bàrr (le còmhdach àrd as t-samhradh) agus asbhvain de ghasan arbhair agus dìtheanan fiadhaich a' fèin-shìolachadh anns an fhoghar agus a' gheamhradh. Ann an suidheachaidhean leis a' ghràn-bhàrr air a chur ann an adagan, tha an gràn nach deach a bhualadh a' toirt còmhdach agus biadh do èoin tuathanachais. Tha mòran a bharrachd gràin a' dòrtadh bho adagan cuideachd na bho arbhair air a ghearradh nuair a tha e gorm no le inneal-fogharaidh - ga dhèanamh nas cudromaiche dha breaccain agus gealagan.

Tha gràn-bhàrr gu sònraichte cudromach air croitean agus machair sna h-Eileanan Siar do ghnè an traoin, airson a' chòmhdach a tha ann dhaibh aig meadhan is deireadh an t-seusain agus airson an eadar-obrachaidh le piosan beaga talamh-feòir air ionaltradh agus air a spealadh timcheall air.

Photos (left to right):

Cereal crops provide mid and late season cover for corncrakes; Most cereal crops in the Western Isles are grown on machair; Corn stooks provide cover and a food supply to farmland birds.

Dealbhan (cli gu deas):

Tha gràn-bhàrr a' toirt còmhdach aig meadhan is deireadh an t-seusain dha traoin; Tha a' chuid as motha den gràn-bhàrr sna h-Eileanan Siar air a chur air machair; Tha adagan arbhair a' toirt còmhdach agus biadh do èoin talamh-feòir.



5. SUIDHEACHADH BITH-IOMADACHD

Tha àrainnean achaidhean is oirean arbhair cumanta san RA agus EU, ach chan eil mòran dhiubh an iar-thuath na h-Alba agus an Innse Gall. Tha na h-ìrean ìosal de ghràn-bhàrr anns na h-Eileanan Siar a' ciallachadh gu bheil àrainn achaidhean is oirean arbhair gann, gu h-àraidh an Leòdhas agus na Hearadh. Tha achaidhean is oirean arbhair Uibhist cudromach gu h-ionadail airson an eadar-obrachadh le prìomh ghnèithean eun UKBAP mar an Traon, a' Ghealag-bhuachair an Gealan-beinne agus an Gealan-lin. Tha an traon cudromach gu nàiseanta oir chan eil e a' briodadh ach anns na h-eileanan a-mach bho chladaichean na h-Alba a' gabhail a-steach na h-Eileanan Siar. Tha achaidhean is oirean arbhair nan Eilean Siar gu sònraichte luachmhor airson an iomadh seòrsa dìthean fiadhaich (luibh àitich) a tha ann an oir chan eil puinnsean-lusan air a chleachdadh orra. Tha mòran de na gnèithean lusan sin air falbh às a' chòrr den RA.

Chithear Plana-gnìomha na RA airson Oirean Achaidhean Arbhair aig:

www.ukbap.org.uk/ukplans

Planaichean Buidheann Bith-iomadachd na RA Cuibhreann 1, Leabhar 2 T.d. 235.

...tha an gràn nach deach a bhualadh a' toirt còmhdach agus biadh do èoin tuathanachais.



6. CURRENT FACTORS AFFECTING THE HABITAT

- ✦ **Reduction in cropped area** - as mixed agriculture has been replaced by sheep dominated livestock production in Lewis and Harris, so the area of cultivation and cropping has reduced. There is a strong relationship between cattle keeping and cereal crops, grown for the purpose of winter feeding, and this is particularly evident in the Uists.
- ✦ **Making arable silage, rather than cutting and stooking** - means that the crop is harvested earlier, before it is ripe in mid summer, rather than during September. This procedure may cut down arable wildflowers before they have matured, thus reducing the seedbank. However it should be noted that in the Uists, many of the cropped areas are in the ESA Scheme and cropping can not commence until 1 August each year.
- ✦ **Pesticide and herbicide use** - the use of chemicals to control pests and agricultural weeds, reduces the plant and insect diversity in cereal field margins. The use of pesticides is associated with the intensification of cereal production and the drive for higher outputs. In the Western Isles context intensification and pesticide/ herbicide use is less of a problem, and minimised through ESA/RSS prescriptions.

- ✦ **Loss of good quality croft land** - a proportion of good quality land is lost to development, such as housing each year. In some cases, the loss of some land to development can lead to abandonment of the remainder of the holding, as it becomes difficult to access or of a non-viable size.
- ✦ **Decoupling of production subsidies** - The CAP Mid Term Review will see the decoupling of Arable Aid payments from production. On a Scottish scale it is likely that this will lead to a reduction in the cropped area (particularly in the Less Favoured Area). The inclusion of much of the Western Isles cereal area in agri-environmental schemes should insure against a significant reduction in cropped area, but it may be necessary to review the payment rate for cropped machair to maintain the attractiveness of the machair cropping option.

...a proportion of good quality land is lost to development each year



6. NITHEAN A THA A' TOIRT BUADH AIR A' GHNÈ

Lùghdachadh san talamh le bàrr - le stoc gu h-àraidh caoraich a' gabhail àite an àiteachd measgaichte an Leòdhas agus na Hearadh, tha nas lugha de thalamh air àiteach agus air a chur. Tha ceangal làidir eadar cumail chrodh agus gràn-bhàrr, a tha air an cur airson biathadh gearmhraidh, agus tha seo gu h-àraidh follaiseach sna h-Uibhistean.

Tha feur-fioraidh, an àite feur air a ghearradh agus air a chur ann an adagan - a' ciallachadh gu bheil an arbhar air a bhvain nas tràithe, mus eil e abaich ann am meadhan an t-samhraidh, seach an t-Sultain. 'S dòcha gun gearr seo sìos dìtheanan fiadhaich mus eil iad abaich, mar sin a' lùghdachadh a' bhanca-sil. Ach bu chòir aire a thoirt gu bheil mòran den talamh le bàrr anns na h-Uibhistean anns an Sgeama ESA agus chan fhaodar tòiseachadh ga bhvain gu 1 Lùnastal gach bliadhna.

Cleachdadh puinnsean-bhiastagan agus puinnsean-lusan - tha cleachdadh stuthan ceimigeach gus smachd a chumail air plàighean agus luibhean àiteachais, a' lùghdachadh iomadachd nan lusan agus nam fridean ann an oirean achaidhean arbhair. Tha cleachdadh puinnsean-bhiastagan co-cheangailte ri obair arbhair nas dèine agus tha barrachd strì airson toradh. Anns na h-Eileanan Siar chan eil dèine suidheachaidh agus

cleachdadh puinnsean-bhiastagan/puinnsean-lusan na dh'uilgheadas cho mòr, agus tha e air a lùghdachadh tro òrdaighean ESA/RSS.

Call deagh thalamh croitearachd - tha tomhas de dheagh fhearann air a chall gach bliadhna tro leasachadh, mar eisimpleir taigheadas. Ann an cuid de chùisean, faodaidh call cuid den talamh tro leasachadh leantainn gu tràigsinn a' chòrr den fhearann, mar a dh'fhàsas e doirbh faighinn thuige no mur eil e ann am meud a ghabhas obrachadh.

Toirt air falbh subsadaidhean obrach - Chì Ath-sgrùdadh Meadhan Teirm CAP pàighidhean Tabhartas Àitich bho obair air an toirt air falbh. Air sgèile Albannach 's dòcha gun lean seo gu lùghdachadh anns an tomhas de thalamh anns a bheil bàrr air a chur (gu sònraichte san Sgìre Fho-leasaichte). Bu chòir com-pàirt mòran den talamh le gràn-bhàrr anns na h-Eileanan Siar ann an sgeamaichean àiteachais-àrainneachd an dìon bho lùghdachadh mòr anns an talamh le bàrr, ach 's dòcha gum feumar ath-sgrùdadh a dhèanamh air an ìre pàighidh airson machair anns a bheil bàrr gus am bi roghainn tarraingeach ann fhathast airson bàrr air a' mhachair.

...tha tomhas de dheagh fhearann air a chall gach bliadhna tro leasachadh



Photos (let to right):

Stooking of corn, South Uist; A handful of oats;

Charlock growing in cereal crop on machair.

Dealbhan (clì gu deas):

A cur arbhar ann an adagan, Uibhist a Deas;

Làn dom de choirce;

Sgeallan a fàs ann an gràn-bhair air machair.



7. OPPORTUNITIES AND CURRENT ACTION

Most of the action will take the form of encouragement to grow cereal crops. The traditional, extensive cropping practised in the Western Isles is likely to result in cereal field and margin habitat of good quality, wherever cereal crops are grown.

- ✿ Annually updated information on cropping area and type is gathered and made available by SEERAD in the annual agricultural census. This information provides a useful method of measuring any changes in habitat area and the impact of any initiatives to protect or increase the area of habitat.
- ✿ Participation in agri-environment schemes. Annual habitat management payments are made to scheme participants who manage cropped land according to scheme prescriptions. A significant number of crofters (estimated at 85% of those eligible) in Uist and Barra are involved in ESA or RSS management. There has been a reasonable uptake in RSS in other parts of the Western Isles and the Corncrake Management Scheme (CMS) in Ness and Barvas has had a modest degree of success in encouraging new cropping.
- ✿ The CAP Mid Term Review reduces the attractiveness of alternative management (e.g. set-stocked sheep), giving an opportunity for carefully targeted and properly priced incentives.

The traditional, extensive cropping of the Western Isles is likely to result in cereal field and margin habitat of good quality...

- ✿ Development of local, regional and national initiatives to encourage crofters and farmers to grow small areas of cropping. Examples could include a Land Management Contract (LMC) option for traditional cropping, and using locally grown seed. The payment must properly reflect the cost of growing a cereal crop in the Western Isles.
- ✿ Involvement with crofting representative groups in promoting cereal cropping as part of a sustainable agricultural unit or sown with grass seed (as an undersown cover crop) when reseeding grassland.
- ✿ Initiatives to encourage local machinery rings and agricultural contractors to carry out cultivation, crop establishment and harvesting on behalf of crofters and farmers.
- ✿ Promotion of traditional hedgerow species, native to the Western Isles such as Rowan and Willow to entrants into the SFGS/LP woodland scheme, to safeguard 6m wildlife strip as defined in UKBAP. Co-ordination of RSS schemes with SFGS/LP schemes to encourage best practice cereal field margin habitat management. Incorporation of wildlife strip into crofter forestry design in 'Blackland' areas.



7. COTHROMAN AGUS GNÌOMHAN LÀTHAIREACH

Bidh a' chuid as motha den obair co-cheangailte ri misneachadh gus gràn-bhàrr a chur. Tha cur mòran gràn-bhàrr san dòigh thraidiseanta a tha aca anns na h-Eileanan Siar buailteach leantainn gu deagh àrainn achaidhean is oirean arbhair, anns a h-uile àite sa bheil gràn-bhàrr air a chur.

Tha fiosrachadh a tha air ùrachadh gach bliadhna den tomhas agus an t-seòrsa bàrr air a chruinneachadh agus air a thoirt le SEERAD sa chunntas àiteachais bliadhnail. Tha am fiosrachadh seo math airson tomhas air atharrachadh sam bith ann am meud àrainn agus buaidh iomairtean airson an àrainn a dhìon no a mheudachadh.

Com-pàirteachadh ann an sgeamaichean àiteachais-àrainneachd. Tha pàighidhean bliadhnail airson rianachd àrainn air an toirt do chom-pàirtichean san sgeama a tha a' rianachd talamh a tha air a chur a rèir òrdaighean na sgeama. Tha àireamh mhòr de chroitèaran (air a mheas aig 85% de na chroitèaran ion-roghnach) an Uibhist agus Barraigh an sàs ann an rianachd ESA no RSS. Bha iarrtas reusanta airson RSS ann am pàirtean eile de na h-Eileanan Siar agus bha tomhas de shoirbheachadh aig Sgeama Rianachd an Traoin (CMS) ann an Nis agus Barabhas a' misneachadh cur bàrr às ùr.

Tha Ath-sgrùdadh Meadhan Teirm CAP a' lùghdachadh na tarraing ann an rianachd eadar-dhealaichte (m.e. caoraich stoc-sònraichte), a' toirt cothrom air iomairtean leis an targaid agus a' phrìs cheart.

Iomairtean ionadail, roinneil agus nàiseanta a chur air dòigh gus misneachd a thoirt do chroitèaran agus tuathanaich raointean beaga bàrr a chur. Dh'fhaodadh eisimpleirean gabhail a-steach roghainn Cùmhnant Rianachd Fearainn (LMC) airson cur bàrr traidiseanta, agus cleachdadh sil ionadail. Feumaidh am pàigheadh a bhith a rèir na tha e a' cosg a bhith a' cur gràn-bhàrr anns na h-Eileanan Siar.

Com-pàirteachadh le buidhnean riochdachaidh croitearachd ann an adhartachadh gràn-bhàrr mar phàirt de aonad àiteachais seasmhach no air a chur le siol feòir (mar bhàrr còmhdaich air a chur fodha) nuair a thathar a' cur talamh-feòir.

Iomairtean gus buidhnean innealrachd ionadail agus cunnradairean àiteachais a mhisneachadh gus àiteach, stèidheachadh bàrr agus buain a dhèanamh do chroitèaran agus thuathanaich.

Adhartachadh gnèithean chraobhan callaid traidiseanta, a bhuineas do na h-Eileanan Siar mar Caorann agus Seileach do dhaoine a' tighinn a-steach do sgeama choilltean SFGS/LP, gus dìon a chur air striop fiadhbheatha óm mar a tha air a mhinneachadh san UKBAP. Co-òrdanachadh sgeamaichean RSS le sgeamaichean SFGS/LP gus deagh chleachdadh air rianachd àrainn oirean achaidhean arbhair a mhisneachadh. Filleadh a-steach striop fiadhbheatha do dhealbhadh croitear-coilltearachd ann an ceàrnaidhean 'Talamh-dubh'.

Tha cur mòran gràn-bhàrr san dòigh thraidiseanta a tha aca anns na h-Eileanan Siar buailteach leantainn gu deagh àrainn achaidhean is oirean arbhair...



Photos (left to right):

The traditional cropping rotation on machair results in a patchwork pattern of cultivated and fallow ground; Cereal field margins and fallows are important for a variety of wildflowers.

Dealbhan (clì gu deas):

Tha an cuairteachadh bàrr traidiseanta air machair a' fàgail pàtran mireanach de thalamh àitich agus de thalamh bàn; Tha oirean achaidhean arbhair agus talamh bàn cudromach airson diofar ditheanan fiadhaich.



8. ACTIONS

	Action	Lead	Priority	Timescale	Partners	Objectives
1	Policy and Legislation					
1.1	Better distinguish between systems of arable cropping on the basis of their conservation value, including the area of margin relative to crop and the proportion of fallow	SEERAD, SAC	High	Short	SNH, CC, SCF	2, 6
1.2	Regularly evaluate the attractiveness of all incentives for cereal production in the light of ongoing policy changes	SEERAD, SAC	High	Short	SNH, CC, SCF	2, 3
1.3	Include practical options for small scale cropping and locally-grown seed within the menu for Land Management Contracts	SEERAD	High	Short	CC, SCF	3
1.4	Consider the environmental value of cropped land in decisions involving development applications	CnES	Medium	On-going as applications arise.	SEERAD, CC	3
1.5	Where pesticide application is considered an issue, provide training for Spraying Contractors and others to ensure that pesticides are applied responsibly and that awareness of the value of species diversity of the field margin is raised (comply with FEPA code).	WIE	High	Short	SAC, LANTRA	5
1.6	Ensure extensive cropping options using local seed have a high priority within agri-environment schemes. This will include local priority ranking recommendations.	CnES	High	Short	SEERAD, SNH, SAC, RSPB	2
1.7	Provide support to enable crofters to diversify into cropping.	CnES, SEERAD	High	Medium-Long	SAC, SCF	2, 3
2	Site Safeguard and Management					
2.1	Ensure no loss where machair cropping / fallow contributes to the Community interest on Natura sites	SNH	High	Ongoing	SEERAD	6
2.2	Address management techniques, which are detrimental to cereal field margin management.	SNH	Medium	Medium	SEPA, RSPB	4, 5
2.3	Encourage uptake in agri-environmental schemes	SEERAD	High	Medium	SNH, SAC	2
2.4	Prioritise funding support to applications which involve the establishment of contracting services and machinery rings	WIE	Medium	Short	CnES, CC	3
2.5	Ensure good availability of locally produced seed.		High	Medium-Long	SAC, SEERAD, CnES, SCF	3
2.6	Encourage and promote an increase in cattle as this will create a demand for cereals as fodder	SCF	Medium	Medium-Long	SAC, SEERAD, CnES	2, 3
3	Advisory					
3.1	Incorporate the use of cereal cover crops in the reseeded and establishment of new grassland i.e. cereal sown alongside grass seed.	SAC	Medium	Medium	SEERAD, SNH	3, 4
3.2	Carry out on-site practical demonstrations to develop skills in the establishment and husbandry of cereal crops	SAC	High	Medium-Long	WIE, SNH, CnES	4
4	Monitoring and research					
4.1	Evaluate the various obstacles to increased small-scale cereal production	SEERAD, SAC	High	Short	SCF, CnES	3
4.2	Monitor the area and number of parcels cropped in the relevant Natura sites	SNH	High	Short-Medium	SEERAD	1, 6
4.3	Monitor the area and number of parcels cropped in the wider former Machairs ESA as schemes transfer to RSS	SEERAD	High	Short-Medium	SNH	1, 2
4.4	Monitor the area of cropping within the Western Isles, by SEERAD Area Office area, using the annual agricultural census results and aerial photography. Aim to link in with aerial survey being carried out by other organisations such as SNH	CnES, SAC	Medium	Medium-Long	SEERAD, SNH	1
5	Communications and publicity					
5.1	Draw up a targeted programme to raise awareness and for communication of best practise to crofters	SCF	Medium	Medium-Long	SNH, CnES, RSPB, SEERAD	2, 3, 4, 5

ABBREVIATIONS/GIORRACHADH:

CC Crofters Commission
Ùghdarras nan Croitearan

CnES Comhairle nan Eilean Siar

LANTRA Training Organisation
Buidheann Trànaidh

RSPB Royal Society for the Protection of Birds
Comann Rìoghail Dion nan Eun

SAC Scottish Agricultural College
Colaiste Àiteachais na h-Alba

SCF Scottish Crofting Foundation
Urras Croitearachd na h-Alba

SEERAD Scottish Executive Environment &
Rural Affairs Department
Roinn na h-Àrainneachd & Chùisean
Dùthchail Riaghaltais na h-Alba

SNH Scottish Natural Heritage
Dualchas Nàdair na h-Alba

WIE Western Isles Enterprise
Iomairt nan Eilean Siar

8. GNÌOMHAN

	Gnìomh	Stiùireadh	Prìomhachas	Ùine	Com-pàirtichean	Amasan
1	Poileasaidh agus Reachdas					
1.1	Eadar-dhealachadh nas motha ann an siostaman bàrr àitich a rèir an luach glèidheachais, a' gabhail a-steach pàirt den oir an dàimh ri bàrr agus an tomhas de thalamh bàn	SEERAD, SAC	Àrd	Goirid	SNH, CC, SCF	2,6
1.2	Measadh cunbhalach air dè cho tarraingeach 's a tha a h-uile iomairt airson obair arbhair mar thoradh air atharrachaidhean poileasaidh leantainneach	SEERAD, SAC	Àrd	Goirid	SNH, CC, SCF	2,3
1.3	Gabhail a-steach roghainnean prataigeach airson cur bàrr beag-sgèile agus siol air fhàs gu h-ionadail anns a' chlàr airson Cùmhnantan Rianachd Fearainn	SEERAD	Àrd	Goirid	CC, SCF	3
1.4	Beachdachadh air an luach don àrainneachd aig fearann le bàrr ann an co-dhùnaidhean a' gabhail a-steach cleachdaidhean leasachaidh	CnES	Meadhanach	Leantainneach mar a thig iartasan	SEERAD, CC	3
1.5	Far a bheil ceist mu chleachdadh puinnsean-bhiastagan, trèanadh a thoirt do Chunnradairan Steallaidh agus daoine eile gus dèanamh cinnteach gu bheil puinnsean-bhiastagan air an cleachdadh gu cùramach agus barrachd mothachaidh air luach iomadachd ghnèithean an oir achaidhean (cumail ri còd FEPA).	WIE	Àrd	Goirid	SAC, LANTRA	5
1.6	Dèanamh cinnteach gu bheil prìomhachas àrd aig roghainnean airson mòran bàrr le siol ionadail ann an sgeamaichean àiteachais-àrainneachd. Gabhaidh seo a-steach molaidhean airson prìomh rangachadh ionadail.	CnES	Àrd	Goirid	SEERAD, SNH, SAC, RSPB	2
1.7	Taic a thoirt do chroitearan gus atharrachadh gu cur bàrr.	CnES, SEERAD	Àrd	Meadhanach - Fada	SAC, SCF	2,3
2	Dion agus Rianachd Làraich					
2.1	Dèanamh cinnteach nach bi call far a bheil bàrr machrach/talamh bàn a' cur ri com-pàirt na Coimhearsnachd air làraich Natura	SNH	Àrd	Leantainneach	SEERAD	6
2.2	Cur aghaidh air dòighean rianachd, a tha a' toirt droch bhuaidh air rianachd oirean achaidhean arbhair.	SNH	Meadhanach	Meadhanach	SEPA, RSPB	4,5
2.3	Misneachd do chom-pàirt ann an sgeamaichean àiteachais-àrainneachd	SEERAD	Àrd	Meadhanach	SNH, SAC	2
2.4	Cur an òrdugh tàbhachd taic airgid do thagraidhean a tha a' gabhail a-steach stèidheachadh sheirbheisean cunraidh agus buidhnean innealraidh	WIE	Meadhanach	Goirid	CnES, CC	3
2.5	Dèanamh cinnteach gum bi deagh chothrom air siol air fhàs gu h-ionadail.		Àrd	Meadhanach-Fada	SAC, SEERAD, CnES, SCF	3
2.6	Misneachadh agus adhartachadh barrachd chroth gus am bi iartas air gràn-bhàrr airson fodar	SCF	Meadhanach	Meadhanach-Fada	SAC, SEERAD, CnES	2,3
3	Comhairleachadh					
3.1	Filleadh a-steach cleachdadh gràn-bhàrr còmhdaich ann an aith-chur agus stèidheachadh talamh-feòir ùr i.e. gràn-bhàrr air a chur ri taobh siol feòir.	SAC	Meadhanach	Meadhanach	SEERAD, SNH	3,4
3.2	Taisbeanaidhean prataigeach air-làrach a dhèanamh gus sgilean a leasachadh ann an stèidheachadh agus àiteachas gràn-bhàrr	SAC	Àrd	Meadhanach-Fada	WIE, SNH, CnES	4
4	Sgrùdadh agus rannsachadh					
4.1	Measadh a dhèanamh air na diofar nithean a tha a' cur bacadh air barrachd cur beag-sgèile	SEERAD, SAC	Àrd	Goirid	SCF, CnES	3
4.2	Sgrùdadh air an tomhas agus an àireamh de phiosan talmhainn le bàrr anns na làraich Natura iomchaidh	SNH	Àrd	Goirid - Meadhanach	SEERAD	1,6
4.3	Sgrùdadh air an tomhas agus an àireamh de phiosan talmhainn le bàrr air Machraichean ESA a bh' ann roimhe mar a bhios sgeamaichean ag atharrachadh gu RSS	SEERAD	Àrd	Goirid-Meadhanach	SNH	1,2
4.4	Sgrùdadh an tomhas de thalamh le bàrr anns na h-Eileanan Siar, a rèir ceàrnaidh Oifis Sgìre SEERAD, a' cleachdadh toraidhean cunnas àiteachais bliadhnaile agus dealbhan-camara bhon adhar. Amas air ceangal a-steach ri sgrùdadh bhon adhar air a dhèanamh le buidhnean eile mar SNH.	CnES, SAC	Meadhanach	Meadhanach-Fada	SEERAD, SNH	1
5	Conaltradh agus follaiseachd					
5.1	Cur ri chèile prògram air a chuir seachadh airson mothachadh a leudachadh agus airson nan dòighean-obrach as fheàrr a shealltainn do chroitearan	SCF	Meadhanach	Meadhanach-Fada	SNH, CnES, RSPB, SEERAD	2,3,4,5





Photos (left to right):

Aerial view of South Uist showing the pattern of machair cropping; Corn marigolds growing in cereal crop.

Dealbhan (clì gu deas):

Sealladh bhon adhar de Uibhist a Deas a' sealltainn pàtran de dh'àiteachadh machrach; Bile-bhuidhe a fàs ann an gràn-bhàr.

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Photographs courtesy of Anne MacLellan, SIAT, SNH & RSPB.

Dealbhan le cead bho Anne MacLellan, SIAT, SNH & RSPB.

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