How you can help black grouse on your land

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Black grouse distribution and population

The range of black grouse has contracted by 28% in the UK and by 38% in Wales in the period between two major bird surveys (1968–72 and 1988–91). An all-Welsh survey in 1997 recorded 131 displaying (lekking) males. This represented a 50% decline since the first all-Wales survey in 1986. The scale of this decline resulted in the Welsh Black Grouse Recovery Project (1999–2002). By implementing favourable habitat management within six key areas in Wales, where 80% of the population was recorded in 1997, the project aimed to stabilise and increase these populations.

The 2002 Welsh census recorded 246 lekking males, 88% more than the 1997 survey. This increase is probably a response to widespread habitat management of forestry and adjacent heather moorland.

Black grouse distribution in Wales, 1968–72
(from Sharrock 1976)

Black grouse distribution in Wales, 1988–91
(from Gibbons et al. 1993)

Black grouse distribution in Wales, 2002

Maps show black grouse distribution in Wales based on the presence of males within 10 km squares

Black grouse need a mosaic of habitats

Black grouse will use a wide range of habitats for feeding, lekking (displaying), nesting, chick-rearing, cover and shelter. The number of males at a lek may reflect the quality and quantity of favourable habitats within a 1.5 km radius of that lek. Farmers, foresters, moorland managers and keepers all play a vital role in safeguarding these habitats in the parts of Wales where black grouse are found.

Where they are and why

- Black grouse use marginal farmland on hill farms, often lekking on permanent pasture at the moorland edge. If these fields have a scattering of rowan, birch and hawthorn, they will provide a source of food in autumn and winter. Where hill arable fields exist, they can provide shelter plus grain and/or weed seeds in autumn and winter. Spring sown cereals and root fodder crops (turnips) with weeds may be particularly beneficial.
- Young conifer plantations (pre-thicket stage) suit black grouse – the absence of grazing animals allows good ground cover of heather and bilberry to develop for nesting, roosting, feeding and chick-rearing. In Wales, black grouse use managed plantations with 10–20% canopy cover. As plantations mature, the canopies close, shading out the ground layer – this is when conifer plantations can lose their value to black grouse. Therefore tree density may be more critical than tree height.
- Mature plantations can provide shelter and food for black grouse. Where widely-spaced patches of native broadleaves are included, they are important sources for food throughout the year: black grouse also feed on larch buds in spring. However, plantations can also be hazardous for black grouse: they may harbour predators; deep ditches may cause high chick mortality; and stock fences may cause adult and juvenile losses through collision.
- Semi-natural woodland and scrub – often found next to upland streams – can be an important seasonal food source. During autumn and winter black grouse feed extensively on the buds, shoots and berries of rowan and hawthorn, and on birch catkins.
- Patches of semi-improved grassland on open hills and permanent pasture around the moorland fringe provide traditional lek sites for black grouse.
- Black grouse require long heather – over 40 cm – to shelter and hide nesting females. They feed all year round on heather and bilberry shoots, preferring heather managed areas. Extensive areas of solid, tall heather can hinder chick movement.
- Wet areas, such as flushes and mires, provide vital feeding opportunities for black grouse: cotton grass flowers are an important food source for hens in early spring; wet areas, rich in insects, are favoured chick-rearing habitats in summer; and rush and sedge seeds are often eaten in late summer and autumn.

Black grouse – diversity of food types

Black grouse – when to do habitat management

FOOD TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Heather												
Bilberry shoots												
Cotton grass												

PRESCRIPTION	SPRING	SUMMER	AUTUMN	WINTER
Moorland management				
Heather burning			●	
Heather mowing		●		
Flush maintenance			●	
Bracken spraying		●		
Forest management				
Tree thinning			●	
Tree planting	●			●

Groups of male black grouse take part in complex communal displays known as leks to attract a mate. They occur at traditional sites and take place in the early morning and at dusk.

Nesting and chick-rearing: black grouse nest on the ground, concealed in long vegetation (40 cm or taller), usually heather. They lay eggs in mid-May/early June, and incubation takes around four weeks, with peak hatch dates between 17–24 June. The female initially leads the chicks to feed in wet areas of insect-rich cover, such as flushes and mires, and later to dry heather and bilberry banks.

Managing land for black grouse – further information and incentives

For further information and advice on black grouse contact the following:

- RSPB Cymru, North Wales Office, Bangor 01248 363800
- Forestry Commission Wales, North Wales 01824 750492, South Wales 01873 850060
- Countryside Council for Wales, Wales Headquarters 01248 385791

You may qualify for black grouse conservation payments through schemes run by:

- Countryside Council for Wales
- Forestry Commission Wales

Photos

Cover: Black grouse lekking at RSPB Abernethy Forest nature reserve by D Dugan (RSPB)
Food types chart: D Dugan, Chris Gomersall, Andy Hay (all rspb-images.com)
Poster: D Dugan, Niall Benvie, John Adair, Jeremy Roberts, Chris Gomersall (all rspb-images.com)
Illustrations: Black grouse by Norman Arlott (AA Image Library), habitats poster by Mike Langman

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Black grouse conservation
advice for land managers

13 Weather

Prolonged periods of cold and wet weather in June may reduce chick survival. To lessen this effect, provide a mosaic of open patches within areas of continuous, tall, dense vegetation.

12 Woodland edge

Woodlands are an essential black grouse habitat in Wales. Where possible, aim to:

- Reduce pre-thicket conifers at lek sites by 90% along 300 m of forest edge within a 40 m band
- Remove/pile all tree brashings or put into forest ditches
- Create/widen rides (up to 50 m in width) to the moorland edge
- Plant/retain larch and all native broadleaves

11 Mature plantations

Look for opportunities to:

- Widen firebreaks and rides and regularly strip-cut heather on a seven-year rotation.
- Create permanent open ground
- Retain and create shallow, wet, boggy areas.
- Safeguard lek sites in clearings and on tracks.
- Collapse forest ditches.

1 Habitat scale

- Black grouse require a mosaic of heather moorland, bogs and mires, semi-improved pasture, scattered native woodland and conifer plantings.
- Broods require up to 20–60 ha of suitable habitat.
- An area of 700 ha of suitable moorland and forest habitat may support one lek.
- Individual males may need up to 400 ha of favourable habitat.

2 Young conifer plantations

Prolong the value of second rotation woodland by:

- Leaving a 50 m buffer zone clear of trees from existing wet areas and leks.
- Thinning out conifers by 90% in areas of failed/low yield class plantings.
- Creating open space and a diversity of tree heights and canopy cover within crops.
- Cutting the field layer on rotation to encourage regeneration of cotton grass, heather and bilberry.

3 Semi-natural woodlands

Look for opportunities to create and expand native woodlands. In winter, avoid using them for:

- Wintering livestock. These woodlands provide sheltered feeding and roosting sites for black grouse, and tree damage and suppressed regeneration may be detrimental.
- Pheasant coverts/shoots that will disturb black grouse.

4 Predator control

Predation by crows and foxes can cause adult and chick mortality and breeding failures. Legal predator control may improve black grouse productivity and adult survival.

5 Shooting

- Avoid shooting black grouse.
- Brief guns not to shoot black grouse.
- Given the current plight of the black grouse, many grouse moor owners operate a voluntary ban; some estates impose fines for accidental shooting.

6 Stock fences

- Fence collisions in Scotland and the North Pennines may cause serious black grouse mortality. Remove redundant stock fences where possible.
- When establishing new woodlands in black grouse areas, mark stock fences at the top and across the middle with wooden rails and position fences clear of flight lines and lek sites.

7 A mix of heather types

Create a mosaic of heather age and structure by:

- Controlling localised sheep and cattle overgrazing.
- Positioning supplementary feeding sites away from important black grouse habitats.
- Using heather burning or mowing techniques to create a patchwork of long and short heather stands (< 0.4 ha).

10 Lek sites

Ideal leks have an open aspect and are often grazed short.

- Maintain short vegetation at all known lek sites.
- Avoid planting trees, supplementary stock feeding or erecting stock fences near to lek sites.
- Avoid disturbance during the main lekking period (1 April–15 May).

9 Wet areas

- Retain existing wet areas on open moorland and within forests – these are a rich source of invertebrates for chick rearing.
- Block ditches and drains to create or enhance wet areas for black grouse.
- Remove conifer and broadleaf regeneration from wet flushes, bogs and mires.

8 Fields adjacent to forest and moorland edge

- Avoid disturbing or damaging lek sites.
- Retain upland meadows that are rich in wild flowers.
- Where appropriate retain or add arable plots close to the moorland edge – particularly root fodder crops.
- Retain arable stubbles over winter.

Sut allwch chi helpu´r rugiar ddu ar eich tir

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Mae grwpiau o geiliogod y rugiar ddu yn cymryd rhan mewn arddangosiadau cymunedol cymhleth ar lecynnau arddangos i ddenu cymar. Maent yn digwydd ar lecynnau traddodiadol yn gynnar yn y bore a gyda'r gwyll.

Nythu a magu cywion: mae'r rugiar ddu yn nythu ar y ddaear, ynghudd mewn llystyfiant tal (40 cm neu fwy), grug tel arfer. Maent yn dodwy wyau yng nghanol mis Mai/Mehefin cynnar, ac yn eistedd am oddeutu pedair wythnos, gyda'r rhan fwyaf yn deor rhwng 17–24 Mehefin. I ddechrau mae'r iâr yn arwain y cywion i fwydo mewn mannau gwlyb sy'n sicrhau cysgod a phryfed, megis pantiau a gwernydd, ac yn ddiweddarach i lechweddau sych o rug a llus.

Rheoli tir ar gyfer y rugiar ddu – gwybodaeth bellach a chymhellion

Am ragor o wybodaeth a chyngor ar y rugiar ddu cysylltwch â'r canlynol:

- RSPB Cymru, Swyddfa Gogledd Cymru, Bangor 01248 363800
- Comisiwn Coedwigaeth Cymru, Gogledd Cymru 01824 750492, De Cymru 01873 850060
- Cyngor Cefn Gwlad Cymru, Pencadlys Cymru, 01248 385791

Efallai y byddwch yn gymwys i dderbyn taliadau cadwraeth y rugiar ddu drwy gyfrwng cynlluniau:

- Cyngor Cefn Gwlad Cymru
- Comisiwn Coedwigaeth Cymru

Ffotograffau

Clawr: Y rugiar ddu yn arddangos ei hun yng ngwarchodfa natur Coedwig Abernethy yr RSPB gan D Dugan (RSPB)
Siart mathau o fwyd: D Dugan, Chris Gomersall, Andy Hay (rspb-images.com i gyd)
Poster: D Dugan, Niall Benvie, John Adair, Jeremy Roberts, Chris Gomersall, Andy Hay (rspb-images.com i gyd)
Darluniau: Y rugiar ddu gan Norman Arlott (AA Image Library), poster cynefin gan Mike Langman

Cyhyrchwyd y daflen hon gan yr RSPB gyda chymorth grant oddi wrth yr Undeb Ewropeaidd a Chynulliad Cenedlaethol Cymru a gyda chefnogaeth Grŵp Llywio Cynllun Gweithredu Bioamrywiaeth y Rugiar Ddu yng Nghymru.

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Rhif elusen gofrestredig 207076

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Dosbarthiad a phoblogaeth y rugiar ddu

Mae cynefin y rugiar ddu wedi lleihau o 28% yn y DU ac o 38% yng Nghymru yn y cyfnod rhwng dau brif arolwg adar (1968–72 ac 1988–91). Mewn arolwg Cymru-gyfan ym 1997 cofnodwyd 131 o geiliogod yn arddangos eu hunain. Roedd hyn yn cynrychioli prinhad o 50% ers yr arolwg Cymru-gyfan cyntaf ym 1986. O ganlyniad i'r dirywiad sylweddol hwn rhoddwyd Project Adfer y Rugiar Ddu yng Nghymru ar waith (1999-2002). Drwy weithredu rheolaeth cynefin ffafriol o fewn chwe ardal allweddol yng Nghymru, lle cofnodwyd 80% o'r boblogaeth ym 1997, nod y project oedd sefydlogi a chynyddu'r poblogaethau hyn.

Yng nghyfnifiad 2002 yng Nghymru cofnodwyd 246 o geiliogod yn arddangos eu hunain, 88% yn fwy nag yn arolwg 1997. Mae'n debyg bod y cynnydd hwn wedi digwydd o ganlyniad i reoli cynefin coedwigoedd a'r rhostir grugog gerllaw ar raddfa eang.

Y nifer o geiliogod y rugiar ddu yn arddangos yng Nghymru (1986–2002)

Dosbarthiad y rugiar ddu yng Nghymru, 1968–72
(o Sharrock 1976)

Dosbarthiad y rugiar ddu yng Nghymru, 1988–91
(o Gibbons et al. 1993)

Dosbarthiad y rugiar ddu yng Nghymru, 2002

Mae'r mapiau yn dangos dosbarthiad y rugiar ddu yng Nghymru yn seiliedig ar bresenoldeb ceiliogod o fewn sgwariau 10 km

Mae'r rugiar ddu angen clytwaith o gynefinoedd

Mae'r rugiar ddu yn dderyniddio ystod eang o gynefinoedd ar gyfer bwydo, arddangos, nythu, magu cywion, gorchuddi a chysgodi. Gall y nifer o geiliogod ar lecyn arddangos adlewyrchu ansawdd a nifer y cynefinoedd addas o fewn cylch 1.5 km i'r llecyn hwnnw. Mae ffermwyr, coedwigwyr, rheolwyr rhostir a chipteriaid i gyd yn chwarae rhan hanfodol mewn gwarchod y cynefinoedd hyn yn y rhannau hynny o Gymru lle gweilir y rugiar ddu.

Mannau lle gwelir y rugiar ddu a pham

- Mae grugieir duon yn dderyniddio ffermdir ymylol dro ar ffermydd mynydd, gan arddangos eu hunain yn aml ar borfa barhaol ar gwr y rhostir. Os bydd ambell i goeden grafiol, bedwen a draenen wen yn y caeau hyn, byddant yn sicrhau ffynhonnell o fwyd yn yr hydref a'r gaeaf. Lle bod caeau âr yn bodoli ar dir mynydd, gallant sicrhau cysgod yn ogystal â grawn a/neu hadau chwyn yn yr hydref a'r gaeaf. Gall grawn a heuir yn y gwanwyn a chnydau gwraidd porthiant (maip) gyda chwyn fod yn arbennig o fuddiol.
- Mae planhigfeydd conwydd ifanc (cyn iddynt dyfu'n drwchus) yn addas i'r rugiar ddu – mae absenoldeb anifeiliaid pori yn sicrhau bod cysgod da ar y ddaear o rug a llus yn gallu datblygu ar gyfer nythu, chwydo, bwydo a magu cywion. Yng Nghymru, mae'r rugiar ddu yn dderyniddio planhigfeydd gyda 10–20% o gysgod canopi. Wrth i blanhigfeydd aeddfedu, mae'r canopi yn cau, gan daflu cysgod ar yr haen o blanhigion ar y ddaear – dyma pryd y gall planhigfeydd conwydd golli eu gwerth i'r rugiar ddu. Felly gall dwyseds coed fod yn fwy hanfodol nag uchder coed.

Y rugiar dda – yr amrywiaeth yn y mathau o fwyd

Y rugiar ddu – pryd i reoli cynefin

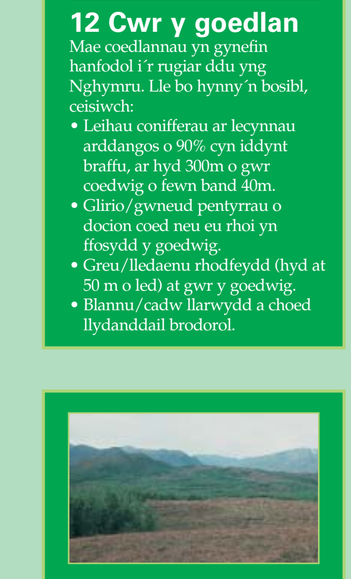
13 Tywydd

Gall cyfnodau hir o dywydd oer a gwlyb ym mis Mehefin leihau goroesiad cywion. I liniaru effaith hyn, sicrhewch glytwaith o leiniau agored o fewn mannau o lystyfiant di-dor, tal, a thrwchus.

12 Cwr y goedlan

Mae coedlannau yn gynefin hanfodol i'r rugiar ddu yng Nghymru. Lle bo hynny'n bosibl, ceisiwch:

- Leihau conifferau ar lecynnau arddangos o 90% cyn iddynt braffu, ar hyd 300m o gwr coedwig o fewn band 40m.
- Glirio/gwneud pentyrrau o docion coed neu eu rhoi yn ffosydd y goedwig.
- Greu/lledaenu rhodfeydd (hyd at 50 m o led) at gwr y goedwig.
- Blannu/cadw llarwydd a choed llydanddail brodorol.



11 Planhigfeydd aeddfed

Chwiliwch am gyfleoedd i:

- Ledaenu strimynnau atal tân a rhodfeydd a thorrwch rug ar ffurf stribedi yn rheolaidd ar gylchedd saith mlynedd.
- Greu tir agored parhaol.
- Gadw a chreu mannau bas, gwlyb a chorsiog.
- Warchod llecynnau arddangos mewn lleiniau ac ar draciau
- Gau ffosydd yn y goedwig.

10 Llecynnau arddangos

Mae llecynnau arddangos delfrydol yn agored ac yn aml wedi eu pori´n fyr

- Dylech gynnal llystyfiant byr ar bob llecyn arddangos amlwg.
- Dylech osgoi plannu coed, porthi efo bwyd ychwanegol na chodi ffensys da byw gerllaw llecynnau arddangos.
- Peidiwch ag aflonyddu ar yr adar yn ystod y prif gyfnod arddangos (1 Ebrill – 15 Mai).

9 Mannau gwlyb

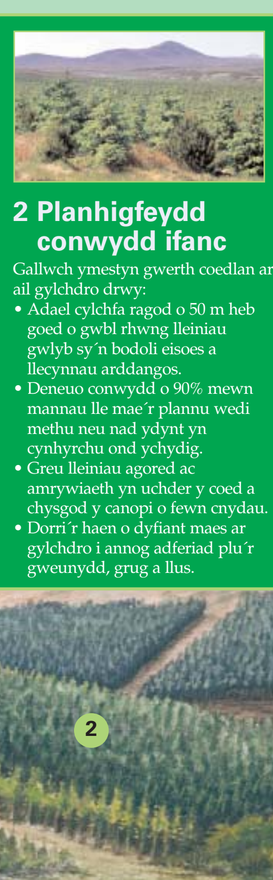
- Dylech warchod a chadw mannau gwlyb sy´n bodoli eisoes ar rostir agored ac o fewn coedwigoedd – mae´r rhain yn ffynonellau da o infertebratau ar gyfer magu cywion.
- Gallwch gau ffosydd a draeniau i greu neu wella mannau gwlyb ar gyfer y rugiar ddu.
- Dylech glirio coed conwydd a llydanddail sy´n adfer eu hunain o bantiau llaith, corsydd a gwernydd.

8 Caeau yn ffinio â chyrion coedwig a rhostir

- Dylech osgoi ymyrryd â neu beri difrod i lecynau arddangos.
- Dylech warchod dolydd sy´n llawn o flodau gwylltion ar yr ucheldir.
- Lle bo hynny´n addas cadwch neu ychwanegwch leiniau âr yn agos at gwr y rhostir – yn enwedig cnydau gwraidd porthiant.
- Dylech gadw sofl âr dros y gaeaf.

1 Arwynebedd y cynefin

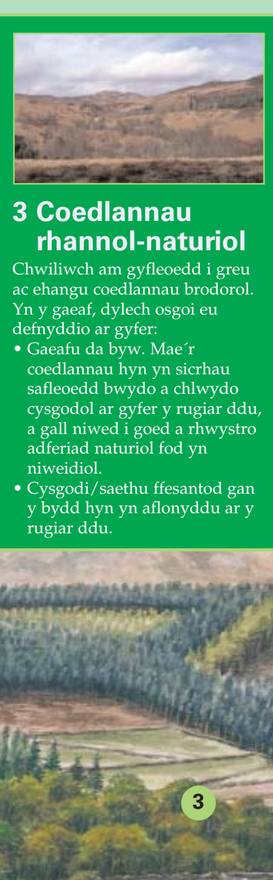
- Mae´r rugiar ddu angen clytwaith o rostir grugog, corsydd a gwernydd, porfa wedi ei rhannol wella, coedlannau brodorol ar wasgar a phlanhigfeydd conwydd.
- Mae pob nythaid o gwyion angen 20–60 ha o gynefin addas.
- Efallai fod arwynebedd o 700 ha o gynefin rhostir a choedwig addas yn cynnal un llecyn arddangos.
- Mae ceiliogod unigol angen hyd at 400 ha o gynefin ffafriol.



2 Planhigfeydd conwydd ifanc

Gallwch ymestyn gwerth coedlan ar ail gylchdro drwy:

- Adael cylchfa ragod o 50 m heb goed o gwbl rhwng lleiniau gwlyb sy´n bodoli eisoes a llecynnau arddangos.
- Deneuo conwydd o 90% mewn mannau lle mae´r plannu wedi methu neu nad ydynt yn cynhyrchu ond ychydig.
- Greu lleiniau agored ac amrywiaeth yn uchder y coed a chysgod y canopi o fewn cnydau.
- Dorri´r haen o dyfiant maes ar gylchdro i annog adferiad plu´r gweunydd, grug a llus.



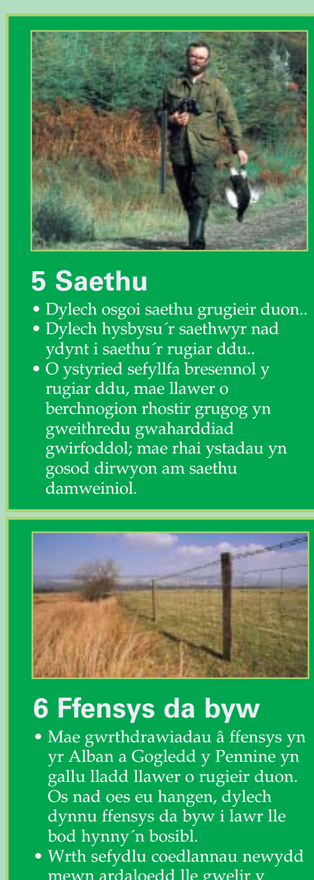
3 Coedlannau rhannol-naturiol

Chwiliwch am gyfleoedd i greu ac ehangu coedlannau brodorol. Yn y gaeaf, dylech osgoi eu defnyddio ar gyfer:

- Gaeafu da byw. Mae´r coedlannau hyn yn sicrhau safleoedd bwydo a chlwydo cysgodol ar gyfer y rugiar ddu, a gall niwed i goed a rhwystro adferiad naturiol fod yn niweidiol.
- Cysgodi/saethu ffesantod gan y bydd hyn yn aflonyddu ar y rugiar ddu.

4 Rheoli rheibwyr

Gall rheibio gan frain a llwynogod olygu marwolaeth oedolion a chywion a methiant nythu. Gall rheoli rheibwyr yn gyfreithlon wella gallu´r rugiar ddu i gynhyrchu cywion a goroesiad yr oedolion.



5 Saethu

- Dylech osgoi saethu grugieir duon..
- Dylech hysbysu´r saethwyr nad ydynt i saethu´r rugiar ddu..
- O ystyried sefyllfa bresennol y rugiar ddu, mae llawer o berchnogion rhostir grugog yn gweithredu gwaharddiad gwirfoddol; mae rhai ystadau yn gosod dirwyon am saethu damweiniol.

6 Ffensys da byw

- Mae gwrthdrawiadau â ffensys yn yr Alban a Gogledd y Pennine yn gallu lladd llawer o rugieir duon. Os nad oes eu hangen, dylech dynnu ffensys da byw i lawr lle bod hynny´n bosibl.
- Wrth sefydlu coedlannau newydd mewn ardaloedd lle gwelir y rugiar ddu,gosodwch rheiliau pren ar ran uchaf ac ar draws canol ffensys da byw, a'u gosod lle nad yw'r rugiar yn arfer hedfan a lle nad oes llecyn arddangos.

7 Cymysgedd o fathau o rug

Dylech greu clytwaith o rug o wahanol oed a strwythur drwy:

- Reoli gorbori lleol gan ddefaid/gwartheg.
- Leoli safleoedd bwydo ymhell o gynefinoedd sy´n bwysig i´r rugiar ddu.
- Ddefnyddio technegau llosgi neu dorri grug i greu clytwaith o arwynebeddau o rug tal a byr (< 0.4 ha).