

## Rural Environment Protection Scheme



# Farmer's Handbook for REPS 3





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## WHAT IS REPS?

REPS is the Rural Environment Protection Scheme and is designed to reward farmers for carrying out their farming activities in an environmentally friendly manner.

## WHAT ARE THE OBJECTIVES OF REPS?

- To establish farming practices and production methods which reflect the increasing concern for conservation, landscape protection and wider environmental problems
- To protect wildlife habitats and endangered species of flora and fauna.
- To produce quality food in an extensive and environmentally friendly manner.

## WHAT HAVE I TO DO TO JOIN REPS?

- Must be farming a minimum of 3 hectares owned or leased (excluding commonage and grazing rights).
- Must have a minimum level of farming activity.
- Must agree to join for 5 years.
- Must have your land included in a current Area Aid application.
- Read this book together with the terms and conditions of REPS 3. (Available from AES Office).
- Employ an approved planner to prepare a farm plan.

## WHAT IS A REPS PLAN?

- A plan is a current description of your farm and farming activities as they relate to the scheme requirements.
- It will set out for the next 5 years what you have to do each year under various measures.
- The plan must be prepared by a professional planner approved by the Department.





## YOU & YOUR PLANNER .....

You can choose any planner from an approved list of planners which can be obtained from AES Offices.

### You employ the planner to:

- Advise you on all matters relating to the scheme including:
- Fertiliser usage
- Alterations or additions to your animal housing facilities
- Any alterations to feed and waste storage facilities
- Adjustments to current farming system
- Prepare your REPS Plan.
- To certify your compliance with REPS before your fourth year payment is approved.

## YOUR RESPONSIBILITIES

You must be satisfied that you can comply with the undertakings of your REPS Plan before it is submitted for approval to the Department.

You must comply with this Farmer's Handbook, your Plan and the REPS 3 Terms and Conditions.

## WHAT HAPPENS NEXT?

You must now submit your application and your REPS Plan to the local AES office within 6 months of the plan being prepared. Your application will be acknowledged and processed and your start date in the scheme will be notified to you.

You must follow the farming requirements for each measure set out in your REPS Plan and the Farmer's Handbook.

## F A Q s

### When will I get paid?

- **First Year Payment:** You should receive your first payment within one month of having been approved into this scheme.
- **Second and Subsequent Year Payments:** An annual application form (Form REPS 1C) will be posted to you before your anniversary date. You must complete and return this form to your local AES Office within the specified deadline. Payment will issue when your application has been processed.

**It is your responsibility to ensure that applications for second and subsequent years' payments are submitted within the specified time limit.**

### Can I get my REPS monies paid into my bank account?

Yes, get a REPS BKPAY1 Form (available from your local AES office) and submit the completed form to your local AES office.

### Do I have to complete an Area Aid form each year?

Yes, the Department can only pay if the plots are declared each year on your area aid form.

### What do I have to do if I rent land short term?

Land rented for less than 5 years is short term. You must declare short-term rented land on your Area Aid application each year. You must manage this land in accordance with the scheme requirements.

### Will I get paid for short term rented land?

No.

### Can I get paid if I acquire additional land?

Yes:

- If your contract area is increased by more than 2 ha, you must submit a new five-year plan to receive payment on your additional land.
- If your contract area is increased by less than 2 ha, you must submit an amended plan with your 1C to receive payment.

### What happens if I sell land?

You will have to pay back money in respect of this land unless:

- the buyer keeps it in REPS
- it is afforested or
- it was acquired through CPO

### Can I increase/decrease stock numbers?

If you propose to increase your stock numbers or stocking density in excess of 10% or if you propose to decrease your stock numbers by 20% or more an amended plan will be required.



### **What do I have to do if I change crop type?**

You must ensure that your fertiliser usage does not exceed REPS requirement for the crops grown.

### **What do I do if I change my farming system?**

You must get your plan amended by your REPS Planner.

### **Can I import or export organic manures?**

Yes, any import or export of slurry must form part of your nutrient management plan and must be declared on form REPS W.

### **Can I allow another farmer's livestock graze on my holding?**

Yes, provided form REPS G is completed:

- Cattle may only be grazed for a maximum of 3 consecutive months between the period April 1st to October 31st,
- If you are a stable owner or horse breeder who own a minimum of 4 LU of horse on average throughout the year and maintain a minimum stocking rate of 1 horse LU per 4 hectares, the grazing of livestock is permitted throughout the period April 1st to October 31st.
- The grazing of sheep is permitted at any time throughout the year subject at all times to a maximum period of 3 consecutive months.
- Livery businesses may take in horses throughout the year.

### **Can I avail of winter housing on another holding?**

Yes, provided form REPS H is completed. This is conditional on:

- Housing facilities complying with REPS Specifications.
- The waste produced being disposed of on your own holding or exported to another REPS farm.

### **Can I house livestock belonging to another farmer on my holding?**

Yes, provided form REPS H is completed. This is conditional on:

- Such stock having separate housing facilities.
- Separate waste storage facilities and separate air space.
- The waste produced is disposed of on the farm of the fodder producer.

### **Can I afforest part of my holding?**

Yes, however you will lose the REPS payment on the land afforested.

**Can I transfer the holding to my son/daughter?**

Yes, but the land must be farmed in accordance with REPS or repayment will be required.

**Can I retire before my five years are finished?**

Yes, if you have three years of your contract completed and you definitively cease farming. Otherwise repayment of REPS monies received will be required.

**What happens if I have to leave the scheme before my 5 years are up?**

Normally you will have to pay back all the monies received unless the Department accepts that one of the following circumstances applies (this is known as Force Majeure):

- Death of the participant,
- Long term professional incapacity of the participant,
- Expropriation of a large part of the holding if such expropriation could not have been anticipated on joining the Scheme,
- A natural disaster affecting the holdings agricultural land,
- The accidental destruction of livestock buildings on the farm,
- An outbreak of disease affecting all or part of the livestock on the farm.

**Will my farm be subject to REPS inspections?**

Yes, inspections and checks must be carried out at farm level to ensure that all undertakings have been completed. Those who incur penalties will be subject to inspection more often.

**What happens if I do not have the work done?**

You will lose all or part of your payment for that year.

**Can I appeal a penalty?**

You may appeal any penalty to the Departments local office within 10 working days. If your appeal is unsuccessful you may lodge a further appeal to the Independent Agriculture Appeals Office.

**Any other queries should be directed towards a REPS planner or the Department local office.**





# MEASURE 1

## NUTRIENT MANAGEMENT PLAN

This measure promotes the efficient use of nutrients in an environmentally friendly manner. It involves a systematic evaluation of all the nutrient sources available and required on the farm and sets limits on the application rates for chemical fertilisers, organic fertilisers and other wastes. These limits shall be fully in place on all participating farms from the commencement of the plan.

The objective of this measure is to protect the quality of our waters by avoiding pollution from agriculture by:

- Efficient use of chemical fertilisers
- Proper storage of farmyard manures and slurry
- The timely use of farmyard manures and slurry

**The Requirements for Nutrient Management are as identified in your plan and as set out below:**

- Follow the Nutrient Management Plan as set out in your REPS Plan and in any case do not exceed 260 kg/ha of nitrogen (chemical and organic) on the farm or 170 kg/ha of organic nitrogen.
- Maintain all animal housing, feed storage and waste storage facilities in a leak proof and structurally sound condition.
- All necessary animal housing and waste storage facilities to meet REPS requirements must be in place before the first winter after acceptance into the Scheme.
- All necessary fodder storage facilities to meet REPS requirements must be in place before the start of the first silage season.
- Do not exceed the number of animals in your Plan.
- By the start of the first winter you must comply with your REPS Plan in relation to the collection and storage of slurry, farmyard manure, poultry manure and dungstead manure.
- From the start of your plan you must:
  - Have adequate collection and storage facilities for dairy washings, silage effluent and soiled water.
  - Manage the disposal/spreading of slurry's and effluents in accordance with your REPS Plan and this Farmer Handbook.
- Store farm-yard manure in a compact heap at least 2 metres high, located not less than 50 metres from any waterbody, public road, domestic well or watercourse and 300 metres from any public water supply source. You can only store FYM on land between January 16th and October 31st in the same year.

- Lime and chemical fertilisers i.e. Nitrogen and Phosphorus must be applied in accordance with your REPS Plan.
- Unless adequate effluent collection facilities are in place do not store baled silage more than 2 bales high.
- Do not share animal housing or waste storage facilities or silage facilities.
- Outside of farmyards, do not store or open baled silage within 20 metres of watercourses and waterbodies or within 50 metres of wells.



## 1 LANDSPREADING PRECAUTIONS

Landspreading of animal manures should be carried out as early as practicable in the growing season so as to maximise nutrient uptake by crops and consequently minimise pollution risks. Animal manures should normally be recycled to land for first or second cut silage in non-tillage farms.

### 1.1 GENERAL PRECAUTIONS

- Check the weather forecast before spreading. Do not apply manures or fertilisers where heavy rain is forecast in the next 48 hours.
- To promote the efficient use of nutrients in fertilisers and slurries and to minimise the risk of surface run-off and leaching to groundwater they must be applied at times which will coincide with the growth pattern of the different crops.
- Avoid spreading on:
  - Wet or waterlogged soils,
  - Frozen or snow covered soils,
  - Land sloping steeply towards water courses,
  - Exposed bedrock.
- Spreading machinery must be in good condition and correctly calibrated so that the desired application rates can be achieved.
- There must be no spreading within 1.5 metres of any field boundary or on bird nesting sites during the breeding season.
- Do not landspread blood or other slaughter house wastes.



## 1.2 PRECAUTIONS FOR ANIMAL MANURES

Avoid the contamination of surface waters and wells by leaving a buffer strip between these resources and the application area as follows:

Resource	Buffer Width
Watercourses	10 metres
Lakes and main rivers	20 metres
Domestic wells	50 metres
Public water supply sources	Up to 300 metres

- Slurry must only be applied with low trajectory spreaders, band spreaders or injection methods. Spray drift from the spreading of soiled water must be avoided.
- Slurry must not be spread within 50 metres of any private dwelling, school grounds and public building or amenity area.

## 1.3 PRECAUTIONS FOR CHEMICAL FERTILISERS

- No fertiliser to be applied within 1.5 metres of any watercourse/waterbody. This involves using one of the following options:
  - Using a machine that is equipped to restrict spreading to one side only.
  - Moving the machine out an adequate distance from the channel to avoid any over carry.
  - Reduce PTO speed to limit the spreading area.
  - Tilt the machine downwards at the side nearest the watercourse thus shortening the distribution pattern.
- Avoid nitrogenous fertiliser applications during periods of prolonged drought especially where these occur after mid-July.
- All chemical N fertiliser applications shall cease by September 1st on established grassland.
- Apply chemical phosphorus to peat soils by May 31st.
- Do not spread more chemical nitrogen than the planned level of organic nitrogen.

## 1.4 PRECAUTIONS FOR THE DISPOSAL OF SPENT SHEEP DIP

- Spent sheep dip, whether from permanently sited or mobile facilities, must never be disposed of to a soakpit, or dumped on sacrifice land. It should be landspread by slurry tanker, diluted 1 part dip to 3 parts slurry or water at a rate not exceeding 5m<sup>3</sup>/ha of spent dip, equivalent to 20m<sup>3</sup>/ha of diluted dip as soon as practicable after use.
- All precautions pertaining to the spreading of animal manures are also applicable.
- Farm livestock should be excluded from the disposal area for at least 28 days. Empty dip concentrate containers must be rinsed when dip is being prepared so that rinsing liquid may be added to form part of the diluted dip. Where there is an outlet at the bottom of an existing tank, controlled by a stopper, the outlet must be permanently sealed.

## 2 SPREADING TIMES

### 2.1 SLURRY & DUNGSTEAD MANURE

It is a requirement in each year of the plan that the slurry and dungstead manure produced during the Winter housing period is landspread by August 31st. Slurry and dungstead applications must not take place between October 1st and January 15th. Landspreading must only take place where weather and land conditions permit.



### 2.2 FARM YARD MANURE (FYM)

FYM must not be spread between November 1st and January 31st in each year of the plan.

### 2.3 SOILED WATER & DAIRY WASHINGS

Soiled water is normally disposed of by landspreading and this can take place all year round where conditions are suitable and pollution risks minimal. Landspreading may have to be deferred for long periods where soils are saturated or have a thin soil overlay, underlain by permeable strata.

### 2.4 SILAGE EFFLUENT

The land spreading of silage effluent onto the ground from which the silage has been harvested is the most practical option since it recycles some of the nutrients removed from the crop. This operation should commence as soon as the effluent starts flowing from the pit especially where storage capacity is not sufficient to ensure that there is no overflow/spillage. Silage effluent applications must not take place between October 1st and January 15th.

## 3 APPLICATION RATES OF WASTE (ANIMAL & OTHER WASTE)

### 3.1 SLURRY

The nutrient value of this product is influenced by the volume of added water, hence the greater the dilution the greater the problem of disposal. Regardless of the dilution factor, the maximum hydraulic loading per single application shall not exceed 25m<sup>3</sup> per hectare (2200 gallons per acre) on shallow limestone soils and in no case shall exceed 50m<sup>3</sup> per hectare (4400 gallons per acre).

### 3.2 SOILED WATER AND DAIRY WASHINGS

Application rates shall not exceed 25m<sup>3</sup> per hectare on shallow limestone soils and in no case exceed 50m<sup>3</sup>/hectare by tanker application or 2.5mm and 5mm / hour by irrigation. Move soiled water applicators/sprinker systems on a regular basis.

### 3.3 SILAGE EFFLUENT

Where silage effluent is available for landspreading it must be diluted 1:1 and its rate of application shall be as for soiled water and dairy washings.



## MEASURE 2



### GRASSLAND MANAGEMENT PLAN

Excessive poaching and overgrazing of grassland can result in siltation and nutrient enrichment of surface waters. The adoption of a specific grassland management plan by farmer participants will ensure a balance between agricultural and environmental demands.

The objective of this measure is to promote a sustainable grassland management plan that protects habitats, minimises poaching, overgrazing and soil erosion.

**The Requirements for Grassland Management are as identified in your plan and as set out below:**

- Follow a sustainable grassland management plan and the undertakings specified in your REPS Plan.
- House animals for the core housing period as specified in your REPS Plan.
- Outwinter stock only in the fields identified in your plan.
- Avoid excessive poaching.
- Avoid overgrazing / undergrazing.
- Supplementary feeding points must be at least 30 metres from any watercourse/waterbody.
- Growing vegetation must not be burned between March 1st and August 31st.
- Noxious weeds and scrub encroachment must be controlled as specified in your REPS Plan.
- Where land is being reseeded an untilled, unploughed and unsprayed margin of 1.5 metres must be left in place.

### MEASURE 2 OPTIONS

#### Option 2A Traditional Hay Meadows

Traditional hay meadows can contain a wide variety of flowers and grasses which are an enormous benefit to wildlife.

The objective of this measure is to ensure that farm management allows these flowers and grasses the opportunity to produce seed.

**The Management Requirements for Traditional Hay Meadows identified in your plan, are set out below:**

- **Minimum Area:** A minimum of 0.4 hectares or 8% of your holding subject to a maximum required area of 1.6 hectares.
- **Fertilisers:** Artificial fertiliser, slurry and farmyard manure can only be applied if this has been the traditional practice. In any case the total applied nutrients (organic and chemical) cannot exceed 30kg N, 5kg P and 5kg K per hectare per year.
- **Grazing:** Traditional grazing practices to be maintained. In any situation, grazing levels must not exceed 1LU per hectare on a year round average and should never exceed 2LU per hectare at any one time.
- **Mowing:** Meadows for conservation may only be cut after the June 15th. While it is preferable for hay to be saved, silage is acceptable provided it is turned at least twice before collection to allow seeds disperse.
- **Drainage:** Planned maintenance of existing drains is permitted.
- **Use of Herbicides:** Control of noxious weeds with herbicide by spot treatment only.
- **Supplementary Feeding:** No supplementary feeding to be introduced into fields where it was not traditionally carried out.
- **Dumping, infilling or burning of vegetation** are not permitted.
- **Reseeding, reclamation and tree planting** are not permitted.

**Option 2B Species Rich Grassland**

Grazed Grasslands can contain a wide variety of flowers and grasses which are an enormous benefit to wildlife.

The objective of this measure is to ensure that farm management practices revert to more sensitive grazing systems with the application of no fertilisers. This will allow flowers and grasses the opportunity to produce seed.



**The Management Requirements for Species Rich Grassland identified in your plan, are set out below:**

- **Minimum Area:** A minimum of 0.4 hectares or 8% of their holding subject to a maximum required area of 1.6 hectares.
- **Fertilisers:** No artificial fertiliser, slurry, farmyard manure or other waste can be applied.
- **Grazing:** Traditional grazing practices to be maintained. Your plan will set out the numbers and type of livestock and the seasonal grazing pattern. The average stocking density over the grazing period must not exceed 0.8 LU per hectare.
- **Topping:** Grasslands may only be topped after July 15th.



- **Drainage:** Planned maintenance of existing drains is permitted.
- **Use of Herbicides:** Control of noxious weeds with herbicide is permitted; however application may be by spot treatment only.
- **Supplementary Feeding:** No supplementary feeding to be introduced into fields where it was not traditionally carried out.
- **Dumping, infilling or burning of vegetation** are not permitted.
- **Reseeding, reclamation and tree planting** are not permitted.

## MEASURE 3

### PROTECT AND MAINTAIN WATERCOURSES, WATERBODIES AND WELLS

Riparian margins are an important habitat to a wide range of flora and fauna. The development of streamside vegetation strengthens channel banks and acts as a buffer strip to intercept overland flow of nutrients. Buffer zones around wells also contribute to the protection of water quality.

The objective of this measure is to avoid the nutrient enrichment of waterbodies from agriculture and thus maintain or improve water quality so as to enable natural streamside vegetation to develop and improve biodiversity by attracting a wide range of flora and fauna.

**The Management Requirements to Protect and Maintain Watercourses, Waterbodies and Wells as identified in your Plan are set out below:**

#### Fencing of Watercourses/Waterbodies as set out in your REPS Plan

- You must prevent access by bovines to within 1.5 metres of watercourses before the end of the first year of the plan and every year thereafter.
- Fences must be a minimum of 1.5 metres from the top of the bank of the watercourse—lands rented or leased with less than 5 years to run are excluded from this requirement.
- Where it is not feasible to provide a piped water supply for animals, access to drinking points may be provided.
- Fencing of such points shall prevent animal movement upstream or downstream and, as far as possible, restrict animals standing in the water.
- Access for animals and machinery across watercourses must, as far as possible, be by way of suitable culverts.
- Fence lake shores to prevent bovine access.

#### Fencing of Wells and Boreholes as set out in your REPS Plan

- By the end of the first year of the plan all wells shall be fenced irrespective of land use leaving a clear distance of at least 2 metres between well and fence at the nearest point and every year thereafter.
- A watering trough must not be placed within 20 metres of a well to prevent point source pollution.

#### Fertilisers, Animal Manures and Pesticides

- You must not apply herbicides, pesticides and chemical fertilisers within 1.5 metres of watercourses/waterbodies.
- You may only apply animal manure and other wastes in the proximity of watercourses, waterbodies and wells in accordance with Measure 1.



## MAINTENANCE

The method, timing and frequency of this maintenance work is crucially important to wildlife.

- Maintenance can range from routine cutting of vegetation to channel regrading and the removal of silt and debris.
- Overdeepening of channels should be avoided as these will silt up.
- Narrow channels provide faster flow.

### If watercourse maintenance is required, follow the work schedule set out in your REPS Plan

- When cleaning, remove weeds from the channel bed and one side only. The other bank should be left untouched in that season and, if possible, permanently.
- In fish-bearing streams, cleaning should be kept to a minimum. Where this must be carried out the work should be done between mid-May and mid-September so as to protect fish eggs and small salmonids. It is an offence under the Fisheries Acts to disturb the bed and gravel during the Autumn/Winter period where fish may spawn or have already spawned. Where, for whatever reason, drainage of any permanently wet channel more than 1 metre wide is required during the Autumn/Winter period, the relevant Fisheries Board must be consulted. See [www.cfb.ie](http://www.cfb.ie) for further information.
- Pesticides and herbicides shall not be used on watercourses/waterbodies except with the prior approval of the Department of Agriculture and Food.

## MEASURE 3 OPTIONS

### Option 3A - Increase watercourse margin.

The objective of this option is to improve water quality by protecting the river margin from poaching. This will protect vegetation and allow insect life to flourish creating a food source for fish.

#### The Management Requirements to Increase Watercourse Margins as identified in your plan, are set out below:

- You must prevent access by bovines to within 2.5 metres of watercourses before the end of the first year of the plan and every year thereafter.
- Fences must be a minimum of 2.5 metres from the top of the bank of the watercourse—lands rented or leased with less than 5 years to run are excluded from this requirement.
- Where it is not feasible to provide a piped water supply for animals, access to drinking points may be provided.
- Fencing of such points shall prevent animal movement upstream or downstream and, as far as possible, restrict animals standing in the water.



- Access for animals and machinery across watercourses must, as far as possible, be by way of suitable culverts.
- Fence lake shores to prevent bovine access
- The application of pesticides, organic and chemical fertilisers within 2.5 metres of watercourses is prohibited.

**Option 3B - Exclude all bovine access to watercourses.**

The objective of this option is to avoid physical damage to the watercourse by preventing bovine access at drinking points.

**The Management Requirements to exclude all bovine access to watercourses as identified in your plan, are set out below:**

- Drinking access to all watercourses on the farm is prohibited.
- A minimum of two piped drinking troughs per farm must be provided in fields adjoining the watercourse(s) in question.



## MEASURE 4

### RETAIN WILDLIFE HABITATS

Wildlife habitats can be on any area of the farm, but the most important ones are often areas peripheral to normal farming operations. These areas have largely been undisturbed by drainage, ploughing or re-seeding. They will not have been subjected to heavy fertiliser or pesticide use and if drained they still retain their wetland characteristics. Some habitats have developed naturally during the 10,000 years since the last ice age and are irreplaceable, while other habitats have developed as a result of centuries of traditional farming practice and are dependent upon the continuation of that management.



The objective of this measure is to retain habitats and to ensure that farming practices on these areas are carried out in a manner beneficial to flora, fauna and conservation generally.

**The Management Requirements to Retain Wildlife Habitats as identified in your plan are set out below:**

- You must retain all habitats identified on your REPS Plan
- The following practices must not be carried out on habitats:
  - Afforestation
  - Land improvement works including drainage
  - Ploughing and re-seeding
  - Interference with the free-flow of waters to "swallow holes" in turloughs
  - Removal of sand and gravel from foreshore and seashore
  - Commercial turf cutting on unexploited bog. Areas included for payment cannot be exploited during the period of the REPS undertakings
  - Burning of growing vegetation on land between March 1st and August 31st

Any further conservation practices required to retain the special qualities of the habitat, in addition to those set out under the other measures (including the agreed conditions for the conservation of NHA sites), for example, changes in fertiliser usage and stocking levels that are set out in your plan.

### MEASURE 4 OPTIONS

#### Option 4A Creation of a New Habitat

The objective of this option is to create new habitats on farms which will provide more space for wildlife to flourish. New habitats will also allow the development of a vegetation structure of varying height more suitable for diversity of invertebrates e.g. beetles, butterflies and moths.

**The Management Requirements for plots identified in your plan for the creation of new habitats are set out below:**

These must be followed from the commencement date of the plan.

- **Minimum Area:** You must maintain a minimum of 0.2 hectares or 4% of their contract area subject to a maximum required area of 0.8 hectares as land allocated for habitat use. The area

of any individual plot identified must be a minimum of 0.2 hectares, and have a minimum width of five metres.

- **Fencing:** The plot/subplot identified must be fenced to exclude all livestock.
- **Management:** The plot is not to be used for any agronomic activity and must be claimed as 'other area' in annual area aid declarations.
- **Weed Control:** Where mechanical control fails, control of noxious weeds by spot treatment with herbicides is permitted.
- **Topping:** If necessary, topping of these areas can take place after August 8th in any year. Toppings must not be removed.
- **Location:** Suggested locations include areas peripheral to the farming activity that are not existing habitats, areas along existing linear features, for example a weak hedgerow.

#### Option 4B Broadleaved Tree Planting

Widely spaced mature trees are a special feature in the countryside, having a significant visual impact on the landscape.

The objective of this option is to provide a valuable habitat for invertebrates, birds, bats and lichens. Over many decades a diverse range of wildlife and plant life will develop in the tree canopy and surrounding ground.



#### The Management Requirements for Broadleaved Tree Planting identified in your plan are set out below:

- **Planting:** A minimum of 1 broadleaved tree per hectare up to 40 hectares. Your exact requirement will be stated in your REPS Plan.
- Planting is normally carried out during the period October - April, when the trees are dormant, but not when the ground is frozen or waterlogged.
- At least 50% of the planting must be completed by the end of year 2 with the balance being planted by end of year 4.
- **Location:** A minimum of 25% must be planted in open fields. The remainder must be planted in suitable sites along existing field boundaries or in clusters at field corners.
- **What to plant:** Once the sites have been chosen, the most suitable tree species must be chosen from Appendix B based on the following considerations:
  - Knowledge of trees that grow well in the area or on similar sites
  - Physical conditions of each site e.g. soil type, drainage, exposure etc.
  - Suitability of species for the use and size of each site e.g. there must be enough space for the trees to develop without pruning.
- **Fencing:** All stock must be completely excluded from the new plantings.
- **Weed Control:** It is essential to control growth of grass and weeds around the young trees



during the first four years. Unchecked vegetation growth will result in poor tree establishment. Grass and weeds can be controlled by treading or by the use of suitable herbicides or mulches. Herbicides must only be used in accordance with the exceptions of Measure 6.

- **Failed trees** must be replaced.

#### **Option 4C Nature Corridors**

Many field margins contain plants characteristic of woodland, wetlands and grassland. Nature corridors act as a resource to conserve wildlife. Within the landscape, corridors are used by wildlife for transportation and protection.

The objective of this Option is to protect and enhance our extensive range of field margins as they are an important source of plant diversity.

**The Management Requirements for Nature Corridors which must be followed from the commencement of the plan are set out below:**

**Minimum Area:** You must maintain grass field margins a minimum of 2.5 metres wide from all field boundaries.

**Fertilisers/Pesticides:** The application of fertilisers or pesticides is prohibited within this margin unless specifically stated in your plan. No application of farmyard manures or slurries are allowed within this margin.

## MEASURE 5

### MAINTAIN FARM AND FIELD BOUNDARIES

Linear boundaries which include stonewalls, earth or stone banks, hedgerows and mature trees give the Irish landscape its distinctive character and field pattern. These provide important habitats for flora and fauna and function as linear corridors permitting wildlife to move between habitats such as woodlands, wetlands etc.



The objective of this measure is to conserve, maintain and enhance boundary fences, roadside fences, stonewalls and hedgerows in the interest of stock control, animal health, wildlife and scenic appearance of the area.

**The Management Requirements to Maintain Farm and Field Boundaries as identified in your plan are set out below:**

- You must retain all field boundary features on all of the land farmed.
- Stock-proof all external boundary and roadside fences by the end of year one and maintain thereafter.
- Entrances from public roads must have hung gates by the end of the first year of the plan and must be maintained thereafter.
- You must retain hedgerows/stonewalls on all of the land farmed.
- Maintain hedgerows / stonewalls in accordance with plan.
- Do not carry out hedgerow maintenance during bird nesting season (March 1st – August 31st). Ideally hedgerow maintenance is carried out in late winter.
- Do not crush hedgerows using heavy machinery.
- Do not apply pesticides and fertilisers within 1.5 metres of boundary.
- Ensure a minimum uncultivated margin as set out in Measure 9 is maintained.
- Retain other features as specified in the REPS Plan.
- Do not attach fencing wire to hedgerow trees and shrubs.

### MEASURE 5 OPTIONS

The objective of these options is to enhance and increase the length of hedgerows and stonewalls in the interest of stock control and scenic appearance of the farm. The additional works will also increase the wildlife habitat area on the farm.

#### **Option 5A Hedgerow Rejuvenation (Coppicing and/or Laying)**

You must rejuvenate hedgerows as set out in your plan through either Coppicing and/or Laying. Half



of this work must be completed by the end of the second year of the REPS plan, with the remainder completed by the end of the fourth year.

**Minimum Requirement:** 2 metres/ha per annum

For example a farmer with 20 ha must rejuvenate 40 metres x 5 years = 200 metres as part of his REPS plan. **Remember!** Half of this work must be completed before the end of year 2, with the balance being completed before the end of year 4.

*Appendix B gives further requirements in relation to laying and coppicing*

### Option 5B New Hedgerow Planting

New hedgerow planting includes the establishment of new hedgerows and the establishment of hedgerows along remnant field boundaries. Half of the work must be completed by the end of the second year of the REPS plan with the remainder completed by the end of the fourth year.

#### Location

New hedgerows must be planted in locations as set out in your plan.

**Minimum Requirement:** 3 metres/ha per annum

For example a farmer with 20 ha must plant 60 metres x 5 years = 300 metres as part of his REPS plan. Remember! At least half of this work must be completed before the end of year 2, with the balance being completed before the end of year 4.

*Appendix B gives further requirements in relation to establishing a new hedgerow.*

### Option 5C Additional Stonewall Maintenance



You must maintain an additional 3 metres of stonewall per hectare annually in excess of the basic requirement of Measure 5, on a maximum of 20 hectares of your holding.

For example a farmer with only stonewall boundaries must maintain an additional 3 metres of stonewall per hectare on the first 20 hectares of his/her holding annually i.e. 60 metres x 5 years = 300 metres as part of his REPS plan.

Farmers with a mixture of stonewall and hedgerow undertaking Option 5C must maintain 3 metres of stonewall per hectare on the first 20 hectares in addition to the basic requirement under Measure 5.

## MEASURE 6

### RESTRICTED USE OF PESTICIDES AND FERTILISERS NEAR FIELD BOUNDARIES, PONDS, STREAMS & WELLS

The improper and/or inappropriate use of pesticides and fertilisers can dramatically upset the balance of flora and fauna resulting in a major reduction in biodiversity. Pesticides, apart from reducing biodiversity, may leave residues in water that are harmful to humans and animals. Fertiliser entering waterbodies adds to nutrient enrichment resulting in eutrophication and unwanted plant growth that impedes water flows.

The objectives of this measure is to protect water resources and habitats for flora and fauna, by restricting the use of pesticides and fertilisers in the vicinity of field boundaries, ponds, streams and wells.

**The Management Requirements to Restrict Use of Pesticides and Fertilisers near Field Boundaries, Ponds, Streams and Wells as identified in your plan are set out below:**

- Apply fertilisers /manures in accordance with Measure 1.
- Do not apply pesticides within 1.5 metres of field boundaries, hedgerows, watercourses and waterbodies.
- Do not apply pesticides within 2 metres of wells and boreholes.
- Correct spraying techniques should be adopted to prevent drift.
- Noxious weeds which cannot be dealt with mechanically may be spot treated with a suitable herbicide, as specified in your plan.

#### Precautions in the use of Pesticides

- Pesticides must be applied as recommended. Mixing must always be carefully done away from wells and watercourses. Account must be taken of windspeed and direction at time of spraying to ensure that surface waters are not contaminated.
- Field margins are important wildlife habitats and must not be contaminated either by direct application or from spray drifting.
- Care must be exercised to ensure that only the amount of chemical required is mixed. If a surplus is prepared it must be disposed of as directed by the manufacturer.
- Chemical containers must be washed in accordance with the manufacturers recommendations and disposed of in accordance with the requirements of the Local Authority Waste Management Plan.



## MEASURE 7

### PROTECT FEATURES OF HISTORICAL & ARCHAEOLOGICAL INTEREST

The landscape of Ireland contains an important record of Irish history—a rich heritage of historical and archaeological monuments. Increasingly, mechanised farming practices and changes in land use have threatened this ancient landscape.



The objective of this measure is to promote greater awareness of these features on farms and to establish the management strategies required to protect them.

#### The Management Requirements to Protect Features of Historical and Archaeological Interest as identified in your plan are set out below:

- Retain all monuments and archaeological features identified in your plan.
- You must avoid damaging monuments through the use of heavy machinery in their vicinity.
- Where a monument occurs in grassland the monument itself and an area of 20 metres around it must not be interfered with through activities such as ground disturbance, excavation, construction of buildings or afforestation. If protection is required, light temporary fencing or marker posts can be used.
- Continuous movement of animals over earthwork features or the overwintering of animals must not be allowed in these areas.
- Monuments in tillage fields must be surrounded by an unploughed margin of 5 metres.
- No materials of any type can be removed from or dumped on such sites.

### MEASURE 7 OPTIONS

The objective of these options is to enhance the protection of these features and also to assist farmers maintain public access to archaeological sites on their land where such rights are currently in existence.

#### Option 7A.

##### Increase in Buffer Margins for Archaeological and Historical Features

- You must maintain a minimum buffer margin of 30 metres in grassland and 7.5 metres in tillage land from all sites and features identified in your plan.
- You must comply with the other conditions of measure 7.

### **Option 7B.**

#### **Management of Publicly Accessible Archaeological Sites**

You must:

- Have one site detailed in the Record of Monuments and Places on the farm which is publicly accessible.
- Maintain site litter free.
- Maintain the public access points to the site identified in your plan.

## MEASURE 8

### MAINTAIN AND IMPROVE VISUAL APPEARANCE OF FARM AND FARMYARD

There are many examples of structurally sound traditional farm buildings of limestone, granite or sandstone construction. These structures, with some maintenance, can be preserved. Neglect of these buildings is a loss to the countryside because such structures are important historic features that contribute to the character of an area.



*Keep Ditches Litter-free*

Considerable quantities of waste materials are generated by modern farming practices and their disposal should be carefully planned so as to avoid the risk of environmental pollution. These pose a threat to animal welfare as well as attracting vermin.

The objective of this measure is to promote a greater awareness of the need to harmonise the visual impact of the farmyard and the farm with the surrounding countryside. This includes the retention of traditional farm buildings, the maintenance of existing farm buildings and the removal of unsightly materials.

#### The Management Requirement to Maintain and Improve Visual Appearance of Farm and Farmyards as identified in your plan are set out below:

- Carry out necessary works as set out in your REPS Plan.
- Keep your farm and farmyards neat and tidy at all times.
- Remove unsightly materials such as packaging and containers, plastic sheeting and bags, rubber tyres, disused machinery, disused cars, worn-out and spent materials used in the servicing of agricultural machinery such as oils, solvents etc.
- Packaging, plastic or pallets which are reusable should be stored in a tidy fashion.
- The burning of plastics is not allowed.
- Where recycling collection facility exists for certain plastics such as the scheme established by The Irish Farm Films Producers Group (IFFPG) c/o Repak, 1 Ballymount Road, Clondalkin, Dublin 22, Tel (01) 4578200 applicants should avail of this facility.
- Containers of agricultural chemicals and other persistent toxic or harmful substances must not be put to an alternative use and must be disposed of in accordance with the manufacturer's instructions where given.
- The disposal of waste materials must be carried out in accordance with the Local Authority Waste Management Plan.
- Dead animals must be disposed of in accordance with the Veterinary Regulations.
- Retain any traditional stone features identified in your REPS Plan.
- Maintain any traditional features on your farm in accordance with your REPS Plan.

- Care shall be exercised to retain access for owls and bats, where such habitats exist. Information on the construction of bird boxes is described in Appendix C.
- Use appropriate roof and wall colours.

## **MEASURE 8 OPTIONS**

### **Option 8A Landscaping around the farmyard:**

Deciduous trees (rowan, alder, beech, larch, etc.) are more appropriate for landscaping around farmyards than most evergreens. Very narrow tall evergreens such as Leyland cypress and rows of Lombardy poplars must be avoided as they simply draw attention to buildings. Some climbing plants can soften the outlines of large buildings but they must not interfere with ventilation or drainage.

The objective of this option is to integrate the farmyard into the countryside by the planting of well-chosen surrounding/sheltering trees and shrubs.

### **The Management Requirements for Landscaping around the Farmyard as identified in your plan are set out below:**

- Farmers with less than 10 hectares of contract area must landscape with trees or shrubs a minimum of 500m<sup>2</sup> of land area surrounding or adjacent to the farmyard.
- Farmers with more than 10 hectares of contract area must landscape a minimum area of 1,000m<sup>2</sup>. The specific requirements for your farm will be clearly stated in your REPS Plan.
- Suitable plant species are listed in Appendix B.


## MEASURE 9

### TILLAGE CROP PRODUCTION

The intensification of crop production methods including the increased use of pesticides has had a detrimental impact on the variety of insects / weeds surviving as a potential food source for birds. The main result has been reduced bird populations e.g. the grey partridge and the corn bunting.

The objective of this measure is to encourage tillage farming practices and production methods that reflect the increasing concern for conservation, landscape protection and wider environmental problems.

**The Management Requirement for Tillage Crop Production as identified in your plan are set out below:**

- You must retain an uncultivated margin of at least 1.5 metres from the edge of any permanent field boundary. Where any field boundary includes a stream or drain the width of the channel is added to any uncultivated margin required.
- 
- Where cultivated fields adjoin and are divided by a permanent post and wire fence the total margin between crops must not be less than 3 metres.
  - Where cultivated fields adjoin and are divided by a stonewall the total margin between crops must not be less than 3 metres plus the width of the wall.
  - Where cultivated fields adjoin and are divided by a hedgerow less than 2 metres wide the total margin between crops must not be less than 5 metres.
  - Where cultivated fields adjoin and are divided by a hedgerow greater than 2 metres wide the total margin between crops must not be less than 3 metres plus the width of the hedge.
  - Burning straw and stubble is not permitted.

### MEASURE 9 OPTIONS

#### Option 9A Green Cover Establishment

Green cover is defined as a crop established following the harvesting of a cereal or oilseed rape crop and maintained until the following January 15th without cultivation. The usual crops used in this situation are brassicas. Grass, cereal or oilseed crops are not permitted.

The objective of this Option is to provide a crop cover that will utilise residual nutrients in the soil following the harvesting of a cereal or oilseed crop.

#### Category One Option

You must maintain a minimum of 14 hectares green cover.

### Category two Option

You must maintain a minimum of 7 hectares green cover.

#### The Management Requirements for the Establishment and Retention of Green Cover for the Plots identified in your plan are set out below:

- Straw cannot be burned from the harvested cereal or oilseed rape crop.
- Without ploughing, a cover crop must be established to ensure a green cover over the winter.
- Undersown crops are not eligible.
- Slurry or fertiliser must not be applied to the stubble after harvesting the cereal or rape crop.
- Between establishing the cover crop and the following January 15th:
  - It is permitted to graze the cover crop lightly (less than 0.5 LU per hectare).
  - Supplementary concentrate feeding sites must be rotated regularly.
  - It is not permitted to apply inorganic fertiliser, organic fertiliser or lime. These nutrients are in excess of crop requirements during the winter period.
  - It is not permitted to apply pesticides.

#### Option 9B Environmental Management of Setaside.

The objective of this option is to manage setaside land in a way which will provide food and safe nesting habitat for ground nesting birds throughout the nesting season.

#### The Management Requirements for the Maintenance of Setaside identified in your plan are set out below:

**Minimum Area:** You must maintain as setaside, a minimum of 0.3 hectares or 10% of your contract area, subject to a maximum required area of 4.0 hectares whichever is the higher. You must have a minimum of 7 hectares of arable land in tillage crops or setaside.

- On the setaside area a cover crop can be established by natural regeneration or sowing. When sowing grass it is suggested to use a grass mix containing tussock forming grasses e.g. fescues and bent grasses to provide a varied sward structure.
- As it is compulsory to mow setaside between July 15th and August 15th, mowing should be delayed as late as possible to protect late nesting birds. You are exempt from mowing up to 25% of the setaside area. This unmown area should be targeted at boundaries of the setaside particularly along thin hedgerows. This will allow the hedgerow to broaden out. In non-rotational setaside, the unmown area should be rotated around the setaside area if it is not targeted at the margins. Mowing of setaside must be carried out using the centre out method to give nesting birds a chance to escape to alternative cover.
- Mowings must not be removed from the site.
- The total setaside area may be grazed with livestock between September 1st and January 14th in accordance with your plan. This will provide a more varied structure to the sward and so enhance the abundance of invertebrates



- Pesticides (including herbicides, insecticides, fungicides, slug pellets and growth regulators) must not be applied to the setaside.
- The control of persistent weeds such as dock, thistle and ragwort, which cannot be controlled mechanically may be controlled by spot treatment.
- Inorganic and organic fertiliser must not be applied to the total setaside area.
- Setaside areas may not be used for temporary silage clamps and storage areas for big-baled silage.

### **Option 9C Increased Arable Margins.**

The objective of this option is to create different types of conservation crop margins offering an opportunity for the more characteristic plants and animals associated with arable farms to live and feed on the working farm.

#### **Category One**

You must maintain a minimum of 14 hectares of crop tillage land.

#### **Category Two**

You must maintain a minimum of 7 hectares of crop tillage land.

### **The Management Requirements for the maintenance of arable field margins identified in your plan are set out below:**

- Minimum Requirement: You must maintain a minimum of 74 metres of margin per hectare up to a maximum of 20 hectares of arable area which is being cropped.
  - These margins must be a minimum of 3 metres wide.
  - Setaside land does not qualify under this Option.
- One of three methods of establishing field margins must be followed:
  - Unsovn 3 metre margins must remain uncultivated as set out in Measure 9.
  - Rough grass 3 metre field margins may be established by sowing a recommended mix of grass seed at the rate of 20kg per hectare, either in the autumn or spring. Suitable grass species are given below.
  - Conservation 3 metre field margins may be established by sowing any cereal at 50% of the recommended sowing rate.
- Field margins must be present on the identified fields for the five years of the contract.
- With the exception of the cereal sown margins, the field margin must be mown at least three times in the first year to a height no lower than five centimetres. This will promote tillering of the grass and aid establishment.
- Mowing must only be carried out during the period July 15th to September 30th to minimise the disturbance of ground nesting birds, such as skylarks and meadow pipits rearing second broods.
- Regular annual cutting of the rough grass field margin is not permitted. This destroys the tussocks and the build up of leaf litter essential for the survival of over wintering insects.

- Pesticides (including herbicides, insecticides, fungicides, slug pellets and growth regulators) must not be applied to field margins. Spray drift from adjacent fields not only destroys this habitat, but also creates conditions for the growth of annual weeds.
- Rough grass field margins must not be grazed.
- After establishment no ploughing, cultivation, re-seeding, rolling or chain harrowing of rough grass field margins is permitted.
- Inorganic and organic fertiliser must not be applied to rough grass field margins.
- Supplementary feeding sites, drinking troughs, temporary silage clamps and storage areas for big baled silage must not be sited on these margins.

#### List of suitable grass species

Cocksfoot	Sheep's fescue
Crested dog's tail	Common bent
Sweet vernal	Creeping bent
Meadow foxtail	Rough stalked meadow grass
Red fescue	Smooth stalked meadow grass
Creeping fescue	Yorkshire fog

- Grasses must be sown at a rate of 20kg/ha
- Cocksfoot should not form more than 15% of the mixture, as it will tend to become too dominant.
- Varieties of perennial ryegrass and timothy grass must be sown at half the recommended sowing rate



## MEASURE 10

### TRAINING IN ENVIRONMENTALLY FRIENDLY FARMING PRACTICES

The increasing importance of environmental sustainability and the positive contribution the farming community can exert on the environment highlight the need for appropriate education. Training to equip farmers with the necessary skills to manage the farm in an environmentally friendly fashion is essential.

The objective of this measure is to provide participants with information on the environmental benefits arising from REPS, clarification of all the relevant requirements included in the agri-environment specifications and the knowledge and skills necessary to implement their REPS Plans.

**The Requirements for Training in Environmentally Friendly Farming Practices are as set out below:**

- If you have completed a REPS 2 20 hour training course
  - You may be required to do a short training course on the optional measures.
- For first time entrants to REPS
  - 20 hour training course required within the first 2 years.

# MEASURE 11

## THE MAINTENANCE OF FARM AND ENVIRONMENTAL RECORDS

The timely recording of relevant management information has long been considered the keystone to effective farm management.

The objective of this measure is to record management information and practices undertaken throughout each year of the plan on the prescribed REPS record sheets.

### The Requirements for the Maintenance of Farm and Environmental Records are set out below:

- Keep your REPS Records sheets up to date on a monthly basis.
- Sign and date them annually.
- Retain them for the full period of your contract as the Department may wish to examine them.
- Keep original invoices etc. relevant to the REPS agreement.
- Keep the Bovine Herd Register/Animal Remedies Record and Flock register (Sheep) and supporting documentation.
- Record particulars of all chemical / organic fertilisers brought on to the farm.



# MEASURE A

## CONSERVATION OF NATURAL HERITAGE

Natural Heritage can be described as the inheritance of the natural environment including biodiversity. Biodiversity includes all living organisms ranging from insects, birds and cattle to perennial rye grass and orchids and the ecosystems of which they are a part. We are part of biodiversity and depend on it for quality of life. Conservation of biodiversity under measure A must ensure that species and ecosystems under threat from intensive farming operations remain familiar and that they continue to function in a dynamic way.

The objective of Measure A is to provide a comprehensive approach to the conservation and/or regeneration of designated target areas.

### Target areas are:

- Natural Heritage Areas (NHA's) proposed or designated by the Minister for the Environment, Heritage and Local Government.
- Farmland-based Special Areas of Conservation (SAC's) designated under Council Directive 92/43/EEC on the Conservation of Natural Habitats or Special Protection Areas (SPA's) designated under Council Directive 79/409/EEC on the protection of Wild Birds.
- Commonages.

### The Management Requirements for the Conservation of Natural Heritage identified in your plan are set out below:

- In accordance with the framework plan or environmental report:
  - Reduce stock numbers.
  - Carry out remedial works e.g. fencing or rubbish removal.
  - Without the prior approval of the Department there must be:
    - No increase in stocking levels.
    - No new introduction of stock to previously ungrazed areas.
    - No changes in stock type during the course of the plan.
- Restricted use of pesticides and fertilisers.
- Follow any additional requirements set out in your REPS Plan.

Further information on the farming of Commonage and Non Commonage target areas can be found at Appendix D.

# SUPPLEMENTARY MEASURE 1

## CORNCRAKE HABITATS

The corncrake is a globally threatened migratory bird which was formerly widespread in hay meadows throughout Ireland. In recent decades it has become restricted to wetlands and poor farmland, possibly as a result of changing farming practices.

The objective of this supplementary measure is to enhance the habitat structure and availability of breeding sites for the corncrake over the summer and autumn months.

**The Management Requirements for Corncrake Habitats identified in your plan are set out below:**

- Must have land within a corncrake habitat area.
- Participate in BirdWatch Ireland (BWI) management plan for corncrake sites.
- Must follow the farming prescription set out at "A" in Appendix E.
- Must, when notified by BWI, follow the farming prescription set out at "B" in Appendix E.
  - BWI will notify you not later than June 30th of the presence of corncrakes on such lands.

Payment shall be at the rate of €100 per designated hectare at the end of the recording year subject to submission of certificate of compliance signed by BWI regarding the management requirements.



## SUPPLEMENTARY MEASURE 2

### TRADITIONAL IRISH ORCHARDS

The objective of this measure is to create and maintain apple orchards with specific varieties traditional to Ireland to ensure the survival of this unique resource.

**The Management Requirements for Traditional Irish Orchards as identified in your plan are set out below:**

**Minimum Size:** Orchard size must be a minimum of 0.05 hectares. The minimum width must not be less than 15 metres wide.

- The boundary of the orchard must be made stock proof for the duration of the contract period.
- Only varieties included in the Native Irish collection may be planted. These varieties, and further information are available from the Irish Seed Savers Association, Scarriff, Co. Clare ([www.irishseedsavers.ie](http://www.irishseedsavers.ie)). If possible, varieties traditionally grown in the area should be chosen from the list to be planted.
- Trees must be planted before the end of the second year of the plan.

#### Planting:

- Standard trees should be planted at a minimum spacing of 5.5 metres between trees. Sixteen trees per orchard must be planted if using standard trees.
- Half standard trees should be planted at a minimum spacing of 4.4 metres between trees. Twenty-four trees per orchard must be planted if using half-standard. Dwarfing varieties are not eligible.
- At least two approved varieties must be planted, with no variety comprising more than half the trees planted.
- Trees must be planted during the dormant season (November to March).

**After planting care:** The orchard may be mown or grazed with sheep (provided the trees are protected by a tree guard). Mowing before July, or grazing at any time with cattle is not allowed.

- A 1 metre diameter area around newly planted trees must be kept weed-free for the duration of the contract by using polythene with fine gravel, or other commercial grass suppressor.
- Inorganic/organic fertiliser or lime may not be broadcast throughout the orchard. However, well rotted farmyard manure and a small quantity of chemical fertiliser and lime may be applied (taking care not to apply directly around the base of the tree), each year after planting if soil is poor.
- If damage is being caused by rabbits/hares, measures to prevent further damage must be taken by the erection of a rabbit-proof fence.

- Insecticides, fungicides may only be used in circumstances where the health of the tree is threatened. Herbicides may be used to control noxious weeds by means of a weed wiper or spot sprayer if mechanical means fail.
- Failed trees must be replaced.



## SUPPLEMENTARY MEASURE 3

### CONSERVATION OF ANIMAL GENETIC RESOURCES (RARE BREEDS)

Local animal breeds play a significant role in maintaining the rural environment and represent a significant element of the cultural heritage of farming in Ireland.

The objective of this supplementary measure is to encourage farmers to rear animals of specific breeds traditional to Ireland, that are in danger of being lost to farming.

**Eligible breeds are as follows:**

Cattle	Equines	Sheep
Kerry Dexter Irish Maol (or Moiled)	Connemara Pony Irish Draught	Galway

**The Management Requirement for the Conservation of Rare Breeds as identified in your plan are as follows:**

- You must be a member (breeder) of an approved breeding society.
- You must maintain an up to date monthly record of all registered animals on the holding.
- Adult females must produce registered offspring at least once every two years, to be included in the calculation of average livestock units.
- Register all purebred female progeny with the relevant breed society.
- Register and/or birth notify all purebred male progeny with the relevant breed society.
- Registered male bovines and equines over three years of ages are eligible for inclusion in the calculation of average LU subject to the following limits: Maximum of 1 male animal per 30 cows, and a maximum of 1 stallion/gelding per 30 mares.
- Registered male ovines over 1 year of age are eligible for inclusion in the calculation of average LU subject to the following limits: a maximum of 1 ram per 40 ewes.
- You must submit documentary evidence of registration to the Department.
- You must remain active as a breeder of the native breed for the duration of the plan.
- Annual payment is €200 per livestock unit.
- The eligible LU's for payment<sup>1</sup> is entered on the REPS 1C in the SM3 box.

The relevant REPS Record Sheets must be used as the basis for calculating, for the period in question, the number of LU's eligible for payment under this measure.

### Livestock Unit (L.U.) Equivalents

- Cattle 6 months - 2 years 0.6 LU
- Cattle over 2 years including cows 1.0 LU
- Sheep 0.15 LU
- Equines over 6 months 1.0 LU

## SUPPLEMENTARY MEASURE 4



### RIPARIAN ZONES

Many Irish rivers and their tributaries contain salmonid spawning grounds that are important nationally and in the wider European context. The development of riparian zones provides a suitable habitat for flora and fauna that sustain food webs important in the river ecosystem.

A riparian zone is a strip of land extending on average at least 10m from water edge, and not more than 30m from the designated river.

The objective of this measure is to provide shade to overly exposed designated river channels to stabilise riverbanks, to provide a suitable habitat for flora and fauna and to intercept nutrients transported in overland flow.


**The Management Requirements for Riparian Zones identified in your plan are set out below:**

- Permanently stockproof the zone by the end of year 1.
- Exclude from agriculture production for a minimum of 5 years, renewable provided you are in REPS for up to 20 years.
- Do not apply fertilisers or pesticides.
- Follow any additional requirements for the area as set out in your REPS Plan.
- Access by suitable stiles for regional fisheries boards must be allowed and existing access rights must be respected.
- Allow vegetation to develop naturally but control scrub and alder and do not plant conifers.
- Tree planting on up to 50% of the riparian zone with the following species is recommended - oak, beech, willow, birch, ash, whitethorn, blackthorn or elder. Conifers cannot be planted. Forestry premia under Regulation (EEC) No.2080/92 or (EC) No 1257/99 cannot be paid on the land on which Riparian zone payments are made.
- Payment is at the rate of €724.50 per hectare on a maximum of 2.5 hectares.

### Designated Waters

Riparian zones may be located along the following designated rivers and tributaries, all of which are important salmonid waters:

Aherlow, Argideen, Blackwater (Munster), Boyne, Bride, Brown Flesk, Corrib (including Lough Corrib), Dargle, Delphi, Eriff, Feale, Fergus, Finn, Glashagh, Lee, Leannan, Lurgy, Maggisburn, Maine (downstream of confluence with River Brown Flesk), Moy, Nore, Slaney, Swilly, Vartry.



The following tributaries of the River Moy are also included:  
Owengarve, Mullaghanoe, Spaddagh, Trimoge, Glore, Yellow, Gwesstion, Manulla, Castlebar, Deel and Corry.

In addition other important salmonid rivers and their main tributaries may be designated where the local Regional Fisheries Board confirms that the river is important for fresh water breeding. A copy of the Fisheries Board confirmation should be lodged with an application under this measure.



## SUPPLEMENTARY MEASURE 5

### LINNET (LAND INVESTED IN NATURE NATURAL ECO-TILLAGE) HABITATS

Over the past three decades, farming enterprises have become increasingly specialised in response to market demands. This has resulted in a decline in traditional mixed farming systems. These changes, together with a reduced acreage of spring cereals, have led to the reduction in the populations of farmland bird species because of a reduced food supply over winter.

The objective is to encourage the small-scale production of cereal plots, especially in areas dominated by grassland to provide an overwintering food source of seeds and small insects for finches and other bird species.

**The Management Requirement of the LINNET Habitat identified in your plan are set out below:**

- The crop must be grown in the same ground for all 5 years of the REPS plan.
- Crops must not be harvested.
- The minimum eligible area is 0.5 hectares; the maximum eligible area is 2.5 hectares.
- Plots of one hectare or more are most beneficial, as they hold seed for longer into the winter. If more than one hectare of wild bird cover is to be grown, then plots must be split up over the farm.
- Individual plots must be minimum of 0.25 HA.
- The crop to be established using normal farming practices.
- Crop cover must be 20% brassica and 80% cereal. Seeding rate to be specified in your REPS Plan.

**Stockproof:** Livestock, except for wild deer, must be excluded from the area.

**Fertilisers:** Any fertiliser, lime or slurry applications must be in accordance with the requirements of Measure 1. Two-thirds normal REPS application rates should suffice, as the intention is to create a more open crop that increases access to fallen seeds for birds.

**Pesticides:** Pre-sowing weed control can be used, because the use of any pesticide (including herbicides) is not permitted post sowing.

**Sowing:** A mix of at least two different crop types must be sown (e.g. cereals and brassicas).

- Seed must be spring sown not later than May 31st.
- Drilling is the preferred sowing method.
- If broadcasting, increase seed rates by between one third (for smaller seeds) and a half (for larger seeds).

- Crop cover must be retained from establishment to the following March 1st for one year mixes.
- If kale is used in the mix, the plot must be left untouched for two winters not ending before March 1st of the second winter.
- No harvesting or grazing can take place.
- If the eligible area on farm is split into a number of plots each plot must contain a LINNET crop mix.

### LINNET Crop Mixes

LINNET crop cover can be made up of a mix that is sown every year or a mix that is sown every other year. Recommended seed rates are lower than those for commercial crop production as a more open crop increases access to fallen seeds and weeds for birds.

**One year mixes:** must contain a cereal (oats, barley, triticale) and at least one from the following: quinoa, oilseed rape, linseed, mustard. Do not include brassicas (oilseed rape, mustard etc.) if using the one year mix as a break crop between kale mixes.

An example of a one year mix is oats and linseed. This mix is a good option on heavier, acid soils e.g. 60 kg/ha of oats and 25 kg/ha of linseed.

**Two year mixes:** must contain kale and at least one from the following: quinoa, barley, oats, triticale, and linseed. Kale is included because it is a biennial plant, the others are annual plants. The cereal element of the two-year mix will require to be resown at the start of the second spring by broadcasting.

### Mix Drilling Rates

Kale and quinoa	2.5 kg/ha of kale and 5 kg/ha of quinoa
Kale and cereal (oats, barley, triticale)	2.5 kg/ha of kale and 60 kg/ha of cereal

### PAYMENT

Payment will be made annually as follows:

First hectare will be paid at €700.

Additional areas up to 2.5 ha will be paid at €400 per hectare.

Maximum payment will be €1,300.

## SUPPLEMENTARY MEASURE 6



### ORGANIC FARMING

Organic farming is a sustainable production system which provides the opportunity of an alternative farming system based primarily on respect for the countryside, concern for animal welfare and production of high quality agricultural products.

The objective of this measure is to deliver enhanced environmental and animal welfare benefits and to encourage producers in REPS to respond to the market demand for organically produced food.

**The Management Requirements for Organic Farming as identified in your plan are set out below:**

- You must be registered and approved as an organic operator in accordance with the Department's regulations and have your operations inspected and approved annually.
- You must get prior approval if including commonage land as part of the organic holding.
- You must register with the Department of Agriculture and Food as an organic producer.
- You must have a valid organic licence for the full duration of your REPS undertaking.
- Submit a copy of your valid organic licence with your annual application for payment.
- You must declare on the REPS 1C the eligible area for payment computed from your Record Sheets. The farmer's relevant REPS Record Sheets must be used as the basis for calculating, for the period in question, the number of hectares eligible for payment under this measure.
- Producers are encouraged to convert their complete holding, however new organic producers registered from 1st June 2004 may avail of partial conversion of a holding under the following criteria:
  - The full holding must be the subject of a REPS plan and the land remain under organic production methods for at least 5 years from the date of commencement of the REPS contract.
  - Partial conversion of a tillage holding is allowed subject to the following:
    - A different crop type (identified by genus, i.e., barley or wheat or oats etc) to that grown on the lands farmed conventionally must be grown on the organic land.
    - Tillage producers may undertake organic livestock production on condition that livestock production cannot co-exist with conventional livestock production, with the exception of pig and poultry production and the whole area of the unit for organic animal feed must be under organic management.
  - Partial conversion of livestock holdings is allowed for pig and poultry production only subject to the following:
    - Organic pig production cannot co-exist with conventional pig production and organic poultry production cannot co-exist with conventional poultry production.
    - The whole area of the unit used for organic animal feed must be under organic management.



- Partial conversion of mixed farm holdings (i.e. livestock and crop production) is allowed subject to the following:
  - Organic livestock production cannot co-exist with conventional livestock production, with the exception of pig and poultry production as outlined above. Likewise a different species of crop to that grown on the lands farmed conventionally must be grown on the organic land.
  - The whole area of the unit used for organic animal feed must be under organic management.
- Applicants with Measure A land must comply, where applicable, with the National Parks and Wildlife Service (NPWS) conditions for this land and/or the commonage framework plans.

### Payments To Participants

Payments to participants converting to or continuing with organic farming production systems under this supplementary measure are paid subsequent to the recording year. The payments for the in-conversion phase will be for a maximum period of two years from the commencement date of conversion to organic production methods. If you submit a valid application for REPS within 4 months of the date your organic licence commences, you will be eligible for payment at the in-conversion rate of payment for the first two years your reps contract. Otherwise, the full organic status rate will apply from the beginning of the month following the date that full organic status is achieved.

Payment for a farmer with both in-conversion and fully organic land who has less than the minimum farming activity outlined above will be computed on the fully organic land first with the balance, where appropriate, at the in-conversion rate.

#### Holdings with Measure A Land

Applicants can choose whether or not they want to be paid Measure A payment; however Organic payments cannot be made on parcels of land receiving Measure A payment.

- Where the applicant chooses to avail of payment under Measure A, Measure A payment must be calculated first. Remaining land may receive the organic supplementary payment.
- Where the applicant chooses not to avail of payment under Measure A, all eligible non-commonage land may receive the organic supplementary payment.

### Calculation of Payment

The eligible area (ha)<sup>1</sup> for payment is entered on the REPS 1C in the Organic (SM6) box.

Your relevant REPS Record Sheets must be used as the basis for calculating, for the period in question, the number of hectares eligible for payment under this measure. Detailed examples of these calculations and the [Organic payment calculation form](#) will issue with your REPS 1C. It is important to note that where the stocking density for the forage area exceeds 0.5 livestock units per hectare, the eligible area entered in the Organic (SM6) box on the REPS 1C must not exceed the farmer's total forage area + area under crops (if applicable). As stated previously, if commonage is included in the holding, the forage area qualifying for organic payment must be computed excluding this commonage area.



The applicant must retain a copy of all records, which may be requested by the Department to substantiate how the eligible area (ha) was calculated.

**Table 1 - Livestock Unit (L.U.) Equivalents for Calculation of Organic Payment**

Dairy Cow	1.0 L.U.
Suckler Cow	1.0 L.U.
Cattle 0-1 year	0.4 L.U.
Cattle 1-2 year	0.6 L.U.
Cattle over 2 years & or Bulls	1.0 L.U.
Mountain Ewe + Lamb	0.15 L.U.
Lowland Ewe + Lamb	0.15 L.U.
Lowland Hoggett	0.15 L.U.
Mountain Hoggett	0.15 L.U.
Goat	0.15 L.U.
Deer (Red)	0.38 L.U.
Deer (Fallow/Sika)	0.15 L.U.
Sow (farrow to finish)	1.1 L.U.
Sow (farrow to weaner)	0.45 L.U.
Finishing pig	0.08 L.U. a)
Laying hen	0.01 L.U.
Broiler	0.003 L.U. b)
Turkey	0.005 L.U. c)

<sup>1</sup> The eligible area entered on the REPS 1C cannot exceed the maximum eligible REPS area.

# APPENDIX A

## USEFUL NAMES & ADDRESSES

### CENTRAL FISHERIES BOARD

Balnagowan, Mobhi Boreen, Glasnevin, Dublin 9.  
Tel: 01 8379206; Fax: 01 8360060

### EASTERN REGION

Eastern Regional Fisheries Board, Balnagowan, 15A Main Street, Blackrock, Co. Dublin.  
Tel: 01 2787022; Fax: 01 2787025

### SOUTHERN REGION

Southern Regional Fisheries Board, Epworth, Anglesea Street, Clonmel, Co Tipperary.  
Tel: 052 23624, 24932; Fax: 052 23971

### SOUTH-WESTERN REGION

South-Western Regional Fisheries Board, 1 Neville's Terrace, Masseytown, Macroom, Co Cork.  
Tel: 026 41221, 41222; Fax: 026 41223

### SHANNON REGION

Shannon Regional Fisheries Board, Ashbourne Business Park, Dock Road, Limerick.  
Tel: 061 300238; Fax: 061 300308

### WESTERN REGION

Western Regional Fisheries Board, The Weir Lodge, Earl's Island, Galway.  
Tel: 091 563110, 563118, 563119; Fax: 091 566335

### NORTH-WESTERN REGION

North-Western Regional Fisheries Board, Ardnaree House, Abbey Street, Ballina, Co Mayo.  
Tel: 096 22788; Fax: 096 70543

### NORTHERN REGION

Northern Regional Fisheries Board, Station Road, Ballyshannon, Co Donegal.  
Tel: 071 9851435; Fax: 071 9851816

### KERRY CATTLE SOCIETY OF IRELAND

Miss Raymonde Hilliard, Cahirnane, Killarney, Co. Kerry, Ireland.  
064 31840

### UK DEXTER CATTLE SOCIETY

M/s Elaine Lester, Dishley Grange Farm, Derby Road, Loughborough, Leicestershire, LE115SF.  
dextercattlesociety@btopenworld.com

### GALWAY SHEEP BREEDERS SOCIETY

Tom Murphy, Assistant Secretary, New Inn, Ballinasloe, Co. Galway.  
090 9644233 teamurphy@eircom.net

### IRISH DRAUGHT HORSE SOCIETY

Helen Kelly, Secretary, Derrynagara, Collinstown, Co. Westmeath.  
044 61199 idhs@eircom.net



#### **CONNEMARA PONY BREEDERS SOCIETY**

Michael Ward, Showgrounds, Clifden, Co. Galway.  
095 21863 enquiries@cpbs.ie

#### **Irish Moiled Cattle Society**

Contacts Secretary - Janet Kennedy  
185 Craigs Road, Cullybackey, Ballymena, BT367PN.  
Tel: 048 25880300 Email: janet.kennedy@ukf.net www.irishmoiledcattlesociety.com

#### **BIRDWATCH IRELAND**

Crank House, Banagher, Co. Offaly.  
Tel. 0509 51951 www.birdwatchireland.ie

#### **CRANN HEAD OFFICE**

Crank House, Main Street, Banagher, Co. Offaly.  
Tel. 0509 51718 e.mail info@crann.ie www.crann.ie

#### **ENFO**

17 St. Andrew Street, Dublin 2.  
Tel. 01 8882001 Fax. 01 8883946 e.mail info@enfo.ie

#### **IRISH SEED SAVERS ASSOCIATION**

Capparoo, Scarriff, Co. Clare.  
Tel. 061 921866 e.mail info@irishseedsavers.ie

#### **DEPARTMENT OF AGRICULTURE AND FOOD**

REPS Section, Johnstown Castle Estate, Wexford.  
Tel. 053 63400 www.agriculture.gov.ie

#### **ENVIRONMENTAL PROTECTION AGENCY**

P.O. Box 3000, Johnstown Castle Estate, Wexford.  
Tel. 053 60600 Fax. 053 60699 www.epa.ie

#### **FOREST SERVICE**

Johnstown Castle Estate, Wexford.  
Tel. 053 – 63400 www.agriculture.gov.ie

#### **NATIONAL PARKS AND WILDLIFE SERVICE**

7 Ely Place, Dublin 2.  
Tel. 01-6472300 www.duchas.ie

## APPENDIX B

### GUIDELINES FOR REJUVENATION/COPPICING/LAYING OF HEDGES/ESTABLISHING OF NEW HEDGROWS.

#### When is rejuvenation appropriate?

Unmanaged hedgerows have a natural lifespan of up to forty years and since there is only very limited natural regeneration (seeding) within a hedgerow, over time hedgerows lose vigour, become thin at the base and eventually die out. Rejuvenation allows the natural lifespan of hedgerow plants to be extended almost indefinitely.

Rejuvenation is major surgery and should only be carried out on relatively healthy i.e. not diseased hedgerows. Rejuvenation extends the natural life of the hedgerow by interrupting the natural aging process. When a hedge is cut, the plants will react in two ways. Firstly, dormant buds sprout just before the cut. Secondly, the plants begin to grow more vigorously to counteract the damage inflicted by cutting. This results in an overall thickening of the hedgerow.

#### A Comparison Between Coppicing and Laying Hedgerows

	Coppicing	Laying
<b>Effect of Species</b>	Most hedgerow species are suitable for coppicing. An exception is Beech	Most suitable for stems of 50 - 200mm diameter at the base. Height of approx. 2.5 - 4.5 metres.
<b>Effect on Shelter</b>	Loss of shelter.	Reasonable shelter retained.
<b>Effect on Wildlife</b>	Improves diversity of ground flora but generally worse for wildlife than laying.	Hedge retained can still flower and fruit and provide nesting for birds.
<b>Effect on Landscape</b>	Dramatic impact on landscape.	Less impact on the landscape and has advantage of aesthetic qualities.



## Laying of Hedgerows

- Hedgerow laying involves the part cutting through of selected stems, bending them over at an angle of 70 - 80 degrees and securing the branches and stems to stakes driven into the hedgerow bank. There are many variations of hedgerow laying. The most suitable and effective method should be chosen. Additional information may be found at <http://www.crann.ie/> and <http://www.teagasc.ie/>
- A downward angled cut is made (with a billhook, axe or chainsaw) approx  $\frac{3}{4}$  through the stem (experience will tell you how far to go). The stem is then laid over.
- The heel or stub is cut off at a sloping angle near the ground to encourage regrowth from the ground but also to prevent injury to livestock and allow water run-off.
- A long, thin tongue or hinge allows the laid stem to be twisted and positioned to best advantage.
- Laid stems are secured to prevent them being damaged by livestock rubbing or pushing against the hedge and to prevent damage from strong winds. Cut stems are secured to posts driven into the hedge bank interwoven with suitable rods (hazel/willow) to give stability.

## Coppicing of Hedgerows

Long neglected and overgrown hedges with sufficient vigour may be coppiced (cut back to 10 cm. from ground level). This may be carried out with a chainsaw or circular saw. Gaps should be filled by in-planting similar species. e.g. blackthorn or holly quicks. New growth that emerges from ground level must be protected by fencing from livestock and weed competition until established.

## New Hedgerow Establishment

### *Guidelines for Site preparation*

- Kill off a metre strip of vegetation beforehand by using one of the following methods:
  - Glyphosate is the preferred option in summer and repeat 4 weeks pre planting
  - Cover with black polythene (1m wide) at least for 6 months
- Plough or break up soil in a trench
  - 0.6m wide and 0.3m deep
  - using plough or mini digger with 25cm bucket
- Add well composted FYM or compound fertiliser
- Rotavate soil
- Mound planting is recommended where drainage is not ideal.
- Form a potato ridge. Deeper rooting depth leads to better drainage
- Avoid water logged, shallow and very exposed sites
- Ensure the site has sufficient soil
- Kill off grass and weeds beforehand
- Avoid planting the hedge too close to a wall or fence

### *Species selection*

Species selection should be considered in the context of the desired function of the hedgerow. Choose native plants raised from native seed sources. A multi-species hedge, will have more wildlife and aesthetic interest while a stockproof hedgerow will require a predominance of thorny species. A stockproof hedge should have a minimum of 80% thorny species.

Select species suitable to the site. A mix of species is more attractive and valuable to wildlife.

- Use hawthorn as the dominant species.
- Include other suitable species as desired: Choose from native plants e.g. blackthorn, hazel, holly, spindle, dog rose, crab, guelder rose etc.
- Look around you – follow nature's example.

### **Planting**

Plant between November and February

Don't plant in very wet or frosty conditions

- Plant density for a stock proof hedgerow should be 8 plants per metre run.
- Plant hawthorn in single rows (at c.140mm centres) or double staggered rows (c.400mm apart and c.375mm between rows).
- Plant a multi-species hedge in a single row at suitable plant spacings. Depending on species selection aim for 4- 6 plants per metre run.

### *Suggested plant density options:*

- 2-8 hawthorn/metre
- 2-6 beech/ metre
- 2-5 holly/ metre
- Other planting densities depend on species

### *After planting care*

Aftercare is essential for the successful establishment of the newly planted hedge!

- Trim back spindly top growth of hawthorn to encourage basal growth.
- Fence appropriately to exclude all stock and to protect against rabbits and hares.
- Grass and weeds must be controlled

Different control methods

- Black polythene



- Biodegradable mulches eg wood chippings
- Mechanical/manual control
- Herbicides applied according to Measure 6

Replace dead plants at the appropriate time.

#### NATIVE BROADLEAF TREES

SPECIES	OPTIMUM SITE	CHARACTERISTICS	REMARKS
Pedunculate Oak <i>Quercus robur</i>	Well-aerated deep fertile loams. Will do well on heavier soils	Slow growing, long lived tree once the climax vegetation over most of the country	Major forest species. One of our few native broadleaved trees. Very high amenity value
Sessile Oak <i>Quercus petraea</i>	Tolerates less rich and lighter textured soils than <i>Q. robur</i>	Oaks will not produce good timber on excessively drained or sandy soils	Major forest species. Native to Ireland. Now designated as Irish national tree
Ash <i>Fraxinus excelsior</i>	A very exacting species demanding good soil conditions, preferably sheltered, moist well-drained fertile loam soils	A fast growing species regarded as not being suitable for large scale planting	Major forest species. Native tree.
Wild Cherry <i>Prunus avium</i>	Fertile deep well-drained mineral soils. Preference for slightly acid soils but will do well on deep loams over limestone	Fast growing, light demanding, requiring considerable space. The only commercial broadleaved tree with attractive blossoms	Major forest species. Native tree. May suffer from bacterial canker and aphid attack
Alder <i>Alnus spp</i>	Common alder is a very hardy accommodating species suitable for wet sites. Good wildlife species. Grey and Italian alders will tolerate and grow well on drier sites. Italian alder is has a preference for more alkaline sites	Fast growing nitrogen fixing tree. Suitable broadleaf for even the wettest sites	Minor forest species. Common Alder is a native tree. Coppices freely and can be used in mixtures on very infertile sites. Valuable shelter tree

Birch <i>Betula spp</i>	Pioneer species suited to very acid soils and peats	Fast growing, hardy species, withstands exposure and frost well. Useful as a nurse crop in mixtures but must be kept under control or it will smother a slower growing tree species	Minor forest species. Native tree. Young trees coppice freely. May be used as a soil improver. Can be mixed into shelterbelts
Willow <i>Salix spp</i>	Useful species for wet sites and streamsides	Fast growing useful for conservation and amenity but rarely for timber production. Willow can be used in a variety of ways as a shelterbelt system	Minor forest species. Native tree.
Whitebeam <i>Sorbus aria</i>	Most fertile mineral soils	Attractive amenity tree also suitable for shelter	Minor forest species. Native tree. Tolerant of exposed and coastal sites
Rowan <i>Sorbus aucuparia</i>	Suitable for lowland and hill acidic sites. Will tolerate even alkaline sites	Hardy tree suitable for exposed sites. Widely used amenity tree	Minor forest species. Native tree. Offers good support for wildlife

#### NON-NATIVE BROADLEAF TREES

SPECIES	OPTIMUM SITE	CHARACTERISTICS	REMARKS
Beech <i>Fagus sylvatica</i>	Well drained, loamy, fertile soils with a preference for soils derived mainly from limestone	Tolerant of shade when young. Creates dense shade and suppresses ground vegetation as it reaches maturity	Major forest species. Non-native tree. Benefits from a nurse on exposed sites. Useful for under-planting. Grey squirrels can be very destructive particularly to young beech
Sycamore <i>Acer pseudoplatanus</i>	Prefers a moderately fertile free draining soil. Tolerant of calcareous soils	Fast growing tree that seeds easily. Withstands exposure and smoke pollution very well	Major forest species. Non-native tree. Grey squirrels can be very harmful. A windfirm tree. Rich in wildlife value. Valuable for shelter
Poplars Hybrid clones <i>Populus</i>	Very exacting species requiring deep, well drained moderately fertile sites	Very fast growing, light demanding tree. Some species susceptible to bacterial canker, select disease resistant clones only	Potentially major forest species. Non-native tree. Offers great prospects as Short Rotation Forestry species for pulpwood, paper and particle board



Red Oak <i>Quercus rubra</i>	Grows well on poor sandy soils	A fast growing tree, less suited to heavy soils	Minor forest species. Non-native tree. High amenity because of its red and russet colours in the autumn
Horse Chestnut <i>Aesculus hippocastanum</i>	Thrives on all except waterlogged sites but has a preference for fertile soils	An excellent amenity tree used mainly for avenues or as a specimen tree	Minor forest species. Non-native tree
Walnut <i>Juglans spp</i>	Deep, well drained, loam textured, moderately fertile soil. Suitable for well sheltered sites with a southerly aspect	<i>J. nigra</i> grows somewhat faster than <i>J. regia</i> but timber may not be as highly figured. Worth pruning to give a clean stem	Potentially major forest species. Non-native tree. Abnormal growths called "burr walnut" are much sought after for veneer, an example of diseased or malformed wood being more valuable than healthy timber
Lime <i>Tilia spp</i>	Grows on a wide range of sites, but prefers moist fertile limestone soils	Relatively fast growing. Suitable for planting as an amenity tree. Attracts swarms of aphids in summertime causing sticky "honeydew" to cover foliage that drips off to ground vegetation	Minor forest species. Non-native tree. Tree flowers are strongly scented and a great attraction for many insects and a rich source of nectar for bees
Norway Maple <i>Acer platanoides</i>	Prefers a deep, moist, alkaline soil. Tolerates less fertile and drier sites than sycamore. Avoid exposed sites and frost hollows	Fast growing tree when young. An attractive amenity tree. Greenish yellow flower makes a beautiful sight in early spring. Brilliant red, green and gold coloured leaves in the autumn	Minor forest species. Non-native tree. Grey squirrel can be very damaging

#### NATIVE CONIFER

SPECIES	OPTIMUM SITE	CHARACTERISTICS	REMARKS
Scots Pine <i>Pinus sylvestris</i>	Thrives on light textured or sandy soils. Tolerant of acid conditions. Avoid poorly drained or alkaline soils and exposure to coastal winds	A strong, light demanding slow growing tree. Can be used as a nurse species. Unsuitable for high elevations or shelter-belt	Major forest species. Once native but died out, now comes from imported sources. Regarded as the best conifer for both amenity and wildlife. Attracts insects, birds and red squirrels

## NATIVE HEDGEROW SPECIES

SPECIES	CHARACTERISTICS	SITES
Whitethorn (Hawthorn) <i>Crataegus monogyna</i>	Ubiquitous native hedge plant tough, hardy and fast growing. Withstands hard cutting and laying. Displays great variation in flower hue at blossom time. An important source of pollen and nectar for invertebrates ; major bee forage plant.	Tolerant of most soils except where very wet. Does not thrive at high elevations. Susceptible to Fire Blight disease; should not be planted near tree/shrub nurseries or commercial orchards.
Blackthorn or Sloe <i>Prunus spinosa</i>	Quickgrowing shrub, forming an impenetrable stockproof barrier when well established. Throws out root suckers requiring regular management. Excellent plant for gapping hedgerows. Stands up well to cutting. Can be propagated from rooted suckers. Tends to become bare at the base.	Blackthorn does well on heavy and sandy soils. Salt tolerant, suitable for coastal and exposed situations.
Hazel <i>Corylus avellana</i>	Hazel is very suitable to coppice and lay. It has high amenity and wildlife value: an important early source of pollen for bees. The coppiced stems have many uses.	Hazel does well on loams and mildly acid soils. Not tolerant of wet situations. Good choice for freedraining limestone soils.
Holly <i>Ilex aquifolium</i>	Slow growing evergreen with high amenity value. Forming a tough stockproof barrier. Good plant for gapping . Susceptible to frost damage.	Holly will grow on clay soils, sands and gravel. Very tolerant of shade. Will not grow on wet sites. Both male and female plants are required to produce berries.
Gorse ( Furze or Whin ) <i>Ulex europaeus</i>	Abundant in drier parts of Ireland. Does not form a good stockproof barrier on its own. Should be cut back hard when it gets leggy and thin at the base. Gorse should not be laid but trimmed in late Winter.	Gorse does well on poor light soils. Will grow on very dry and exposed sites where other species cannot thrive. It is salt tolerant and suitable for coastal and exposed sites.
Willow <i>Salix species</i>	Willow is a native tree, the many species hybridise readily. The tree is fast growing, producing heavy wood. The plant lends itself to laying. Willows make poor stockproof hedges yet have high wildlife and amenity value. The male flowers, catkins, are an early source of pollen for bees.	Useful for wet sites where species choice is limited. Will tolerate flooding. Can be propagated from hardwood cuttings.
Crab Apple <i>Malus pumila</i>	A good hedge can be made with crab, it is less impenetrable than Hawthorn or Blackthorn. Should be mixed with other species. Provides good wildlife habitat and has high amenity value.	Suited to free draining fertile soils, will not thrive in heavy cold clays. Crab apple occurs intermittently in hedgerows and where present should be retained and allowed develop to maturity.
Beech <i>Fagus sylvatica</i>	Beech does not make a good stock proof barrier but provides excellent shelter. As a hedge it retains its withered leaves throughout the winter. Will keep a narrow base whatever height it is allowed to grow to.	Beech will grow on any dry site especially on limestone soils, tolerant of exposed coastal conditions. Casts dense shade, allowing little to grow under its canopy. Not a good hedgerow species if allowed to develop.



### NATIVE HEDGEROW SPECIES contd.

SPECIES	CHARACTERISTICS
Elm. <i>Ulmus species</i> in particular <i>Ulmus glabra</i>	Wych Elm ( <i>Ulmus glabra</i> .) is a rare native now only encountered in mountain glens in the North West. English elm ( <i>Ulmus procera</i> ) was reintroduced in Norman times. Elm never attained the importance in hedgerows here as in England. It was originally planted as an ornamental parkland tree. Despite the ravages of Dutch Elm Disease, it is often encountered in hedgerows as suckers that may eventually succumb to the disease. Where present, it should be retained.
Dog Rose <i>Rosa species</i>	Dog Rose and other related rose species are a common constituent of hedgerows scrambling through trees and shrubs. Their blossoms and fruit (hips) have high amenity value and are an important source of food for wildlife. Where present they should be retained..
Briars, Blackberry <i>Rubus species</i>	Briars often provide extra stockproofing in a hedge. The flowers and fruit provide a wide range of food for wildlife. Blackberry is an important bee plant in Ireland. Briars left unchecked will encroach out into fields by means of tip rooting and should be controlled.
Guelder Rose <i>Viburnum opulus</i>	Handsome hedgerow shrub with high amenity value. Large vigorous shrub with lobed maple like leaves which colour richly in Autumn. The white flowers produced in June and July are followed by crimson fruits which are eaten by birds.
Elder <i>Sambucus nigra</i>	A ragged, gnarled, small tree common in hedgerows with greyish corky bark and branches containing a soft pith. The white flowers are followed by bunches of purplish fruits. Flower and fruit provide food for a wide rang of wildlife species.
Woodbine, Honeysuckle <i>Lonicera periclymenum</i>	Woodbine is a climbing shrub scrambling through hedgerow trees and shrubs. It has high amenity value. The fragrant flowers provide nectar and pollen for insects and are followed by crimson berries readily eaten by birds.
Clematis. Travellers Joy <i>Clematis vitalba</i>	A climbing shrub often completely covering hedges and bushes. It climbs by twisting it's leaf stalks around other plants. The small insignificant greenish cream flowers attract bees and flies. The masses of feathery fruits so conspicuous in Autumn and Winter give this plant the colloquial name "Old Man's Beard". A shrub that thrives in limey soils. Beautiful shrub of the Autumn hedgerow particularly eye-catching after overnight frost.
Spindle-tree, Pegwood <i>Euonymus europaeus</i>	Vigorous green stemmed hedgerow shrub occasionally a small tree. The wood is very hard and was used in former times to produce wooden skewers and clothes pegs. The small greenish flowers are followed by eye catching scarlet 4- lobed seed capsules: Spindle or Peg wood is a strikingly beautiful shrub in winter.

### NON-NATIVE HEDGEROW SPECIES

SPECIES	CHARACTERISTICS
Privet <i>Lingustrum vulgare</i>	Medium sized bushy shrub, partially evergreen, closely related to the hedging species, <i>Ling strum oval folium</i> , a Japanese import. Flowers white, heavily scented followed by small black berries.
Sea Buckthorn <i>Hippophae rhamnoides</i>	Shrub of coastal areas. Will succeed in almost any soil. A dense bushy shrub 1-1.5 m high: branches armed with stout spines. Small green flowers followed on female plants by attractive orange-yellow berries, which are normally avoided by birds. Excellent shrub for maritime exposure.
Snowberry <i>Symphoricarpus rivularis</i>	A twiggy shrub with small pinkish flowers followed by white globular fruits. Spreads freely by root suckers. The white globular fruits are very striking in the Winter hedgerow.
Dogwood <i>Cornus sanguinea</i>	The straight red stems of this shrub are very conspicuous in hedgerows in Winter. It grows to six foot, has dark - green untoothed opposite arranged leaves that turn dark red in Autumn. The hawthorn scented white flowers are followed by black fruits. Dogwood is common in limey soils and roots readily from hardwood cuttings stuck in Autumn.

### Ivy. *Hedera helix*.

Ivy is a native evergreen plant with high wildlife value: it provides habitat for insects and nesting sites for birds. It flowers late in the Autumn and is the last important nectar and pollen plant available to insects. The black fruits which ripen in spring are eaten by birds and small mammals, in particular by pine martins. Ivy is not a parasitic plant: the small rootlets put out by the climbing shoots help the plant to adhere to its support: they have no penetrative powers. In trees, ivy clings to its host, it does not feed on it, and while the tree is in good health the ivy will be a secondary plant and although ascending the trunk and branches can do no harm. Should the tree decline for any reason and fail to leaf the ivy will take over as is often seen on elm that has succumbed to Dutch Elm Disease. To some ivy clad trees are unsightly and where deemed necessary the ivy should be managed. Ivy could be allowed to develop on some trees within a hedgerow but controlled on others or allowed to grow unchecked for many years and controlled when the growth becomes too heavy. On sound walls ivy is harmless and in fact beneficial, keeping them dry in winter and cool in summer. Walls that are very weak can be pulled down if a weight of ivy has bushed out at the top of the wall and then becomes heavy with snow or rain and susceptible to the pull of strong winds. Clipping obviates this possibility and the life of many walls could be prolonged by a well managed ivy cover. Ivy covered walls should be clipped over in late Spring.

Wherever possible ivy should be retained and allowed to develop. If required ivy can be removed from trees and walls by cutting the stem just above ground level and making a second cut at least 10 cm. above the first cut. The resultant detached section of stem should be removed.

### Climbing plants suitable to screen a building or wall

#### *Self clinging plants.*

**Ivy:** *Hedera species*. Green leafed varieties should be chosen. Ivy is a shade loving plant should not be grown on a South facing wall.

**Climbing Hydrangea:** *Hydrangea petiolaris*. vigorous, climbs by aerial roots. deciduous.

**Virginia Creeper:** *Parthenocisus tricuspidata*. vigorous, deciduous.

#### *Climbers Requiring Support*

**Honeysuckle:** *Lonicera periclymenum*. needs support to climb.

**Russian vine:** *Polygonum baldschuanicum*. very vigorous rampant, twinning plant, needs support to climb.

### Coppicing:

Only broadleaf tree species are suitable; in general conifers do not regenerate from cut stumps.

#### *Tree species which will regenerate when coppiced.*

Hawthorn (***Crataegus monogyna***), Birch (***Betula pendula***), Alder (***Alnus glutinosa***), Willow (*Salix alba*), Poplar (***Populus nigra***), Beech (***Fagus sylvatica***), Ash (***Fraxinus excelsior***), Sycamore (***Acer pseudoplatanus***), Oak (***Quercus spp.***), Hazel (***Corylus avellana***), Sweet Chestnut (***Castanea sativa***), Holly (***Ilex aquifolium***) will all regenerate when coppiced.

### Tree species suitable for screening farmbuildings etc.

*Select a species mix from the following:*

**Deciduous Species:** Birch, (***Betula spp.***), Holly, (***Ilex spp.***), Whitethorn (***Crataegus spp.***),



Alder (***Alnus spp.***), Oak (*Quercus spp.*), Ash (***Fraxinus spp.***), Wild Cherry (***Prunus avium***), Mountain Ash, (***Sorbus aucuparia***), Beech (***Fagus sylvatica***), Sycamore (***Acer pseudoplatanus***), Field Maple (***Acer campestre***), Norway Maple, (***Acer platanoides***). Lime (***Tilia spp.***)

**Conifers:** Larch (***Larix spp.***), Scots Pine (***Pinus sylvestris***), Corsican Pine (***Pinus nigra var. maritima***). Monterey Pine (***Pinus radiata***). Lawson Cypress (***Chamaecyparis lawsoniana***) Western Red Cedar (***Thuja plicata***). Western Hemlock (***Tsuga heterophylla***), Macrocarpa (*Cupressus macrocarpa*), Korean Fir (***Abies koreana***).

#### **Tree and Shrub species suitable for coastal exposed sites.**

##### **Trees:**

##### **Conifers:**

Sitka Spruce (***Picea sitchensis***), Lodgepole Pine (***Pinus contorta***), Corsican Pine (***Pinus nigra var. maritima***), Maritime Pine (***Pinus pinaster***), Monterey Pine (***Pinus radiata***)

**Broadleaf trees:** Sycamore (***Acer pseudoplatanus***) Strawberry Tree (***Arbutus unedo***), Willow (***Salix species***). Alder (***Alnus glutinosa***), Holm Oak (***Quercus ilex***). White poplar (***Populus alba***). Elder (***Sambucus nigra***).

##### **Shrubs:**

**Escallonia** in species and variety, Burnet Roses (***Rosa pimpinellifolia***), **Rugosa** roses, **Hypericum calycinum**, **Griselinia littoralis**, **Phormium tenax**, **Tamarix**, **Viburnum tinus**, **Ulex europeus**, **Eleagnus**, **Euonymus**, **Fuchsia magellanica**, **Senecio greyii**, **Pittosporum**, **Hebe**, **Olearia species** in particular *O. traversii*, *O. albida*, *O. macrodanta*. **Hipophae rhamnoides**, **Lupinus arboreus**, **Atriplex halimus**.

## APPENDIX C

### BIRD BOXES

Some birds nest inside holes in old or damaged trees. Where there are no natural holes they may use nestboxes, if natural food is available nearby.

#### Designing a Nestbox

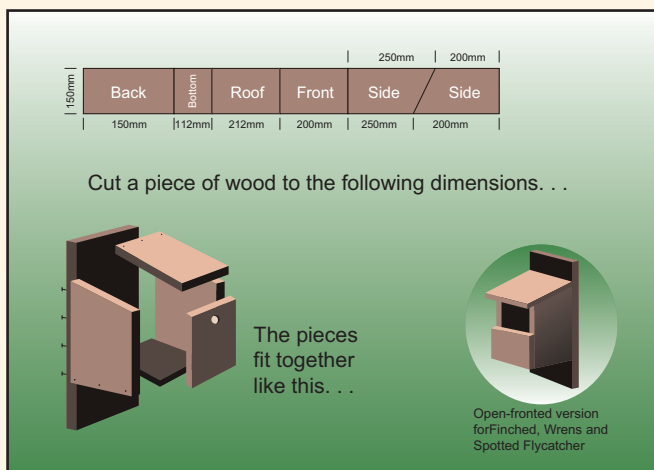
Birds are different sizes, but will use 'standard' boxes, if you change the size of the entrance hole to suit them. Blue Tits and Great Tits are most likely to use these.

With a large front opening, this box is used by birds that nest in cracks and among creepers, such as Robins, Wrens and Spotted Flycatchers.

#### Making a box

- Use solid wood or exterior-grade plywood, about 1.5cm thick. Thin wood is not weather-proof and most other materials will not last long outdoors.
- Use nails, screws or weather-proof glue to join the pieces together.
- Decide the size of the entrance hole.
- Use a brace and bit, a holesaw or a fretsaw to make the hole.
- A new box will show up to predators and vandals. Paint it with a modern preservative stain which is non-toxic.

**Warning:** Do not use creosote.



#### Shade provision

Shade the box from the sun, especially if it is on a wall. The box should face north or east in order to face the entrance away from the worst of the wind and rain.

Tilt the box slightly forward to keep water away from the hole.



### *Location*

Nestboxes near bird tables are not a good idea. Birds trying to nest are disturbed by those that come to feed.

For tits, the box must be no more than 30 metres away from trees where they can collect insects for their young.

It is best not to feed birds during the nesting season - Natural food is better for them and their young.

**Warning:** Keep boxes away from places where cats can reach.  
Nestbox hole diameters



### *Using the box*

- Be careful not to disturb birds using the box. A frightened bird may desert and leave its eggs or young to die. Watch from a place that does not worry the birds.
- In autumn, when nesting has finished, the old nest material can be cleared out. This stops parasites such as fleas from living in the box until next year.

Further information can be found at <http://www.birdwatchireland.ie/>

## APPENDIX D

### AGREED FARMING CONDITIONS FOR:

- CONSERVATION OF THE BURREN
- CONSERVATION OF BLANKET BOGS, HEATHS AND UPLAND GRASSLANDS
- CONSERVATION OF SAND DUNES AND MACHAIRS

### CONDITIONS FOR THE CONSERVATION OF THE BURREN TO BE APPLIED UNDER THE RURAL ENVIRONMENT PROTECTION SCHEME (REPS)

The conditions applicable to Supplementary Measure A apply; the guidelines set out below are complementary to these conditions.

#### CONDITIONS FOR THE CONSERVATION OF THE HIGH BURREN.

No environmentally damaging activity is permitted. In particular the following conditions apply:

#### WINTERAGE AREAS

Grazing is prohibited in areas identified as winterage on the REPS map from May to September inclusive.

Summer grazing of all winterages is permitted for a total of one week in the months of June or July, depending on weather conditions. The farmer must inform the Department of Agriculture and Food in writing each year in advance of the week selected.

#### STOCKING DENSITY

Sustainable optimum stocking levels should be set down by the REPS planner following careful assessment of the environmental conservation needs of the farm. Where the stock levels set by the planner require a reduction in stock numbers this must be achieved within one year of the commencement of the plan. Where there is a need for stock increases this can be achieved as determined by the planner. Sheep must not be introduced to new areas.

#### SUPPLEMENTARY FEEDING

Supplementary feeding is permitted only on lands where it is currently practised. The number of cattle being fed cannot be increased nor can the total amount of feed used be increased. The amount of feed should not, in any event, exceed 1.25 tons of silage (or the equivalent in other feed) per livestock unit (LU) or 50% of the feed requirement of the animal for the feeding period. In normal years, supplementary feeding to livestock will be confined to a 9 week period between January 15th and April 12th with the period to be chosen by the farmer and notified to the local office of the Department of Agriculture and Food. In the case of calves meal may be fed from weaning time.

In unusually severe winters, feeding can be permitted outside of this period with the prior agreement of the Department of Agriculture and Food after consultation with the National Parks and Wildlife Service (NPWS). All supplementary feed must be provided either in round feeders, hay racks or mobile feeders which must be located at "feeding points" described and specified in the farm plan. Locations



should not be on bare pavement, but should be on areas of deeper soil preferably those which already have a low plant species diversity. Locations should be chosen to reduce the possibility of ground water pollution or changes in the flora, to minimise visual impact and also comply with the requirements of Measure 2.

### **FARM IMPROVEMENT WORKS**

No land improvement works, infilling or rock removal are permitted unless with the prior approval of the National Parks and Wildlife Service. However, the control of scrub by chain saw or other brush cutting tools is permitted.

### **USE OF FERTILISERS AND HERBICIDES**

Neither organic nor inorganic fertilisers may be applied. All spraying or broadcast application of herbicides should be avoided, but spot application and wipe-on treatments to eradicate docks, thistles, ragwort and similar noxious weeds can be used. Farmyard manure must not be stored in fields for composting and any accumulation of such manure at feeding points must be removed at the end of the feeding season.

### **GROUNDWATER POLLUTION**

The greatest care should be taken on the high Burren to observe the national regulations on agricultural pollution. The hydrology of the Burren is such that pollutants run into local lakes very quickly. Planners should identify suitable feed storage areas so that the groundwater is protected.

### **CONDITIONS FOR THE CONSERVATION OF NATURAL HERITAGE AREAS (NHAS) IN THE BURREN FOOTHILLS**

Relatively intensive farming practices in these areas require careful management to avoid nutrient pollution of the internationally important wetlands of the region. It is particularly important that phosphate leaching from these areas to the wetlands be kept to an absolute minimum. REPS plans must be drawn up to meet these requirements.

They must also meet the following specific requirements:

#### **SOIL SAMPLING**

Where fertilisers are being applied the initial soil sampling areas should be relatively intensive with at least one sample per 2-4 ha.

#### **PHOSPHATE RESTRICTIONS**

Soil phosphate levels must not be increased above the Index 2 level set in the Department's REPS agri-environmental specification. Where they are already above that level no chemical phosphates can be applied. In any event existing phosphate levels may not be increased.

#### **NITROGEN AND POTASSIUM RESTRICTIONS**

Nitrogen and Potassium should only be applied at rates that can be effectively used in conjunction with the Phosphorus levels prevailing in the soil.

#### **SLURRY AND WASTE SPREADING**

Slurry and waste spreading is acceptable as long as the quantity spread does not exceed 25 cubic metres

per hectare per application and does not occur within 50m of lakes or winter flooded areas. It should be spread only after grass growth has started. All slurry must be spread by the end of August.

### **FARMYARD MANURE**

Where possible it should be recycled to the area from which hay or silage was obtained. Farmyard manure must not be stored in fields for composting and any accumulation of such manure at feeding points must be removed at the end of the feeding season. No agreements should be made to landspread manure produced on other farms.

### **WATERCOURSE PROTECTION**

Extreme care should be taken to ensure that neither fertilizer nor silage effluent enters streams and watercourses.

### **MONITORING THE EFFECTS OF REPS IN THE BURREN**

It is essential to research and monitor the environmental impact of REPS in the Burren region by comparing the effects of practices on REPS farms with practices on other farms under the following headings:

- Environmental effects,
- Agricultural effects, in terms of inputs and outputs, and
- Socio-economic effects

Arising from the results of these studies it may be appropriate to modify the "Conditions for the Conservation of the Burren" to be applied under the Rural Environment Protection Scheme (REPS).

### **Conditions for the conservation of blanket bogs, heaths and upland grasslands proposed or designated as nhas under the Rural Environment Protection Scheme**

#### **General Provisions**

These conditions for specific habitat types are supplementary to the agri-environmental plan requirements of the general REPS programmes. The conditions for the target areas under Supplementary Measure A apply. Planners may seek a derogation from the Regional Inspector to vary these conditions in individual cases. All REPS plans in respect of NHAs must be approved and signed by the Planning Agency's environmentalist/ecologist.

#### **Detailed Conditions**

The conditions applicable to Supplementary Measure A apply; the guidelines set out below are complementary to these conditions.

#### **Stocking Density**

In all cases an environmentally sustainable plan must be prepared and adhered to for the total area of the farm. Sustainable optimum stocking rates must be set down by the REPS planner following careful assessment of the environmental conservation needs of the lands.

Where the stocking levels set down by the planner require a reduction in stock this must be achieved within one year of the commencement of the plan.



There can be no increase in stocking levels, no introduction of stock to new areas and no changes in stock type during the period of the REPS plan without the prior approval of the Department of Agriculture and Food.

The maximum number of sheep that may be kept on the farm as a whole must be set down in the REPS plan. The conditions set out for Supplementary Measure A areas must be followed. The following parameters apply:

- Where there is no damage the current stocking levels are acceptable.
- If the level of damage is moderate a stocking reduction must be prescribed by the planner at a level related to the damage and sufficient for the vegetation to recover.
- If the level of damage is severe, a stocking reduction of between 70% and 100% of ewe numbers on the damaged area must be prescribed for a specified period.
- At the review of the REPS plan, the conservation status of the areas will be reviewed. A change in the stocking levels (increase or decrease) may be appropriate depending on progress.

Stocking levels apply to Scottish Blackface sheep or similar medium sized sheep breeds. Stocking levels for cattle or other stock should be at livestock unit applicable rates taking account of Department of Agriculture and Food conversion rates for the various stock types. The stocking levels recommended in this document are maximum sustainable rates for year round grazing. If shorter periods of grazing are used the number of animals may be increased, though not necessarily pro rata.

### **Supplementary Feeding**

Supplementary feeding is permitted only on areas where it is currently practised. Locations of feeding points must be specified. To reduce heavy grazing, trampling, poaching and erosion problems, "feeding points" should be moved every 3 weeks and sited on ground with least habitat and wildlife value, preferably on grassland well away from stands of heather. Feeding on steep slopes and on peaty soils should be avoided where possible. The total amount of feed used must not be increased.

### **Use Of Fertilisers And Herbicides**

Neither organic nor inorganic fertilisers or lime can be applied on bogs, heaths or upland grasslands where they have not been used before. Fertilisers must not be used as a means of regenerating eroded areas. In the case of upland grasslands fertilisers can only be applied on the basis of the results of a soil test. Where fertilisers are being applied, the initial soil sampling should be relatively intensive with at least one sample per 2- 4 ha. Target soil phosphate levels must not exceed the Index 2 level set out in this specification

Spraying or broadcast application of herbicides must be avoided. Spot application and wipe-on treatments to eradicate docks, thistles, ragwort and similar noxious weeds may be used. Rhododendron may be removed by cutting and herbicide treatment. Bracken control may be by rolling, cutting and/or by controlled cattle trampling in early summer. In exceptional circumstances control of bracken by herbicides may be permitted.

### **Water Pollution**

The greatest care should be taken to observe the statutory requirements on water pollution. The hydrology of bogland areas is characterised by extremely nutrient poor surface waters which contain

flora and fauna adapted to these conditions. These species would be adversely affected by nutrient enrichment. New sheep dip sites must be listed and located away from streams and flushes to reduce the possibility of water pollution and damage to flora and fauna.

### **Restricted And Prohibited Practices**

The following practices must not be carried out on Blanket Bogs, Heaths or Upland Grasslands:

- The areas must not be drained, ploughed, cultivated or reseeded.
- There must be no infilling or rock removal.
- Turf cutting on unexploited bogs is not permitted. Turf cutting for domestic use is permitted on existing banks.
- Planting of trees or other crops is not permitted.
- No new tracks or paths can be created.
- Burning is only allowed as a planned management practice.
- Gorse may be controlled by cutting, spot spraying or exceptionally by burning outside of the bird nesting season (March 1st. to August 31st).

## **FARMING CONDITIONS FOR SAND DUNE AND MACHAIR AREAS**

### **General Provisions**

The conditions set out in this document are supplementary to the farming conditions for the general REP Scheme for REPS. The conditions for the target areas under Supplementary Measure A apply. Planners may seek derogation from the Regional Inspector to vary these conditions in individual cases. All REPS plans in respect of NHAs must be approved and signed by the Planning Agency's environmentalist/ecologist.

### **Detailed Conditions, Sand Dunes and Machairs**

The conditions applicable to Supplementary Measure A apply; the guidelines set out below are complementary to these conditions.

#### **Description**

Sand Dunes and Machairs are coastal habitats consisting of hills and hollows in which unique communities of plants and animals are found in response to the very demanding nature of the dry, windy and salty environment.

Machairs are flat, level plains over lime - rich sands which have evolved in response to a unique interaction between wind, high rainfall and historical land use. They are found only in western Ireland and Scotland.

### **Farming Conditions Recommended For These Areas**

The primary recommendation is to avoid farming practices that cause environmental damage and all the following recommendations are designed to meet that objective. If a practice is environmentally



damaging it must be stopped or modified, but the following are general guidelines and may be superseded by specific recommendations for individual farms. The National Parks and Wildlife Service (NPWS) of the Department of Environment, Heritage and Local Government or the local Agriculture, Environment and Structures (AES) Division office of the Department of Agriculture and Food should be contacted if the situation on-farm warrants an exception to the general rules.

### **Grazing Regime**

The conditions for Supplementary Measure A areas apply. It should be noted that on sand dunes and machairs, the objective is to maintain extensive agricultural practices, and to prevent a further increase in stock numbers. Cattle stock must be kept at the level the land can support - see also the section on Supplementary Feeding.

Cattle grazing should continue in line with traditional practices. The land should normally be grazed only in winter. However, in areas where Summer grazing has traditionally (i.e. over the previous 10 years) been practised, this can continue, provided, of course, that stock levels at all times do not exceed what the land can bear on a sustainable basis. Grazing on young and fore-dune areas should be avoided.

Where conditions warrant, grazing levels must not exceed 1 Livestock Unit (LU) per hectare on a year round average and must never exceed 2 LU at any one time. This change would enable 2 LUs to be overwintered on the sand dune/machair provided it is deemed to be sustainable by the planner. The introduction of sheep into areas where they have not been traditionally grazed should be avoided, but areas which have kept sheep traditionally can retain them, though perhaps at a lower level.

### **Sustainable Stocking Levels**

In general the provisions of Supplementary Measure A apply. Stocking levels for each farm should be set by the REPS planner or the Department of Environment, Heritage and Local Government (NPWS) planner in the farm plan. The levels should be set below the level which causes eutrophication, overgrazing, or erosion, but still high enough to control the encroachment of coarse vegetation and scrub. Where the stock level set by the planner requires a reduction, this must be achieved within 12 months of the start of the plan. Where the stock level is to increase, this can be spread over the period of the plan, as specified by the planner. The same level will apply for a REPS plan as for an NPWS plan.

The NPWS will prepare a conservation plan for each area to cover all aspects of the SAC in question, including farming. In so far as the farming aspects are concerned, the plan will be prepared in consultation with the Department of Agriculture and Food in accordance with the terms of these conditions. Where an area conservation plan has been prepared for the SAC in question, this should be used to assist in determining where damage has occurred or is occurring, where damage is moderate, and where damage has not occurred. Official conservation plans, when available, can be obtained from the local office of the NPWS.

### **Supplementary Feeding**

The introduction of supplementary feeding can bring additional nutrients into sand dune and machair areas, and thus bring about a very fundamental change in the vegetation of these areas.

The use of silage and other feed can facilitate excessive stocking levels and may lead to pollution of groundwater. Consequently, the use of any supplementary feeds in areas where it has not been customary over the last ten years may be allowed only in consultation with the Department of Agriculture and Food and the Department of Environment, Heritage and Local Government. Round-baled silage can be stored in these areas. Loose silage can only be stored where an approved effluent collection system is in place, and the effluent is removed from the machair/sand dune.

No supplementary feeding can take place on young and fore-dune areas.

In machair and grey dune areas where supplementary feed has been used over the last 10 years it may be continued, provided that:

- The number of LUs fed does not increase;
- The species of stock fed does not change;
- The total amount of feed equivalent does not increase;
- The amount of feed does not exceed 3.5 tonnes of silage or 0.75 tonnes of hay per LU;
- No meals and concentrates are fed.

However, in exceptional circumstances, such as in unusually severe weather conditions (i.e., when there are heavy snowfalls or floods), and with the agreement of the National Parks and Wildlife Services, feeding will be permitted. Weanling cattle may be fed small quantities of concentrates.

### **Cultivation, Reseeding And Pesticides**

Ploughing, harrowing or any other form of cultivation must be avoided since this will destabilise the dune structure. Small traditional tillage plots on machairs may be retained.

The bringing in of any seeds to these areas will disturb the vegetative balance on which the dune depends and must be avoided. The feeding of hay should only be from round feeders.

The fixed dune parts of sand dunes are essentially areas with low levels of plant nutrients in the soil and this has contributed to the development of their distinctive flora. These are also areas most used for grazing. However, the spreading of organic (slurry, FYM), or inorganic fertilisers must not take place as the flora in these areas would be damaged.

On machairs, where fertiliser has not been applied in the past, none can be applied now. However, where low levels of phosphorus have traditionally been applied on machairs, this may continue, provided that the soil Phosphorus levels do not increase above their present levels or in any event do not exceed Soil Index 2.

### **Pesticides And Herbicides**

All spraying or broadcast application of herbicides must be avoided, but spot application and wipe on treatment to eradicate docks, thistles and similar noxious weeds can be used.

### **Animal Treatments**

Worm doses may be used normally, but animals which have been given pesticides the residues of which persist in the dung must be kept off the dune for at least a week after treatment.

### **Dumping And Infilling**

The dumping of domestic or industrial refuse, farm wastes, rubble, rock, or any similar materials which could disturb the natural environment by bringing in unsuitable nutrients or unsuitable soils and seeds must be avoided.



## APPENDIX E

### CORNCRAKE HABITAT AREAS

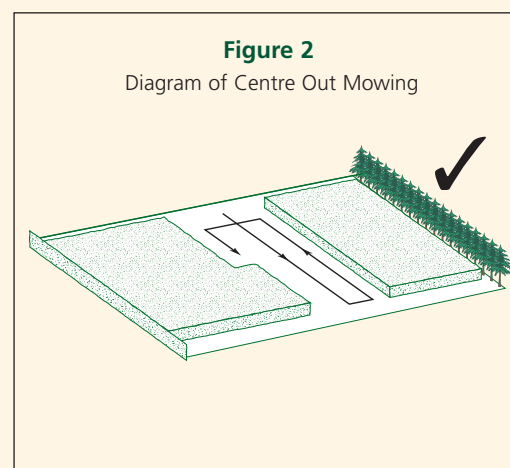
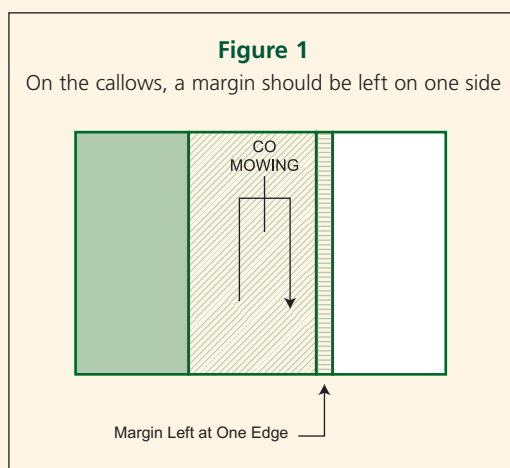
For farmers wishing to participate in this measure the planner must identify those areas of the farm that are in the Corncrake habitat area which are maintained as hay meadow. Farmers with grazing areas inside the corncrake habitat area may also, if they wish, sign up for the corncrake supplementary measure. In any case the identified area/s must be maintained as a Hay meadow for the duration of the plan.

#### Managing Corncrake Habitat Areas

The corncrake habitat area must be managed as follows:

##### A. Management practices applicable annually for Corncrake habitat maintenance

- Grazing is not permitted on the corncrake habitat area(s) after March 15th. Traditional grazing practices to be maintained. "Traditional " means practices in use over the previous ten years. The planner shall determine what constitutes traditional practice which shall include the numbers and type of livestock, the species used and the seasonal grazing pattern. Sheep and/or goats are not to be introduced into areas where they have not been traditionally found.
- Meadows must not be mown before August 1st but centre out mowing is not required.
- A 2 metre margin must be left uncut to on one side to provide cover. See fig 1. These can be cut after 1st September. Note: On the very narrow callows of Mather's Callow, Minus Island and Borannagh the farmer and fieldworker can agree an appropriate width of margin.



- Meadows must be mown annually except when ground conditions make this impossible.
- No supplementary feeding to be introduced into areas where it was not traditionally done. Traditional to be interpreted as previously defined.
- The application of all fertilisers, including slurry, is prohibited in the area covered by normal winter floods and the area within 30 metres of the normal winter flood line. Callows hay meadows which have been traditionally fertilised are an exception and may be fertilised.
- Maintenance of existing drains shall be permitted and no other drainage works shall be embarked upon except with the prior agreement of NPWS. Any such permission shall be written into the plan at the time such plan is prepared.
- No dumping or infilling is allowed. Disposal of agri-waste, such as spoiled hay, is considered dumping and is prohibited. The piling and subsequent burning of waste hay is permitted on site. The importing of materials from other sites for the purpose of burning is strictly prohibited.
- No reseeding, reclamation or tree planting shall be permitted except with prior agreement with NPWS and any such agreement shall be included in the plan.
- Construction of new roads (including culverts and bridges) permitted only by specific agreement with NPWS. Any such agreement to be written into the plan. The maintenance of existing roadways is not restricted.
- Noxious weeds that cannot be controlled mechanically maybe controlled by spot treatment.

## B. CORNCRAKE PROTECTION MEASURES

In any year when a nesting corncrake is identified on the Corncrake habitat area by BWI, additional management practices as described below must be followed. In these years the farmer will be notified not later than June 30th by BWI of the presence of nesting Corncrakes.

- The corncrake habitat area(s) must not be cut or topped before August 10th.
- Meadows in the corncrake habitat area must be cut by the "centre out" method illustrated in diagram (see Figure 2). Centre out mowing involves either -
  - Cutting a small area for turning at either end of the field, mowing down the centre of the field and then continuing to mow from the centre outwards; or
  - Driving to the centre of the field, leaving a small island of grass in the middle and continuing to mow in a spiral outwards. The remaining island can then be slowly strip-cut at the end; or cutting the field in strips from one side to the other.
- It is not permitted to cut any rounds around the outside of the field before starting centre-out mowing. If any rounds are cut outside-in, this does not constitute Corncrake Friendly Mowing, and the grant will not be paid. If you are unsure about the best method to use, the Corncrake Fieldworker may be consulted for further advice about mowing.
- A 2 metre margin must be left uncut on one side to provide cover. See fig 1 above. These can be cut after 1st September. Note: On the very narrow callows of Mather's Callow, Borannagh Callow and Minus Island, the farmer and fieldworker can agree an appropriate width of margin.



- In relation to centre out mowing, the applicant must notify the fieldworker as early as possible before mowing the area. If no attempt is made to contact the fieldworker in advance of mowing, a penalty will be applied.

The REPS SM 1 payment will cover delayed mowing up to August 10th . If later cutting is deemed advisable by BWI, Birdwatch Ireland will contact the farmer to discuss this option and the additional amount payable under the NPWS/BWI Corncrake Grant Scheme.



# NOTES



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