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GAME ENVIRONME

2013

#### Introduction

Welcome to the new 2013 HiBird Gamecover and Environmental Crops guide. Many crops last year struggled with our variable weather conditions, a late spring, followed by the wettest six months since records began, making crop establishment extremely challenging and difficult.

To help you get the best from your seed investment we have included in this guide some essential information, listed below, that will help get your crop off to the best possible start.

- Successful crop establishment
- Crop solutions for difficult sites
- Herbicide information
- Seed mixtures that you can spray!
- Crop Agronomy

We hope you find our guide useful and informative.



#### What you can expect!

#### **Seed Quality**

We have our own FERA licensed seed testing laboratory on site that ensures each seed batch is checked for germination and purity prior to packing and despatch. We can ensure that when you order any HiBird product that it has been fully tested and approved for sale.

#### Research

All of our products have been fully tested and researched at our own dedicated trial site near Lincoln. Only products that have passed this test are sold commercially.

Our joint research with BASF has continued to produce up to date information on the effective use of herbicides to help you maximise crop establishment (see page 15).

#### **Service**

We aim to ensure that our seed is packed and tested during the winter months and is available as a stock item when you order.

Our systems allow us to track your order through our despatch department and we can monitor its progression right up to the point that it is delivered to you.

#### **Packaging**

Top quality seed deserves good packaging! We have updated our packaging range to ensure that the HiBird seed we deliver to you arrives in good condition. Most of our seed is now packed in distinctive polywoven weatherproof bags, which should reduce the incidence of broken bags and lost seed.











#### Plant Breeding Programmes

As one of the world's major plant breeders – Limagrain are continuously striving to improve plant genetics to benefit crop production.

As an International cooperative owned by farmers we know that our plant breeding skills can be used to improve the performance of key varieties used for animal production.

We have plant breeding programmes in many of the key crop groups such as:

Maize - Varieties bred specifically for the UK

**Fodder Beet** – Varieties capable of delivering very high dry matter production with clean, easily harvested roots.

Cereals - Varieties with excellent agronomic benefits

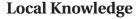
**Forage Brassica** – We currently have breeding programes for Swede, Forage Rape and Kale.

**Oilseed Rape** – superior varieties with excellent UK agronomic features

**Grass** – breeding high dry matter yielding varieties that can be cut and silaged or grazed frequently.

Forage Rye – Varieties that can deliver high yield performance.

**Peas** – Forage, combining and vining varieties are bred in the UK.



Our local knowledge about UK farming practices and conditions ensures we only select the best of the best for our own climatic conditions. Not all varieties perform well in the UKs varied climate and our breeding and trials teams ensure that our varieties have been fully trialled and tested before commercial sales are undertaken.











Many of the varieties listed in this guide have been bred by **The James Hutton Institute** in Dundee. They represent varieties that have been bred in Britain for our conditions and offer an excellent combination of both yield and disease resistance.

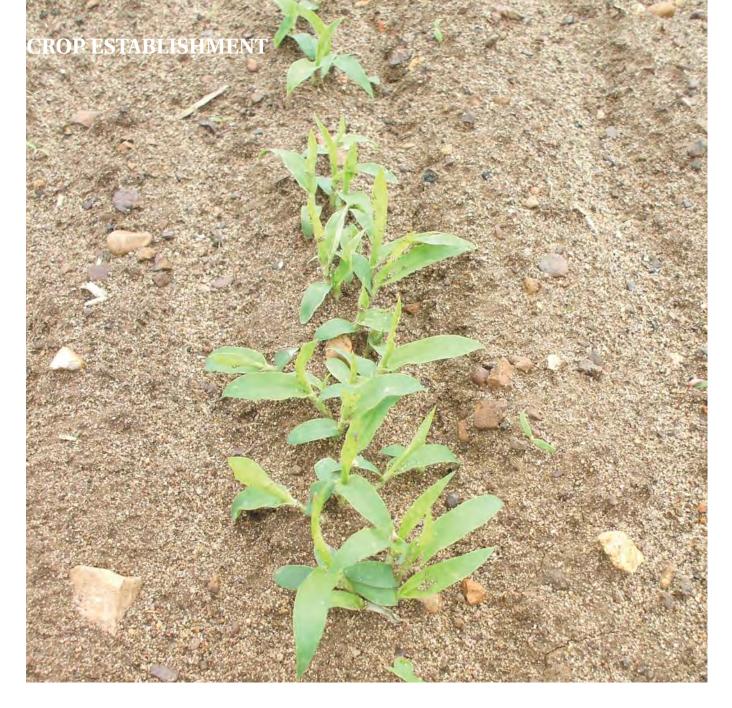


#### **Shooting Seasons**

The chart below lists the shooting seasons, the dates shown below are when you can shoot the quarry.

Shooting Seasons		
Game	From	То
Pheasant	October 1st	February 1st
Partridge	September 1st	February 1st
Grouse	August 12th	December 10th
Ptarmigan	August 12th	December 10th
Black Grouse	August 20th	December 10th
Common Snipe	August 12th	January 31st
Wooodcock (England and Wales)	October 1st	January 31st
Wooodcock (Scotland)	September 1st	January 31st
Duck and Geese (inland)	September 1st	January 31st
Duck and Geese (foreshore)	September 1st	February 20th
Coot/Moorhen	September 1st	January 31st
Hare (GB)	No close season	No close season
Pigeons	No close season	No close season
	To prevent damage to farm crops	

Deer	England & Wales	Scotland
Red Stags	Aug 1st - April 30th	July 1st-Oct 20th
Red Hinds	Nov 1st-March 31st	Oct 21st-Feb 15th
Sika Stags	Aug 1st-April 30th	July 1st-Oct 20th
Sika Hinds	Nov 1st-March 31st	Oct 21st-Feb 15th
Fallow Bucks	August 1st-April 30th	August 1st-April 30th
Fallow Does	Nov 1st-March 31st	Oct 21st-Feb 15th
Roe Bucks	April 1st-Oct 31st	April 1st-Oct 20th
Roe Does	Nov 1st-March 31st	Oct 21st-March 31st



#### Successful Crop Establishment

Cover crops are often difficult to get established, the use of high quality seed is essential, but a few simple steps before you even get the drill out of the shed can pay dividends!

- Assess the suitability of the site and location
- Conduct a soil analysis (most crops require a pH of 6.5-7.0)
- Apply lime and fertiliser as required
- Achieve optimum seedbed conditions (ploughing and power harrowing is best)
- Always roll after sowing
- Evaluate pest and weed control options
- Monitor crops throughout the growing season

#### **Stale Seedbed**

The technique of stale seedbed allows the weeds to germinate prior to sowing and then to be sprayed off (you may need to do this twice)

- Destroy existing crop or cover
- Spray weeds and plough
- · Work down into a seedbed with good tilth
- $\bullet$  Allow weeds to germinate and spray with a suitable herbicide
- $\bullet$  Drill new cover crop when correct conditions prevail

#### **Key Pests**

Many pests can potentially damage your crop, the most vulnerable are crops that are not fast growing, suffering from stress and located adjacent to woods or hedgerows. The key pests to look out for are frit fly (maize), flea beetles (brassicas), slugs, rabbits and rooks. A visit to your crops every week will enable you take the appropriate action before it becomes a major problem.

#### Crop Solutions for difficult Sites

Sometimes gamecover crops are difficult to get established, whether it's animals eating the crop, or just problem areas. To help you solve some of the more common problems we have created a crop solutions chart. Find your problem in the chart below and just read across to find the product to sow and the relevant page number.

Problem	Crop Solution	Information
<b>↓</b>	<b>↓</b>	1
Animal Damage	Sow	Page number
What can I do if rats & badgers are a problem?	DP2 Sorghum Ademio late maize	9 7
Rabbits eat & damage my crop	Labrador mixture Spring triticale	16 19
Deer are a problem in my maize crop	DP2 Sorghum	9
Difficult sites	Sow	Page Number
Thin soils with low pH	Labador mixture Spring Triticale Spaniel mixture	16 19 20
I can only sow in the autumn	Spaniel mixture Magnet wild bird seed mixture	20 21
I need a 'permanent' solution	Perennial Chicory Reed Canary grass	17 17
What can I establish in a woodland area?	Buckwheat Shrubs	19 29
Establishment problems	Sow	Page Number
I have problems establishing Kale	Kale safe blend	11
I need to control the weeds with a herbicide	Cocker mixture Golden Retriever mixture Pointer Mixture	14 14 14
My crop has failed what can I sow?	Spaniel mixture	20

#### Essential guide to maize growing

#### Selecting the right site

When choosing where to grow maize on the farm, attention should be paid to the following factors when selecting the specific growing sites.

Altitude – Avoid high altitude sites which will be colder. As a rule of thumb, growers should consider 600 feet (180 metres) above sea level to be very marginal. However, individual fields above 600 feet with lighter, drier soil types that will warm up quickly in spring can be considered.

Aspect – Ideally, any fields selected for maize should face south, and be sheltered from wind. Fields to avoid are those which are very exposed, or have heavy, poorly drained soils, and any locations which are known to be 'frost pockets'. An established crop at 2-6 leaf stage can be set back 2-3 weeks by a late May frost. Avoid steeply sloping fields, especially near to water courses to reduce the risk of nitrate leaching from runoff.

Soil depth – To support its bulk and height, a maize plant requires a very extensive root system. Ideally, crops should be grown where there is at least 2m of soil. If soil depth is less than 1m, then root development is impaired and crops are stunted.



The elimination of soil compaction and preparation of a fine seedbed are essential for successful crop growth.`

To avoid compaction becoming an issue, the soil structure needs to be checked immediately after the previous crop and then sub-soiled as required, carried out in the previous autumn – under dry conditions.

Seedbed cultivation can be left until immediately prior to drilling in April or May. The top layer of fine soil needs to have a depth of about 5cm.

Fertil	iser				
Index	0	1	2	3	4+
N	120	80	40	20	0
P	110	85	60M	20	0
$K_20$	230	205	180M (2-) 155(2+)	110	0

Where organic manures are used the value of th nutrients should be included in the calculation.



#### **Sowing maize**

#### The best time to sow

Do not be tempted to drill too early – as this may expose the crop to frost damage if the growing point is above the soil surface. Maize seed should not be sown until the soil temperature has stabilised to a minimum of 8°C. A soil temperature probe can be used to determine the temperature at seed depth. Nor should seed be drilled if night frosts are still anticipated.

In most years, temperatures reach suitable levels between mid April through to early May, depending on the location.

#### **Weed control (pre-emergence)**

It is important to know the likely weed burden of land on which maize is to be grown, and then prepare a strategic weed control programme. Herbicides should be selected according to the weed species that are likely to be present. For maize, a range of approved pre-emergence and post-emergence herbicides are available. However, where heavy infestations of weed, for example, couch are present, these are best controlled by applying glyphosate before any cultivation.



Broad-leaved weeds will become a problem if left untreated.

#### **Weed control (post-emergence)**

Weeds can easily out-compete maize crops, swamping them during the early establishment phase in May and June.

Post-emergence herbicides should be applied as soon as possible after the crop has emerged, as early weed competition has a big effect on final yields. Post-emergence herbicides can be applied up to a plant size of 8 leaves. If left any later, it also becomes more difficult to move through a crop without damaging it.

For information on choice of herbicide, growers growers should seek the advice of an agronomist.



#### **HiBird Maize Blend**

- Limagrain breeding
- A blend combining early intermediate and late varieties
- All varieties are selected for good early vigour and standing power
- Laboratory tested for germination and vigour
- Mesurol treated to control frit fly and damage by birds
- Packed in 1.1 Acre (50,000 seed units)Crop Height 180-200cm

#### **HiBird Blend**

 As above but treated with a fungicide only



HiBird Maize blend will achieve a spread of maturity cob ripeness and supply a valuable source of feed.



#### **Maritimo (Compact)**

- A maize selected from our own breeding programme
- Ideal for late sowings
- Compact growth habit will ensure beating lines are kept straight!
- Excellent early vigour and superb standing power
- Packed in 1.1 Acre (50,000 seed units)
- Treated with both insecticide (Mesurol) and fungicide (Thiram)

Crop Height 150-170cm



Compact is very suitable for the more challenging Maize growing areas and can be sown as late as mid June.



#### Ademio

- Late variety
- Limited cob development
- Reduced food source for rats and badgers
- Packed in 1.1 acre (50,000 seed units)
- Tried and tested
- Treated with both insecticide (Mesurol) and fungicide (Thiram)

Crop Height 180-200cm





## Essential guide to sorghum growing

#### Soil type/site selection

Light-medium soils are ideal for Sorghum, avoid heavy poorly drained fields and especially those with heavy weed infestations.

#### Seedbed and sowing methods

Early preparation of the seedbed, followed by a fallow period will give better weed control and produce a finer seedbed.

Ideally plough in the autumn and avoid compaction. Sorghum requires a firm, fine tilth with moisture retaining qualities.

Do not sow too early, May / early June is ideal when soil temperatures are  $14-15^{\circ}$ C for three consecutive days. The seed is best drilled with an air seeder or standard combi drill. Rolling after sowing will ensure good seed to soil contact. Sow on 30 inches (same as maize) drill widths at a depth of 1.5-2 inches to gain the best overall results.

#### **Fertiliser**

As with all crops it is necessary to have a soil with well-balanced fertiliser in order to achieve optimum growth and feed value. Adequate levels of nitrogen, in particular will ensure high protein, fast growth and quick recovery after cutting. As a general guide apply 100 kg N/25 kg P/25 kg K per hectare into the seedbed. Farmyard manure and slurry can be applied prior to seedbed preparation. Do not apply excessive nitrogen as this may lead to lodging. It is also important to ensure that the pH does not fall below 6.00.

#### Weed control

Weeds can be a major problem in this growth stage as they compete with the developing seedling for moisture nutrients and space. Spraying herbicides to control weeds before planting is one option and growers practicing zero or minimal till operations often use this method.

At planting, it is common to use a pre-emergence herbicide. To control annual grasses and broad-leafed weeds we suggest you contact your local agronomist for the best advice about your crop, however our herbicide guidelines that appear on page 15 will help you.

#### **Diseases and Pest Control**

Overall there are few pests or dieases of great concern, care should be taken to monitor for wireworms and leather jackets.





#### **Dwarf Shorty**

- Ideal for driving and winter cover
- Can make excellent flushing points within maize
- Excellent replacement for kale
- Add warmth to maize crops when sown adjacent
- Weed control possible
- Not suitable for Northern England or Scotland
- 12 kilo one acre units

Crop Height 90-100cm



Low crop canopy, warmth and security makes Shorty the ultimate driving crop



#### **Intermediate DP2**

- Ideal replacement for maize
- Makes excellent controlled driving cover
- Fully tried and tested
- Herbicide use possible
- Best sown in June
- 10 kilo one acre units

Crop Height 120-150cm



#### **Giant Jumbo Star**

- Tall dense cover ideally used for a windbreak around maize
- Good vigour and fast growth
- Can reach a height of 5-6ft
- Later drilled crops will have reduced height potential
- Crops can screen guns allowing them to get in position without disturbing the birds
- 12 kilo one acre units

Crop Height 200-220cm



If rats and badgers are a problem DP2 can provide a similar height to maize without the cob!



Jumbo Star can be sown later than other Sorghums just watch it grow!

#### Essential guide to kale growing

#### Soil type

Kale grows best on a medium loam soil with a pH of 6.0-7.0. It needs a well drained field which is free from pans or evidence of soil compaction. If grown on very light soils there is a risk that the crop could suffer from drought post drilling (which will jeopardise seed emergence).

#### Seed bed preparation

A fine, firm moist level seedbed is required. The crop will benefit from applications of slurry or FYM and this should be ploughed in. The seedbed should be worked down with the intention of losing as little moisture as possible. Whenever possible create a stale seedbed.

#### **Sowing**

Kale seed should be sown between mid April and mid July. Early sown crops which establish well are more likely to give the best cover. The seed can be broadcast or sown with a precision drill or root drill. Under normal conditions a seed rate of 4-5kg/ha should be adequate. If seedbed conditions are very dry, or the crop is broadcast, then the rate can be increased slightly as an insurance. The target population is 70 plants/square metre, whichever sowing method is used.

#### **Fertiliser**

The kale crop will grow extremely well when provided with plenty of organic matter. It is a fast growing crop and it needs plenty of nourishment.

For a soil index of 2 apply 100 units/ha each of P and K to the seedbed. The amount of nitrogen required will depend on the previous cropping. Up to 170 units/ha may be needed after a run of cereals whereas the rate following a crop of intensively grazed grass can fall to 75 units/ha. The nitrogen application can be split for early sown crops – 65% in the seedbed and the balance when the crop has reached a height of 15/16cm. For direct drilled crops it is normally considered wise to increase the nitrogen applied by up to 25% to boost the crop in the establishment phase. Consult your usual fertiliser supplier for an accurate assessment of your requirements particularly if slurry or FYM has not been used.`

#### **Herbicides**

The control of broad leaved weeds is vitally important to establish a successful kale crop.

We strongly advise that you consult your local agronomist to get the best advice about your crop. Our herbicide guidelines which appear on page 15 may also be of help.



#### **Pests & diseases**

In dry years an attack by flea beetle can cause considerable damage to young established crops. Cruiser treated seed will provide some protection against a moderate attack. Slugs can be a problem in direct drilled crops – slug pellets should be considered if this pest is likely to pose a threat. Rabbits and pigeons can also be a problem and control may be necessary in fields which are considered to be especially at risk.



Clubroot represents the major disease threat - it is soil borne so control is by a good rotation of crops. Avoid growing kale on any fields which have a history of clubroot, however Caledonian (clubroot resistant) has been used successfully. Alternaria and mildew can affect crops but attacks are seldom too serious.





- A shorter variety with excellent lodging resistance
- Excellent leaf cover with a bare floor
- High leaf to stem ratio
- British bred and fully tested for germination and vigour to ensure maximum establishment
- Winter hardy
- Seed can be supplied treated against flea beetle

Crop Height 80-90cm



A high leaf to stem ratio ensures maximum cover and protection for your birds



#### Caledonian

- The first kale bred with club root resistance
- Caledonian can be continuously sown on brassica sick sites
- A taller kale allowing for easier bird access
- Winter hardy
- Excellent germination and vigour potential
- Bred by JHI, Dundee
- Seed can be supplied treated against flea beetle

Crop Height 90-100cm



Why take the risk of crop failure? Caledonian comes with, Club Root resistance



#### Kale Safe Blend

- A blend of Caledonian kale and Interval rape kale hybrid
- Fast growth and establishment
- Safer way to establish kale
- Seed can be supplied treated against flea beetle

Crop Height 80-100cm



More vigour and easier to grow than straight kale





#### **Top Flush Millet**

- A carefully blended mixture of red, panorama and white millets
- Mixture ensures a wider window of seed shed
- Feed value from September to December
- Provides an excellent feed block if sown adjacent to maize
- Can be cross drilled or broadcast in maize crops to add feed value and warmth
- Supplied in 10 kilo units

Crop Height **80-100cm** 



Feeding birds can be expensive, why not grow your own feed and reduce your costs!

- Dense reed millet
- Ideal for use alongside maize

**Magic Millet Mixture** 

- Windproof and warming
- Good flushing point
- Also contains red and white millet for feed value
- Winter hardy
- Supplied in 5 kilo units

Crop Height 100-120cm

#### **Prosso White Millet**



- This high yielding variety will provide huge seed vields
- Ideal for use with maize crops
- Can be used as a feeding block or flushing point
- Supplied in 10 kilo unitsCrop Height 80-100cm

WE CAN ALSO SUPPLY Red Millet Tanka Millet Mix



Huge seed yields will provide additional feed and prevent birds from roaming

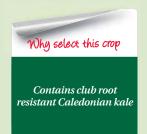
#### **QUINOA PRODUCTS**

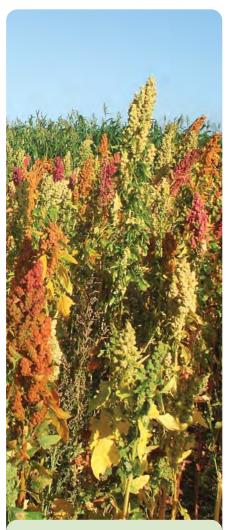


#### **Kingmix 2000**

- A great combination of Kale and Quinoa
- For growers with club root problems (Brassica sick land)
- Includes Caledonian (club root resistant)
- A taller kale allows for easier bird access
- Kale is supplied flea beetle treated
- Sold in 2.5 kilo units

Crop Height 100-120cm





#### Sandoval Quinoa

- Capable of shedding up to 1 tonne of seed per acre
- Sheds high protein seed which will help reduce feed bills
- Seeds are highly sort by pheasants, partridges and farmland birds
- Ideal for use with companion crops such as Keeper kale or Interval Rape/Kale hybrid
- Sold in 2 kilo units

Crop Height 80-150cm





#### **Kingmix**

- Combining the winter hardiness of kale with the feed value of quinoa
- Excellent mixture to hold birds
- Quinoa ensures a good mixture of early, medium and later maturing seed heads
- Now includes purple coloured Coleor kale
- Kale is supplied flea beetle treated
- Sold in 2.5 kilo units

Crop Height 100-120cm





#### HERBICIDE GUIDELINES

# Herbicide Guidelines

## Weed Control

We are very pleased that with the help of BASF UK we have jointly produced the herbicide guidelines printed below.

We strongly recommend that you always check with a BASIS registered agronomist before applying any herbicides to your crop.

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| Picona        | G&B  | 33   | A   |  
   
   
   
   
   
   
   
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   |   |   | _  |
| Pyramin DF    | В  | 4.0  | S&A   |  
   
   
   
   
   
   
   
  | CE   | 3  | **  | Yes  | |
  |  |  |  |  |  
  |  |  |   |  |  |  
  |   |  |  |  |   
   |   |  |  |  |  
   |   |  |              |  |  
   |   |  |  |  |  
   |   |   | _  |
| Fiesta T      | В  | 4.5  | S & A   |  
   
   
   
   
   
   
   
  | (Caroan a)   | CE (max 3)   | 2.2   | Yes  | |
  |  |  |  |  |  
  |  |  |   |  |  |  
  |   |  |  |  |   
   |   |  |  |  |  
   |   |  |              |  |  
   |   |  |  |  |  
   |   |   | -  |
| Butisan S     | G&B  | 1.5  | S&A   |  
   
   
   
   
   
   
   
  |  |  |   |  | Yes   
  | Yes  | CE   |  | CE   | Yes  
  | CE   | CE   | CE  | Yes  |  | Yes  
  | 3 5   | E :  | res  | sai  | T.  
   | 3   |  |  |  | CE   
   |   | E  | 5            | Yes  |  
   | Yes   | CE   |  | CE   |  
   | CE  | CF  | 300  |
| Stale Seedbed | G&B  |  | S&A   | ;  
   
   
   
   
   
   
   
  | Yes  | res  | Yes   | Yes  | Yes   
  | Yes  | Yes  | Yes  | Yes  | Yes  
  | Yes  | Yes  | Yes   | Yes  | res  | Yes  
  | res   | Yes  | Yes  | sai  | Vec   
   | Yes   | Yes  |  | Yes  | Yes  
   | Yes   | Vec  | res          | Yes  | Yes  
   | Yes   | Yes  |  | Yes  | Yes  
   | Yes   | Yes   | 102  |
|               | ype of weed controlled   | Max rate litre or kg/Ha  | Application timing  | Maincrop   
   
   
   
   
   
   
   
  | eans   | orage  | uckwheat  | odder Beet   | old of Pleasure   
  | Kale   | Linseed  | Maize  | Nyger  | earl Millet  
  | ed Millet  | White Millet   | uinoa   | aintoin  | wari sorgnum   | pring Oilseed rape   
  | riticale  | unilower   | wede   | weet Clover  | ale & Orinoa  
   | faize & White Millet  | Maize & Sunflower  | Perennial crops  | Canary Grass   | hicory   
   | Teasel  | atch Crops   | odder kadish | flistard   | Phacelia   
   | tubble Turnip   | Texsel Greens  | Hi-Bird Mixtures   | Pro Driver   | holden Retriever   
   | Cocker  | Pointer<br>King Mix   | TIIS INITY   |
|               | Stale Seedbed   Butisan S   Fiesta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG   Butisan S   Crystal | Fiesta T     Pyramin DF     Crystal     Picona     Stomp Aqua     Wing-P     Aramo     Basagran SG     Butisan S     Crystal     Picona     Stomp Aqua       B     B     G&B     G&B     G&B     G&B     G&B     G&B     G&B     G&B     G&B | Stale Seedbed         Butisan S         Flesta T         Pyramin DF         Crystal         Picona         StompAqua         Wing-P         Aramo         Basagran SG         Butisan S         Crystal         Picona         StompAqua           G&B         GB         GB | State Seedbed         Butisan S         Flesta T         Pyramin DF         Crystal         Picona         StompAqua         Wing-P         Aramo         Basegran SG         Butisan S         Crystal         Picona         StompAqua           G&B         G&B <td< td=""><td>Stale Seedbed         Buttisan State Seedbed         Flesta T         Pyramin DF         Crystal         Picona         Stomp Aqua         Wing-P         Aramo         Basagran SG         Buttisan S         Crystal         Picona         Stomp Aqua           weed controlled         G&amp;B         G&amp;B</td><td>  State Seethed Butisan S   Fiesta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   Crystal   Picona   P</td><td>  Stale Seedbed   Butisan   Fiesta   Picona   Picona   Stomp Aqua   Wing-P   Aramo   Basagran   Stale Seedbed   Butisan   Picona   Stomp Aqua   Wing-P   Aramo   Basagran   Stale   Picona   Stomp Aqua   Stale   G&amp;B   G&amp;B  </td><td>  State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Picona   Picona   Picona   Stomp Aqua   Picona   P</td><td>State Seethed         Butisans of G&amp;B         Fleeta T         Pyramin DF         Crystal         Picona         Stomp Aqua         Wing-P         Aramo         Basagran SG         Butisan S         Crystal         Picona         Stomp Aqua           weed controlled         G&amp;B         G&amp;B</td><td>  State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Stomp A</td><td>  State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   Crystal   Crystal   Picona   Stomp Aqua   Crystal   Crystal   Picona   Stomp Aqua   Crystal   Picona   Crystal   Picona   Stomp Aqua   Crystal   Picona   Picon</td><td>  State Seethed   Butisan S   Fleeta T   Pyramin DF   Crystal   Plcona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Plcona   Stomp Aqua   State Seethed   Butisan S   Crystal   Plcona   Stomp Aqua   State   Crystal   Plcona   Stomp Aqua   Crystal   Plcona   Stomp Aqua   State   Crystal   Plcona   Stomp Aqua   Crystal   Plcona   Crystal   Plcona   Plcona   Crystal   Plcona   Plcon</td><td>  State Seetled Butisan's Fiesta   Pyramin DF   Crystal   Picona   StompAqua   Wing-P   Aramo   Basagran SG Butisan's   Crystal   Picona   StompAqua   Wing-P   Aramo   Basagran SG Butisan's   Crystal   Picona   StompAqua   StompAqua   State   Crystal   Picona   StompAqua   Crystal   Picona   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   Pico</td><td>State Seetled         Butisans Steetled         Fleeta T         Pyramin DF         Crystal         Piconal Stomp Aqua Wing-P         A Tamno         Basagran SG Butisan S Gystal         Crystal Picona Stomp Aqua Wing-P         Aramon Basagran SG Butisan S Gystal         Crystal Picona Stomp Aqua Picona Picona Stomp Aqua Picona Picona Stomp Aqua Picona Stomp Aqua Picona Pic</td><td>State Seetled         Butisans State Seetled         Fleeta T         Pyramin DF         Crystal         Picona Picona Stomp Aqua Wing-P         Aramo Basagran SG Butisan S Gystal Picona Stomp Aqua Wing-P         Aramo Basagran SG Butisan S Gystal Picona Stomp Aqua Wing-P         Aramo G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B G&amp;B</td><td>State Seetled         Butisans Steetled         FleetaT Byramin DF G 8 B G 6 B G 8 B G 8 B G 8 B G 6 B G 8 B G 6 B G 8 B G 6 B G 6 B G 8 B G 6 B</td><td>State Seetled         Butisans Steetled         FleetaT Butisans Steetled         FleetaT Butisans Steetled         Cak B G &amp; B</td><td>State Seetled         Butisans State Seetled         FleetaT         Pyramin DF (Crystal proporation)         Picona Stomp Adua wire or normalisms         Ming-P (R B G B B G B B G B B B G B B G B B G B B B G</td><td>  State Seeched   Butisan S   Hestar T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   S.g.A   A   A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   A   A   A   S.g.A   S.g.A   S.g.A   A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A</td><td>  State Seedbed   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Cak B   Cak B</td><td>  State Seebled   Butisan S   Flesta T   Pyramin DF   GVB B   GR B   GR</td><td>  State Seedbed   Butisant S   Restart T   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Cay B   Cay</td><td>  State Steedbed   Butisan S   Hesta T   Pyramin DF   Gr B B   G &amp; G &amp; G &amp; G &amp; G   G &amp; B   G &amp; G &amp; G   G &amp; G  </td><td>  State Seethed   Butisan S   Flestat   Pyramin DF   Crystal   Picona   Stophydydau   Wing-P   Aramo   Baaggran SG Butisan S   Crystal   Picona   Stophydydau   Picona   State Seethed   Butisan S   Flestat   Pyramin DF   Crystal   Picona   State Seethed   State Seethed   C&amp;B   G&amp;B   G&amp;B  </td><td>  State   Seetbed   Butisan   Stead   Butisan   Stead   Stead</td><td>  State Seedbed Butisans   Start   Pyramin DF   Crystal   Picona   Stomp Aqua   State Seedbed Butisans   Start   Pyramin DF   Crystal   Picona   Stomp Aqua   Start   Start  </td><td>  State Seedhed   Butlisan S   Feeta T   Pyramin DF   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Crystal   Picona   P</td><td>  State Seebled Buttant State   Present Prystal   Proma   Storage   State   Proma   Storage   State   Proma   Storage   State   Proma   Storage   State   Proma   State   Stat</td><td>  State Seeched Butisans   State Seeched Butis</td><td>  State Seeched   Butisan S   Cayal   Pictoral   Picto</td><td>  Sk A   Sk A  </td><td>  Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   Sk A   A   A   Sk A  </td><td>  Skell</td><td>  Skall Skal</td><td>  State State   State   Paramia   Pa</td><td>  State Seat Deep   Buttant States   Pyramin DF   Cypstal   Cypstal</td><td>  State Societical Care Barriary   State Societical Editions   State Societical Editio</td><td>  State Searched   State Searched   State   St</td><td>  State charles   State should   State shou</td><td>  State Steelbed   State State   State State   State State State   State State State State   State</td><td>  State Stepley Blusteants   State State   State</td><td>  State Steplered   State State   State</td><td>  State Stackboard   State State State   State State   State State   State State   State State   State State   State State   State State   State State   State State State   State Stat</td></td<> | Stale Seedbed         Buttisan State Seedbed         Flesta T         Pyramin DF         Crystal         Picona         Stomp Aqua         Wing-P         Aramo         Basagran SG         Buttisan S         Crystal         Picona         Stomp Aqua           weed controlled         G&B         G&B | State Seethed Butisan S   Fiesta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   Crystal   Picona   P | Stale Seedbed   Butisan   Fiesta   Picona   Picona   Stomp Aqua   Wing-P   Aramo   Basagran   Stale Seedbed   Butisan   Picona   Stomp Aqua   Wing-P   Aramo   Basagran   Stale   Picona   Stomp Aqua   Stale   G&B   G&B | State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Picona   Picona   Picona   Stomp Aqua   Picona   P | State Seethed         Butisans of G&B         Fleeta T         Pyramin DF         Crystal         Picona         Stomp Aqua         Wing-P         Aramo         Basagran SG         Butisan S         Crystal         Picona         Stomp Aqua           weed controlled         G&B         G&B | State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Stomp A | State Seetled   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   State   Crystal   Picona   Stomp Aqua   Crystal   Crystal   Picona   Stomp Aqua   Crystal   Crystal   Picona   Stomp Aqua   Crystal   Picona   Crystal   Picona   Stomp Aqua   Crystal   Picona   Picon | State Seethed   Butisan S   Fleeta T   Pyramin DF   Crystal   Plcona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Plcona   Stomp Aqua   State Seethed   Butisan S   Crystal   Plcona   Stomp Aqua   State   Crystal   Plcona   Stomp Aqua   Crystal   Plcona   Stomp Aqua   State   Crystal   Plcona   Stomp Aqua   Crystal   Plcona   Crystal   Plcona   Plcona   Crystal   Plcona   Plcon | State Seetled Butisan's Fiesta   Pyramin DF   Crystal   Picona   StompAqua   Wing-P   Aramo   Basagran SG Butisan's   Crystal   Picona   StompAqua   Wing-P   Aramo   Basagran SG Butisan's   Crystal   Picona   StompAqua   StompAqua   State   Crystal   Picona   StompAqua   Crystal   Picona   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   StompAqua   Crystal   Picona   Pico | State Seetled         Butisans Steetled         Fleeta T         Pyramin DF         Crystal         Piconal Stomp Aqua Wing-P         A Tamno         Basagran SG Butisan S Gystal         Crystal Picona Stomp Aqua Wing-P         Aramon Basagran SG Butisan S Gystal         Crystal Picona Stomp Aqua Picona Picona Stomp Aqua Picona Picona Stomp Aqua Picona Stomp Aqua Picona Pic | State Seetled         Butisans State Seetled         Fleeta T         Pyramin DF         Crystal         Picona Picona Stomp Aqua Wing-P         Aramo Basagran SG Butisan S Gystal Picona Stomp Aqua Wing-P         Aramo Basagran SG Butisan S Gystal Picona Stomp Aqua Wing-P         Aramo G&B | State Seetled         Butisans Steetled         FleetaT Byramin DF G 8 B G 6 B G 8 B G 8 B G 8 B G 6 B G 8 B G 6 B G 8 B G 6 B G 6 B G 8 B G 6 B | State Seetled         Butisans Steetled         FleetaT Butisans Steetled         FleetaT Butisans Steetled         Cak B G & B | State Seetled         Butisans State Seetled         FleetaT         Pyramin DF (Crystal proporation)         Picona Stomp Adua wire or normalisms         Ming-P (R B G B B G B B G B B B G B B G B B G B B B G | State Seeched   Butisan S   Hestar T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   S.g.A   A   A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   A   A   A   S.g.A   S.g.A   S.g.A   A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   S.g.A   A   A   S.g.A   S.g.A | State Seedbed   Butisan S   Fleeta T   Pyramin DF   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   Wing-P   Aramo   Basagran SG Butisan S   Crystal   Picona   Stomp Aqua   State   Cak B   Cak B | State Seebled   Butisan S   Flesta T   Pyramin DF   GVB B   GR | State Seedbed   Butisant S   Restart T   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Pyramlin DF   Cay State   Cay B   Cay | State Steedbed   Butisan S   Hesta T   Pyramin DF   Gr B B   G & G & G & G & G   G & B   G & G & G   G & G | State Seethed   Butisan S   Flestat   Pyramin DF   Crystal   Picona   Stophydydau   Wing-P   Aramo   Baaggran SG Butisan S   Crystal   Picona   Stophydydau   Picona   State Seethed   Butisan S   Flestat   Pyramin DF   Crystal   Picona   State Seethed   State Seethed   C&B   G&B   G&B | State   Seetbed   Butisan   Stead   Butisan   Stead   Stead | State Seedbed Butisans   Start   Pyramin DF   Crystal   Picona   Stomp Aqua   State Seedbed Butisans   Start   Pyramin DF   Crystal   Picona   Stomp Aqua   Start   Start | State Seedhed   Butlisan S   Feeta T   Pyramin DF   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Wing-P   Aramo   Basagnan SG Batasan S   Crystal   Picona   StompAdua   Crystal   Picona   P | State Seebled Buttant State   Present Prystal   Proma   Storage   State   Proma   Storage   State   Proma   Storage   State   Proma   Storage   State   Proma   State   Stat | State Seeched Butisans   State Seeched Butis | State Seeched   Butisan S   Cayal   Pictoral   Picto | Sk A   Sk A | Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   A   A   Sk A   Sk A   Sk A   Sk A   A   A   Sk A | Skell        | Skall Skal | State State   State   Paramia   Pa | State Seat Deep   Buttant States   Pyramin DF   Cypstal   Cypstal | State Societical Care Barriary   State Societical Editions   State Societical Editio | State Searched   State Searched   State   St | State charles   State should   State shou | State Steelbed   State State   State State   State State State   State State State State   State | State Stepley Blusteants   State State   State | State Steplered   State State   State | State Stackboard   State State State   State State   State State   State State   State State   State State   State State   State State   State State   State State State   State Stat |

Application time ; S = Spring, A = Autumn, S & A = Spring & Autumn  $\frac{Nes}{Nes}$  = OK to apply Weeds; G = Grass Weed Control, B = Broad Leaved Weed Control

OK to apply BUT some transient crop effects may be seen (e.g. chlorosis, crop thinning, etc).
 Using a lower dose rate may improve crop safety.

All information supplied is to the best of our knowledge at the time of printing.

All data is provided purely on the basis of crops safety and does not consider the legal status of product use. Limagrain and BASF can accept not liability for crop loss or damage.

Products are applied at growers own risk.

Ensure seed is sown to an appropriate depth and is adequately covered with fine, consolidated soil. Always cleck with your BASIS Registered Agronomist before applying any herbicides to your crop. Always read the product label and use pesticides safely.

#### GAMECOVER SEED MIXTURES



#### Setter

- Two year full season cover and
- Traditional mixture using a wide range of species
- Excellent seed shed from September onwards
- Fantastic colour and insect use
- Perfect winter holding cover
- Fully tried and tested

Crop Height 150-200cm

#### Mixture Formulation

- Phacelia
- Mustard
- Sweet Clover
- Keeper Kale
- Millet Blend
- Buckwheat
- Maize

- Sunflower

10 kilo one acre units

Why select this crop

Setter will provide you with cover and feed throughout a 2 year period



#### Labrador

- Two year full season cover and
- Ideal for use in cooler more exposed areas
- Triticale cereal helps resist rabbit damage
- Brood rearing potential

Crop Height 100cm



#### Mixture Formulation

- Spring TriticaleLinseed
- Mustard
- Quinoa
- Keeper Kale

20 kilo one acre units



Labrador will tolerate difficult and low pH soil types, whilst providing quality cover



#### **Pro Driver**

- Thinner canopy for easier bird access and controlled drives
- Will show birds on the most inclement of days
- Fully tried and tested
- Huge seed shed potential

Crop Height 90-100cm



#### Mixture Formulation

- Kale
- Linseed
- Camelina
- Mustard
- Quinoa
- 6.5 kilo one acre units

Why select this crop

If partridges are your passion then Pro Driver's crop structure is ideal

#### PERENNIAL CROP SOLUTIONS



#### **Springer**

- Ideal for sowing on areas that cannot be sown annually
- Triticale will provide feed in the first year
- Second and 3rd years will see the chicory flower at a height of 1.5m
- Very drought tolerant due to deep rooting chicory
- Excellent driving cover

Crop Height 150-200cm (second year)

#### **Mixture Formulation**

- Perennial Chicory
- Spring Triticale

15kg one acre unit





#### **Reed Canary Grass**

(Phalaris Arundinacea)

- Tall perennial cover
- Driving and nesting cover potential
- UK native
- Can be sown on difficult soil types
- Produces stolons and creeps
- Sow in 30" rows at 2.5 kilos per acre

Crop Height First Year **50-60cm** Crop Height Subsequent Years **150cm** 

2.5 kilo one acre unit





#### **Chicory Chico**

- Perennial chicory
- Spring sown
- Excellent driving cover in second year
- Deep rooted
- Drought tolerant
- Best mixed with other species in first year

Crop Height 150-200cm (second year)

2.5 kilo one acre unit



#### OTHER USEFUL CROPS





#### **Canary Grass**

(Phalaris Aquatica)

- Perennial cover
- Will grow on poor soils and exposed areas
- Second year growth can reach 2 metres
- Takes two years to become fully established
- Driving or nesting cover
- Drilled and supplied in 2.5 kilo one acre units

Crop Height First Year **50-60cm** Crop Height Subsequent Years **150cm** 



#### **Fodder Beet**

- Excellent partridge cover
- Large root growing out of the ground
- Excellent leaf canopy
- Good replacement for sugar beet
- Sold in 50,000 seed one acre units (pelleted seed)



#### **Phacelia**

- Extremely fast growing catch crop
- Brilliant pretty blue flowers attract huge number of insects
- Pollen and nectar provider
- Competes well with weeds
- Care should be taken in following crops as phacelia can reseed itself readily
- Sow at 4 kilos per acre
- Sold in 5 kilo units

Crop Height 30-60cm



#### **Ethiopian Mustard**

- Summer sown cover crop
- Better winter hardiness than white mustard
- Variety: Texsel Greens
- Ideal for use on areas where spring sown cover has failed
- Drill 2.5 kilos per acre
- Sold in 1 kilo units

Crop Height 40-70cm

#### **OTHER USEFUL CROPS**



#### **Buckwheat**

- Thick bushy seed producing plant
- Seed shed occurs in early autumn
- Very fast establishment with some weed smothering properties
- Can be used adjacent to flight ponds to attract ducks and geese
- Can be sown in woodland glades
- Sown and supplied in 25 kilo one acre units

Crop Height 70-120cm



#### Linseed

- Very fast establishment
- Tolerates a wide range of soil types
- Broken canopy is very attractive to partridges
- Autumn seed shed produces a palatable feed
- Sown and supplied in 25 kilo one acre units

Crop Height 60-70cm



#### **Sweet Clover**

- A nectar producing biennial clover
- Thrives on neutral and calcareous soils
- Ability to fix "free nitrogen"
- Second year growth can reach 1-2 metres in height
- Best sown in conjunction with kale or canary grass
- Sow in a shallow seed bed at 4 kilos per acre

Crop Height 85-150cm



#### **Mustard**

- Fast establishment and drought tolerant cover
- Ideal summer sown catch crop
- Broadcast or drilled into cereal stubble
- Resilient to rabbit damage because of its rapid establishment
- Drill at 4 kilos per acre
- Supplied in 10 kilo units

Crop Height 30-100cm



#### **Spring Triticale Trimour**

- The best cereal crop for gamecover situations
- Spring sown
- Increased seed head emergence and feed value
- Will tolerate poorer soils with low pH levels
- Resilient to rabbit damage
- Seed heads should remain late into the winter months

Crop Height 90-100cm



#### **Spring Beans**

- Provides an excellent source of feed, especially suited for areas that cannot produce maize
- Limited cover, so better sown with kale or other suitable cover providers
- Can be sown in feed blocks adjacent to driving crops
- Sow at 75 kilos per acre

Crop Height 80-100cm

#### SPECIALIST MIXTURES AND CATCH CROPS





#### **Spaniel**

- Summer sown drought tolerant cover mixture
- Can be broadcast into cereal stubble
- Can be used for patching areas where drought or flea beetle damage has occurred
- Fodder radish retains its seeds late into the season
- More winter hardy than MustardCrop Height 80-100cm

#### **Mixture Formulation**

- Brassica Carinata
- Interval Rape/Kale
- Mustard
- Fodder Radish

4.5 kilo one acre unit



Has your crop failed or established poorly? This fast growing recovery mixture can save the day!



#### Interval (Rape/Kale hybrid)

- Fantastic fast growing rape with kale parentage
- Excellent establishment and early vigour
- Ideal replacement for kale when sown in June or July
- Winter hardy full season cover
- Can be used also as a pioneer or rescue crop
- Seed can be supplied treated against flea beetle

Crop Height 50-100cm



Crop failed or left it late? Interval is the ultimate fast growing cover provider.



#### **CATCH CROPS**

Catch crops can provide some wonderful cover that can be sown either in the summer or early autumn. The advantages of sowing later in the year are numerous, with less weed pressure and increased soil moisture levels it makes crop establishment easier.

Daylight hours are critical, so some

of these crops are best sown from July to mid August to get the maximum potential cover.
Catch crops to sow during these periods are listed below:

- Mustard
- Fodder radish
- Ethiopian Mustard
- Stubble turnips
- Forage rape

#### **SPECIALIST PRODUCTS**



#### **Estate Grass Mixture**

- Ideal for producing release pen areas
- Amenity grasses produce a good dense floor
- Hard wearing
- Ideal for birds to dry off and feed
- Can be left uncut to produce taller cover
- Estate can grow in shaded areas

#### Mixture Formulation

- Amenity Perennial Ryegrass
- Creeping red fescue

20kg one acre unit





#### **Terrier**

(Organic Mixture)

- Contains organically sourced seed
- Full season feed and cover
- 2 year potential
- Insect attractant



#### **Mixture Formulation**

- Spring Triticale Organic
- Kale Phacelia Organic
- Mustard Organic

Sold in 20 kilo one acre units



Eligible for organic areas



#### Magnet (Autumn Sown Mixture)

Best sown in September/October

- Fantastic brood rearing cover the
- Fantastic brood rearing cover the following spring
- Phacelia adds colour and insect use
- Seed shed from late summer onwards
- Fully tried and tested



#### **Mixture Formulation**

- Triticale
- Fodder Radish
- Phacelia
- Linseed

15 kilo one acre units



#### Introduction

We are very supportive of the Campaign for the Farmed Environment. With the demise of set-aside, many environmental benefits were lost, but with your help and assistance these benefits can be retained and exceeded by renewing your existing Entry Level Scheme (ELS) agreements or by undertaking some simple voluntary measures that can really make a big difference to the type and quantity of wildlife you can attract on your own land.

To help maximise the environmental benefits, many of which rely on seed products, we have produced over the following pages, a guide for farmers and land managers to help select quality seed mixtures for either ELS or the CFE voluntary measures. The choice of carefully blended seed mixtures is the cornerstone to providing quality habitats and feed sources for our wildlife.

The selection guide produced on pages 30-31 will help you make informed decisions about which seed products are suitable for each of the options offered by ELS and CFE.





#### Our Expertise

We have been involved in supplying quality seed products for the environment for over twelve years. We are continually striving to help understand the seeds and plants we produce and how these can help deliver environmental benefits in the UK. We use our trial sites to evaluate seed mixtures, understand how species can grow compatibly together, which ultimately has helped us formulate new cutting edge mixtures like our autumn sown wild bird seed mixture Magnet. We are also very proud of our relationship with BASF and the joint work that has been undertaken at BASF Rawcliffe Bridge where seed mixture development and bird use is now becoming clearer.

Why don't you use our expertise on your farm by selecting from our range of high quality seed mixtures and blends, all of which have already been fully tried and tested on many commercial farms throughout the UK.



#### WILD BIRD SEED MIXTURES



#### **Bird Feeder**

- A combination of small seeded bearing crops
- Excellent feed potential
- Wide range of use from wild birds
- Good spread of seed shedding dates
- The ultimate bird feeder!
- Spring sown



#### **Mixture Formulation**

- Kale
- Linseed
- Buckwheat
- Mustard
- Phacelia
- Mustaru
- Canary seed
- SunflowerMillet Blend
- 10 kilo one acre unit



A fantastic mixture to provide a succession of food



#### WM1

- A combination of three small seeded bearing crops
- Succession of feed sources
- Triticale and Quinoa provides excellent feed for both wild birds and reared game
- Ideally sown on field margins and headlands
- Spring sown



#### **Mixture Formulation**

- Spring Triticale
- Kale
- Quinoa
- 20 kilo one acre units



A great mixture to provide a succession of food for 2 years



#### **Jack Russell**

- Fantastic feed source for one year
- Herbicide tolerant
- Inclusion of Grain Sorghum gives structure and winter hardiness
- Seed shed from early autumn



20 kilo one acre units

#### **Mixture Formulation**

- Spring TriticaleGrain Sorghum
- Millet BlendSunflower



Fantastic gamecover mixture with herbicide tolerance

#### **GRASS BUFFERS, FIELD MARGINS AND HEADLANDS**



#### Wildlife Value

- A wonderful mixture of fine-leaved grasses and wild flowers
- Ideally suited for 6 metre strips
- Contains grasses that are essential food sources for several butterfly and insect species
- Can be used to produce "field corner" habitats
- Fully tried and testedSupplied in 5 kilo units



#### Mixture Formulation

- Chewings Fescue
- Timothy
- Cocksfoot
- Creeping red fescue
- Smooth stalked meadow grass
- Crested Dogstail
- Meadow fescue
- Teasel
- Yarrow
- Burnet
- Field Scabious
- Common Knapweed



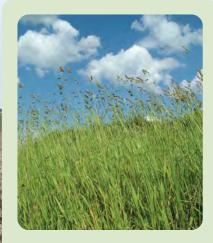
#### **Basic Habitat**

- Ideally suited for either 2, 4 or 6 metre buffer strips
- Contains grasses that are the food plants of several butterflies and insects
- Once established, the mixture can help protect habitats from sprays and fertiliser applications
- Sow in spring or autumnSupplied in 8 kilo units



#### Mixture Formulation

- Chewings fescue
- Common Bent
- Smooth Stalked meadow grass
- Rough stalked meadow grass
- Timothy
- Cocksfoot
- Meadow fescue
- Tall fescue
- Sheeps/hard fescue
- Crested dogtail
- Red clover



#### **Nesting Cover**

- A grass seed mixture designed to create natural nesting areas
- Tufted grasses at different heights
- Can be sown in spring or autumn
- Low seeding rate ensures better crop use
- Easier access for farmland and game birds

Supplied in 5 kilo units

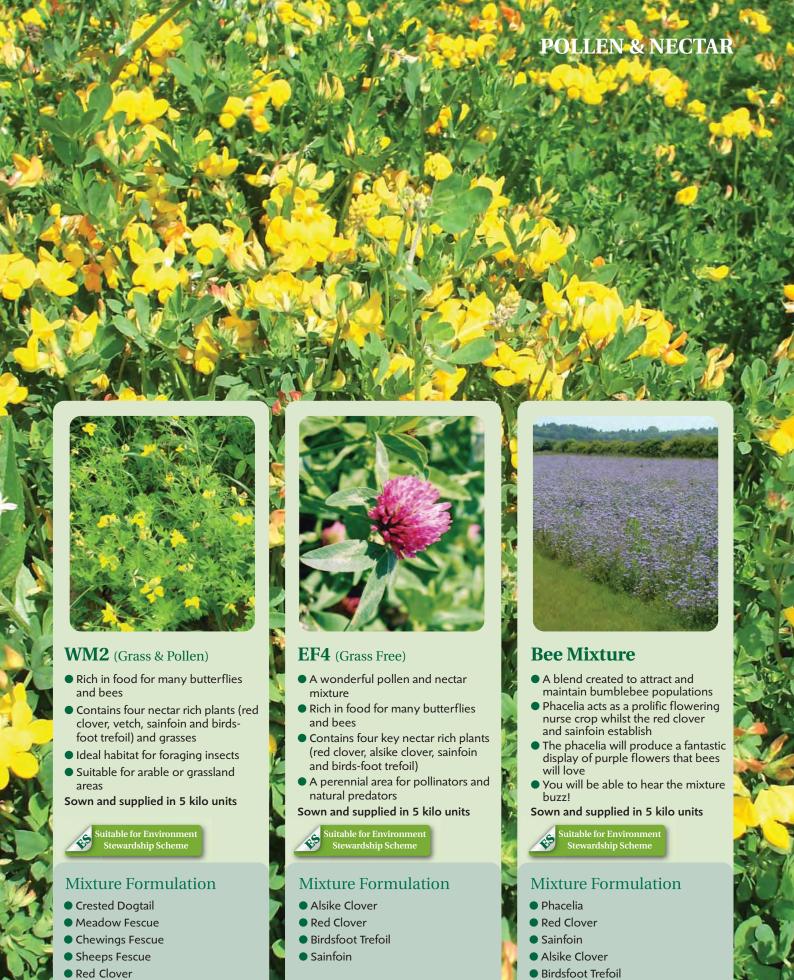


#### Mixture Formulation

- Creeping Red Fescue
- Timothy
- Cocksfoot

#### Margin & Buffer Strip Sowing Calculator

			Each pack will s	ow the undernoted fiel	d margin length
Product	Pack size	Sowing rate per hectare	2 metre	4 metre	6 metre
Basic habitat	8 kilos	20 kilos	2000m	1000m	670m
Beetle bank	10 kilos	20 kilos	2500m	1250m	833m
EF4	5 kilos	15 kilos	1650m	825m	550m
Nesting Cover	5 kilos	20 kilos	1250m	625m	400m
WM 2	5 kilos	15 kilos	1650m	825m	550m
Wildlife Value	5 kilos	20 kilos	1250m	625m	400m



Birdsfoot TrefoilSainfoinCommon Vetch

Smooth Stalked Meadow Grass

#### SPECIALIST ENVIRONMENTAL AREAS



#### **Beetle Bank**

- Ideal for the creation of 2 metre tussocky grass ridges
- Beetle banks should run from one side of an arable field to the other for maximum benefits
- You may need to cut the grass several times during the first summer to aid establishment
- Good green corridor for animal movement

Sown and supplied in 5 kilo units



#### **Mixture Formulation**

- Chewings Fescue
- Timothy
- Sheeps Fescue
- Cocksfoot
- Meadow Fescue
- Smooth Stalked Meadow Grass



#### Winter Cover Crop Mixture

- A seed mixture designed to help reduce nitrate leaching on land which would be normally be left bare during the winter
- Establish before 15th September
- Contains key fast growing cover providers, forage rye, vetch, and mustard
- Once established it will also help prevent soil erosion and surface water run off

Sown and supplied in 25 kilo one acre units



Suitable for Environment Stewardship Scheme

#### **Mixture Formulation**

- Forage Rye
- Vetch
- Mustard



#### **EK21 Mixture**

- Grassland creation
- A carefully blended mixture containing key legumes, grasses and herbs
- Ideal for creating legumes and herb rich swards

Supplied in 5 kilo units

Please note this option is subject to approval by the European Commission.



#### **Mixture Formulation**

- 5 species herbs/wildflowers
- 6 species of grasses
- 4 species of legumes



#### Scotland



The Land Manager Options provide support for the provision of economic, social and environmental benefits across Scotland. LMO is non competitive and open to all land managers with land in Scotland.

Rural Development contract	ts - Land Manager Options & Rural prio	prities
Wild Bird Seed mix/ Unharvested Crops	Management of Grass margins in Arable fields	Biodiversity Cropping on In-Bye
LMO option 9 RP Axis 2	LMO option 14	LMO option 15
Annual mixture	Mixture of grasses & pollen producing species	Sow plots of spring cereals, fodder root crops or fodder
Bird feeder	Basic Habitat or	rape each up to 2 hectares but not exceeding 4 hectares
Two year mixture	WM 2	
WM1		Gowrie Swede
or		or
Magnet (Autumn Sown)		Interval Fodder rape

#### Wales



Glastir is the all Wales Agri-environmental scheme. It is a five year whole farm agreement. Below are the seeding options for the scheme along with suitable crop suggestions.



Glastir		
Creation of rough grass margin	Establish a wildlife cover c	rop
Basic Habitat or Wildlife Value	Glastir 1 80% Triticale 10% Mustard 10% Rape Kale Hybrid 100% Sow at 20 kilo/acre	Glastir 2 80% Triticale 20% Linseed 100% Sow at 20 kilo/acre

#### WILD FLOWERS

## Wild flowers – the benefits

Wild flowers are a very important part of the countryside as they provide a rich, colourful and diverse ecological habitat for many insects and wildlife species. They also offer great aesthetic value to enhance the natural beauty of the British countryside.



#### Mixture composition

We have carefully formulated our wild flower mixtures to meet a number of different soil types and habitats. All of our AWF mixtures contain 20% native British produced wild flowers and low maintenance grass species that will act as a nurse crop and help suppress the weeds, whilst allowing the wildflowers to flourish.

- AWF 1 Shaded areas and woodlands
- AWF 2 Wetland soils, river banks and pond surrounds
- AWF 3 Lime/Calcareous Soils, overlying limestone and chalk
- AWF 4 Clay soils
- AWF 5 Acid soils, low pH
- AWF 6 Loam / alluvial soils
- AWF 7 Hedgerows and woodland margins
- AWF 8 Sandy and free draining soils
- **Cornfield Annuals** Traditional wild flowers that thrive in cereal crops



#### SHRUBS FOR WOODLAND AREAS





- Deciduous shrub
- White berries that last into winter
- Woodland edges or shaded areas
- Tried and trusted
- Fast growing

Sowing and growing:

Plant between Nov-Feb

Plants are 2 year grown, bare root stock and supplied in units containing 50 plants.



Very adaptable and robust once established



#### Cotoneaster

- Deciduous shrub
- Attractive flowers
- Bird friendly berries in the autumn
- Ideal for woodland areas
- Warming woodland floors

Sowing and growing:

Plant between Nov-Feb

Plants are 2 year grown, bare root stock and supplied in units containing 50 plants.



Woodland floor warmer



#### **Wild Privet**

- Semi evergreen
- Creamy white attractive flowers
- Good butterfly and bird use
- Suitable for all soils
- Easy to grow

Sowing and growing:

Plant between Nov-March

Plants are 2 year grown, bare root stock and supplied in units containing 50 plants.



Good cover is provided in the winter months

### ELS & Campaign for the Farmed Environment Seedi

1	Entry Level Ste	wardship	Wild Bird	Seed Mixt	ures & Gar	nestrips		
			WM1	Birdfeeder	Magnet	Jack Russell	Labrador	Pro Driver
ļ	Option Code	Description	Biennial	Biennial	Autumn	Annual	Biennial	Annual
•	EC24	Hedgerow Tree Buffer Strips						
	EE1	2m Buffer Strip On Cultivated Land						
4	EE2	4m Buffer Strip On Cultivated Land						
ù	EE3	6m Buffer Strip On Cultivated Land						
	EE9	6m Buffer Strip Next to Watercourse						
S	EE8	Buffering in Field Ponds - Arable						
	EE12	Supplement to add wildflowers to field corners & buffer strips						
	EK20	Ryegrass seed set as food for birds						
	EK21	Legumes & herb rich swards						
	EF1	Management of Field Corners						
	EF2	Wild Bird Seed Mixture	~	<b>~</b>	~	V	~	~
	EF4	Nectar Flower Mixture						
	EF7	Beetle Banks						
	EF22	Extended Overwintered Stubble						
7	EG1	Undersown Spring Cereals						
į	EJ2	Undersown Maize Crop						
ı	EJ9	12m Buffer Strip						
	EJ10	Cover Crop After Maize						
	EJ13	Winter Cover Crops						
	CFE Voluntary	Measures						
	C1	Grass Buffers near Watercourses						
	C2	Areas to Prevent Run Off (NR)						
	C3a	Reverted Arable Areas						
	C7b	Resource Protection on Vulnerable Soils						
	C9	Wild Bird Seed Mixture	~	<b>V</b>	~	~	~	~
	C10	Game Strips				~	~	~
١	C12 (a & b)	Pollen & Nectar Mixtures						
	C13	Sown Wildflower Headlands						
	THE REAL PROPERTY.			(1) M	W 2000	1984	N Va	AND REAL PROPERTY.

#### ng Options

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	s & Head								d flowers		options			
Basic	Wildlife		WM2			Water	Beetle	maintenance & 100%	Economy 90 Wildflower	Mustard	Maxiyield	EK21	Forage	
Habitat	Value	Cover			Mixture	Course	Bank	Wildflower	Wildflower			Mix	Rye	Cover
~	<b>V</b>								~					
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**IMPORTANT NOTE:** Whilst we have taken every care in the preparation of this guide it is not a substitute for reading the official rules and regulations associated with the various schemes currently in operation. It is vitally important that you keep fully up-to-date with the latest regulations in force at the time you make your seed purchasing decisions. This information can normally be obtained from various sites on the internet or via direct contact with the appropriate government offices in your locality.

#### SOWING & COVER GUIDE Product Pack Size Sowing Rate per acre **Sowing Date** Cover Date Crop Duration (years) Winter Holding Winter Holding Setter B=10kg April-May July-Feb 1 acre B=20kg 2 Winter Holding Labrador 1 acre April-May July-Feb D=6.5kg **Driving Cover** Pro Driver April-May Sept-Feb 1 1 acre D=10kg **Driving Cover** Golden Retriever 1 acre May-June Sept-Feb 1 **Driving Cover** Pointer D=20kg April-May Sept-Feb 1 1 acre Driving Cover Cocker 1 acre D=6.5kg April-May Sept-Feb 1 Organic Terrier 20 kilos D=20kg April-May July-Feb 1 D=38,000-43,000 seeds April-May Sept-Feb **Driving Cover** Maize 1 acre **Driving Cover** Sorghum D=10-12kg May-June July-Feb 1 acre 1 **Driving Cover** Kale 1 kilo D=2kg B=3kg April-June Sept-March 2 Winter Holding Millet 10 kilos D=5kg April-May Sept-Dec 1 Winter Holding Quinoa 2 kilos D=2kg April-May Sept-Dec Winter Holding D=50,000 seeds Fodder Beet 1 acre April Sept-Feb Winter Holding Kingmix 1 acre D=2.5kg April-May Sept-Feb 2 Winter Holding Sunflower 10 kilos D=4kg B=7kg April-May July-Nov 1 Winter Holding Buckwheat 10 kilos & 25 kilos D=20kg B=25kg April-May June-Sept 1 Winter Holding Triticale 25 kilos D=50kg March-April Sept-Dec **Perennial Solutions** D=2.5kg 2.5 kilos **Driving Cover Canary Grass** April-May Sept-Feb 3 2.5 kilos **Driving Cover** Reed Canary Grass D=2.5kg April-May Sept-Feb 4 **Driving Cover** Springer 1 acre D=15kg April-May Sept-Feb 3 **Driving Cover** Chicory Chico 2.5 kilos D=2.5kg May-June Sept-Feb 3 **Catch Crops** B=4.5kg Winter Holding 1 acre Sept-Feb Spaniel June-Aug 1 10 kilos & 25 kilos Winter Holding Mustard D=4kg B=7kg May-Sept Aug-Dec 1 Winter Holding Phacelia 5 kilos D=2kg April-June Sept-Nov Winter Holding Ethiopian Mustard 1 kilo D=2.5kg June-Aug Sept-Jan 1 Winter Holding Interval 5 kilos D=2.5kg April-July Sept-Feb 1 **Biennal Crops** Winter Holding Sweet Clover 5 kilos D=2.5kg April-May 2 July-Feb **Environmental Products** Buffer WM2 5 kilos D=5kg April-Sept Buffer Basic Habitat 8 kilos D=8kg April-Sept 5 Wildlife Value Buffer 5 kilos D=10kg 5 April-Sept Buffer **Nesting Cover** 5 kilos D=10kg April-Sept 5 Buffer EF4 5 kilos D=5kg April-Sept 5 Buffer Beetle Bank 5 kilos D=5kg April-Sept 5 Wild Bird Seed Mix WM1 D=20kg 1 acre April-May 2 Wild Bird Seed Mix Magnet 1 acre D=15kg Sept/Oct 2 Wild Bird Seed Mix Bird feeder D=10kg April-May 2 1 acre Wild Bird Seed Mix Jack Russell D=20kg 1 acre April-May 1 **Key: D** = Drilled **B** = Broadcast

#### Contacts

For technical advice and the name of your nearest HiBird stockist contact:



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West & North Wales Brian Copestake tel: 01283 711162 mob: 07702 681366



**South & S Isles Graham Parnell** tel: 01566 775937 mob: 07795 037959



West & South Rick Swait tel: 01278 671700 mob: 07885 775965



**Eastern Counties Toby Green** tel: 01722 714909 mob: 07899 661864



All varieties and products listed in this catalogue are offered strictly subject to safe harvest, final certification and remaining unsold on receipt of orders. All other terms & conditions of sale will be advised by your individual HiBird distributor or stockist.







#### Contact:

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This QR code provides a link to the HiBird website via you smartphone

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