



kings

Specialist Crops

- Conservation
- Game Cover
- Forage
- Green Cover



Conservation Crops p7-14

Advice and seed products to meet your stewardship needs

Game Cover Crops p15-22

Helping you create the best habitats for game and farmland wildlife

Forage Crops p23-29

Grass mixtures to cover all requirements along with an extensive range of roots and brassicas

Green Cover Crops p30-34

Advice on how to improve soil health, structure, vitality and get the best from Ecological Focus Areas

2020

To place orders or for more information:
Tel: 0800 587 9797 or visit www.kingscrops.co.uk

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Look for these symbols



Eligible for selected ELS, CFE, EFA and CS options. Contact Kings for more details



Suitable for use in northern England and Scotland

Welcome to the 2020 Kings catalogue

With 'natural capital' and 'public money for public goods' becoming popular discussion points as the Agriculture Bill passes through Parliament, never has it been more necessary to access the best technical advice and seed products.

Following a winter of excessive rainfall which provided significant challenges for land managers, the importance of making informed decisions on next steps is as high as ever. These increasingly common weather events are driving the focus towards making every hectare of land count. The development of our digital recording and decision-making support tool, 'MyEnvironment', will enable you to measure, map, record and plan your sporting, Ecological Focus Area (EFA) and stewardship agreement needs.

These services, alongside our integrated approach to addressing current and upcoming opportunities, ensure your requirements are always met by our team.

Look out for these exciting new products throughout the catalogue:

MyEnvironment (page 4)
- Building on the success of iSOYLscout, learn more about how this unique digital recording tool can help you with day to day management of your shoot, stewardship agreement or EFA.

Interreg Autumn Wild Bird Seed Mix (page 10) - Designed in conjunction with the Game and Wildlife Conservation Trust to support the aims of the North Sea Region Interreg PARTRIDGE project. A pioneering mix that delivers brood rearing, summer pollinator and winter feeding cover targeted to support wild grey partridges.

Take-Off Mix (page 13) - After several years of trials we are excited to launch this new wild bird seed mixture that combines cereals and brassicas whilst working within a robust herbicide management strategy.

Targeting Tree Disease (page 27) - As part of a new initiative with the Woodland Trust, Kings customers can benefit from an exclusive discount on tree packs designed to mitigate the effects of tree disease.

Turn to Kings for Online Innovation



Twitter @Kingscrops



Facebook @kingscrops

Check in on a regular basis to see what the Kings advisory team is seeing out in the field.

Website - www.kingscrops.co.uk

Your online reference for orders and product updates, as well as a great place to read more of the case studies featured in this catalogue.

To help keep things simple, orders can be placed directly on your Frontier account or paid for by credit/debit card.

Blog

The Kings blog is your source for updates and technical articles, featuring topics from across the Kings range alongside industry opinion and commentary - subscribe today!

Visit www.frontierag.co.uk/blog/categories/kings and enter your name and email address.

Why not go paperless?

Receive order confirmations and grower guidelines straight to your inbox. Find out more and sign up at www.kingscrops.co.uk/email-communications

The positive approach to soil management

Following the relentless barrage of wet weather from October 2019 through to this year, it is clear that there is much work to be done across a range of sectors to help recover damaged soils. Regardless of your key interests, the following guidance will help steer you in the right direction so you can take the correct action.



Game Cover

Our main advice is... don't travel on the land too soon! Let the soil dry out sufficiently before travelling to remove equipment or beginning any activity. Consider the crop choice and, with increasing variations in the weather, look at perennial options such as reed canary grass, Stand and Deliver (chicory) or Poacher Leave-it to reduce the risk and spread the workload.



Forage

With much of the planned autumn re-seeding and overseeding still to be done, it will be necessary to consider when best to travel on seedbeds/swards to undertake this work. There is undoubtedly going to be a shortage of straw given the reduced winter cereal planting, so think about how you can introduce more forage to the rotation, either for home consumption or sales from the farm. Consider quick growing, high output grass options, whole crop and quick growing brassica straights or blends as a way to fill the feed stock gaps.



Un-planted Land

Leaving land bare through to the late summer will undoubtedly result in slumped soils, loss of nutrient and ultimately, a decline in soil health. Careful selection of a cover crop will help with soil re-structuring in addition to retaining and re-cycling available nutrients.

Look to consider the following elements when planning what to do next:

- **Short term** (3 months) – spring rye, phacelia, vetch, oil radish, buckwheat, mustard (take care with brassica rotation), Soil Structure Mix
- **Medium term** (3-6 months) – Crimson, berseem, red clovers, whole crop (arable silage)
- **Long term** (6-36 months) – Ryegrass/legume, Herb Rich leys, red clover and westerwold annual ryegrass for cutting or grazing use



Stewardship

If ever there was a time to consider a Countryside Stewardship scheme, it is now! Look to park the poor land and earn valuable revenue from it whilst benefiting the wider environment and bringing risk management and efficiency to your farm business.

Turn to Kings for all your needs



Our Team

The Kings team brings together industry leading technical advisors and administrators to ensure you receive the best possible service from start to finish. With full UK coverage, we work alongside our Frontier farm trading and agronomy colleagues to meet local needs that work for you and your business.



Our Production Facility

The Kings administration, production and despatch hub is based at Diss in Norfolk. Following a £500,000 investment during 2019, the new facilities comprise three dedicated seed mixers and a new infrastructure to support a wider range of seed stock and despatches. With an on-site NIAB accredited seed laboratory, all of our seed is tested and analysed prior to production, ensuring only the highest standards are adhered to.

Our Precision Conservation Approach

The opportunity to use 'precision conservation' to get the most from every hectare should not be missed. Working alongside our colleagues at SOYL, we utilise existing and new technology to deliver tools that support with decision-making.

iSOYLscout

Available as an app on your iPhone or iPad, iSOYLscout can help to make your sporting, EFA or stewardship planning easier. Use it to measure areas or linear features, as well as record images and points of interest. Your findings can be edited, printed and synced with MySOYL too.

MyEnvironment

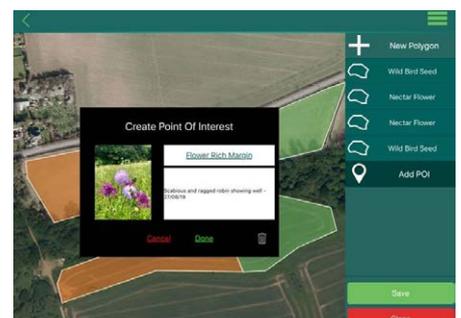
An innovative tool coming to MySOYL for 2020, MyEnvironment will support you with recording and mapping your natural capital features so you can compile an asset register. Log your sporting features, EFA options and stewardship, and develop new plans or agreements all in one place. Plus, you'll be able to share access with authorised individuals; encouraging collaboration across your farm, sporting or estate teams and ensuring habitat activity is recorded in real-time.



Our Integrated Offer

Working alongside Frontier Agriculture and its divisions, we are able to offer our customers a full package of services:

- Soil analysis
- Crop nutrition and crop protection guidance from FACTS/BASIS qualified advisors and product supply
- Foliar feeds to boost mid season crop performance
- Agri-environment scheme support for existing schemes or the preparation and submission of new Countryside Stewardship applications
- Environmental Impact Assessments (EIAs)
- Farmland bird surveys for benchmarking and future planning requirements
- Precision farming expertise working alongside SOYL.



Making a difference with our partners



The Allerton Project, Loddington

Game and Wildlife Conservation Trust Demonstration Farms

We work closely with the GWCT across three of its demonstration farms, aiding with practical research, progressive habitat creation and overall management.



We've worked with the **GWCT's Allerton Project at Loddington** for several years and are proud to be a founding partner for the Allerton Project Partnership initiative. At present we are supporting with the collation and submission of a new Countryside Stewardship application, with much

to gain from commencing a Mid Tier agreement in 2021. The farm is also focussing on 'precision conservation' with help from our SOYL colleagues; utilising mapping technology to record natural capital features and agronomic data. This is helping the farm, shoot and advisory teams identify areas of unproductive land better suited to future habitat improvements.



For over four years we have worked with the team at **Auchnerran, Aberdeenshire** to establish wild bird seed mixtures in what is a challenging agricultural environment. An extensive agronomy programme and specialist mixes have helped to improve soil conditions and combat weed pressure, while the

instalment of fencing has reduced the impact of the large rabbit population. 2019 saw us successfully grow our Alba wild bird seed mix, designed to meet game and stewardship needs while also meeting requirements for the AECS Wild Bird Seed For Farmland Birds option.



One of 10 Interreg PARTRIDGE project sites, **Balgonie Estate in Fife** is a large expanse of arable land. Alongside GWCT senior scientist, Dr Dave Parish, we have

developed two mixtures tailored to the site - our Interreg Grey Partridge Mix (see page 10 for details) which provides an open habitat ideal for chicks, and the longer-term PARTRIDGE cover crop which is designed to last for several years. In March 2019 half of each of the plots was topped, with the remainder left as a foraging area for chicks over the summer. Since then we've seen great success, with the mixtures providing valuable habitat for the birds and an abundance of food throughout the winter.

Syngenta

For almost 10 years, the productive collaboration between Syngenta and Kings has seen over 2,200 hectares of bespoke environmental seed mixtures planted on farms.



The Syngenta Operation Pollinator range includes the Kings Annual Wild Flower Mix and Bees 'n' Seeds Mix, both of which are specifically targeted seed mixtures proven to attract pollinators, beneficial insects and farmland birds. In addition our Green Headland Mix provides for wildlife while supporting soil health, with key green cover species helping to capture nutrients, improve soil structure and protect watercourses by reducing run off.

The investment and commitment from Syngenta into its wider Operation Pollinator initiative provides best practice guidance for growers to help deliver significant environmental benefits in line with the Government's policy to protect and enhance natural assets.

Gamekeepers Welfare Trust



Since 2017, sales of our Wildlife Winter Holding Cover seed have enabled us to contribute **£3,780** as part of our continued

support to the **Gamekeepers Welfare Trust (GWT)**.

2020 is 'The Year of the Gamekeeper'; a multi-organisational initiative which aims to raise the profile of gamekeepers and celebrates their unique positions as custodians of the countryside. The project will also help to support and sustain the long term future of the GWT.

In recognition of this extremely worthwhile cause and landmark event for this year, we are pleased to be able to donate a special sum of £2.20 per pack sold of our Wildlife Winter Holding Cover.

For details of the mix see page 12.

Greening and agri-environment update

As we head towards the next phase of farm support post 2027, the emphasis on getting the best from Ecological Focus Areas (EFAs) and stewardship schemes becomes ever more critical. Below we set out the key elements and offer guidance on the next steps.

Ecological Focus Areas

Applicable to all who have more than 15 hectares of arable land and must allocate 5% of their land to one or a blend of the following options:

EFA option product guide

Fallow option			Page
Wild bird seed	EFA Weighting 1ha = 1ha	Basic Wild Bird Seed Mix or Campaign Mix	12/13
Nectar flower	EFA Weighting 1ha = 1ha	Annual Nectar Flower Mix or Basic Pollen and Nectar Mix	8
Fallow	EFA Weighting 1ha = 1ha	EFA Fallow Mix	9
Field Margin option			
Field corners/margins	EFA Weighting 1ha = 1.5ha	Basic Stewardship Grass Mix	9
Catch and Cover Crops option			
Green cover	EFA Weighting 1ha = 0.3ha	EFA catch and cover crop mixtures	30-34

Countryside Stewardship - England

Open for applications this year to commence in January 2021, if you are not in an agreement currently we strongly advise you give it serious consideration. There may likely be only one further application window in 2021, so don't overlook the opportunities that stewardship can bring for game, farmland birds, pollinators, soil, water and the farm business.

The online 'simplified' offers have been very well received, with applicants finding the process a straightforward way of undertaking new agreements. Mid Tier and Higher Tier applications are more involved but accordingly, they open up more options and capital grant funded opportunities. The Kings team is able to support you with guidance on how to get the best from an agreement along with supporting application collations and submissions.

Countryside Stewardship Wild Pollinator and Farm Wildlife Package Option Summary

Option	Option code	Payment/ha	Kings product suggestion	Page
Summer Insects				
Nectar flower mix	(AB1)	£511/ha	Grass Free Pollen and Nectar Mix	8
Legume and herb rich sward	(GS4)	£309/ha	Legume and Herb Rich Sward Mix	8
Flower rich margins and plots	(AB8)	£539/ha	Flower Rich Grass Mix	14
Winter Feed and Cover				
Winter bird food	(AB9)	£640/ha	Campaign Mix/Moir Mix	13
Supplementary bird feed in winter	(AB12)	£632/t	Kings Supplementary Feed Options	11
Autumn Sown Bumblebird Mix	(AB16)	£550/ha	Autumn Sown Bumblebird Mix	10

Environmental Land Management Scheme (ELMS) - England

ELMS will become the new system going forward, with indications of early pilot agreements being available from 2024. The reality of a full blown, open-to-all system may well be nearer 2027 so don't sit on the Countryside Stewardship fence waiting for too long! That being said, the planning for this begins now by assessing the 'natural capital' asset register of your farm or shoot. Knowing what features you have, where they are and what you may wish to do to improve them will be vital elements of information.

Agri-Environment Climate Scheme (AECS) – Scotland

As it stands, AECS will no longer be open for new applications. However, those with live agreements still need to continue delivering their options. The key elements that many agreements contain include:

Option	Payment/ha	Kings product suggestion	Page
Wild bird seed for farmland birds/Creation of wild bird seed for farmland birds	£322.63 & £232.24	Highland Mix/Alba Mix	12
Grass strips in arable fields/Creation of grass strips in arable fields	£495.62 & £333.51	Call Kings for details of mixture options	
Stubbles followed by a green manure in an arable rotation/Creation of green manure	£498.49 & £278.16	Rye and Vetch Mix/Soil Vitality Mix	33



Hugh Darbshire in Moir Mix at Hill Farm



Good conservation practice starts with buffering water courses and hedgerows from farm inputs, as well as creating nesting cover and providing invertebrate habitat. Dedicated pollen and nectar areas or flower rich margins/plots help to create vital pollinator habitat, while wild bird seed mixtures and supplementary feeding can hugely benefit farmland birds. Our range of conservation crops works for all of these requirements but, if you need a specific blend, we are able to formulate bespoke mixtures too.

Conservation Crops Case Study

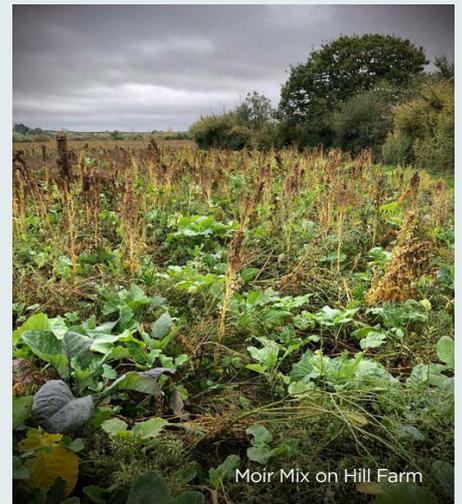
Warwickshire farmer, Hugh Darbshire, puts the same amount of effort into his conservation work as he does his conventional farm business. A leading example of how to incorporate agri-environment options alongside a commercial enterprise, it is not surprising that Hugh has won awards for his efforts and is seeing rare bird species return to his farm.

Kings technical advisor, Matt Willmott, has worked with Hugh Darbshire for a number of years to support the implementation of Countryside Stewardship options that benefit the farm and wider environment.

Due to its location, Hill Farm comprises mixed terrain which makes it critically important that land is used effectively. Arable crops are grown on the most fertile soils and a breeding flock of sheep graze the open grasslands. Areas unsuitable for cropping or pasture are put into stewardship, with Hugh keen to safeguard historic natural features and enhance vital habitat.

With a range of mixtures supplied by Matt, the farm is a haven for vital pollinators and farmland birds; so much so that it now serves as a demonstration farm for Kings and regularly hosts bird walks and training days for new Countryside Stewardship entrants. This, coupled with the collaborative efforts of neighbouring farmers also working with Matt, means the diversity of farmland birds is increasing while striking the right balance between conservation and commercial.

Visit the Kings website for more detail about the work at Hill Farm.



Moir Mix on Hill Farm

Kings' key conservation partners



www.rspb.org.uk/farming



www.operationturtledove.org



www.naturalengland.org.uk



www.gwct.org.uk



www.fwag.org.uk



www.cfeonline.org.uk





Grass free pollen and nectar mix

Whether you are looking to meet the requirements of option AB1 within Countryside Stewardship or wanting to improve the wider fortunes for pollinators, our range of pollen and nectar mixtures have something for everyone.

Encouraging pollinators on farm will help support beneficial insects that in turn can support your integrated pest management strategies - added to that, they look great too!

We provide a range of standard options and are able to advise on bespoke mixtures to meet specific requirements.

KWM2gf Grass Free Pollen and Nectar Mix (CS-AB1)

- An excellent pollen and nectar mix that will meet a wide range of soil types and end requirements
- Contains: sainfoin, vetch, lucerne, birdsfoot trefoil, alsike clover, red clover, fenugreek, black medick, yellow blossom clover, phacelia, black knapweed, red campion and white campion.

25kg/ha 12.5kg pack - £106.00

KWM2an Annual Pollen and Nectar Mix (CS-AB1)

- Perfect for use as an EFA fallow option or where you require 1-2 years from your nectar flower option
- Contains: crimson clover, berseem clover, white clover and red clover.

10kg/ha 20kg pack - £106.00

KWM2bs Basic Pollen and Nectar Mix (CS-AB1)

- Designed to deliver for 2-4 years where a shorter term mix is required or where establishment conditions are more challenging
- Contains: vetch, sainfoin, red clover, alsike clover, birdsfoot trefoil, black medick, black knapweed, red campion, musk mallow and ox-eye daisy.

15kg/ha 7.5kg pack - £88.00

KBB1 Butterfly and Bumblebee Mix (CS-AB1)

- A visually appealing, quick growing mix that will deliver pollen and nectar in the year it is planted
- Contains: birdsfoot trefoil, borage, crimson clover, phacelia and red clover.

12kg/ha 6kg pack - £69.50



Matt's advice...

Do you have land that requires improvement this spring/summer? Our Annual Pollen and Nectar Mix is a great choice for this as it will benefit pollinators whilst improving your soils.

Kings offers a range of organic wild bird seed and nectar flower mixtures. Please contact us for further details.

KHERB Herb Rich Sward Mix (CS-GS4)

- A popular grass, legume and herb mixture that meets stewardship requirements whilst providing valuable grazing opportunities for cattle and sheep
- The varied rooting systems will support soil health improvements and recycle valuable nutrients and minerals stored at depth within the soil profile
- Contains: red clover, late perennial ryegrass, intermediate perennial ryegrass, timothy, meadow fescue, smooth stalked meadow grass, rough stalked meadow grass, birdsfoot trefoil, alsike clover, yarrow, ribwort plantain, salad burnet, ox-eye daisy and chicory.

20kg/ha 20kg pack - £142.00

KHERBgf Grass Free Herb Rich Sward Mix (CS-GS4)

- Designed for overseeding existing grass leys to create a herb rich sward
- Avoid the cost and lost productivity of a full re-seed by using this mix to boost the performance and palatability of existing grass swards
- Contains: red clover blend, medium/large leaf white clover blend, alsike clover, birdsfoot trefoil, sainfoin, sweet clover, perennial chicory, plantain, sheep's burnet, yarrow, sheep's parsley, lucerne.

20kg/ha 10kg pack - £140.00

Please note packs are available in either 0.5ha or 1ha sizes unless otherwise stated.

To convert hectares to acres please divide by 2.471.



Conservation grass mixtures have a wide range of applications on farm. These can include buffering watercourses from crop inputs, protecting soils on slopes, providing nesting habitat and creating corridors to improve connectivity for wildlife across the farm.

Wherever possible, look to create as diverse a sward as you can. Adding a few key wildflower species will support pollinators and bring greater aesthetic benefits too.

KSAN1 Sanctuary Mix (CS-AB1/SW1/SW4/SW11)

- A truly multi-functional mix that has numerous applications - brings together structure, diversity and pollinator habitat in one go
- Contains: black knapweed, birdsfoot trefoil, red fescue, lucerne, ox-eye daisy, perennial chicory, reed canary grass, sainfoin, teasel, timothy, red campion, white campion and yarrow.

15kg/ha 7.5kg pack - £104.00

KLEG2 Two Year Ryegrass Legume Mix (CS-AB15)

- Improve soil structure, increase organic matter, help manage grass weeds and deliver for pollinators all in one Countryside Stewardship option
- Contains: perennial ryegrass, red clover, vetch, birdsfoot trefoil and black knapweed.

30kg/ha 15kg pack - £88.00

KLEG2bs Basic Two Year Ryegrass Legume Mix

(CS-AB15)  

- A lower cost alternative that meets the needs of this key stewardship option
- Contains: perennial ryegrass, red clover, vetch and birdsfoot trefoil.

30kg/ha 15kg pack - £76.00

KSR1 Species Rich Grass Mix (CS-SW1/SW4/SW11)

- Fine grasses that are more suited to the inclusion of wild flower species or where a less tussocky mix is required
- Contains: chewings fescue, bent, red fescue, crested dogstail, hard fescue and smooth stalked meadow grass.

20kg/ha 20kg pack - £97.00

KBG1 Basic Stewardship Grass Mix (CS-SW1/SW4/SW11)

- A good general purpose grass mixture containing tussock and finer grasses - ideal for buffer strips or planting on slopes to reduce erosion
- Contains: cocksfoot, hard fescue, smooth stalked meadow grass, red fescue, tall fescue and timothy.

20kg/ha 20kg pack - £88.00

KMED1 Meadow Mix (CS-SW1/SW4/SW11)

- A traditional grass ley free from perennial ryegrass suited to extensive grazing systems
- Contains: meadow fescue, timothy, smooth stalked meadow grass, creeping red fescue, Festulolium, crested dogstail and meadow foxtail.

35kg/ha 20kg pack - £129.00

KFALL1 EFA Fallow Mix

- A simple to establish and economical mix of Italian ryegrass and red clover for areas to be left as fallow for 1-5 years
- Benefits pollinators, improves soils and reduces erosion risk on slopes
- Contains: Italian ryegrass, vetch, birdsfoot trefoil and red clover.

20kg/ha 20kg pack - £93.00.





Second year Interreg grey partridge mix

Planting wild bird seed mixtures in the autumn, either for wild game habitat or within a Countryside Stewardship Bumble Bird option, is becoming increasingly popular and rightly so.

Compared to spring sown options these mixtures are simpler to establish and require much less in terms of management time and crop inputs.

When planted from mid August to mid September these mixtures can deliver brood rearing, winter food and nesting cover, pollinator habitat and overhead protection all in one go. If you haven't tried one of these options, we strongly advise you to take them into consideration.

KEAUT1 Enhanced Autumn Sown Wild Bird Seed Mix

Synergy treated kale  

- An excellent multi purpose wild bird seed mix that will benefit a host of farmland wildlife
- Contains: barley, Coleor kale, fodder radish, forage rape, Gold of Pleasure, Kings kale rape (treated with Seed-Life™), linseed, phacelia, Stand and Deliver (perennial chicory), Vittasso brown mustard and triticale.

50kg/ha 25kg pack - £92.50

KBUMB Autumn Sown Bumblebird Mix (CS-AB16)

Synergy treated kale

- Delivers nectar flower, overhead cover and small seeds over a period of two years
- Contains: triticale, barley, fodder radish, crimson clover, birdsfoot trefoil, Gold of Pleasure, phacelia, Coleor kale, vetch, black knapweed, wild carrot, ox-eye daisy and red clover.

30kg/ha 15kg pack - £108.50

KINTER Interreg Grey Partridge Mix

Synergy treated kale  

- Designed to support the Interreg Grey Partridge work at the GWCT Allerton Project and Balgonie Demonstration farm in Scotland
- Has the potential to last longer than a conventional autumn sown wild bird seed mixture
- Contains winter triticale, perennial rye, Goldeneye kale, sweet fennel, Gold of Pleasure, Vittasso brown mustard, fodder radish, sweet clover, phacelia, winter linseed, Stand and Deliver (perennial chicory), Utopia and lucerne.

20kg/ha 20kg pack - £98.50



Bespoke Autumn Sown Wild Bird Seed Mix



The perfect location for supplementary feeding; seed trailed on the ground and a strategically placed Perdex Farmland Feeder

Supplementary Feeding

For Farmland Birds

Providing the best wild bird seed mixtures for farmland birds is critical.

Supplementary feeding is a key option within Countryside Stewardship agreements. We are able to supply carefully formulated mixtures or straights that comply with your option requirements along with some key elements to support your feeding activity.



- **Seed mixtures or straights** of the highest quality to meet agreement needs. These can be supplied as a whole mix or as a pre-mix to go with home saved cereals/oilseeds. Available in 25kg or bulk bags to meet your requirements.

- **Weatherproof supplementary feeding diaries** exclusive to Kings. This handy, pocket-sized diary will help ensure you remain compliant in terms of record keeping requirements. Use it to log your activity and refer to our farmland bird identification guide so you know the species benefiting from your work.



- **Perdex Farmland Feeders** - These Farmland Feeders are a great way to demonstrate best practice as they can be hung above the height of game birds. Used individually or within groups, you can target your feeding activity to support your day-to-day spreading activity.



For Game Birds



Using the highest quality components, we offer a range of ground feeding mixtures to support your game management activity.

Designed to appeal to both pheasants and partridges, these mixtures can be fed alone, alongside your regular use of pellets as birds venture from the release areas and incorporated with wheat throughout the autumn and winter months.

Kibbled maize, with or without aniseed, is also available.

Seed is available at competitive prices in bulk and 20-25kg bags. Mixes can also be adapted to suit individual needs.



Neil's advice...

Whilst the majority of your supplementary feeding should be done by broadcasting seed in key locations, the use of the Farmland Feeders can help with extra feed provision in 'hot spots'. Make sure you use our feed diary to keep a record of when, where and how much you feed.





Our range of mixtures meet the needs of farmland and game birds alike. They bring a welcomed extra dimension to a more traditional approach to game cover where maize or kale has been used in the past. Ongoing development in the agronomy of these mixtures has seen many more hectares of these options planted across the UK and Europe.

All of the listed mixtures fulfil the requirements of the AB9 Winter Bird Food option within Mid Tier Countryside Stewardship and can be supplied for conventional or organic systems as required. For dedicated mixtures that meet specific needs of the AB9 option within Higher Tier, please contact us.

KBS1 Basic Wild Bird Seed Mix (CS-AB9)

- Simple to establish, this economical, one-year option appeals to a wide range of farmland birds
- Contains: fodder radish, white mustard, reed millet, Sandoval Quinoa, white millet, red millet and Gold of Pleasure.

20kg/ha 10kg pack - £40.00

KWM1SYN WM1 Wild Bird Seed Mix

(CS-AB9) Synergy treated kale

- Covers all bases with a range of seed sizes that appeal to numerous farmland bird species
- Contains: Coleor kale, Sandoval Quinoa, triticale and wheat.

50kg/ha 25kg pack - £70.00

KALB1 Alba Mix

(CS-AB9/AECS)  

- Originally developed to suit the Scottish climate, this mixture thrives in all locations
- Contains triticale, barley, fodder radish, Kings kale rape (Seed-Life™ treated), Vittasso brown mustard, Utopia and phacelia.

50kg/ha 25kg pack - £58.50

K51 Wild Songbird Seed

(CS-AB9)  

- The perfect mix for those looking for an option that looks good, delivers for a wide range of bird species and is simple to manage
- Contains: buckwheat, Gold of Pleasure, Sandoval Quinoa, triticale, wheat, sunflowers, fodder radish and white millet.

25kg/ha 12.5kg pack - £58.50

K53SYN Wildlife Winter Holding Cover

(CS-AB9) Synergy treated kale  

- Delivers feed, cover and colour for up to two years
- Contains: buckwheat, Coleor Kale, white mustard, phacelia, Sandoval Quinoa, Stand and Deliver (perennial chicory), sunflowers, Utopia and white millet
- Over the last three years we have donated £3,780 to the Gamekeepers Welfare Trust. We are pleased to



celebrate its 2020 initiative, 'The Year of the Gamekeeper'. For each bag we sell we shall donate £2.20 to the Trust.

25kg/ha 12.5kg pack - £65.00

Synergy Kale

To give the best possible start all our kale varieties are treated with our exclusive Synergy treatment which combines a trace element treatment with Seed-Life™ growth promoter. This exclusive nutrient combination provides a significant boost to the establishment and overall performance of brassicas.



Jim's advice...

Before choosing a mix, consider your weed challenges. If you have struggled in the past then consider one of our mixtures that have a dedicated agronomy plan - it will make a huge difference!

Are weed pressures getting the better of you?

The following mixtures are specifically designed to work alongside herbicide plans to ensure your crop gets off to the best possible start.



KCAM1 Campaign Mix

(CS-AB9)  

- The ideal mixture for feeding farmland birds, holding game and ensuring a effective break crop from kale based mixtures
- Contains: barley, red, white and reed millet, triticale, linseed, fodder radish and wheat.

50kg/ha 25kg pack - £56.50

KCAM2 Campaign Mix South

(CS-AB9) 

- For sowing in the southern half of England with an inclusion of sorghum to bring a more robust canopy
- Contains: dwarf and intermediate grain sorghum along with barley, red, white and reed millet, triticale, linseed, fodder radish and wheat.

50kg/ha 25kg pack - £59.75

KHIGH Highland Mix

(CS-AB9/AECS)  

- Ideal where significant weed burdens have built up over time and you need a fresh start
- Contains: triticale, barley, oats, wheat, rye, fodder radish and linseed
- Also available in 500kg bags. Please contact us for details.

62.5kg/ha 25kg pack - £49.50

K27SYN New Kingmix

(CS-AB9) Synergy treated kale  

- A popular choice for those wanting a simple but compliant wild bird seed mixture
- Contains: Coleor kale, Sandoval Quinoa and Gold of Pleasure.

7kg/ha 3.5kg pack - £49.50

KMOIR1SYN Moir Mix

(CS-AB9)  

Synergy treated kale

- A versatile mix that has the potential to last two years
- Pre and post emergence herbicide control options available
- Contains: Coleor kale, Goldeneye kale, Camaro marrow stem kale, Kings kale rape (Seed-Life™ treated), linseed, fodder radish, Gold of Pleasure, white mustard, phacelia, Sandoval Quinoa and Utopia
- Also available with Stand and Deliver (perennial chicory).

20kg/ha 10kg pack - £69.75

KBRASS1 Brassica Mix

(CS-AB9) Synergy treated kale  

- Enables excellent control of grass and broad leaved weeds using a pre and post emergence herbicide strategy
- Contains: Coleor kale, 1000 Head kale, Goldeneye kale, Kings kale rape (treated with Seed-Life™), fodder radish, Vittasso brown mustard, white mustard and Utopia.

7.5kg/ha 3.75kg pack - £66.50

KTAKE Take-Off Mix

(CS-AB9) Synergy treated kale  

- New for 2020. Following several years of trials we are pleased to offer this innovative new wild bird seed mixture with a dynamic herbicide plan
- Combines brassica and cereal species to deliver great results for farmland and game birds
- Contains Coleor kale, fodder radish, Gold of Pleasure, linseed, Kings Milo (dwarf sorghum), red millet, triticale, white millet and Utopia.

40kg/ha 20kg pack - £96.00

For further advice on how these mixtures can help you manage weed control problems, please contact Kings on 0800 587 9797.



With an ever increasing focus on pollinators alongside the aesthetic benefits of wild flowers, it is not surprising that interest in the establishment of new wild flower mixtures and the enhancement of existing areas is on the rise. From small scale projects through to new stewardship agreements, our team can provide the expertise and seed mixtures to meet your needs.

Kings will work with you to advise on site selection and preparation alongside mixture choice, followed by the critical onward management required to make your wild flower project a success.



Flower Rich Grass Mix

KBW1 Basic Wild Flower Mix

- A versatile mix of native wild flowers and agricultural legumes designed to be planted as an over-seeding mix into existing margins for CS option AB8 or within a suitable grass mix
- Contains: sainfoin, birdsfoot trefoil, black medick, red clover, yarrow, black knapweed, self heal, ox-eye daisy, lady's bedstraw, red campion, ribwort plantain, musk mallow and white campion.

1kg per hectare of a suitable grass mix or 4g/m² when planted on its own
1kg pack - £59.00 (inc vat)

K55 Legacy

- This popular perennial mixture contains a blend of 27 native wild flower species (20%) with a selection of non-competitive companion grasses (80%)
- Designed for amenity areas or meadow creation projects that require a diverse, high impact selection of perennial wild flowers.

4g/m² 1kg pack - £65.00 (inc vat)

In addition to our native seed we also supply seed of local provenance as specified for certain options within Environmental Stewardship Higher Level, Countryside Stewardship Higher Tier and AECS agreements.

For information on our site specific mixtures or for advice on bespoke mixtures formulated specifically for your individual requirements, please contact us on 0800 587 9797.



Flower Rich Grass Mix



Clive's advice . . .

Think carefully about how long you want your wild flower area to last for. If you need a quick growing, striking display, go for our Cornfield Annuals. If you are looking for something that will last many years with the correct care then consider our Flower Rich Grass or Legacy mixtures.

K54a Cornfield Annuals

- Our ever popular blend of annual wild flower species that will bring colour through an autumn planting between May and September
- Contains: common poppy, corn chamomile, corn cockle, corn marigold, cornflower, white campion and scentless mayweed.

1g/m² 1kg pack - £75.50 (inc vat)

K54 Wild Flower Meadow Mix

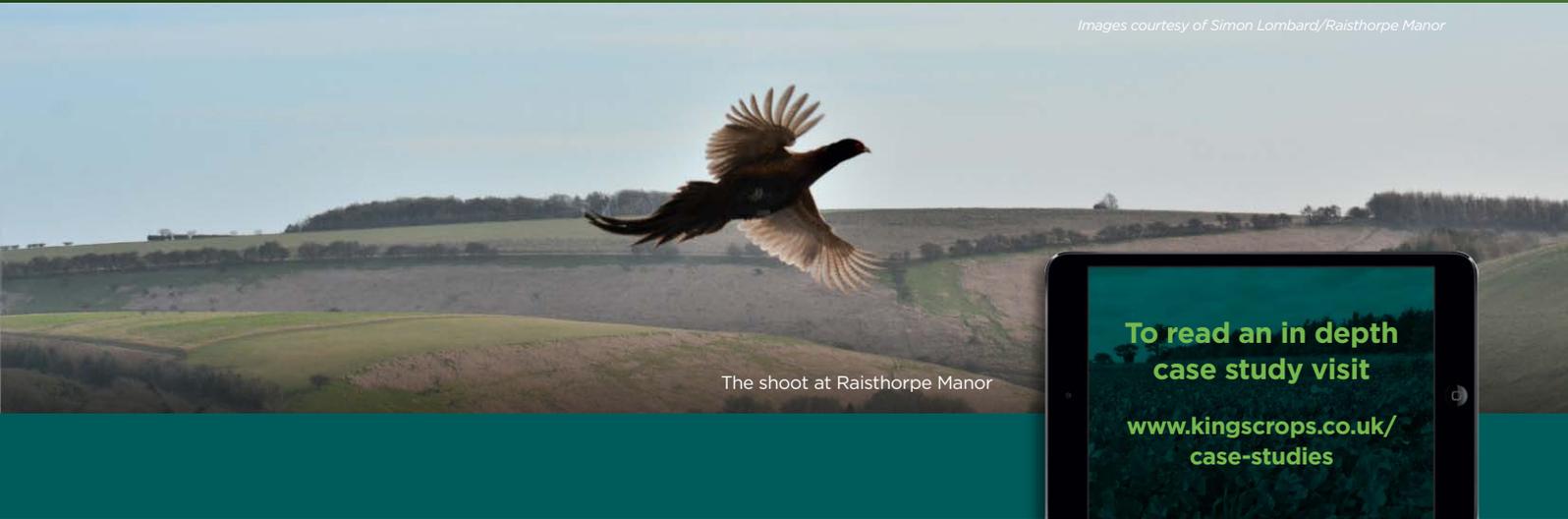
- A diverse mix of 16 wild flower species alongside a range of complimentary grasses
- Contains: 16 native wild flower species (20%) and a selection of non-competitive companion grasses (80%).

4g/m² 1kg pack - £48.00 (inc vat)

KFRGMIX Flower Rich Grass Mix (CS-AB8)

- Our hugely popular wild flower and grass mix suitable for use within EFA Fallow and agri-environment flower rich options
- Made up of 90% grass and 10% native flowers/agricultural legumes
- Contains: red fescue, hard fescue, smooth stalked meadow grass, chewings fescue, sainfoin, crested dogs tail, birdsfoot trefoil, bent, black medick, red clover, yarrow, black knapweed, self heal, ox-eye daisy, red campion, lady's bedstraw, musk mallow and white campion.

20kg/ha 20kg pack - £162.00



The shoot at Raisthorpe Manor

The demand for dual purpose seed mixtures continues as game managers look for crops that will hold game well through to the end of the season whilst meeting stewardship or EFA requirements. We have the expertise to support with an integrated approach that delivers goods for the whole farmed environment.

Game Cover Case Study – Raisthorpe Manor

Increasing biodiversity and renewing Raisthorpe Manor's game cover plots is fundamental to the success of its sporting enterprise, Raisthorpe Flyers. With support from Kings senior technical advisor, Meehal Grint, the estate has adopted innovative game cover and stewardship solutions that work for the business and farmed environment.

Operating alongside the North Yorkshire estate's gin business and arable farm, Raisthorpe's shoot depends on



Raisthorpe head keeper, Matt Hawes

sophisticated game cover management, environmental stewardship and a dedicated year-round team. Head keeper, Matt Hawes, was keen to look at options that could help with managing over 100 hectares of game cover, holding areas and stewardship, while supporting other business operations and improving biodiversity. Following some challenging weather, new crop options needed to stand their ground in the long-term too.

With help from Meehal, tailored game cover mixtures are improving holding areas in line with the estate's existing agronomy programme. Biennial wild bird seed is helping to meet stewardship requirements while contributing to the shoot and reducing annual workload. The ongoing work is proving to be of value to the community too, with the shoot providing significant year-round employment for a number of people.

Visit the Kings website for more detail about the game cover and stewardship efforts at Raisthorpe Manor.

For our full range of game cover and wild bird seed mixtures please see pages 12 and 13.

Kings' key game management partners



www.gwct.org.uk



www.thegamekeeperswelfaretrust.com



www.basc.org.uk



www.scottishgamekeepers.co.uk



www.nationalgamekeepers.org.uk





Undoubtedly, maize remains a stalwart component within the game cover tool box. The Kings range of maize varieties is selected to provide all the characteristics game managers look for, with good early vigor and the best standing power to deliver the goods right through the shooting season.

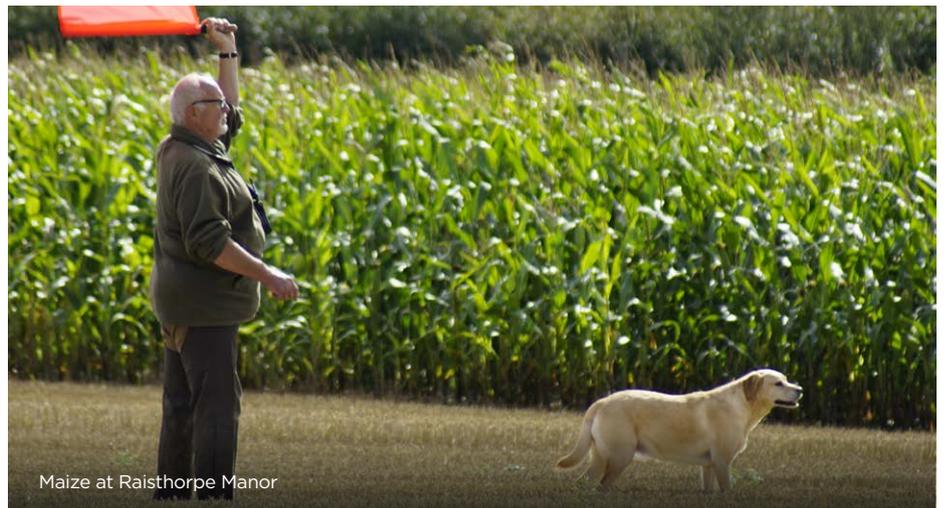
To find out the specific maturity details of each of our varieties, look for the FAO (maturity rating) number to help you choose the variety most suited to your needs. The higher the FAO number, the later the maturity date.

Maize Seed Treatment Update

As of 2nd April 2020, Mesuro treated seed cannot legally be planted in the UK, meaning we will no longer offer Mesuro treated maize seed.

Whilst Mesuro was principally used as a fungicide, it also had bird repellent properties to limit the damage from game and corvids at drilling time.

To assist with this, Kings is providing Korit™ which will help limit damage to seeds and young plants being pulled up. As ever, best practice is to ensure the seed is planted at the correct depth and bird scaring measures are implemented.



Maize at Raisthorpe Manor

Image courtesy of Simon Lombard/Raisthorpe Manor



K20aSYN Poacher Maize Synergy FAO 240

- The leading variety in the game maize sector, selected for its excellent standing power through to the end of the season
- Synergy combines Korit™, Maxim XL, N, P, Zn and Seed-Life™ in one seed treatment to get the crop off to a flying start.

111,000 seeds/ha 1 acre pack - £58.50

Poacher Maize

K20d Kings Maize FAO 230

- A great all-rounder that meets the needs of many game managers
- Treated with Korit™, OptiPlus and Maxim SL.

123,000 seeds/ha 1 acre pack - £48.50

K20b Poacher Maize Blend FAO 230/230/240

- Our popular blend of Kings Early Cob Maize, Poacher Maize and Kings Maize providing a range of cob maturity dates that spreads food provision through the season
- Treated with Korit™, OptiPlus and Maxim SL.

123,000 seeds/ha 1 acre pack - £55.00



Kings Maize



Lee's advice...

For best results maize requires a well structured seedbed and should be drilled at a consistent depth of between 2-4" subject to meeting available moisture and seedbed warmth.

K20c Kings Early Cob Maize

FAO 210

- The ideal choice for those looking for an early maturing variety - especially popular for those with partridges
- Treated with Korit™, OptiPlus and Maxim SL.

123,000 seeds/ha 1 acre pack - £56.00

K20e Kings Late Cob Maize

FAO 600

- A great option if you have badgers, deer or crows. All the attributes of conventional maize just with a very late maturing cob to limit feed availability
- Produces relatively immature cobs when sown from mid-June onwards
- Treated with Korit™, OptiPlus and Maxim SL.

123,000 seeds/ha 1 acre pack - £56.00

Sonido™ treated seed is available for the final time this year. It is a valuable tool for limiting wireworm damage where this soilborne pest is known to be present. Stocks are limited so please order early.

Millet is a great seed to add into mixtures. It can also be planted as a straight crop on its own, or within maize or sorghum crops. A combination of red and white millet can ensure a steady provision of nutritious and attractive seed for game and farmland birds through to December.

Our quality control process remains relentless with our millet procurement to minimise the introduction of rogue species. We continue to work with a single trusted supplier, with all seed going through our in-house seed laboratory to ensure purity is at the highest possible levels.

To receive advice and guidance on how to best manage grass or broadleaved weed issues, please do not hesitate to contact us.



Tanka Millet Mix

K21d Tanka Millet Mix

- One of the first game cover mixtures created but remains a popular choice for those looking for low cost feed and cover
- Given its standing power, it is a good alternative to sorghum for those north of the Humber to the Scottish Borders
- Contains reed millet, red millet and white millet.

12.5kg/ha 6.25kg pack - £38.75 (inc VAT)



Alan's advice...

Farmland birds love millet - adding it into your maize, sorghum or other game cover crops will prove beneficial to them, and your game will appreciate it too.

K21a Poacher Millet Mix

- The perfect combination when looking to hold game or feed farmland birds through the winter - the red millet sheds first followed by the white millet
- Contains red and white millet.

12.5kg/ha 12.5kg pack - £38.75 (inc VAT)

K21c Poacher White Millet

- A great early season holding crop
- Excellent food source for partridges in late summer and early autumn.

12.5kg/ha 12.5kg pack - £38.75 (inc VAT)

Millet options available in 25kg bags for larger areas, please contact Kings for further details and prices.





A well established kale crop has the potential to deliver for two (occasionally three) years, helping to provide diverse habitat and reducing the need for multi-year crops. Although one of the more challenging crops to grow, the returns can be significant which is why we work closely with our customers to ensure they see optimum results.

With the right advice and agronomy expertise, kale can be a sound investment that delivers the goods. We work alongside growers to share our experience and best practice, such as advising on drilling dates, seedbed preparation and targeted herbicide plans that work before and after emergence. We also offer ongoing support throughout the growing period to help ensure crops reach their full potential.

K7SYN Coleor Kale [N](#)

- Exclusive to Kings, this number one game cover kale variety is hugely versatile and a great performer in the second and occasionally third year
- A flexible drilling window from May to September helps keep your planting options open.

5kg/ha 5kg pack - £108.00

K9SYN 1000 Head Kale [N](#)

- Renowned for its winter hardiness with relatively tall growth.

5kg/ha 5kg pack - £89.50

K57SYN Up 'n' Away [N](#)

- The best of both worlds with a combination of Coleor kale and Kings kale rape delivering great vigor and winter hardiness for challenging locations

5kg/ha 2.5kg pack - £56.00

KGE1SYN Goldeneye Kale [N](#)

- A club root tolerant variety suitable for a wide range of uses, either as a straight or within a blend

5kg/ha 5kg pack - £98.00

K10SYN Kings Kale Blend [N](#)

- This mix exclusive to Kings brings together the best in kale varieties of Coleor, Goldeneye and Camaro marrowstem
- Will bring a varied crop canopy in both year one and year two if kept.

5kg/ha 5kg pack - £108.00

KKR1 Kings Kale Rape [N](#)

- A fast growing annual brassica that can be sown from May through to the end of August with great effect.

7.5kg/ha 3.75kg pack - £29.00

K6SYN Caledonian Kale [N](#)

- A long standing club root tolerant kale variety with good winter hardiness.

5kg/ha 5kg pack - £118.00

We are able to offer untreated, re-cleaned only Coleor kale for organic use (derogation required).



Kings Kale Blend and Utopia



Meehal's advice...

Make sure you are well prepared for kale crops, whether they be planted as a straight or within a mixture. Have a good agronomy plan and watch out for crop pests.

If you are south of the Humber, sorghum is a game cover crop worthy of consideration. As we have experienced consistently warmer temperatures during the late May/June drilling period, there has been greater interest in this crop year on year.

A useful alternative to maize where there may be deer or badger pressure, this crop can be further enhanced with the inclusion of millet, triticale or linseed to bring additional feed interest.



Kings Sorghum Mix



Paul's advice...

Sorghum is an important element within our Campaign Mix South, so consider that as an option if you are looking for feed, cover and aiming to support farmland birds at the same time.

Synergy Kale

To give the best possible start all our kale varieties are treated with our exclusive Synergy treatment which combines a trace element treatment with Seed- Life™ growth promoter. This exclusive nutrient combination provides a significant boost to the establishment and overall performance of brassicas.

K42e Kings Sorghum Mix

- A blend of dwarf and intermediate height sorghum varieties
- A straightforward option that, once established, is relatively simple to manage and provides winter hardy cover.

25kg/ha 12.5kg pack - £55.00

K42b Kings Milo

- Our renowned dwarf sorghum variety - stands incredibly well through the winter months
- Consider planting as a six metre windbreak alongside maize or as a running strip from a wood to a main game cover area.

25kg/ha 12.5kg pack - £53.00



Ideal for those who wish to pick and mix their game cover or wild bird seed options, our range of straights offers great flexibility.

If you need help with matching the right crops, ensuring your seed rates are correct or you need agronomy advice, please let us know; we will be pleased to help.



Sunflower

K41 Sandoval Quinoa [N](#)

- Our highly distinctive blend of six key quinoa varieties
- Not only looks great through the autumn but will keep game and farmland birds well fed with an abundance of nutritious seed

10kg/ha 5kg pack - £68.00

K4 Buckwheat [N](#)

- Ideal for early released game where a food source is required in July/August
- Consider adding into summer sown mixtures such as our Summer Blend or Winter Cover Mix.

125kg/ha 25kg pack - £62.00

K44a Dwarf Sunflowers [N](#)

- A compact growth structure ensures good standing power throughout the winter.

12.5kg/ha 12.5kg pack - £102.00 (inc. VAT)

KGOP1 Gold of Pleasure [N](#)

- A prolific crop that produces large volumes of nutritious seed that is of interest to game and farmland birds
- An excellent choice for poor soils or challenging locations.

12.5kg/ha 6.25kg pack - £39.00

K19 Linseed [N](#)

- Despite being susceptible to flea beetle attack, it is a robust seed producer
- Good for poor or exposed sites, it can produce some useful early season cover.

125kg/ha 25kg pack - £62.00

K30 Phacelia [N](#)

- Known for the substantial amount of pollinators it attracts, it is best grown with other crops if cover is required.

7kg/ha 3.5kg pack - £45.00

K44 Sunflowers [N](#)

- Striking summer colour with valuable autumn feed provision
- Be ready to protect your crops at drilling time as an abundance of pests love the seeds.

12.5kg/ha 12.5kg pack - £56.00 (inc. VAT)

K45 Sweet Clover [N](#)

- Requiring a companion cover crop in year one, this popular biennial makes up for a slow start in year two.

12.5kg/ha 6.25kg pack - £46.00

K47 Tic Beans [N](#)

- A very useful break crop where tired game cover plots need a change for a year or two. Boosts soil fertility whilst the seeds keep game busy early season
- Also available in 500kg bulk bags - please contact us for further details.

250kg/ha 25kg pack - £38.00

K48a Spring Triticale [N](#)

- Many game managers are looking to use a straight crop (especially near release areas) to hold game in the autumn, knowing that it will thin out as the season progresses
- Also available in 500kg bulk bags, please contact us for further details.

125kg/ha 25kg pack - £32.50



Phacelia



Richard's advice...

We see too many crops with weed issues due to poor planning - talk to us before ordering to ensure you have a robust plan in hand ready for the all important planting window.

We also supply varieties of spring barley, oats, wheat, triticale and tic beans in both 25kg and 500kg bags. Please call our team on 0800 587 9797 for further details.

As weather patterns continue to shift, we are seeing more growers looking to plant their game crops during July. While it may seem late this period often sees crops growing quickly, with the threat of pests much lower than that experienced earlier in the year.

If you are looking for additional feed, consider introducing buckwheat, linseed or Gold of Pleasure, as these will establish quickly.

KSUM1 Summer Blend

Synergy treated kale

- Combines the early rapid growth from the Utopia and Carbon with the slower growing winter hardy Coleor kale

- A good option for July.

7kg/ha 3.5kg pack - £53.00

K5OSYN Universal Mix

(CS-AB9) Synergy treated kale

- An ideal wild bird seed mixture replacement if you are having to re-drill, patch up or are simply late to get going
- Contains Coleor kale, Gold of Pleasure, Carbon, Vittasso brown mustard, fodder radish, Kings kale rape (treated with Seed-Life™), white mustard and Utopia.

12.5kg/ha 6.25kg pack - £55.00

KWC1 Winter Cover Mix

(CS-AB9)

- The number one choice for late season planting whether it be new blocks of cover, areas for patching or strips to go into autumn stubbles
- Contains Utopia, Kings kale rape (treated with Seed-Life™), white mustard, turnip rape, fodder radish and Vittasso brown mustard.

10kg/ha 5kg pack - £44.50

K14 Fodder Radish

- Quick growing and relatively low cost - will provide early cover and an abundance of seed popular with farmland birds.

7.5kg/ha 3.75kg pack - £27.00



Winter Cover Mix

K15 Forage Rape

- Growth is not as tall as Kings kale rape but it is quick growing and makes a handy end of season grazing crop.

7.5kg/ha 3.75kg pack - £23.50

KKR1 Kings Kale Rape

- Quick growing, winter hardy and tolerant of relatively poor conditions
- Treated with Seed-Life™.

7.5kg/ha 3.75kg pack - £29.00

K23 Mustard

- We always recommend having a bag or two of mustard with your main order - it is useful for patching up and spinning into stubbles after harvest
- Also available in 25kg bags for larger areas, please contact us for further details.

Drill at 7.5kg/ha Broadcast at 10kg/ha 10kg pack - £32.50

K43 Stubble Turnips

- A good option for covering stubbles economically and creating a grazing option at the end of the season
- Also available in 25kg bags for larger areas, please contact us for further details.

7.5kg/ha 3.75kg pack - £22.00



Charlotte's advice...

Utopia continues to be an excellent choice for later season planting, but consider our Winter Cover Mix for extra crop diversity as an alternative.

KUT1 Utopia

- Grows very quickly and stands like kale through the winter months - if you want the strong leafy canopy, avoid sowing too early as it can bolt to seed when planted before mid July
- Buckwheat makes a good companion crop if you are looking for extra feed.

5kg/ha 5kg pack - £77.50

KVITT1 Vittasso Brown Mustard

- Withstands winter weather much better than white mustard
- Often used in autumn sown wild bird seed mixtures as its spring growth provides valuable overhead canopy.

5kg/ha 5kg pack - £59.00

All of these mixtures have weed control options - contact us for further details.





The cows at Lowfield Farm



Forage crops are taking on an increasingly important role across many farm businesses. With a need to increase the quality and output of homegrown forage along with a drive to extend arable rotations, there is much to consider. Our practical expertise assists growers in making the right choices across grazing, cutting or dual purpose leys whilst our high output root crops and arable silage options can deliver additional soil improvement benefits.

Forage Crops Case Study

Geoff Spence is a celebrated dairy farmer in North Yorkshire, running an award-winning business which places animal welfare at the centre of its operations. Eager to ensure the highest levels of efficiency and production while maintaining a healthy and happy herd, Geoff sought the help of Kings technical advisor, Clive Wood to implement a sophisticated forage production system that delivers for his cows and the farm's bottom line.

Forage production is a core element of the dairy business at Lowfield Farm, contributing to overall herd health and the quality and volume of milk produced. Having grown maize for a number of years farmer, Geoff Spence, has now switched to a high performance hybrid followed by an autumn sown rye grass. Planted in April, the new maize option is already delivering yields of 19 tonnes per acre for his 700 Holsteins, with the rye providing additional forage between new maize options and during the fermentation period. As well as incorporating new grass mixes around the farm to increase yields and further utilise the land, this double-crop



strategy is significantly reducing the cost of production for Geoff, allowing him to put any savings back into the business and welfare of his cows.

Please visit the Kings website for more information about the work at Lowfield Farm.





Kings Extra Cut

Short Term

Kings Westerwolds

37-50kg/hectare

- Quick growing annual ryegrass
- In production 8 - 10 weeks from sowing.

1-2 Year Cutting Leys

Kings Sprinter

50%	Major	Westerwolds Ryegrass (T)
50%	Meribel	106% for monthly cuts and good 2 nd year growth

- Will achieve quality cuts 4-5 weeks after the initial cut (8-10 weeks after planting).

Kings Catch Crop

50%	Italian Ryegrass
50%	Italian Ryegrass (T)

- Provides high yields in both years of production with rapid recovery after cuts.

X-seed Vesuvius 2 Years

32%	Muriello	Italian Ryegrass Diploid
32%	Kigezi	Italian Ryegrass Tetraploid
36%	AberNiche	Festulolium

- A 4-6 cut mix with potential for a cut in year three, early enough to plant maize in early May
- An excellent choice as a two-year hay/haylage mix.

Kings Extra Cut 2 Years

10%	Perun	Ryegrass Plus™
30%	Alamo	Italian Ryegrass
10%	Hunter	Italian Ryegrass (T)
25%	Tetragraze	Hybrid Ryegrass (T)
25%	Aston Crusader	Hybrid Ryegrass (T)

- Extra Cut is aimed at 3-5 huge conventional cuts over two seasons with potential for early first cut in year three.

3-5 Year Cutting Leys

Kings Protein Plus

15%	Lofa	Ryegrass Plus™
15%	Perseus	Ryegrass Plus™
15%	Perun	Ryegrass Plus™
20%	Alamo	Italian Ryegrass
15%	Tetragraze	Hybrid Ryegrass (T)
20%	Red Clover Blend	

- This three-year ley is aimed at 3-4 huge cuts with increased protein levels and reduced nitrogen inputs
- With the high inclusion of advanced grasses, this mixture has good drought and stress tolerance.

X-seed Ruby

23%	AberClyde	Intermediate Tetraploid
23%	AberCrusader	Hybrid Tetraploid
15%	AberWolf	Intermediate Diploid
15%	AberGain	Late Tetraploid
24%	AberClaret	Red Clover

- Five-year term with emphasis on forage quality - high overall yields with high D-values, ME yields and high proteins.

X-seed Quartz

29%	AstonCrusader	Hybrid Tetraploid
36%	AberGain	Late Tetraploid
21%	AberEve	Hybrid Tetraploid
14%	AberClyde	Intermediate Tetraploid

- Formulated for 3-4 cuts of a very high quality forage plus end of season grazing
- Huge yields with high D-values result in more milk per hectare.

Kings HayMax Full Term

25%	Genesis	Early Perennial Ryegrass
20%	Solomon	Intermediate Perennial Ryegrass
27%	Boyne	Intermediate Perennial Ryegrass
14%	Timing	Late Perennial Ryegrass
14%	Dolina	Timothy

- Excellent resistance to foliar diseases
- Outstanding yields for both hay and haylage with late season grazing - Timothy improves summer palatability and colour of the mown sward.

Dual Purpose 5 Years +

Kings Flexicrop

15%	Lofa	Ryegrass Plus™
20%	Tetragraze	Hybrid Tetraploid
14%	Nifty	Intermediate Diploid
14%	Seagoe	Intermediate Tetraploid
15%	Timing	Late Diploid
17%	Nashota	Late Tetraploid
5%	Dual Purpose White Clover Blend	

- A high annual yield under cutting and grazing regimes with vigorous early growth alongside high D-values for a quality first cut.

Kings Meat & Milk

18%	Nifty	Intermediate Diploid
10%	Seagoe	Intermediate Tetraploid
14%	Triwarwic	Intermediate Tetraploid
24%	Cancan	Late Diploid
20%	Nashota	Late Tetraploid
8%	Dolina	Timothy
6%	Dual Purpose White Clover Blend	

- Timothy added for winter hardiness, early spring growth and improving tolerance to cold and wet
- A mix that gives outstanding live weight gains and milk output.

Kings All Stock

20%	Premium	Intermediate Diploid
24%	Glenstal	Intermediate Tetraploid
25%	Romark	Late Diploid
20%	Solas	Late Tetraploid
7%	Winnetou	Timothy
4%	Dual Purpose White Clover Blend	

- Provides an economy option that can be cut and grazed whilst delivering general all-round performance.

Specialist Grazing 5 Years +

Kings Intensive Grazing

20%	Nifty	Intermediate Diploid
17%	Solomon	Intermediate Diploid
24%	Cancan	Late Diploid
15%	Aspect	Late Tetraploid
18%	Nashota	Late Tetraploid
6%	Grazing White Clover Blend	

- Aimed at season long grazing with high D-values performing very well on a 21-day paddock system
- Early season growth from Solomon and Nashota, mid and late season from Nifty, Cancan and Aspect.



X-seed Jade

25%	AberWolf	Intermediate Diploid
25%	AberGreen	Intermediate Diploid
25%	AberGain	Late Tetraploid
14%	AberClyde	Intermediate Tetraploid
11%	AberSpey	Intermediate Tetraploid

- Aimed at four-week cutting intervals that delivers huge yields of highly digestible fibre or very intensive grazing systems.



X-seed Emerald

36%	AberGain	Late Tetraploid
14%	AberZeus	Intermediate Diploid
14%	AberGreen	Intermediate Diploid
14%	AberWolf	Intermediate Diploid
11%	AberChoice	Late Diploid
11%	AberLee	Late Diploid

- Aimed at four-week cutting intervals that delivers huge yields of highly digestible fibre or very intensive grazing systems.

Kings DroughtMax

16%	Perun	Ryegrass Plus™
12%	Perseus	Ryegrass Plus™
18%	Lofa	Ryegrass Plus™
10%	Fedoro	Fescue Plus™
16%	Romark	Late Diploid
17%	Alfonso	Late Tetraploid
5%	Red Clover Blend	
6%	Dual Purpose White Clover Blend	

- Contains natural, deep rooting, advanced ryegrass providing drought and stress tolerance.



X-seed X-tend

27%	AberGain	Late Tetraploid
13%	AberGreen	Intermediate Diploid
13%	AberLee	Late Diploid
20%	AberChoice	Late Diploid
27%	AberZeus	Intermediate Diploid

- Designed for intensive, extended grazing with all varieties having high digestibility.

All of our grass products have a recommended seed rate of 37kg/ha unless otherwise specified.



Over-Seeding Mixtures

Kings GrassMax Cut

25%	Lofa	Ryegrass Plus™
45%	Tetragraze	Hybrid Ryegrass (T)
20%	Diwan	Intermediate Perennial (T)
10%	White Clover Cutting Blend	

Kings GrassMax Cut No Clover

30%	Lofa	Ryegrass Plus™
40%	Tetragraze	Hybrid Ryegrass (T)
30%	Diwan	Intermediate Perennial (T)

Kings GrassMax Cut Red Clover

30%	Lofa	Ryegrass Plus™
45%	Tetragraze	Hybrid Ryegrass (T)
25%	Red Clover Blend	

Kings GrassMax Graze

20%	Diwan	Intermediate Perennial (T)
35%	Aspect	Late Perennial (T)
35%	Solas	Late Perennial (T)
10%	Grazing White Clover Blend	

Kings GrassMax Dual Purpose

30%	Solid	Hybrid Ryegrass (T)
30%	Diwan	Intermediate Perennial (T)
30%	Aspect	Late Perennial (T)
10%	Dual Purpose White Clover Blend	

Kings GrassMax Dual Purpose No Clover

40%	Solid	Hybrid Ryegrass (T)
30%	Diwan	Intermediate Perennial (T)
30%	Aspect	Late Perennial (T)

Kings GrassMax Pro Nitro No Clover

55%	Solas	Late Perennial Ryegrass (T)
45%	Aspect	Intermediate Perennial Ryegrass (T)

GENERAL GRASS MIXTURES

We offer a range of grass mixtures to meet both equine and general purpose requirements.

KG3a/b KingsScope

- Suitable as a domestic lawn mix or for more extensive landscaped areas
- Contains: amenity perennial ryegrass and strong creeping red fescue.

10/20kg pack - £49.00/£95.00

KG2b KingsFine with Ryegrass

- A high quality lawn seed mixture
- Contains: chewings fescue, amenity perennial ryegrass, slender creeping red fescue and strong creeping red fescue.

20kg pack - £98.50



K38 Rearing Pen Grass Mix

- A dedicated rearing field mixture
- Hard wearing, suited to either laying pens or rearing fields
- Contains: amenity perennial ryegrass, birdsfoot trefoil, red fescue, meadow fescue, late perennial ryegrass, tall fescue and white clover.

32.5kg/ha 16.25kg pack - £88.00

K35 Horse Paddock Mix

- Hard wearing equine blend that meets the needs of new or re-seeded paddocks
- Contains: intermediate perennial ryegrass, late perennial ryegrass, timothy and creeping red fescue.

37kg/ha 10kg pack - £59.50



At Kings, we offer guidance on woodland grant schemes and Countryside Stewardship opportunities. New for this year, we're also delighted to launch a new initiative with woodland conservation charity, the Woodland Trust.

We can provide a wide range of hedge plants, trees and shrubs throughout the winter months, including specialist tree packs to combat tree disease as part of an exclusive offer from the Woodland Trust.



**WOODLAND
TRUST**

Targeting tree disease

Across the UK 126 million trees are at risk from ash dieback and 60 million trees have already been taken by Dutch elm disease. To help landowners restore existing woodland or hedgerows and regenerate countryside threatened by tree disease,

the Woodland Trust is offering an extra **£10 discount** on its already 50% subsidised Targeting Tree Disease tree packs.

Trees are crucial for our environment. Planting the right tree in the right place offers a host of benefits for landowners, from reducing soil erosion and capturing carbon, to slowing flood water and offering shade for crops and livestock. The Targeting Tree Disease pack contains trees suitable for growing on large plots of land and includes 45 cell-grown saplings, approximately 20-60cm in height. The saplings are perfect replacements for diseased trees that have grown through hedgerows.



Every sapling provided by the Woodland Trust is UK and Ireland Sourced and Grown to minimise the risk of importing and spreading further tree pests and diseases. Seeds are collected and stored in the UK, and coded and batched so each tree can be tracked.

***Terms and conditions:** Discount code is for use on web and telephone orders only. Valid until midnight on 31/03/2020. Code can be used on Targeting Tree Disease packs (includes Kent Downs pack) only. Cannot be used in conjunction with other codes. One use per customer. Prices are subject to change. Please call 0330 333 5310 or visit woodlandtrustshop.com for further details.

Order your tree pack today for an extra **£10 discount** off the already 50% subsidised price.

Visit shop.woodlandtrust.org.uk/targeting-tree-disease-pack or call 0330 333 5310 quoting the discount code **KINGS10**.*

Each pack contains 15 of each tree species as well as hardwood stakes and tree protection.

Eight different tree mixes are available to ensure you can choose the trees right for your land:

- Common beech, silver birch and English oak mix
- Silver birch, rowan and common oak mix (recommended for Scotland)
- Common beech, hornbeam and English oak mix
- Hornbeam, English oak and wild cherry mix
- Common beech, hornbeam and wild cherry mix
- Silver birch, rowan and sessile oak mix (recommended for Wales)
- Silver birch, hornbeam and wild cherry mix
- Silver birch, English oak and wild cherry mix.



Kale rape hybrids

- **Interval** - Great leaf to stem ratio. Ideal for early grazing - 10-12 weeks of planting. The top yields at typically 8% above the nearest competition. Top mildew resistance.
- **Swift** - High yielding. Can provide notable regrowth after initial grazing period. Suits later sowings.
- **Sparta** - Top dry matter yield potential. Importantly, with clubroot resistance and high winter hardiness.

Forage rape

Forage rape is a fast growing, leafy brassica generally planted in the summer months to provide a complete grazing crop during late autumn and early winter. With fleshy growth, most of the plant is consumed including leaf and stem, so there is little waste. Often sown in mixtures with stubble turnips to provide a balanced autumn/winter feed.

- **Hobson** - Excellent for finishing lambs. Top yielding conventional variety and ideal for late grazing. Good resistance to mildew with top winter hardiness scores.
- **Rampart** - New variety with good palatability and a useful re-growth character.

Fodder beet

Fodder beet is grown to harvest the mature root for feeding during winter. It will notably out-yeild, in terms of dry matter, both turnip and swede crops. Energy beet varieties for biogas use are also available.

- **Tarine** - Produces the top dry matter yields. It has a medium dry matter percentage. Pink flesh with low bolting risk and rhizomania tolerant.
- **Barents** - Very high yields of clean, well shaped roots that allow easy harvesting with a high % in the ground. Large tops and suitable for late harvesting. Low disease risk. Rhizomania tolerant.
- **Brick** - A high DM% variety with top yields. Rhizomania tolerant with 75% of root in the ground like sugar beet.
- **Magnum** - Can produce substantial yields. Notably good frost tolerance
- **Splendide** - Excellent all round variety. Good dry matter content. High beet yield. High root to leaf ratio.



Bespoke forage rape and kale blend

Turnip rape

Turnip rape provides a useful alternative to traditional forage brassicas, combining a leafy top with a small root.

- **Jupiter** - Quick growing and winter hardy, particularly suited to northern regions. Flexible sowing window, ideal for planting until end of September.
- **Avalon** - A very fast alternative to Jupiter. Can be grazed often after six weeks. Suits later sowings.

Main crop turnips

Main crop turnips provide a robust forage crop when planted in early summer and can provide a flexible grazing opportunity from late summer to the end of winter. Often mixed with a stubble turnip to spread the period of feed availability.

- **Green Globe** - Late maturing variety that can be grazed from between 90 - 120 days of planting. Combines a leafy top with a substantial root.

Swedes

Swedes provide a high energy winter feed that can be grazed or lifted as required. Where grazed they should be strip grazed to avoid wastage.

- **Gowrie** - Top yielding variety for pre or post Christmas use. Good resistance to clubroot and powdery mildew.
- **Invitation** - Ideal for late winter use. Very hardy with high DM% and large leaves. Useful for sheep or cattle.



Lee's advice...

Forage crops are an increasingly valuable element of farm rotations.

Their use as a break crop within the wider rotation and a means of reducing the reliance on bought in feeds should not be underestimated.

Maize

Forage maize is grown to make silage from the immature plant. Best results come from harvesting when most grain sites have converted soluble sugars to starch. The target for harvest is to achieve 27-35% dry matter silage. Available varieties include:

- **Augustus** - FAO 160 - Maturity rating 11. Ultra early variety with yield potential 4-5% over Kentaurus. No. 1 in the Ultra early class. Available with Sonido insecticide to reduce wireworm attack.
- **Calvini** - FAO 170 - Maturity rating 9. New in 2019 - set a new standard. Exceptional yields in the early class. The best early plant vigour. Suits forage and biogas. Available with Sonido insecticide to reduce wireworm attack.
- **Ambrosini** - FAO 220 - Maturity rating 6. Later maturing but unbeatable yields. Suitable for high yielding sites in favourable locations. Ideal for AD. Available with Initio bird repellent as standard. Please contact us for further details about dedicated biogas maize varieties.



Stubble turnips

Arable silage

Most commonly combining legumes and cereals, these mixtures are an excellent way to create a high volume forage crop containing both starch and protein. Sown from March onwards, they can provide fresh cut material fed directly or be ensiled for winter use. They also benefit following crops by helping to improve soil structure, retain nutrients and fix atmospheric nitrogen.

- **Peas and oats** – A simple combination of a legume and cereal.
- **Peas, triticale and wheat** – Provides a blend of energy, palatability and yield.
- **Bespoke mixtures** – Contact Kings to discuss mixtures to suit specific needs.

Forage rye

Forage rye is excellent for early grazing where the window between other crops is short. It can be strip grazed for cattle or winter sheep and made into big bale silage as required. It is useful for biogas with an early harvest date.

- **Traktor** – First launched in 2019, this variety has been specially bred for forage production (not a grain type). Best in class yields at 7% above Protector. Ideal for early 'bite' grazing as spring growth can be three weeks earlier than Italian ryegrass. Very good mildew resistance and top protein %.
- **Protector** – Grows quickly in low temperatures. Provides good entry to a following forage maize crop.
- **Ovid** – A spring rye. Can be sown between January and May.

Lucerne

Lucerne provides palatable high protein forage from 3-4 cuts a year. Drought tolerant with five years potential. Seed requires an inoculant.

- **Marshall** – Well adapted to the UK. Highly suited to silage or hay. Thin stems give a very palatable forage crop.
- **Daisy** – Verticillium wilt resistance avoids drying out of leaves and disappearance of plants. High protein content and high dry matter yields.

Stubble turnips

Stubble turnips are the most common forage crop, either broadcast into a standing cereal crop prior to harvest or drilled into the stubble immediately after the combine. Economical to grow, they provide a flexible late autumn and early winter forage opportunity.

- **Samson** – A fast growing sweet tetraploid that encourages significant intake by livestock. Produces large purple 'tankard' roots with the top yields.
- **Delilah** – Notably the best resistance to mildew. Creates large white roots with plenty of grazing potential.
- **Barkant** – Traditional stubble turnip. High yielding with high leaf-to-root ratio.
- **Tyfon** – Leafy, winter hardy type with a small bulb. Can be summer sown but also useful for late spring planting to provide grazing during dry periods, when other forage opportunities may be limited.

Kale

Kale can provide an abundant feed supply for grazing from mid summer to late winter. A versatile crop offering the highest dry matter utilisation of all forage brassicas. Supplied with Synergy seed treatment to boost early growth.

- **Caledonian** – The top yielding marrow stem type variety, with clubroot resistance. Usually the highest yielding variety in trials. Ideal for cattle and very winter hardy. About 20% extra yield over Maris Kestrel.
- **Coleor** – High yielding, leafy, diploid kale of short to medium height. Renowned for high leaf-to-stem ratio. Notable winter hardiness. Distinctive purple colouration.
- **Maris Kestrel** – Excellent leaf-to-stem ratio. Long grazing utilisation period. Top digestibility rating and winter hardy.

Please contact us for details of other forage crops such as lupins, westerwolds ryegrass, forage peas, vetch, chicory, plantains, sainfoin and a wide range of clovers.



Images courtesy of Matt Waldie/Alan Johnson



Bespoke AECS summer fallow mix at 4Front Farming



The interest in soil health and sustainable production systems alongside the increasing focus on resource protection continues to drive huge interest in green cover crops. Following an incredibly wet winter, the need to recover soils and ensure they have greater resilience going forward is going to be a key consideration this year. Our range of straights and both standard and bespoke mixtures meets many requirements on farm and, with industry leading expertise, we can ensure you have the right option to meet your specific needs.

Green Cover Case Study

Already familiar with the benefits of cover crops on farm and utilising Ecological Focus Area (EFA) options, manager of 4Front Farming Co Ltd, Matt Waldie, was keen to incorporate more mixes that would meet Scottish Agri-Environment Scheme requirements while improving soil health and wildlife habitat.

With the support of Kings technical advisor, Alan Johnson, Matt Waldie has successfully incorporated cover crop mixtures that are helping to increase soil organic matter, mitigate the farm's yield plateau and support the local grey partridge population.

Mixtures comprising oil radish, phacelia, crimson clover and vetch across more than 100 hectares are serving as a haven for pollinators and returning valuable organic matter back into the soil. Matt has also turned to direct drilling; a technique he has found to be very beneficial in terms of improved soil health and reduced costs when compared to a conventional ploughing and sowing system.

While the new solutions are all part of Matt's plans to make the business more efficient, he also believes the ongoing work is important for the general public, highlighting to them the responsibilities of farmers to carry out sustainable agricultural practices and extensive stewardship efforts.

Visit the Kings website for more detail about the green cover projects at 4Front Farming.



Fresh weight cut analysis at 4Front Farming

Green Cover Innovation

Whilst working with growers who have been addressing soil and plant health for many years through rotational and reduced tillage methods, we also work with those who are taking the first steps towards a new system. Key opportunities to integrate green cover crops into the rotation include:



Oil Radish

- Effective utilisation of EFA options – either through catch and cover crops (short term) or fallow (longer term)
- Dual purpose forage and green cover options that not only meet grazing requirements but improve soil health and structure, as well as fixing, retaining or recycling key nutrients
- Funded opportunities through Countryside Stewardship will deliver excellent benefits through the Winter Cover Crops (SW6), Two Year Sown Legume Fallow (AB15) and Legume and Herb Rich Swards (GS4) options
- Private sector investment from water companies direct to farm, focussing on cover crops to improve soil and water quality
- Integrated pest management strategies that contribute towards soil improvement whilst addressing key weed, pest or disease issues.



Groundswell
24-25th June 2020
www.groundswellag.com

Groundswell 2019

As the event enters its fifth year, Kings is proud to be the Cover Crop Partner for Groundswell 2020.

The Groundswell event has surged in popularity since its inception in 2016 with a 55% year-on-year growth in attendance, reflective of the shift towards conservation and regenerative agricultural practices in the UK.

Kings has proudly been the Cover Crop Partner for the last three years, showcasing the diversity of our cover crops with trial plots and hosting workshops to demonstrate the associated benefits of using them. At 2019's event, our advisors were especially thrilled to host a visit from Minister Robert Goodwill to the plots on display.

In 2020 Groundswell is evolving again, with a new demo field showcasing the latest direct drills planting into a Kings cover of winter rye and vetch. Our advisors will be supporting with discussions on practical ideas for the implementation of cover crops, as well as offering technical advice and expertise on mixtures.

We look forward to seeing you on the 24th and 25th June.

For further details please visit groundswellag.com

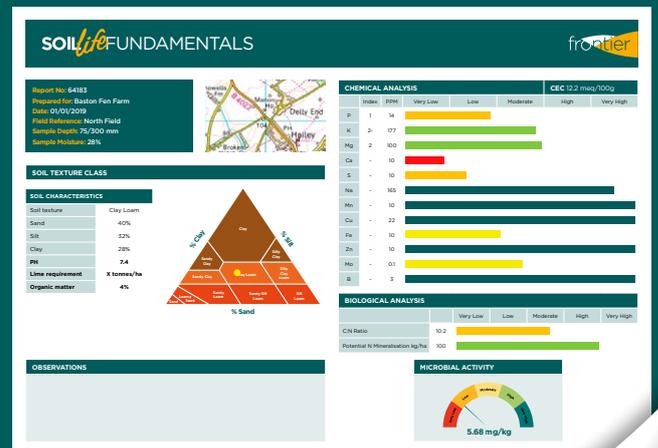
SOIL life

Soil analysis tailored to your farm.

To help growers better understand their soils and plan remedial action, together with Frontier and SOYL we created Soil Life. Part of the initiative includes three reports offering analysis tailored to your requirements.

- **Soil Life Organic Matter** – organic matter analysis for benchmarking and future planning
- **Soil Life Focus** – detailed nutrient availability information to aid nutrition planning
- **Soil Life Fundamentals** – analysis of nutrient availability, soil texture and biology

Soil Life reports can help to improve yields and the sustainability of your soil. Whether it is a benchmark on organic matter levels, a breakdown of available nutrients in the soil or a full analysis of the biological and physical nature of your soil, Soil Life will provide the right level of detail. For further details call us on 0800 587 9797.





Summer Sown Forage Rye



Clive's advice...

Bringing livestock into the arable system to graze on green cover crops can bring benefits to soils and the farm business. We can offer specific guidance on varieties and species most suited to your particular requirements.

Oil Radish

Oil radish grows rapidly and is excellent at catching residual nitrogen, preventing it from being leached. It produces high levels of organic matter and strong, deep roots that penetrate and work through compaction to improve soil structure. It is not a clubroot host, making it valuable in an oilseed rape rotation. When sown in the spring it can help to restructure, drain and revitalise wet or damaged soils.

Kings oil radish varieties include:

- **Siletta Nova** - Our most popular classic variety. Has a medium flowering date and produces high biomass levels with deep roots.
- **Bento** - Provides some valuable nematode reduction activity. It is useful in a potato rotation as it reduces corky ringspot and transmission of tobacco rattle virus. Popular within potato rotations in Scotland.

- **Baracuda** - Combines a high early vigour and deep roots with, importantly, very late flowering. Covers the soil with crop canopy very quickly. With a Class 2 beet cyst nematode reduction listing, it is useful for beet rotations.
- **Adagio** - This variety has all the benefits of Baracuda, but is also good for grazing as it has a larger biomass. Much like Baracuda, it has very late (or no) autumn flowering.
- **Bokito** - Produces a large amount of biomass and is a good choice when grazing is needed. In addition, it is a BCN 2 variety.
- **Defender** - Classified as a multi-resistant medium flowering oil radish, it is very valuable within potato rotations. It can reduce both cyst and free living nematodes. It has good Beet Cyst Nematode reduction and is efficient at reducing free living nematodes such as root-knot, stubbyroot and root lesion types. With the correct management, it offers good bio-fumigation opportunity.
- **Stinger** - A tillage (Daikon type) oil radish with very deep powerful roots. Especially useful to improve soil structure, either alone or in mixtures with other radish varieties/cover crop species.

We have a wide range of other oil radish varieties for different purposes, such as beet cyst nematode reduction only varieties (Level 1 and 2), along with alternative multi-resistant types that can tackle other free-living nematodes. Using the incorrect brassica variety may encourage some nematodes. It is important when tackling nematode problems with brassica cover crops that laboratory tests have been carried out to indicate which nematode species are present.

Mustard

An economical option with rapid growth and high biomass, mustard has a short growing season and is suitable for late drilling. It is a reasonable nitrogen catcher but not always winter hardy.

Careful variety selection can provide biofumigant properties and proven reduction of Beet Cyst Nematode, but mustard can exacerbate clubroot and nematode issues, so be sure to take expert advice.

Kings varieties include basic white mustard, nematode resistant mustard, brown mustard and Ethiopian mustard for biofumigation.

Catch crops and cover crops for EFAs

The use of catch crops and cover crops as a means to meet EFA requirements is becoming increasingly popular. Not only is it an effective way to comply but it also provides a great opportunity to improve soil health at the same time.

Cover crops and catch crops as an EFA option must be selected and managed to meet key requirements around mixtures, species, dates and areas.

They need to be a mix of at least two different types and within specified periods, as highlighted below.

The 2020 English EFA rules are as follows:

- Catch crops must be established by 20th August 2020 and retained until at least 14th October 2020
- Cover crops must be established by 1st October 2020 and retained until at least 15th January 2021.

Cereal Species

Each mix needs at least 1

Oats, Rye and Barley

Non-Cereal Species

Each mix needs at least 1

Radish, Mustard, Vetch, Phacelia and Lucerne

The percentage of crops contained in the mix is flexible, as long as there is a visible mix of at least one cereal and one non-cereal from the list above.

Inclusion of other species will mean that the mix will not count as an EFA.



Soil Vitality Mix



Paul's advice...

EFA catch and cover crops bring a simple yet tremendous opportunity to improve your soils whilst meeting compliance requirements.

Biofumigation crops

Biofumigation needs crops that mulch easily and have a high glucosinolate content that rapidly breaks down to produce biofumigant gas - Isothiocyanates. Working closely with specialist breeders, Kings' mixtures of mustards and radish are formulated to give high biofumigant gas production.

Vetch

Vetch is a large seeded legume which fixes large volumes of atmospheric nitrogen and supports soil fungi and bacteria significantly. Vetch can provide winter hardiness, deep roots and fast growth. Kings' varieties include common vetch and hairy vetch. Vetch is also a very useful partner in mixtures.

Clover

Clovers have a wide range of growth characteristics and levels of productivity, but all of Kings' varieties are effective at fixing atmospheric nitrogen. Options in the clover group include Berseem, Crimson, Balansa, subterranean, white and red varieties.

Cereals

Cereals are easy to establish with high biomass production, good nutrient catching ability and good support of soil bacteria and fungi - especially Mycorrhizal fungi. Depending on variety selection, other benefits include fast growth and reduction in free living nematodes. Kings' cereal options include forage rye, strigosa oats and common oats.

Grass

Kings offers a number of grass based options designed to provide green cover benefits. These can range from short term westerwolds to three year high output grass blends that will improve soils and deliver high volumes of biomass for AD units.

Other species

Other species with benefits in a green cover situation include winter linseed, Gold of Pleasure (camelina), phacelia, sticky nightshade and buckwheat. These crops can provide nitrogen catching, soil health improvement, fast growth, good rooting and nematode reduction. Seek expert advice to select the best crop for your specific needs.



Oil Radish Roots

Well composed mixtures can help to deliver multiple benefits to soil health, organic matter and structure, as well as trap and fix key soil nutrients.

We can add Mycorrhizal fungal inoculants to our cover crop mixtures; a popular technique that is used to revitalise soils usually where a high proportion of sugar beet or oilseed rape is grown in a rotation. These two crops in particular will reduce soil fungal populations with associated lower water and phosphate uptake.

Where you have more specific needs or require organic seed, we provide advice and guidance on creating individual mixtures to suit your soil type and cropping rotation - please contact us for further details or to discuss your specific requirements.

Kings Soil Vitality Mix

- Enhances the soil biota with a selected range of species - can be used within the EFA catch and cover crop options
- Strigosa oats and phacelia are fast-growing
- Vetch fixes valuable amounts of nitrogen and supports soil life
- Oats, phacelia and radish are efficient at catching nitrogen
- A beet cyst nematode (BCN) reducing version of this mix is also available
- Contains oil radish, winter oats, strigosa oat, vetch and phacelia.

Vetch and Rye Mix

- Suitable for the EFA catch and cover crop options
- Sown in late summer, vetch will establish quickly and fix nitrogen at lower temperatures than clovers
- Rye is one of the most effective crops for catching nitrogen left by a previous crop
- Contains vetch and rye only.

Kings Soil Structure Mix

- Adds large volumes of organic matter - suitable for the EFA catch and cover crop options
- Has deep rooting species that help soil structure; tillage radish is ideal for addressing compacted soils
- Frost hardy and will continue to improve soil throughout the winter
- BCN reducing version of this mix also available
- Contains oil radish, tillage radish, winter oats, rye and phacelia.

Super 10 Mix

- An increasingly popular multi species/crop family blend that will deliver significant soil health improvements
- Will be a particularly valuable mix this year where growers are looking to recover soils following the winter flooding
- Contains quinoa, winter oat, oil radish, berseem clover, vetch, buckwheat, phacelia, sunflower, gold of pleasure and rye.





EFA Basic Mix 1

- Simple EFA catch and cover crop compliance
- Contains 94% winter oats, 5% white mustard and 1% oil radish.

EFA Basic Mix 2

- A low cost solution for the EFA catch and cover crop options
- Contains 80% winter oats, 17.5% white mustard and 2.5% vetch.

EFA Basic Mix 3

- A multi benefit blend that meets EFA catch and cover crop option needs
- Contains 65% winter oats, 30% vetch and 5% phacelia.

EFA Power Mix 1

- A simple yet highly effective EFA compliant mix which improves soil
- Contains 60% winter oats and 40% oil radish.

EFA Power Mix 2

- For those looking for a higher proportion of radish whilst remaining EFA compliant
- Contains 90% oil radish and 10% winter oats.

EFA Power Mix 3

- Combines a later flowering radish with BCN control properties in an EFA compliant mix
- Contains 60% winter oats and 40% Baracuda oil radish.

EFA Power Mix 4

- An effective EFA compliant mixture covering a range of rooting depths
- Contains 66% winter oats, 32% oil radish and 2% phacelia.

EFA Power Mix 5

- EFA compliance with good scavenging and fixing of soil and atmospheric Nitrogen
- Contains 80% winter oats and 20% vetch
- We also offer a version with Strigosa black oats – 50% black oat and 50% vetch that can be sown at a lower seed rate.

EFA Nematode Reducer

- An EFA compliant option that targets soil borne pests to support an integrated pest management strategy
- Contains 95% Defender oil radish and 5% Strigosa oats.

Kings Short Summer Mix

- A multispecies mix designed primarily for spring and summer sowings with an economical low seed rate
- Ideal to revitalise damaged soils
- Will meet EFA fallow rules as a wild bird seed mixture
- Contains buckwheat, oil radish, linseed and phacelia.

Kings Summer Legume Mix

- A multi species legume based mix, primarily for spring/summer sowings
- Contains no brassicas, making it ideal before rape crops
- With 4 legume species, it gives a high Nitrogen fixation and supports soil biota well
- Ideally sown in May to revitalise damaged soils
- Contains buckwheat, phacelia, Serradella vetch, berseem clover, crimson clover and red clover.

Summer Sown Catch Crop - A (non EFA)

- Designed to be planted from May to August, creates excellent soil structure and improves vitality for following crop. Ideal before wheat after oilseed rape
- Contains buckwheat, phacelia, linseed, berseem clover and oil radish.

Summer Sown Catch Crop - B (meets EFA rules)

- An EFA catch crop which quickly produces significant rooting and crop biomass. Ideal before later sown winter wheat
- Contains oil radish, Strigosa oats and phacelia.

Kings Summer BioFum

- A specialist mix for biofumigation
- Provides a range of glucosinolates with myrosinase enzyme
- Requires specific growing conditions, dedicated agronomy and careful destruction and incorporation for best effect
- Contains Ethiopian mustard, oil radish and white mustard. EFA compliant version available.

Cover Crop Options For Maize

We offer a range of companion and cover crops that are suitable to use in a maize crop or planted after a maize harvest.

Custom mixtures

Kings can provide advice and guidance on creating specific mixtures to suit soil type and cropping rotation.

We produce all our own mixtures from a wide range of raw materials at our specialist plant and offer a range of bag sizes to suit individual needs.



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Delivery Details

Free delivery and handling on orders totalling £150 or more (mainland UK only Monday to Friday).

A £10 delivery charge applies to orders under £150.

Orders delivered outside mainland UK will be charged at cost, based on total weight and final destination. Please contact us for more information.

We aim to dispatch standard products within three working days. Special mixtures could take longer; please contact us for more information. You will be informed if we are experiencing any delays or are unable to fulfil your order for any reason.

On receipt of your goods please check and report any concerns, damages or losses to the administration team on 0800 587 9797 within 24 hours.

Failure to do so may affect our ability to process your claim or refund.

Packaging

Multiple product orders may be consolidated into an outer bag to minimise the risk of loss or damage during transportation. Please check for internal bags before reporting losses to the administration team.

Quality

Kings only supplies the highest quality seed and related products, and will never compromise on standards, reliability or service.

We make every effort to provide and supply products as stated, however, availability may vary subject to season and peaks of high demand.

MyFarm

Frontier's comprehensive farm management platform includes a range of useful applications for Kings customers, including MySOYL and MyAccount. Visit www.frontierag.co.uk/myfarminfo to find out more.

Terms and Conditions

Seed returned will only be credited if the packs remain unopened and can be resold during the same season. Special mixtures cannot be returned. You will receive a full refund less 15% handling charge, plus the cost of delivery back to our distribution site.

The advice and recommendations contained in this catalogue have been provided to the best of our ability.

No liability will be accepted for any actions taken by growers as a result of this information.

Frontier Agriculture's standard terms and conditions apply. For further details refer to www.frontierag.co.uk



Easy Ways to Order

Online: www.kingscrops.co.uk

for fast and efficient 24 hour online ordering.

Freephone: 0800 587 9797

Tel: +44 (0)1379 658135

(suitable for international callers)

Our customer service team is available
Monday to Friday 8.30am - 5.00pm.

Fax: +44 (0)1522 866529

Post: Kings, Sandy Lane, Diss,
Norfolk, IP22 4HY.

Remember to include any remittance.
Cheques to be made payable to Kings. Alternatively contact your
local Kings or Frontier representative (see page 35).

We accept



Visa Mastercard

Our new catalogue is completely recyclable.

In keeping with our commitment to green solutions for the environment, this catalogue now features a water-based surface coating instead of a plastic laminate on the cover.

If you received this catalogue in one of our new mailing bags, you'll be pleased to know it contains potato starch, is biodegradable and is 100% compostable too. You can dispose of it with your garden waste or add it to a compost, midden or muck heap!*



*Any sealed outer mail bag should not be added to your recycling waste.

Your 2020

kings Specialist Crops Catalogue



Please let us know if you have an existing account with Frontier or SOYL