

Catch & Cover crop mixes



Contents:

COVER CROP MIXES

| MaxiCover | 04 |
|--------------|----|
| MaxiN | 05 |
| MaxiRooter | 06 |
| MaxiVeg | 07 |
| MaxiGraze | 08 |
| MaxiSpectrum | 09 |
| MaxiFruit | 10 |

CATCH CROP MIXES MaxiInterCrop 11 **MaxiCatchCrop** 12 **Maxilmpact** 13

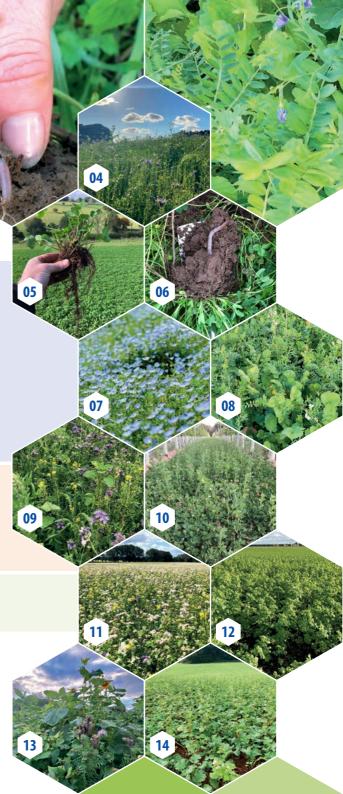
COMPANION CROP

| Maxi | Companion | 14 |
|-------|-----------|-------|
| ••••• | ······ | ••••• |

| Descriptions | 15 |
|-----------------|-----------|
| | • • • • • |
| Label Seed Rate | 16 |
| | |

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Introduction

Catch and cover crops are widely used across all sectors of crop production for many reasons, including their ability to improve key soil functions, add organic matter and cycle nutrients for the following crop.

We are very pleased to offer our own range of catch and cover crop mixes specifically designed to maximise these benefits, updated and added to for 2022.

Technical justification has been the driver in the selection of each species. The key aim with each mix has been to provide as much diversity as possible, while considering cost, reliability and confidence in performance.

Our core **over-winter mixes** all use the same eight species, with ratios of each adjusted according to the situation in which they are placed. This means we work consistently with species we are confident deliver the intended outcomes.

Our **catch crop mixes** present a great opportunity for those with more restrictive rotations to gain improvements in soil health, but also an additional opportunity for those already using cover crops.

Our agronomists have considerable experience of using these crops to benefit growers and provide the correct solution to match their objectives. Please always take the opportunity to discuss with your local Hutchinsons contact and consider the many important agronomic factors that may be relevant to you before deciding.

We hope that there is something for everyone.

Occasionally, shortages of seed of some cover crop species may occur throughout the season. We therefore reserve the right to alter the specifications of any of the mixtures in this range should a shortage occur. We will always ensure that any alterations do not render a mixture unsuitable for its intended use.

Any alteration to the mixture will be clearly shown on the bag label.

Our standard terms and conditions apply, these are outlined on the reverse of our invoices.

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Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Linseed | 26.3 |
| Buckwheat | 7.3 |
| Phacelia | 13.9 |
| Daikon radish | 2.9 |
| Fodder radish | 5.1 |
| Brown mustard | 16.1 |
| Hairy vetch | 3.6 |
| Crimson clover | 24.8 |

Speak to us for specific advice on this mix



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MaxiCover

Seed Rate: 12.5 kg/ha (25kg pack)

A multi-purpose over-winter mix which suits a wide range of situations and soil types.

MaxiCover provides fantastic diversity in root growth. Its varied root depth and architecture helps to aggregate soil and create drainage channels.

Various types of plant canopy offer excellent soil armour and weather protection.

The mix contains legumes, forbs and brassicas which provides a varied food source for soil microbes.

The diversity of the mix and a low inclusion rate of each plant type reduces the risk of exacerbating rotational pest or disease issues.

This mix should be drilled as soon as possible in the summer, following harvest of the previous crop, and no later than early September.

MaxiN

Seed Rate: 15 kg/ha (25kg pack)

MaxiN is suitable for a wide range of situations and soil types but offers the opportunity to maximise Nitrogen fixation with a high ratio of legumes. With the correct management techniques, rates of manufactured Nitrogen can be reduced in the following crop.

Hairy vetch has been shown to produce a higher biomass, more quickly than other vetch and clover species. Crimson clover is fast to emerge and grows vigorously.

With the exception of **daikon radish**, which can store high quantities of N in its large tap root, the brassica content of this mix is significantly lower than in **MaxiCover**.

With the same eight species, the diversity of roots and canopy remains, delivering all the same benefits as the **MaxiCover** with the addition of high N fixation.

This mix should be drilled as soon as possible in the summer, following harvest of the previous crop, but by the end of August. Speak to us for specific advice on this mix

Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Linseed | 9.5 |
| Buckwheat | 4.4 |
| Phacelia | 10.2 |
| Daikon radish | 2.9 |
| Fodder radish | 2.9 |
| Brown mustard | 11.7 |
| Hairy vetch | 11 |
| Crimson clover | 47.4 |

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Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Linseed | 40.2 |
| Buckwheat | 4.8 |
| Phacelia | 8 |
| Daikon radish | 8 |
| Fodder radish | 6.4 |
| Brown mustard | 12.9 |
| Hairy vetch | 3.6 |
| Crimson clover | 16.1 |

Speak to us for specific advice on this mix



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MaxiRooter

Seed Rate: 12.5 kg/ha (25kg pack)

MaxiRooter can be used to alleviate minor shallow compaction or slumping issues by favouring species with larger, vigorous root systems.

Linseed has a very fibrous root mass which spreads well throughout the upper soil layer. This is used in combination with higher levels of the deeper rooting brassica species, in particular **daikon radish** (also known as tillage radish).

The aim with **MaxiRooter** (more so than with the other mixes) is to save a cultivation pass, using 'roots not iron' to repair damage and create a friable soil for establishment of the following crop.

Careful examination of the soil prior to planting this mix will help to determine whether the intended outcome is achievable or if targeted subsoiling should be used alongside this cover crop.

This mix should be drilled as soon as possible in the summer, following harvest of the previous crop, and no later than early September.

MaxiVeg

Seed Rate: 12.5 kg/ha (25kg pack)

MaxiVeg been designed for those who do not want to use brassicas in cover crop mixes.

For example, those who regularly grow brassica cash crops in rotation and have associated issues with soil borne pathogens, must avoid brassicas in cover crops so the problem doesn't get worse.

This mix is brassica free but keeps the remaining five species of the over-winter range. Therefore it still provides a good level of plant diversity and number of key benefits, including Nitrogen fixing legumes.

MaxiVeg is suitable for any soil type and should be drilled as soon as possible in the summer, following harvest of the previous crop, but by the end of August.



Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Linseed | 33.9 |
| Buckwheat | 8.5 |
| Phacelia | 18.6 |
| Hairy vetch | 6.8 |
| Crimson clover | 32.2 |

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Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Linseed | 18.1 |
| Fodder rape | 12.5 |
| Smart radish | 10.4 |
| Stubble turnip | 13.9 |
| Winter vetch | 10.4 |
| Crimson clover | 34.7 |

Speak to us for specific advice on this mix



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MaxiGraze

Seed Rate: 15 kg/ha (25kg pack)

MaxiGraze is the ideal choice for those wishing to strike a balance between improving soil health and providing better forage for grazing.

Single-species forage crops grown over-winter deliver very few of the key soil health benefits that a multi-species cover crop does. Generating forage for sheep or cattle is important for some, so with this mix you have the option to do both.

Forage rape, smart radish and stubble turnip are three brassica species which provide the bulk of the forage in this mix. Due to their three different growth habits, canopy and root types, they still satisfy the requirement for diversity within the mix.

Smart radish has a thick tap root but also has lateral roots which explore the soil horizontally. It also produces a large amount of top growth for forage.

Winter vetch and crimson clover provide quality forage as well as Nitrogen fixation and further diversity of root growth. Linseed, whilst not as palatable as the other species, will be grazed and provides the all-important soil stability from its fine, fibrous root system.

All of the Hutchinsons catch and cover crop mixes can be grazed, but MaxiGraze offers a more tailored mix for those who require it.

MaxiSpectrum

Seed Rate: 40 kg/ha (25kg pack)

MaxiSpectrum delivers maximum species diversity with 15 species from five plant families: forbs, brassicas, legumes, cereals, grasses and chenopods.

The plants in this mix will provide many different types of canopy architecture, root structure and growth habit which in turn provide a multitude of benefits to the soil, environment and following crop.

Every root type explores the soil in a different way and to different depths which helps to create excellent friable soil. The range of species all have their strengths in terms of extracting nutrients from the soil which means that overall nutrient cycling should be enhanced for the benefit of the following cash crop. Each species also produces slightly different root exudates and therefore interacts with soil microbes in their own unique way. This should result in an uplift of the total microbial population as well as supporting a more diverse population.

MaxiSpectrum also includes the "magic five" species recommended by Dr Caligari, a Brazilian scientist and leading expert on cover crops, who suggests that these five plant families grow symbiotically together and produce a mass of phenolic compounds. These compounds are powerful antioxidants, they stimulate soil life and fast track the formation of humus and therefore soil structure.

> Speak to us for specific advice on this mix

Specification

| SPECIES | % (seeds/m²) |
|-------------------------|--------------|
| Linseed | 10.5 |
| Buckwheat | 5.7 |
| Phacelia | 6.7 |
| Sunflower | 1.8 |
| Quinoa | 7.9 |
| Daikon radish | 1.6 |
| Fodder radish | 2.1 |
| Brown mustard | 5.2 |
| Fodder rape | 5.2 |
| Hairy vetch | 3.9 |
| Crimson clover | 18.4 |
| Small blue pea | 3.1 |
| Spring oat | 7.3 |
| Forage rye | 8.4 |
| Japanese reed millet | 12.1 |

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Specification

| % (seeds/m²) |
|--------------|
| 21.8 |
| 13 |
| 25.3 |
| 18.3 |
| 0.6 |
| 1.5 |
| 8.7 |
| 2.8 |
| 1.2 |
| 0.1 |
| 0.2 |
| 4.5 |
| 2 |
| |

Speak to us for specific advice on this mix



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MaxiFruit

Seed Rate: 35 kg/ha (25kg pack)

Soil between fruit rows is frequently run on by machinery through the growing season, which can cause compaction problems in orchards, hop yards and vineyards.

MaxiFruit has been developed to provide all the benefits of cover crops, as well as hold up machinery better through its deep and diverse root types.

It is a perennial, grass-based mix that also includes a number of legume and herb species. The species don't grow too tall so avoid potential agronomic issues. During the growing season it can be mown to manage the height which gives the opportunity to throw the cuttings under the fruit trees, providing a weed suppressive mulch and also contributing nutrients and organic matter.

<image>

MaxiInterCrop

Seed Rate: 11 kg/ha (25kg pack)

MaxiInterCrop is designed to provide shorter term summer cover in a variety of situations on all soil types.

This mix may be used in front of an autumn sown cash crop, for example, after carrots harvested winter/early spring, after vining peas, or after wholecrop cereals (AD or feed).

This mix contains forbs, legumes, brassicas and also a C4 plant in the form of millet, a warm season grass species. C4 plants thrive in the warmer summer months and develop fantastic root systems in a short period of time as well as fixing a huge amount more carbon than C3 plants. High levels of sugary root exudates offer a great food source for soil microbes. C4 plants also have a high drought tolerance.

This mix can be established from late April onwards but may require managing well in advance of the following crop to prevent it going to seed.

Specification

| SPECIES | % (seeds/m²) |
|-------------------------|--------------|
| Linseed | 12.3 |
| Buckwheat | 9.3 |
| Phacelia | 15.4 |
| White mustard | 13.6 |
| Berseem clover | 30.9 |
| Japanese reed millet | 18.5 |

Speak to us for specific advice on this mix

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CATCH CROP MIXES

Specification

| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Buckwheat | 23.5 |
| White mustard | 21.2 |
| Berseem clover | 55.3 |

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MaxiCatchCrop

Seed Rate: 11 kg/ha (25kg pack)

MaxiCatchCrop can be used on any soil type and is designed to fill a gap of approximately six – eight weeks between cash crops. Between Oilseed Rape and Winter Wheat is a good example, providing a way of capitalising on every opportunity in the rotation to introduce diversity and living roots. This mix has also been effective as a late sown option when timings are compromised due to its fast-growing species. Cereals could be added to bulk it out.

All three chosen species are fast to establish and grow away quickly, a very important characteristic considering the short growing window.

Buckwheat is very effective at scavenging for phosphate and has the potential to increase P availability in the rhizosphere. It is also the fastest establishing cover crop species of all those used in the Hutchinsons range.

Berseem clover has impressed with its speed of growth and vigorous rooting, and brings the added benefit of Nitrogen fixation.

White mustard is the fastest growing of the mustard species and provides good biomass as well as a strong tap root.

This mix must be sown immediately behind the combine in order for it to be as effective as possible. Soil moisture levels must be considered and will determine the success of establishment.

CATCH CROP MIXES

Maxilmpact

Seed Rate: 11 kg/ha (25kg pack)

MaxiImpact is designed to do exactly that, make a visual impact. The six species chosen for this mix produce a range of vibrant colours during flowering to deliver a powerful visual impact in the landscape as well as providing a pollen and nectar source, a haven for birds, pollinators, beneficial insects and natural predators.

There are a number of opportunities to utilise this mix across the farm including along headlands of cash crop fields to encourage beneficial insects, or as part of a wildlife corridor through the farm. It could also be planted on the internal headlands of vegetable fields or around the outside of vineyards and orchards.

Again, diversity of species is delivering multiple benefits to both soil life and the life above the soil. A range of flowering periods will provide high quality habitat throughout the summer.

This mix is designed to be drilled from late April onwards and last through to the autumn.

Specification

| SPECIES | % (seeds/m²) | | | | | |
|-----------------|--------------|--|--|--|--|--|
| Linseed | 28.9 | | | | | |
| Buckwheat | 4.8 | | | | | |
| Phacelia | 14.3 | | | | | |
| Dwarf sunflower | 1.9 | | | | | |
| Crimson clover | 23.5 | | | | | |
| Berseem clover | 26.6 | | | | | |

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COMPANION CROP MIXES

Specification

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| SPECIES | % (seeds/m²) |
|----------------|--------------|
| Buckwheat | 6 |
| Berseem clover | 94 |

Speak to us for specific advice on this mix

MaxiCompanion

Seed Rate: 5 kg/ha (25kg pack)

Companion species are increasingly used in various crops which can have a number of positive effects.

Hutchinsons have introduced this companion mix for use with Oilseed Rape (OSR), specifically for the following reasons:

- To introduce species diversity to a monoculture crop.
- To provide a nectar source in OSR crops during late summer.
- **Buckwheat** and **berseem clover** are fast growing species with vigorous root systems, this can help the OSR roots to develop quicker by following the root channels of the companion plants.
- **Buckwheat** has the potential to increase P availability in the rhizosphere.
- Berseem clover fixes atmospheric N which will in turn be made available to the OSR crop.

MaxiCompanion can be added to the OSR seed and drilled together, or separately for those who have a drill with split hoppers.

Companion species are susceptible to frosts. Discuss herbicide strategies with your Hutchinsons agronomist to get the best from this mix.

Species Description

| | Linseed | Thin, upright plant that is easy to establish and develops a thin tap root with fine, fibrous branches that condition soils and extract moisture well. Not frost tolerant but will stand through the winter. |
|--------------|----------------------------|--|
| Forb | Buckwheat | Very fast growing, upright annual plant that is effective at scavenging phosphate from a fine, fibrous root system. Can reach maturity in eight - ten weeks, providing a pollen and nectar source. Helps suppress weed growth but will die at the first sign of frost. Do not graze pre-frost as it can cause photosensitivity in livestock. |
| Brassica | Phacelia | A fast establishing annual which covers the ground quickly with vigorous top growth and develops a moderately extensive root system. It is also quick to reach maturity and is very frost tolerant. Will need managing to prevent seed return. Good at holding nitrogen. |
| | Daikon radish (tillage) | Annual with a very thick, deep tap root which can be effective at breaking through tight or compacted soils. Radish species are excellent nitrogen scavengers. Intermediate top growth which covers the soil well to compete with weeds. Not winter hardy but good persistence, may bolt if drilled too early. |
| | Fodder radish (oil) | Annual radish with larger top growth than Daikon but a narrower, deep penetrating root. |
| | Brown mustard | Produces a deep tap root and very short leafy top growth but can be slow to develop. The C:N ratio of brown mustard is much lower than that of white mustard meaning it releases nitrogen much quicker. It is also much more winter hardy than white mustard. |
| | White mustard | Faster growing mustard, more suitable for shorter term catch crops. Will develop woody stem growth if left for longer periods, increasing the C:N ratio meaning slower nutrient release and residue may block drilling equipment. |
| Legume | Hairy vetch | Annual legume with a sprawling, creeping growth habit. Vigorous root and top growth with good frost tolerance. Low C:N ratio. |
| | Crimson clover | Rapidly growing annual clover with broad leaves. Low growing. Limited frost tolerance. Low C:N ratio. |
| | Berseem clover | Fast establishing clover with a finer vigorous root system and narrower leaves. Very low frost tolerance. Ideal for shorter term catch crops and companion planting. |
| C4 Annual | Japanese reed millet | Annual C4 warm season grass. Grows rapidly in warm temperatures with less water requirement. Large, thick root mass. Low C:N ratio when terminated early. |

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Percent of label seed rate by drilling date

| | April | | May | | June | | July | | August | | September | |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| | 1st half | 2nd half | 1st half | 2nd half |
| MaxiCover | | | | | | | | 100 | 100 | 100 | 120 | |
| MaxiN | | | | | | | | 100 | 100 | 100 | 130 | |
| Maxi <mark>Rooter</mark> | | | | | | | | 100 | 100 | 100 | 120 | |
| MaxiVeg | | | | | | | | 100 | 100 | 100 | 130 | |
| MaxiGraze | | | | | | | 100 | 100 | 100 | 100 | 130 | |
| MaxiSpectrum | | | | | | | 100 | 100 | 100 | 120 | | |
| Maxi <mark>Fruit</mark> | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 120 | | |
| MaxiInterCrop | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 120 | | | |
| MaxiCatchCrop | | | | | | | 100 | 100 | 100 | 100 | 130 | |
| MaxiImpact | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 120 | | | |

These rate adjustments relate specifically to the Hutchinsons range of mixes and should not be transferred to other cover crop mixes.



Your local Hutchinsons agronomist is able to provide you with advice and guidance, as well as supply the mixes that have been mentioned here. **Contact us for more information on our products or services.**

HUTCHINSONS

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