



Cope Seeds Bean Bi Cropping Contract

The UK desperately needs more organically grown home proteins, but unfortunately, beans, as one of the only protein crops we can grow organically in the UK, have been struggling to perform in recent years.

Also, we regularly hear about the level of protein in imported wheat being far superior than our domestic organic feed or milling wheat and as such UK farmers are penalised for this.

With the help of Stephen Briggs from Abacus Organics, we have put together a contract that allows you to grow beans and wheat as a bi crop to help overcome some of these problems.

- We are confident that bi cropping beans with wheat will help to reduce the weed burden beans can suffer.
- Due to the wheat pulling forward the harvest date of the beans and the beans lengthening the harvest date of the wheat, we are confident that both crops will mature at the same time
- Whilst leaving residual nitrogen in the soil for the next crop, there is also evidence that the beans can help improve the protein level in the wheat, increasing the chance of the wheat making milling specification
- Expect yield to be similar or slightly more than a mono crop

Option 1:

Harvested grain is sampled (5kg) by a member of Cope Seeds or Representative and an estimate on the percentage of wheat and beans is given. The wheat is tested for milling quality and the beans tested for standard feed requirements.

A market price for each is given and agreed before movement. The parcel is then sent to the closest store for dressing. The beans are sold as feed and the wheat is sold for milling or feed if it does not make milling standard.

Price: Organic Feed Beans value at time of agreeing price. Mulika price is dependent on Quality. Prices to be agreed after sampling (Between September/November). Haulage to the store and dressing are to the grower (max £20 per tonne).

Cope Seeds to cover handling and storage costs. All costs will be confirmed before movement and at the time of agreeing market values.

Seed: Organic Mulika Spring Wheat £565 per tonne delivered. Organic Cartouche Spring Beans £725 per tonne delivered

Movement Period: October – April

Option 2:

If you manage to produce beans successfully as a single crop and wish to grow beans alone this year, we are looking for growers to help fulfil our feed bean contract.

Price: To be agreed before movement

Seed: Organic LG Cartouche £725 per tonne delivered

Movement: October-April

Drilling & Agronomy Advice

Varieties & Seed Price

Organic Mulika Spring Wheat £570 per tonne delivered (to be drilled at 60% of normal sowing rate).

Recleaned Victus Spring Bean Price TBC. Derogation will be required to use Victus as organic seed is sold out (to be drilled at 60% of the normal sowing rate).

Timing

Typically sow from early March onwards. Spring wheat and spring beans both have the potential to be sown from November onwards where good soil conditions exist.

Sowing

Unless you have a seed drill with a twin hopper system that can drill different seed sizes at the same time at different depth follow the following procedures.

Firstly drill spring beans at 180kg/ha (assuming 95%+ germination) aiming for 30 plants per m² at a depth of 3-4 inches (75-100mm) on normal row spacings of 100-125mm.

Secondly drill spring wheat at 60-90 degrees to the bean drill direction at a sowing rate of 165kg/ha (assuming 95%+ germination) aiming for 225 - 240 plants per m² at a depth of 1.5 -2.5 inches (40-60mm) on normal row spacings of 100-125mm.

Where wide row drilling & inter row hoeing is practised on 9-12 inch rows (22-25cm), aim to drill beans deeper first and then wheat shallower after on the same rows.

Avoid drilling the beans and waiting too long to drill the wheat as if the beans germinate the subsequent wheat drill pass could damage the bean hypocotyl/cotyledon.

Weeding

Comb harrow weed after the wheat has reached the 3-4 leaf stage and beans have reached 4-5 true leaves. Inter row hoe weeding can be undertaken earlier between defined drill rows.

Nutrition

Consider both wheat and bean requirements. Beans require good levels of K, Mg and N. Both require good levels of P for rooting.

Trace mineral applications

Foliar applications of Mn, Mg, S will benefit both wheat and bean crops depending on nutrient status of the soil and season.

Disease management

As a bi-crop the level of chocolate spot & mildew in the beans will be reduced by the presence of the wheat. Equally, the level of septoria and rust in wheat should be reduced. There is potential for mildew build up in warm damp conditions in the spring. Where this occurs manage canopy density through mechanical weeding, grazing or mildew spread through applications of sulphur.

Harvesting

The wheat will typically mature 10 -14 days later than normal due to the presence of the beans. The beans will typically mature 14-21 days earlier due to the presence of the wheat. Typically harvest should be mid - late September.

Harvest when wheat & beans are dry. Typically the wheat will be 1-3% moisture drier than the beans. Ideal harvesting conditions are when the wheat is at 14% moisture and beans 15-17% moisture. This will reduce header losses, skinning of the beans and cracks induced into beans.

Set up combine harvester with a wide concave as set for beans, with the air flow set for wheat. The beans will help thresh the wheat. Too high air flow will loose wheat over the sieves.

Storage & treatment

Crop drying will be determined by the proportion of beans and wheat in the sample and the moisture content at harvest.

Ambient aeration/ conditioning will pass through both bean and wheat crops alike. The additional void space around beans will assist with drying.