

Beans – a viable option for 2019?

Ciaran Collins
Tillage specialist, Teagasc Crops,
Environment and Land Use Programme

Eamonn Lynch
Tillage advisor, Midleton

Mother Nature threw tillage farmers a curve ball in 2018 when a non-existent spring was followed by a summer drought. All crops suffered to some extent but spring beans suffered most. Many spring beans crops struggled to surpass 2.5t/ha in 2018 due to late planting in the spring and the drought that followed in the summer. This yield was on a reduced area due to the lateness of the spring and was in some ways compensated for by the higher protein payment of €350/ha, which is up from €215/ha in 2017.

At current grain and straw prices the question for tillage farmers is: are beans a viable option for 2019?

To answer that question, we need to look at three key areas:

- What benefits can beans bring to my farm?
- What is the five-year average yield nationally, locally, and on my farm?
- At my average yield, are beans financially viable at current grain and straw prices in 2019?

Benefits of growing beans

- They provide a good break crop in rotations, allowing first-crop wheat production to be increased.
- The ability of beans to fix nitrogen reduces applied fertiliser requirement in the following crops.
- They are a combinable crop – no additional equipment is needed on farms.
- Beans are an additional option to fulfil the three-crop rule requirements.
- Growing beans means you have an alternative mode of action to control grass weeds.

Average bean yields

Long-term average yield on your own farm is the best guide to expected production in 2019. Teagasc "harvest report recorded yield" shows a linear increase in yields from 2009 to 2017 with a five-year (2013 to 2017) average of 6.01t/ha. This is without the exceptional circumstances of 2018 where yields dipped to 2.5t/ha (on a reduced area, due to an exceptionally late

Figure 1
Spring beans: 10-year yield

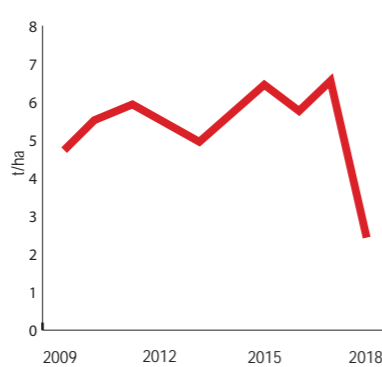


Table 1: Margin comparison 2019

	Spring beans	Spring barley
Grain price €/t	190	160
Cost of production* €/ha	919	1,014
Straw/protein payment €/ha	250	250
Grain yield** required to break even t/ha	4.8	6.3
Average yield (2013 – 2017) t/ha	6.01	7.52
Margin at average yield €/ha	473	439

*Teagasc costs & returns 2019 (provisional). **CSO

spring). Teagasc research shows a significant yield reduction once planting moves into April so the advice is not to plant if the season goes late.

Will beans be financially viable in 2019?

Indicative prices of barley €160/t and beans €190/t are used to assess whether beans will stand up financially in 2019. Based on the costs from the provisional Teagasc costs and returns for 2019, beans can deliver a slight increase in margin of €34/ha over spring barley – and that's without taking the rotational benefits into account.

The DAFM has confirmed that it intends to have a protein payment for 2019 and the payment per ha may be +/- €250/ha depending on the total protein area. The value of straw may increase or decrease from the table above depending on local markets.

This margin is similar to the average net margin (excluding land rental) from the most recent Teagasc



ABOVE: Eamonn Lynch examines crow damage. **LEFT:** Ciaran Collins in a crop of winter beans with farmer Craig Hill.

Profit Monitor results for 2017 where the margin from spring beans was €482/ha compared with €456/ha for spring feed barley.

Farmer profile

Craig Hill farms 144ha of mainly arable crops in Conna, Co Cork, and for over 15 years beans have been part of the rotation on his farm. "We've gained valuable experience growing beans and now beans are one of our most profitable crops before the additional benefits of rotation, soil structure benefits and nitrogen for the next crop are taken into account," says Craig.

Craig missed the dreadful season of 2018. "I didn't have any beans last year but that was more by accident

rather than design as I didn't have suitable land available last year so I was lucky.

"Up to 2017, I'd always grown spring beans but I've planted winter beans this year to try to increase yields."

Craig planted 11ha of Wizard winter beans on 25 October. "I decided to hire in a contractor with a strip till drill this year because it would be better able to sow the seeds deeper than my own drill and I needed to get them down as deep as possible to keep them away from the crows."

This has been a success as the beans are down four inches and the crows haven't done too much damage but Craig admits he has invested a large amount of his time minding them.

Part of the successful establishment this year was due to Craig's keen eye

for detail. After rolling the crop, he wasn't satisfied that the slots created by the drill while sowing were sufficiently closed so he rolled the field a second time across the sowing using a light touch of the paddles on the roller, creating a firmer seed bed.

Every year, Craig completes a Profit Monitor with his Teagasc advisor Eamonn Lynch to keep track of the profitability of individual crops and beans compete very well with the farm's winter wheat, winter barley and spring barley crops. Beans were the most profitable crop on the farm in 2016 leaving a common profit of €605/ha from a yield of 6.5t/ha.

Common profit is the profit that is common to all growers as it excludes land rent, labour and interest. In 2017, beans with a yield of 7.0t/ha were as

profitable as winter wheat and winter barley and were more profitable than spring barley.

Craig emphasises two key areas that influence the profitability of spring beans, "Sowing date is critical to achieving a good yield, I always try to plant my spring beans in early March. Secondly, beans can be grown successfully on a tight budget.

"We don't apply any phosphorus or potassium when planting beans instead we use pig slurry and adjust the rate depending on soil test results. Applying glyphosate prior to planting is really helpful with weed control. Chocolate spot hasn't been a big issue in recent seasons and as a result we have been able to trim spending on fungicides."

One final piece of advice Craig has for prospective bean growers this year is to be patient when it comes to harvesting beans. "I haven't had any major problems harvesting beans but you have to be patient when it comes to the harvest and wait for the crop to be fully mature before you bring in the combine."

In conclusion, before you decide to plant beans consider historic yields, the availability of a local purchaser and the price on offer. Spring beans can return similar margins to spring barley with additional benefits for the soil and succeeding crops.