Beans – a viable option for 2019?

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Other 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 latency of the spring and in some ways compensated for by the higher protein payment of €350/ha, which is up from €250/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 will 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, alleviating first-crop wheat production to be increased.
- The ability of beans to fix nitrogen reduces applied fertilizer requirement in the following crops.
- They are a combinable crop – no additional equipment is needed on farms.
- Beans are an additional option to fulfill the three-crop rule requirements.
- Growing beans means you have an alternative mode of action to control grass weeds.

Average bean yields

Longer in average yield on your own farm is the best guide to expected production in 2018. Teagasc has developed a Margin Monitor for beans. 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.

Table 1: Margin comparison 2019

<table>
<thead>
<tr>
<th></th>
<th>Spring beans</th>
<th>Spring barley</th>
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</thead>
<tbody>
<tr>
<td>Grain price €/t</td>
<td>190</td>
<td>160</td>
</tr>
<tr>
<td>Cost of production* €/ha</td>
<td>919</td>
<td>1,014</td>
</tr>
<tr>
<td>straw/protein payment €/ha</td>
<td>250</td>
<td>250</td>
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<tr>
<td>Grain yield** required to break even the average yield (2013 - 2017)</td>
<td>4.8</td>
<td>6.3</td>
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<tr>
<td>Margin at average yield €/ha</td>
<td>6.01</td>
<td>7.52</td>
</tr>
<tr>
<td>Teagasc costs &amp; returns 2019 (provisional)</td>
<td>€250</td>
<td>€300</td>
</tr>
</tbody>
</table>

Figure 1

Grain yield required to break even of 2019: 6.01 t/ha. Spring beans margin at average yield €6.01/ha compared with €7.52/ha for spring feed barley.

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 return 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 Profit Monitor results for 2017 where the margin from spring beans was €450/ha compared with €495/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 12ha of Wizard winter beans on 20 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 slats 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 thinner seed bed.

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. A spraying phosphorus 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.”

Craig Hill's farm is 124ha 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.

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