Teagasc Advisory Newsletter

TILLAGE

February 2019

Spring beans

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Beans suffered one of their worst years in living memory in 2018, so many farmers are now asking themselves if the crop has a place on their farms at all. As with any break crop, you must look at the longer term and see what, if any, benefits it can bring to the rotation. In the case of beans there are the obvious benefits of reduced fertiliser requirements in the year that they are grown and also in the succeeding crop, increased crop yield in the following crop, an opportunity to control grass weeds and finally, a break from cereal diseases. **Table 1** shows the potential benefit of sowing spring beans followed by spring barley over continuous spring barley in two consecutive years.

Table 1: Potential cost savings from sowing beans.

Costs for two years	*Continuous spring barley €/ha*	*Spring beans plus spring barley €/ha*	*Savings €/ha*
Total input costs	1,130	1,043	87
Extra yield 0.5t/ha	0	80	80
Fertiliser saving year 2*	0	40	40
Total savings			**207**

*Note: Figures based on 2019 costs and returns. *Fertiliser saving of 35kg/ha of nitrogen between index 1 and 2.*

If the spring barley yields 7.5t/ha in both years and the yield of spring barley after the beans is 8.0t/ha, then the beans have to yield 5.6t/ha to leave a similar margin over the two years. Therefore, look at the long-term average yields of the beans before making a decision.

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Table 2: DAFM Spring Bean Recommended List 2019.

	Recommended		*Provisionally recommended*
	Boxer	*Fanfare*	*Lynx*
Treated yield (t/ha at 15% moisture)	101	101	106
% crude protein	100	100	99
Plant height (cm)	121	127	124
Resistance to:			
Chocolate spot	(5)	(6)	(7)
Downy mildew	(6)	(7)	(7)
Rust	(4)	(7)	(1)
Year of first recommendation	**2016**	**2016**	**2019**

Table 2 shows the Department of Agriculture, Food and the Marine (DAFM) Spring Bean Recommended List 2019. Aim to sow 35 seeds/m^2. Be sure to ask your merchant for the thousand grain weight (TGW). This will be critical this year as there may well be some 2018 seed available, which has a completely different TGW to 2019 seed. Try to drill beans at 4" to 5" to prevent crows digging them up.

Prioritise weed control (**Table 3**) the day you drill, even if it means hiring someone to spray for you. Beans can be a dirty crop with limited options and if you miss this key timing, post-emergence control can be difficult. Take care not to apply pre-emergence herbicides if heavy rain is forecast and also try to avoid overlaps as bleaching of the crop can often occur, which can hold the crop back. Trial work has shown no yield benefit from applying nitrogen (N) to beans at sowing. Beans that get N may appear green early on, but it reduces their ability to produce their own N during the main part of the growing season, thus giving no benefit.

Table 3: Main weed control options for spring beans.

Product	*Rate L/ha*	*Comment*
Nirvana	4.0-4.5	Good all round weed control but needs higher rate when used alone.
Nirvana plus Defy	2.5 4.0	Added activity on meadow grass, cleavers and black nightshade.
Stallion	3.0	Good weed spectrum, especially where groundsel is a problem.
Basagran	3.0	Post-emergence use with limited weed spectrum.

Oilseed rape

Oilseed rape has grown very well over the winter months and as a result many crops have green area indexes (GAIs) in excess of 1.5. Pigeon damage doesn't seem to be an issue, and therefore, canopies in the main look strong and healthy. However, don't get complacent, pigeons can still do a lot of grazing in February, especially if other sources of food become scarce. Where crops have a GAI of greater than 1, as a rule of thumb, this equates to approximately 50kg/ha of nitrogen (N) that is already in the crop. Growers can achieve significant fertiliser savings by

GAI 0.5.

GAI 1.0.

assessing canopy covers in February. Applying too much N increases lodging risk and can also encourage the crop to produce too many flowers, which reflect light away from the leaves underneath. Assess your canopy size using a smart phone GAI tool in mid February.

- GAI <1 Apply first split of N in mid/late February (fields or sections of fields).
- GAI >1 Delay first split of N until March.

Light leaf spot (LLS) is the predominant spring foliar disease that can affect rape; however, it can be difficult to spot.
To see LLS, put rape leaves in a plastic bag and leave in a hot press for two days.
The salt-like spores will then be visible to the eye. Spray 0.5L/ha Proline if detected.

Selecting fertiliser compounds

Over the coming weeks winter barley crops will require an application of nitrogen-phosphorus-potassium (N-P-K) to drive both root and tiller production. Fertiliser compounds should be selected on the basis of soil fertility levels, crop type and yield potential. Consult your farm fertiliser plan for field by field advice and select a fertiliser compound to deliver the required levels of N-P-K in the first application. Trial work from Oak Park indicates that winter wheat and oats will not need any N fertiliser until March.
Table 4 shows the recommended levels of P and K for a 10t/ha crop of either winter wheat or barley and suggested fertilisers. Fields at P and K index 1 or 2 have a very low to low supply of P and K and will require freshly applied spring P and K.

Table 4: P and K advice for 10t/ha* winter wheat or barley and suggested fertiliser programmes.

Soil Index	*P kg/ha (units/ac)*	*K kg/ha (units/ac)*	*Bags/ac*
1	58 (46)	130 (104)	4.5 bags 10-10-20
2	48 (38)	115 (92)	4.5 bags 12-8-20
3	38 (30)	100 (80)	4.25 bags 10-7-20
4	0	0	---

**Adjust P by 3.8kg/t, K by 10kg/t for lower- or higher-grain yields.*

Liming

Soil test results show that soil pH levels have improved over the last number of years on tillage farms. Aim to maintain a soil pH of 6.5 for maximum availability of soil nutrients (N, P, K and sulphur (S)) and efficient use of applied bag fertilisers. Spring cereals, especially spring barley, are sensitive to both acidic soils and P availability in the early stages (three to six weeks) of development, when crop yield potential is decided. Now is a good time to check field soil pHs and apply lime where required for spring cereals to correct soil pH to an optimum level.

Teagasc events

Spring seminars are continuing in February. Contact your local office or www.teagasc.ie for details.

Teagasc is also running a number of winter crop walks in February, which will deal with current agronomy issues of winter crops.

Table 5: Teagasc winter crop walks.

Date	*Venue*	*Time*
February 13	Teagasc Oak Park, Carlow	2.00pm-4.00pm
February 14	DAFM Farm, Ballyderown, Co. Cork	11.00am-1.00pm
February 14	Simon Neville, Blackwater, Enniscorthy, Co. Wexford	11.00am-1.00pm
February 15	Platin Grain, Platin, Drogheda, Co. Louth	11.00am-1.00pm
February 15	Teagasc Kildalton, Co. Kilkenny	11.00am-1.00pm

Malting barley conferences

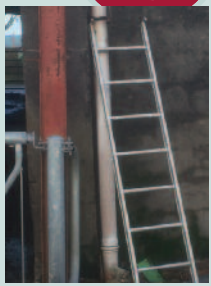
Teagasc, in conjunction with Boortmalt, are holding two Malting Barley Conferences on Monday February 18, starting at 2.00pm in The Riverside Park Hotel, Enniscorthy, Co. Wexford and at 7.00pm in the Clonard Court Hotel, Athy, Co. Kildare. All are welcome.

HEALTH & SAFETY

Keep safe as workload increases

Workload on farms increases in February. Tiredness and hurry lead to accidents, particularly during busy periods. It is vital to maintain concentration on health and safety to avoid accidents when you are busy. Accessing heights is an area to think about, as the risk of a fatality is seven times greater when at a height. Using a ladder, especially in a hurry, is a high-risk task. Alternatives to using a ladder should be considered.

When using a ladder, ensure that it is sound and is adequately supported and secured. Also, keep walkways clear of trip hazards and ensure lighting is adequate to prevent ground level trip hazards.



Support and secure ladders before use.

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