Spotlight | 2018

Arable Benchmarking Survey

2017 harvest year

Summary Now in its sixth year, our survey shows fixed costs are rising

- Crop prices rose by 9% for a second year resulting in higher gross margins, but rising fixed costs impacted on farmer returns
- Variable costs were generally lower during the 2017 harvest year. Labour, energy and depreciation costs rose further
- Average farmer returns improved for in-hand and contract farming agreement operations during the 2017 harvest year
- Given the uncertainty associated with Brexit, farmers should focus on reducing costs and preparing businesses for change
- Sharing best practice between countries can also help to identify areas for improvement and to inform business decision making

About the Survey This report includes statistics for in-hand (IH) and contract farming agreement (CFA) operations, with the focus on farmer returns. For more information and to take part in the Harvest 2018 survey, please contact us (see p4).

- Covers 20,000 hectares of combinable cropping area
- Average farm (combinable crops) is just over 325 hectares
- National coverage
- Predominant soil types are clay and loam with just over three quarters of farms on grade 3 land

Annual findings

The results for the 2017 harvest year reveal that, despite the weather, average crop yields were generally good and, although fixed costs rose, farmer returns improved

Yields

Yields for the 2017 harvest year were variable; average yields for winter wheat and spring barley fell slightly on the previous year, but winter barley and oilseed rape average yields were up by 9% and 25% respectively. Looking at five-year average, yields for the 2017 harvest year results were largely comparable.

Income

Crop prices for the 2017 harvest year rose and this is for the second consecutive year. As a result, our 2017 harvest survey results recorded a rise in margins and therefore higher farmer returns for both in hand (IH) and contract farming agreement (CFA) operations.

As well as increased yields for winter barley and oilseed rape, significantly higher average crop prices were achieved compared to 2016. The weak pound helped strengthen crop prices, and according to the AHDB, an increase in the use of compound feeds within the livestock sector increased demand for UK barley in particular.

Costs of production

Variable costs

Variable costs associated with growing the crop are largely affected by the timing of buying decisions, as well as rates and type of product used. For the 2017 harvest early purchasers of nitrogen benefited. Agrochemical costs, particularly fungicides, were affected by decisions taken in the very dry spring of 2017, which accounted for some of the general reduction in variable costs per hectare.

The spend and overall usage of herbicides in winter wheat and oilseed rape remains robust as blackgrass control from pre-emergence herbicides remains a key tool in the prevention armoury.

Fixed costs

The fixed costs associated with growing a tonne of crop such as labour, machinery and energy are spread across the whole farm meaning it is easy to treat them as unavoidable and necessary costs.

Instead businesses should allocate a proportion of fixed costs to the growing of a crop in order to fully understand the true cost of production and identify where savings can be made. Achieving economies of scale through careful planning and sharing costs across enterprises, with neighbours or entering into a CFA, can all help reduce fixed costs. If direct payments are reduced or stopped (as the Government is suggesting in its Agricultural Command Paper) then scrutinising costs will become even more important for all farm businesses.

FIGURE 1 Average crop yields

Tonnes per hectare	2014	2015	2016	2017	2016/17 % change
Winter wheat	9.35	9.86	8.71	8.70	-0.1%
Winter barley	7.19	8.31	7.00	7.65	9.3%
Spring barley	6.52	6.79	5.99	5.84	-2.5%
Oilseed rape	3.94	3.82	3.12	3.90	25.2%

FIGURE 2 Average crop prices

£ per tonne	2014	2015	2016	2017	2016/17 % change
Winter wheat	£131	£118	£129	£139	7.4%
Winter barley	£124	£106	£105	£118	12.3%
Spring barley	£144	£114	£132	£135	2.6%
Oilseed rape	£293	£275	£310	£348	12.1%

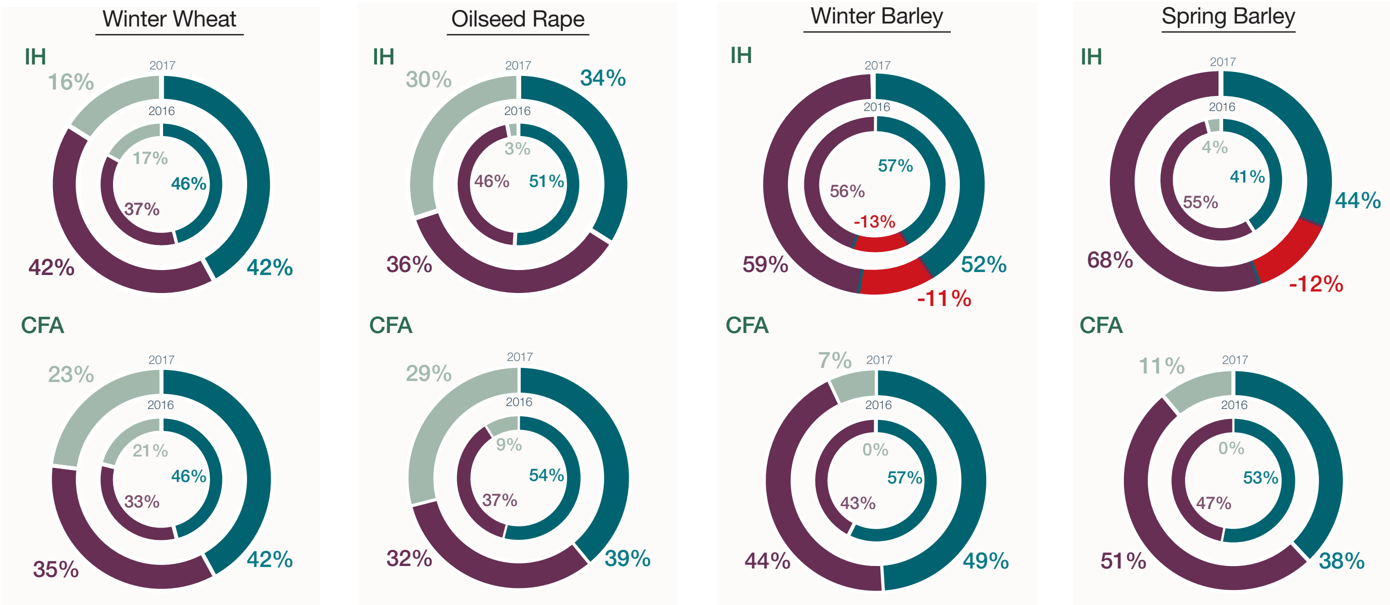
Source: Savills Research

Measuring power, machinery and labour

Figure 3 shows the proportion of the power, machinery and labour costs along with the variable costs as a percentage of the average crop price. Despite rising fixed costs, higher crop prices and generally lower variable costs have resulted in costs making up a smaller proportion of the crop price in 2017.

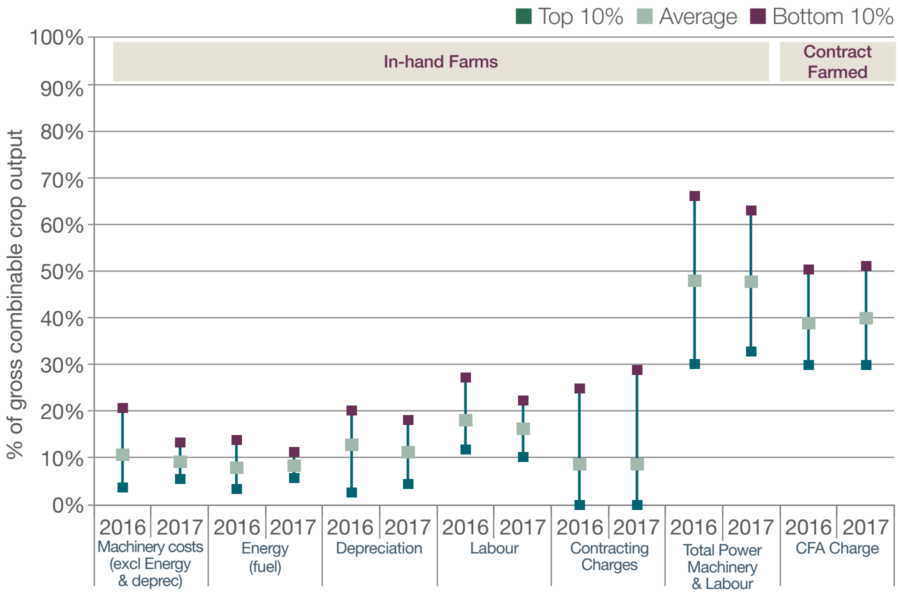
Figure 4 compares the changes between 2016 and 2017 of power machinery and labour costs as a proportion of crop output. CFA operations continue to benefit from lower fixed costs than IH operations but a rise in contractor returns of £65 per ha compared to harvest 2016 has increased the cost to the farmer by 19% for the 2017 crop year.

FIGURE 3 Total costs as proportion of crop price



Source: Savills Research

FIGURE 4 Costs as % of gross combinable output (2016 and 2017)



Source: Savills Research

The graph shows the considerable variation between businesses in power, machinery and labour cost bases. The range between highest and lowest costs continues to suggest there is much to play for in cost analysis and determining appropriate business structure whilst still being able to carry out work on a practical timely basis.

Skilled labour remains a key component of a successful business operation and whilst headline figures suggest modest inflationary increases in labour costs, actual costs to retain or attract new staff can be much higher causing cost spikes in some of the businesses surveyed.

Farmer return

Figure 5 compares the average harvest 2017 farmer return (after power, machinery and labour and excluding subsidy) of IH and CFA operations. Combinable crop gross margins are higher for the IH farms compared to the CFA businesses, however the survey reports average farmer returns are still higher in CFA operations.

Economies of scale enable contactors to charge their customers less than the cost which farmers would incur if farming their land IH, meaning the CFA operations can benefit from lower fixed costs compared to IH operations.

Our research shows farmer returns have improved by around 75% for IH and 53% for CFA operations owing to an increase in yields and the higher crop prices.

FIGURE 5 Harvest 2017 Combinable Crops farmer return (average £/ha)

	In-hand	CFA
Combinable crop gross margin	£643	£633
Total income	**£643**	**£633**
Machinery costs	£88	
Depreciation	£97	
Energy	£80	
Labour	£156	
Contractor charges	£85	£407
Total machinery, power & labour	**£506**	**£407**
Farmer return (margin after machinery, power & labour)	**£137**	**£226**

Source: Savills Research

Benchmarking UK performance

As UK farmers face the prospect of greater trade opportunities, as well as threats in a post Brexit world, how do we compare to some other trading nations in production terms (see Figure 6)?

Putting aside influencing factors including soil type, the weather and crop husbandry, an innovative way of benchmarking is to treat the cost of farmland as a 'fixed cost' and to determine the cost of acquiring land in order to grow a tonne of wheat.

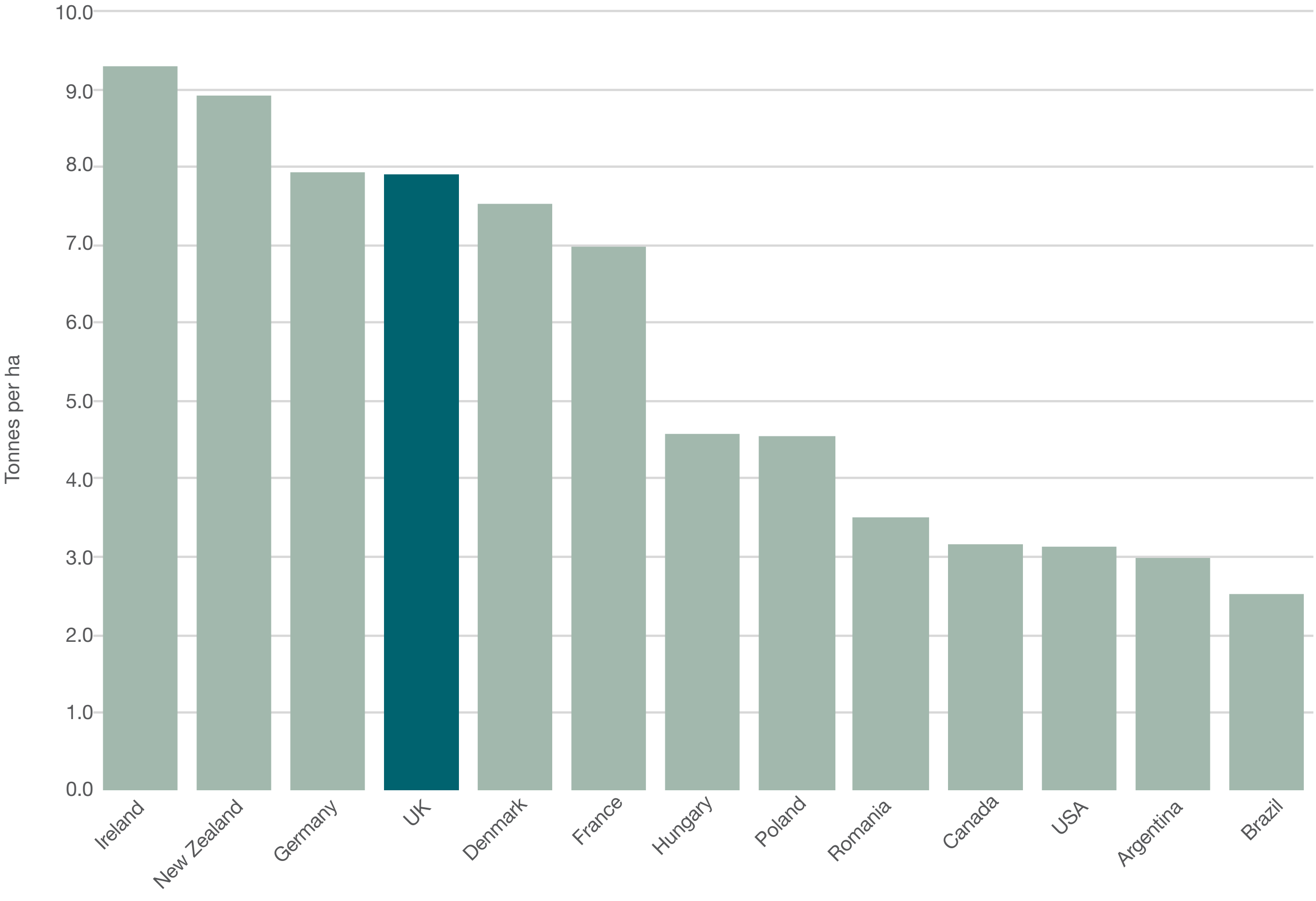
For example, in Ireland, New Zealand and the UK the land cost is between $3,500 and $4,000 per tonne of wheat whereas in the US, Australia, Argentina and Brazil it is below $1,500 per tonne. In the emerging land markets of South America and Central Europe, we expect that crop yields will increase benefitting from increased investment in machinery and management.

In conclusion

UK producers are being urged to be more competitive, and with the potential prospect of the loss of direct payments, benchmarking and monitoring the costs of production will be a vital tool in the management of the crop.

In addition, sharing best practice across borders can also help to identify areas for improvement and to inform business decision making.

FIGURE 6 Global wheat yields (average 2012-2016)



Source: FAO

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