Savills World Research
UK Rural
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Spotlight | 2017

Arable Benchmarking Survey Harvest 2016

Summary Our annual Arable Benchmarking Survey provides farmers with key industry data, enabling them to benchmark their business performance and be better informed in order to drive efficiency

There was an increase in crop prices in harvest 2016. However, any uplift in gross margins was neutralised by lower yields. See p2.

The total costs of production across all cereals and oilseeds were, on average, higher than harvest 2015. This is a result of lower yields. See p2.

Fixed costs remain a smaller proportion of the crop price in contract farming agreements than for in-hand operations. This was the case for harvest 2014 and 2015. See p3.

Long term planning for the future is vital and a major change in structure could bring significant opportunities. We look at the options for individual farming businesses. See p4.

From insecticide bans to Brexit and GM crops, we look at the short, medium and long-term outlook for the industry. See p4.

About our 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 2017 survey, please contact us (see p4).
This year's survey facts:

- Covers 20,000 hectares of combinable cropping area
- Average farm (combinable crops) is just over 300 hectares
- More than 70% of farms are on Grade 3 land
- The predominant soil types are clay and loam

Industry insight

Our Arable Benchmarking Survey provides key metrics for the farming industry. With this data, farmers can review results and access the insight to identify best practice and improve performance

Crop yields The average yields for harvest 2016 fell by around 13%

Tonnes per hectare	2015	2016	% change
Winter wheat	9.84	9.01	-8.5
Winter barley	**8.31**	**7.12**	**-14.3**
Spring barley	6.79	6.01	-11.6
Oilseed rape	**3.82**	**3.13**	**-18.3**

Source Savills Research

Crop prices Lower yields were offset by an overall 9% rise in average crop prices

£ per tonne	2015	2016	% change
Winter wheat	£118	£131	10.6
Winter barley	**£106**	**£105**	**-0.8**
Spring barley	£114	£130	14.8
Oilseed rape	**£275**	**£307**	**11.6**

Source Savills Research

Yields

In contrast to the record high yields reported for harvest 2015, average yields fell by around 13%. Reduced average sunshine hours in June and July 2016 contributed to the lower yields. In fact, harvest 2016 yields were just 6% higher than those recorded in harvest 2013 when the UK suffered severe flooding through the wettest December since 1999, which was followed by a cold spring and dry summer.

Crop price

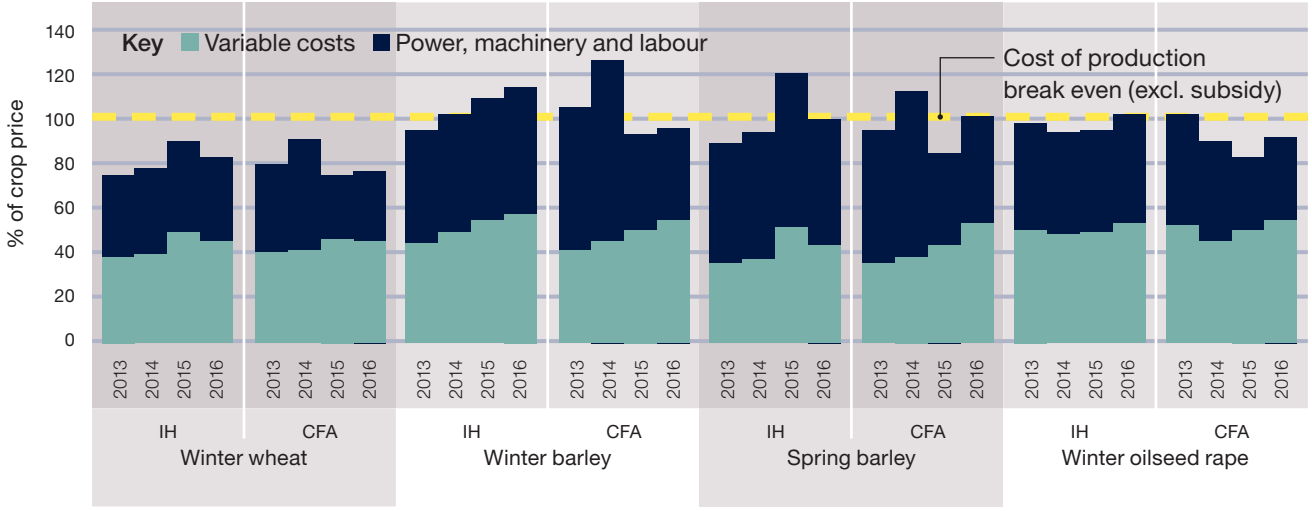
The impact of lower yields on gross margins was offset by an overall 9% rise in average crop prices for the harvest 2016 year compared to 2015. But yields are only one factor affecting crop price.

We are seeing a record global wheat supply with current stocks-to-use ratio at nearly 34% (USDA figures, April 2017). This produced a global drop in commodity prices. It should have signified further decreases in ex-farm prices for UK growers, but political and financial turmoil in 2016 created a weakening of the British pound and offered a cushion against the drop in the global crop price as export demand for UK crop rose.

Costs of production

There are various factors outside the farming operation that impact on the farm's bottom line, many of which are out of the farmer's control. These include price inflation on chemicals and the uncertainty of the fertiliser markets. Therefore, purchasing strategy is a key management requirement as the price point

Measuring costs Power, machinery and labour costs versus variable costs as percentage of average crop price



Source Savills Research

at which purchases are made can make a significant difference to costs of production.

The table (below left) illustrates the power, machinery and labour costs along with variable costs as a percentage of the average crop price. On average, the fixed costs remain a smaller proportion of the crop price in contract farming agreements (CFA) than for in-hand (IH) operations. Variable costs are similar across the different farming operations and are a growing proportion of the crop price.

Analysing power, machinery and labour

Harvest 2016 recorded a marginal £2/hectare reduction in total average power, machinery and labour costs compared to harvest 2015 for IH farms. The data reveals savings were made in contracting charges and machinery costs with depreciation falling further for harvest 2016. The largest individual fixed cost for IH farms is labour which, after a drop during the harvest 2015 year, increased to £133 per hectare – that is more in line with the average of the past four years.

Contractor charges rose by 3% for CFA operations, but, as reported for harvest 2014 and 2015, the benefits of CFA operations are evident through reduced average fixed costs to the farmer.

Analysis of fixed costs as a proportion of gross combinable crop output (below) shows opportunities for improved efficiencies and performance by the range of results between the top and bottom 10% of farms.

Where farmers are using CFAs, the fixed costs as a proportion of the gross combinable output continue to be lower compared to IH operations.

Performance indicators

During the past three harvest years, the difference between the top 10% and bottom 10% of farms is wider for tractor hours per hectare (top 10%, 2.46hr/ha; bottom 10%, 7.11hr/ha) and field fuel use (top 10%, 7.4l/crop tonne; bottom 10%, 23.61l/crop tonne). Their influence on farm business profitability is significant.

Farmer return IH vs CFA combinable crops from harvest 2016 (average £/ha)

	In-hand	CFA
Combinable crop gross margin	£520	£505
Total income	**£520**	**£505**
Machinery costs	£82	
Depreciation	£85	
Energy	£68	
Labour	£133	
Contractor changes	£85	
Total machinery, power & labour	**£453**	**£344**
Landowner return (margin after machinery, power and labour)	**£67**	**£161**

Source Savills Research

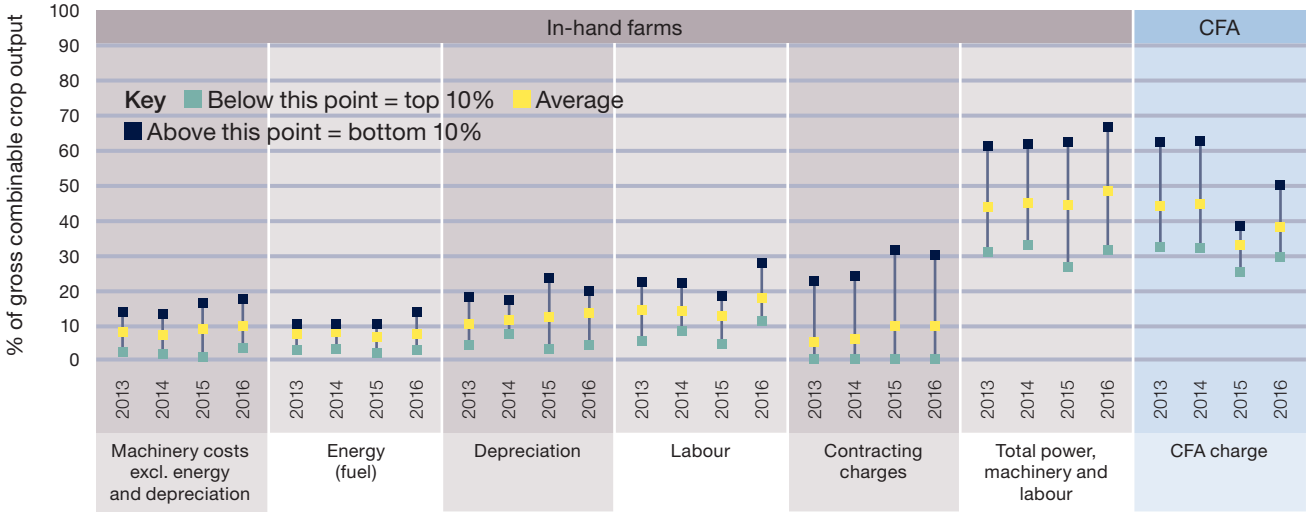
Contract farming: a growing trend

Our survey shows how farmers are able to make cost savings within CFA operations as contractors benefit from economies of scale because fixed costs are spread across larger areas.

In addition, the farmer is not required to invest in labour and machinery that might not be utilised all year round. The table above compares the average harvest 2016 return (after power, machinery and labour and excluding subsidy) of IH and CFA operations to the farmer.

The following page considers what may trigger a change in farming structure and looks at contract farming agreements.

Counting the cost Analysis of fixed costs as a proportion of gross combinable crop output shows opportunities for improved efficiencies by the range of results between the top and bottom 10% of farms



Source Savills Research

Weighing up the options

In today's challenging farming environment, long-term planning is vital and a major change in structure could bring significant opportunities to release capital, management time and buildings, all of which can be redirected into other enterprises.

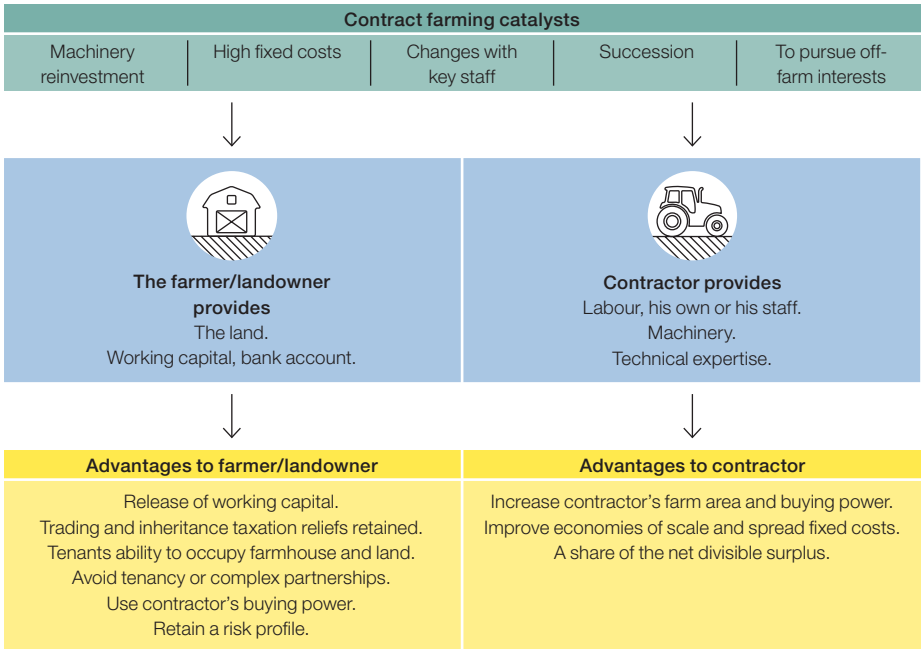
Any major change in structure must be fully considered against the farm's objectives. Indeed, the options available for individual farming businesses are wide-ranging and could include continuing to farm in-hand, making cost savings through sharing machinery with neighbours or entering into a full contract farming agreement.

Contracting agreements can take any format and bespoke agreements can reflect the particular nature of any farm or situation. Below, we focus on the advantages and possible triggers of when farms may consider contract farming agreements.

Of course, every time a landowner opts to move to contract farming, an opportunity is created for a new or existing business that wishes to expand.

> "A well-structured contract farming agreement can offer income and capital taxation benefits as a trading business"

Delicate decision The balance of whether to contract or farm in-hand isn't straightforward and rests on financial as well as personal requirements



Source Savills Research

Contract Farming Database

In addition to our Arable Benchmarking Survey, our Contract Farming Database analyses 27,000 hectares of arable land with an average farm size of 263 hectares. It has national coverage with the predominant soil type being Grade 3. The 2016 farmers' average basic charge is £234 per hectare (when BPS income is included in the CFA) and the 2016 contractors' average basic charge is £261 per hectare. 41% of agreements within the database have only one profit split, 43% have two profit splits and 16% have three profit splits.

Industry outlook

Short term A ban on neonicotinoids insecticide puts pressure on farms growing OSR, especially given the prevalence of pre-2017 harvest drought conditions in major UK growing regions. With a mild 2016/17 winter, slug and pigeon damage, and less than ideal crop establishment in autumn, there will be disappointing results for growers and merchants at harvest 2017.

Medium term UK arable farmers will have to wait to understand the challenges that Brexit will have on the industry. A ban on glyphosate (under consideration) could increase pressure on arable crop margins if introduced. Brexit and the potential impact on the livestock sector could affect the home for a large part of the UK-produced cereal crop, leaving a need for new market destinations.

Long term Recently approved trials on GM crops could give farmers the incentive they need to break through the yield plateau that cereal crops have reached since the early 1980s.

Giles Hanglin
Head of Rural Research
020 7016 3786
ghanglin@savills.com

Nicola Buckingham
Research Analyst
07807 999011
nbuckingham@savills.com

Andrew Wraith
Head of Food & Farming
01522 508973
awraith@savills.com

Simon Blandford
Director Food & Farming
01962 857405
sblandford@savills.com

Jon Dearsley
Assoc Director Food & Farming
01285 888003
jdearsley@savills.com