

# Spotlight Arable Benchmarking Survey Harvest 2015

June 2016



## SUMMARY

Wide range of results shows opportunities for improved performance

■ Ideal growing conditions during the Harvest 2015 crop year increased crop yields for a second year running despite a challenging harvest.

■ Our research shows a reduction in average power, machinery and labour costs and in particular savings were made in energy and labour costs compared with the previous two harvests.

■ The survey recorded a wide range of performance indicating opportunities for improvement.

■ Crop prices have continued to fall since the highs of 2012 and this continued to squeeze crop margins despite higher yields and lower costs.

■ Contract Farming Agreements, on average, provide the best returns through lower costs for landowners but operator expertise is key.

## About the Survey

This report presents the results of our Arable Benchmarking Survey for Harvest 2015. The results are for in-hand and contract farming agreement (CFA) operations with the focus on landowner returns.

- The survey's focus is combinable crops and reports on 21,000 hectares of combinable cropping area
- The average farm (combinable crops) size is just over 360 hectares
- National Coverage
- Predominant soil types are clay and loam with three quarters of farms on grade 3 land.
- Just under half of participants reported a moderate to severe blackgrass problem compared to two-thirds in Harvest 2014.

# HARVEST 2015 BENCHMARKING SURVEY RESULTS

## Yields

The mild weather during the autumn and winter of 2014 and the above average sunshine hours during the spring of 2015 provided crops with good establishment and growing conditions. Although the summer was slightly cooler and wetter than the previous two presenting some challenges at harvest, there were no major weather extremes and the growing conditions for Harvest 2015 were ideal with Defra announcing a record year for wheat yields.

Moreover, participants of our Harvest 2015 survey achieved average yields of 8 to 12% higher than those published by Defra. Table 1 compares average crop yields from the survey for the past three years. On average 2015 yields were 6% higher than in 2014.

## Crop Price

Although the higher yields of the harvest were welcome, crop prices continued their downward trend with our survey recording a 14% fall in 2015 and more than 25% over the past two years (See Table 2). Our research indicates that survey participants achieved average crop prices around 10% higher than prices quoted by AHDB.

**TABLE 1: Average Crop Yields (Tonnes per hectare)**

	2013	2014	2015	2014 to 2015 % change
Winter Wheat	7.93	9.26	9.85	6.4%
Winter Barley	6.56	7.19	8.31	15.6%
Spring Barley	6.48	6.59	6.79	3.1%
Oilseed Rape	3.03	3.93	3.83	-2.6%

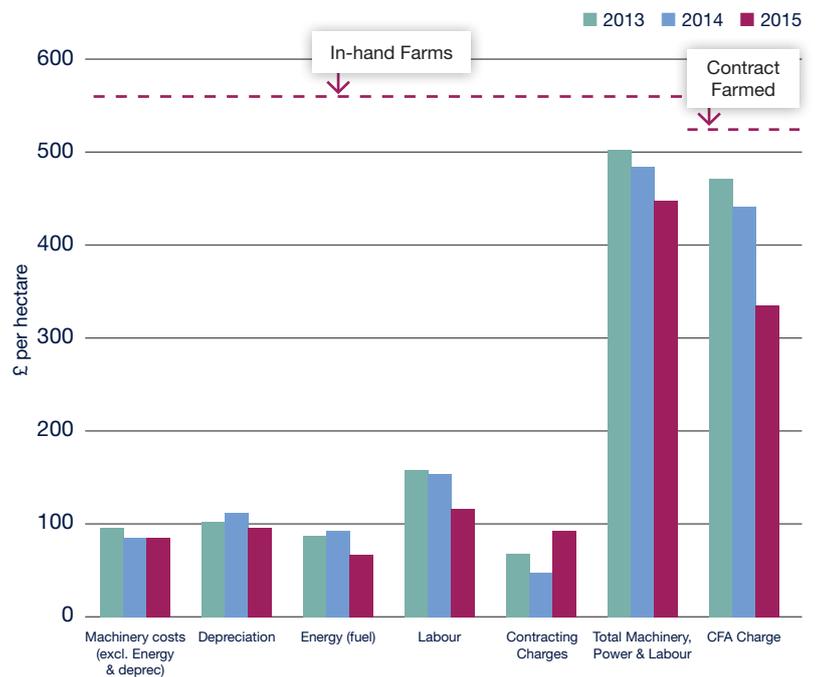
Source: Savills Research

**TABLE 2: Average Crop Prices (£/Tonne)**

	2013	2014	2015	2014 to 2015 % change
Winter Wheat	£166	£133	£118	-10.8%
Winter Barley	£149	£123	£106	-13.9%
Spring Barley	£152	£144	£114	-21.3%
Oilseed Rape	£330	£293	£272	-7.1%

Source: Savills Research

**GRAPH 1: In-hand and CFA Power, Machinery and Labour Costs**



Source: Savills Research

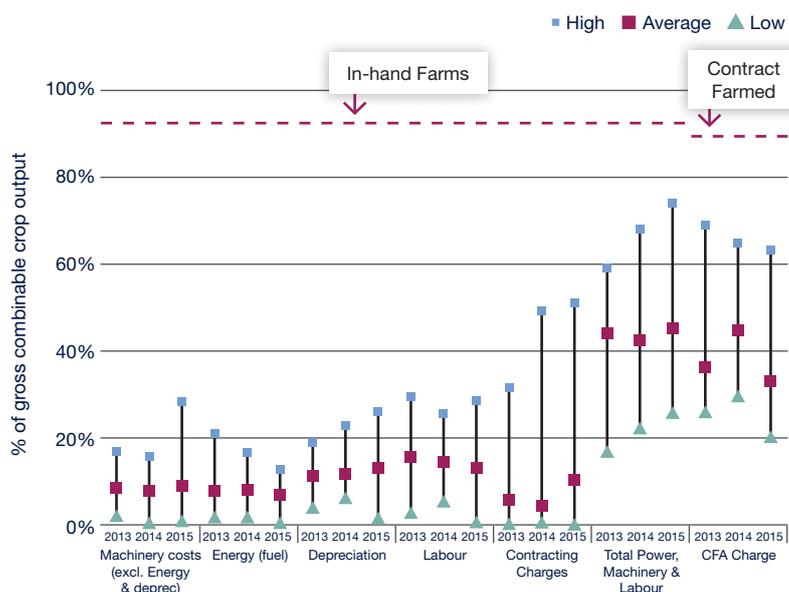
## Power, machinery and labour

Harvest 2015 recorded a reduction in average power, machinery and labour costs and in particular savings were made by in-hand operations on energy and labour compared with Harvest 2014. This, in part, may be reflected in the increased contract cost however the savings are above this additional cost suggesting efficiencies through targeted use of contractors. Graph 1 compares power, machinery and labour costs per hectare for in-hand operations with the full CFA cost to the landowner and shows the average efficiencies of using a contractor.

Our analysis of costs as a proportion of gross combinable crop output (see graph 2) shows that there is a wide range of performance across the farms surveyed. This suggests there are opportunities for improving costs for some businesses. In addition to the absolute savings (£ per hectare) energy and labour costs have reduced as a proportion of gross crop output. However, even with a reduction in cost labour continues to be the highest individual fixed cost. Our research suggests that there is a narrower spread of costs where landowners are using CFAs rather than farming in hand (see graph 2).

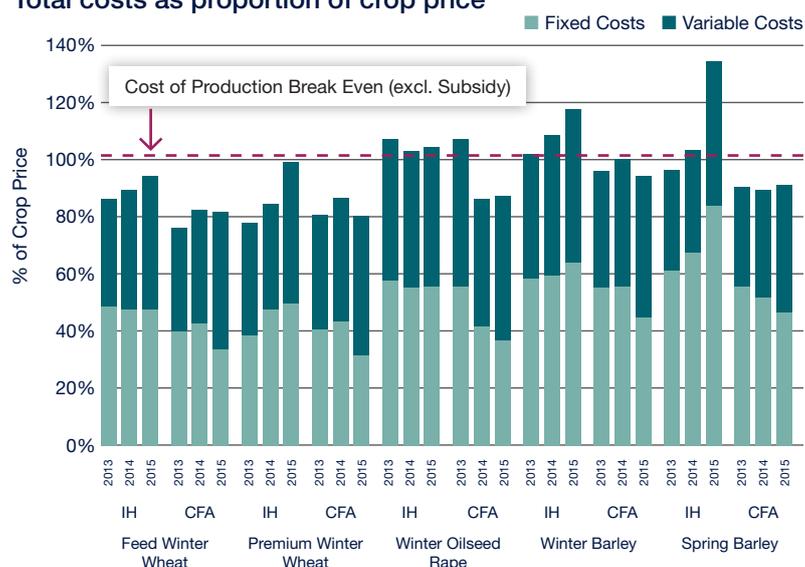


**GRAPH 2: Power, machinery and labour (% gross combinable crop output)**



Source: Savills Research

**GRAPH 3: Total costs as proportion of crop price**



Source: Savills Research

## Costs of production

Although fixed costs have fallen, at current crop prices, margins have been squeezed further and, excluding subsidy, average total costs are very close or in excess of crop price. Variable costs were similar to harvest 2014 (see graph 3).

Average total 'fixed' costs are lower in the CFA operations compared to the in-hand operations. Contractors are able to make cost savings and benefit from economies of scale as costs are spread across larger areas with these cost savings passed onto the landowner. In addition, the landowner is not required to invest in labour and machinery which might not be fully utilised throughout the year. Table 3 compares the average 2015 return (after power, machinery and labour and excluding subsidy) of in-hand and CFA operations to the landowner.

In addition, in hand farm operations tend to have higher 'other fixed costs' than those using contractors. Our research indicates that these are up to three times higher and add, on average, an additional £70 plus per hectare to costs.

**TABLE 3: Combinable Crops Profit and Loss (average £ per ha)**

	In-hand	CFA
<b>Combinable Crop Gross Margin</b>	£528	£546
<b>Environmental Stewardship</b>	£26	£22
<b>Total Income</b>	<b>£554</b>	<b>£568</b>
<b>Machinery Costs</b>	£85	
<b>Depreciation</b>	£96	
<b>Energy</b>	£64	
<b>Labour</b>	£114	
<b>Contractor Charges</b>	£89	£334
<b>Total Machinery, Power &amp; Labour</b>	<b>£449</b>	<b>£334</b>
<b>Land Owner Return' (Margin after Machinery, Power &amp; Labour)</b>	<b>£105</b>	<b>£234</b>

Source: Savills Research

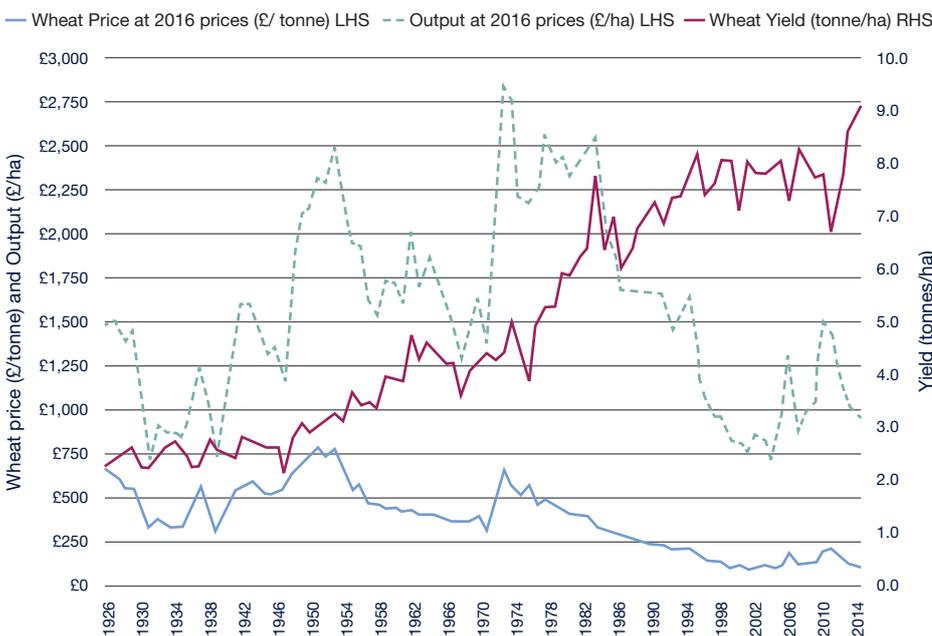


# 90 years of wheat production

In the year of the Queen's 90th birthday, we take a look back

- Average wheat yields have increased almost four fold, from 2.3 tonnes per hectare in 1926 to just short of 10 tonnes per hectare in 2015, although yields have plateaued over recent years.
- Over the past 90 years average wheat prices have fallen 84%; from £666 per tonne (in real terms) to just over £100 per tonne today.
- The reduction in average crop incomes over the past 90 years has been more subdued at 36% due to the increasing crop yields.
- With the exception of 2012 wheat has remained, in real terms, under £200 per tonne for the past 20 years.

**GRAPH 4:**  
**90 years of wheat price, yields and output**



Source: Defra & Savills Research

## Savills arable (combinable cropping) benchmarking

Survey aims to help appraise performance and identify appropriate targets

### THE KEY SURVEY OBJECTIVES ARE:



to challenge current performance



to identify and disseminate best practice



to improve performance

## Savills research team

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