

ANALYSIS

Impact of heatwaves and drought on UK harvest prospects in 2026

Summary

In 2026 the UK was hit by an unprecedented series of heatwaves in May, June and July, following a [very dry April](#) in England and then record-breaking lack of rainfall in July, the [driest on record](#) in England and Wales.

The cumulative effect of these extreme weather events on UK agriculture has been significant, with impacts across all sectors of farming. This analysis focus' on the impact on the UK arable sector, and specifically on wheat, spring and winter barley, oats and oilseed rape. Previous ECIU analysis has used these crops to quantify the impact of extreme weather and climate change on UK harvests.

In order to try and isolate the impact of this summer's drought and heatwaves, we compared recently published [initial yield estimates](#) for harvest 2026 from the Agriculture and Horticulture Development Board (AHDB) with previous, pre-heatwaves forecasts from the US Department for Agriculture (USDA) Foreign Agricultural Service (FAS) from April ([grains](#) and [oilseeds](#)) and the European cereals association COCERAL, [published](#) in March. These forecasts both expected UK yields at or slightly above the 10-year average after good conditions for the establishment of autumn sown crops in 2025.

The initial AHDB yield estimates now suggest yields below the 10-year average for wheat, spring barley and oats, with average yields for winter barley and good, above average yields for oilseed rape. At 6.8 tonnes per ha, the provisional estimate for the wheat yield is notably low. As the major UK arable crop and usually highest yielding, if this provisional yield is maintained, it will drive the 2026 to be one of the worst harvests on record. If these yields and crop areas are accurate, it would be the worst harvest on record at 19.5m tonnes. If the COCERAL and USDA FAS forecasts had come to pass, it would have been 22m and 21.3m tonnes respectively, only the 8th or 9th worst in a series of 45 years going back to 1984 and a difference of up to 2.5m tonnes.

At current ex-farm prices, the difference between these earlier forecasts and the AHDB yield estimates is a loss of between £305m and £390m.

Method

To estimate the potential 2026 harvest, we used AHDB [harvest progress report](#) estimates of yield for wheat, spring and winter barley, oats and oilseed rape (OSR) and multiplied these by crop area estimates as reported in their [Planting and Variety Survey](#). These are the areas used by AHDB to track harvest progress.

We used the same areas multiplied by the COCERAL and USDA FAS yield forecasts to estimate the production implied by these forecasts. COCERAL and the USDA FAS did both publish their own production estimates, but these were based on different area estimates so were not used here to ensure consistency with more up to date AHDB crop area estimates.

To estimate prices, we used [ex-farm prices](#) reported by AHDB from June 2026 (for OSR we used August delivered prices for London and East Anglia) and apportioned a share of the wheat and oat crop to milling and feed and a share of the barley crop to malting and feed based on previous 10-year averages.

These volumes were then multiplied by the current prices to estimate the value of production for the three estimated yield totals.

These estimated results below should be treated as provisional as the AHDB yield estimate for wheat is based on only 54% of the crop having been harvested. Although this is far more than usual for this time of year, much of the wheat crop remaining to be harvested is in the north of England and Scotland, where yields may be better. If the AHDB yield estimate improved, then the volume and revenue lost relative to earlier forecasts would reduce.

Results

Based on these estimates, harvest 2026 is on track to be the worst harvest on record, going back to 1984 when detailed data from Defra dates back to. As noted above, the provisional nature of the AHDB data means that this is not a firm prediction, but is indicative of the damage done by the dry and hot weather we have seen since April.

This is driven by the poor wheat yield, which at an estimate of 6.8 tonnes per ha is over a tonne per hectare below the 10-year average of 7.9 tonnes. This itself has been brought down by the poor harvests of 2020, 2024 and 2025, [three of the five worst harvests on record](#) following extreme weather events. If the estimated wheat yield and crop area holds, the wheat harvest will be 1.85m tonnes less than the 10-year average, 1.96m tonnes less than the production implied by the USDA FAS yield estimates in April and 2.27m tonnes less than the production implied by the COCERAL yield estimates in March.

Across all five crops, based on the most recent reported ex-farm prices, this would equate to a value of lost production between £293m and £390m, illustrating the cost of the heatwave to UK cereal growers. Excluding the yield gains for OSR, the lost revenue for cereals alone is estimated at between £397m and £496m.

A recent [attribution study](#) by World Weather Attribution found that the June heatwave would have been impossible 50 years ago, and that climate change is 'unequivocally to blame'. These estimated losses come on top of a recent forecast by COCERAL that found the heatwaves had reduced forecast production by around 9m tonnes, equivalent to [€2billion at current prices](#).

If the USDA FAS and COCERAL yield forecasts had held, this year would have been the 8th and 9th worst harvest on record going back to 1984. If yields had been at the 10-year average it would have been the 8th worst. This reflects the low barley and oats area in 2026 relative to the 10-year average, partly [attributed](#) by AHDB to low demand from the brewing, malting and distilling sector after a decline in demand for alcohol. This is not relevant to the analysis here between different yields as all use the same crop area estimates. However, it is relevant to comparison between years and the harvest ranking in Annex 1.

The main agri-environment scheme in England, the Sustainable Farming Incentive, closed to new applicants in March 2025 and only just re-opened for agreements starting in January 2027. Environmental scheme commitments are therefore not expected to have had a significant impact on crop areas this year, beyond what is already implied by existing commitments, with the [area](#) of uncropped land increasing only slightly between 2025 and 2026.

Full results are set out in the tables below. A ranking of harvests back to 1984 is included in Annex 1.

Table 1 – Yield and crop area estimates

Crop	Crop area (hectares)	10-year (2016-25) average yields (tonnes per ha)	USDA FAS yield forecast (tonnes per ha)	COCERAL yield forecast (tonnes per ha)	AHDB yield estimate (tonnes per ha)
Wheat	1,720,843	7.9	7.9	8.1	6.8
Winter barley	359,179	6.9	5.9	7.1	6.8

Spring barley	587,263	5.7	5.9	5.8	5.3
Oats	168,437	5.4	5.0	5.3	4.9
OSR	359,355	3.3	3.5	3.3	3.9
Total	3,195,077	-	-	-	-

Table 2 – Production estimates based on range of yield forecasts and estimates (thousand tonnes)

Crop	Production at 10-year average yields	Production at USDA FAS yield forecast	Production at COCERAL yield forecast	Production at AHDB yield estimate
Wheat	13,556	13,663	13,973	11,702
Winter barley	2,462	2,119	2,557	2,442
Spring barley	3,343	3,465	3,394	3,112
Oats	904	842	888	825
OSR	1,184	1,258	1,179	1,401
Total	21,449	21,347	21,991	19,483

Table 3 – Estimated 2026 deficit relative to 10-yr average & USDA/COCERAL forecasts - by volume & percentage change

Crop	Production at 10-year average yields		USDA FAS yield forecast		COCERAL yield forecast	
	000 tonnes	%	000 tonnes	%	000 tonnes	%
Wheat	-1854	-13.68	-1962	-14.36	-2272	-16.26

Winter barley	-19	-0.78	323	15.25	-115	-4.49
Spring barley	-231	-6.91	-352	-10.17	-282	-8.30
Oats	-79	-8.73	-17	-2.00	-62	-7.02
OSR	218	18.37	144	11.43	223	18.90
Total	-1966	-9.16	-1864	-8.73	-2508	-11.40

Table 4 – Estimated value of production at June 2026 ex-farm prices (£m)

Crop	Production at 10-year average yields	USDA FAS yield forecast	COCERAL yield forecast	AHDB yield estimate
Milling wheat	1147	1156	1182	990
Feed wheat	1387	1398	1430	1197
Malting barley	318	306	326	305
Feed barley	615	591	630	588
Milling oats	77	72	76	70
Feed oats	40	37	40	37
OSR	568	603	565	672
Total	4153	4165	4250	3860

Table 5 – Estimated value of deficit between 2026 estimate and previous forecasts (£m)

Crop	Production at 10-year average yields	USDA FAS yield forecast	COCERAL yield forecast
Milling wheat	-157	-166	-192
Feed wheat	-190	-201	-232
Malting barley	-14	-2	-22
Feed barley	-26	-3	-42
Milling oats	-7	-1	-5
Feed oats	-4	-1	-3
OSR	104	69	107
Total	-293	-305	-390

All figures in Tables 4 and 5 are calculated by multiplying the production estimates in Table 2 with the June 2026 ex-farm prices reported by AHDB, assuming a split between milling/malting and feed crops in line with the previous 10-year average. The 10-year average figure in Tables 4 and 5 therefore does not reflect the real revenue generated by these crops in the 2016-2025 period, but is instead a hypothetical comparison for what farmers could have achieved this year had production been in line with the 10-year average yields.

Annex 1 – 1984-2026 UK harvests ranked

A ranking of harvests including provisional estimates reported in this analysis for 2026. Estimates for 2026 should be treated as indicative and subject to change. If accurate, 2026 would be the worst cereals harvest on record, driven by a combination of a poor wheat, spring barley and oat yields and low barley area.

Year	Wheat (tonnes)	Barley (tonnes)	Oats (tonnes)	Oilseed rape (tonnes)	Total (tonnes)	Rank (1 = worst)
2026	11,701,732	5,554,911	825,341	1,401,485	19,483,469	1
2020	9,658,000	8,117,000	1,031,000	1,037,719	19,843,719	2
2001	11,580,000	6,660,000	621,000	1,157,165	20,018,165	3
2024	11,146,000	7,091,000	986,000	823,605	20,046,605	4
2025	11,958,216	6,366,541	963,022	893,161	20,180,941	5
1993	12,890,000	6,038,000	479,000	1,084,563	20,491,563	6
1994	13,316,332	5,952,461	597,781	1,242,975	21,109,549	7
2007	13,221,000	5,079,000	712,000	2,108,121	21,120,121	8
2012	13,261,000	5,522,000	627,000	2,556,643	21,966,643	9
2013	11,921,000	7,092,000	963,560	2,128,142	22,104,702	10
1988	11,751,000	8,778,000	548,000	1,033,110	22,110,110	11
2006	14,755,000	5,239,000	728,000	1,890,093	22,612,093	12
2005	14,863,000	5,495,000	528,000	1,897,723	22,783,723	13
2018	13,555,000	6,510,000	850,300	2,012,144	22,927,444	14
1987	11,940,000	9,229,000	454,000	1,323,000	22,946,000	15
2023	13,980,000	6,963,000	830,000	1,216,108	22,989,108	16

1995	14,312,308	6,841,735	616,955	1,234,124	23,005,122	17
2010	14,878,000	5,252,000	685,000	2,230,148	23,045,148	18
2021	13,988,000	6,961,000	1,123,000	980,762	23,052,762	19
1992	14,095,000	7,365,000	502,000	1,213,121	23,175,121	20
2003	14,288,000	6,370,000	749,000	1,770,754	23,177,754	21
1985	12,046,000	9,740,000	614,000	897,000	23,297,000	22
2009	14,076,000	6,668,000	744,000	1,912,196	23,400,196	23
2004	15,473,000	5,816,000	627,000	1,606,834	23,522,834	24
1989	14,033,000	8,073,000	529,000	945,978	23,580,978	25
2016	14,383,000	6,655,000	816,000	1,774,712	23,628,712	26
1990	14,033,000	7,911,000	530,000	1,207,192	23,681,192	27
1999	14,867,000	6,581,000	541,000	1,736,644	23,725,644	28
1991	14,363,000	7,627,000	523,000	1,283,271	23,796,271	29
2011	15,257,000	5,494,000	613,000	2,758,302	24,122,302	30
1998	15,449,000	6,623,000	586,000	1,567,873	24,225,873	31
2002	15,973,000	6,128,000	753,000	1,467,720	24,321,720	32
1997	15,018,000	7,828,000	577,000	1,526,593	24,949,593	33
2000	16,704,000	6,492,000	640,000	1,156,797	24,992,797	34
2017	14,837,000	7,169,000	875,000	2,166,647	25,047,647	35
2022	15,540,000	7,385,000	1,007,000	1,361,375	25,293,375	36
1986	13,911,000	10,014,000	503,000	966,000	25,394,000	37
1996	16,100,000	7,790,000	590,000	1,414,751	25,894,751	38

2008	17,227,000	6,144,000	784,000	1,973,227	26,128,227	39
2014	16,606,000	6,911,000	820,000	2,459,576	26,796,576	40
2019	16,225,000	8,048,000	1,076,000	1,751,828	27,100,828	41
2015	16,444,000	7,370,000	799,000	2,542,454	27,155,454	42
1984	14,958,000	11,064,000	517,000	924,000	27,463,000	43