



Water Consumption & Resilience

Ornamental Growers & Garden Centre Retailers

2025 SURVEY RESULTS

Overview

Professional growers and garden centres use approximately **21.3 cubic metres of water** each year – equivalent to 0.2% of the UK's total water consumption.

Growers' measurable mains water consumption **appears to have declined** since 2020, likely due to the implementation of more water recycling measures at grower businesses.

88% of businesses said that restrictions to mains or abstracted water would have a serious negative impact, or threaten the survival of their business

Only 30% of growers and **no garden centres** who answered the survey have a contingency plan in place if their mains or abstracted water supply is restricted.

86% of garden centres and **53% of growers** said they desired a water resilience measure that we asked about. **Cost or affordability** were the most common barriers.

Environmental Horticulture water consumption

The UK is estimated to have consumed **12,877 million** cubic metres of water between April 2023 and March 2024.

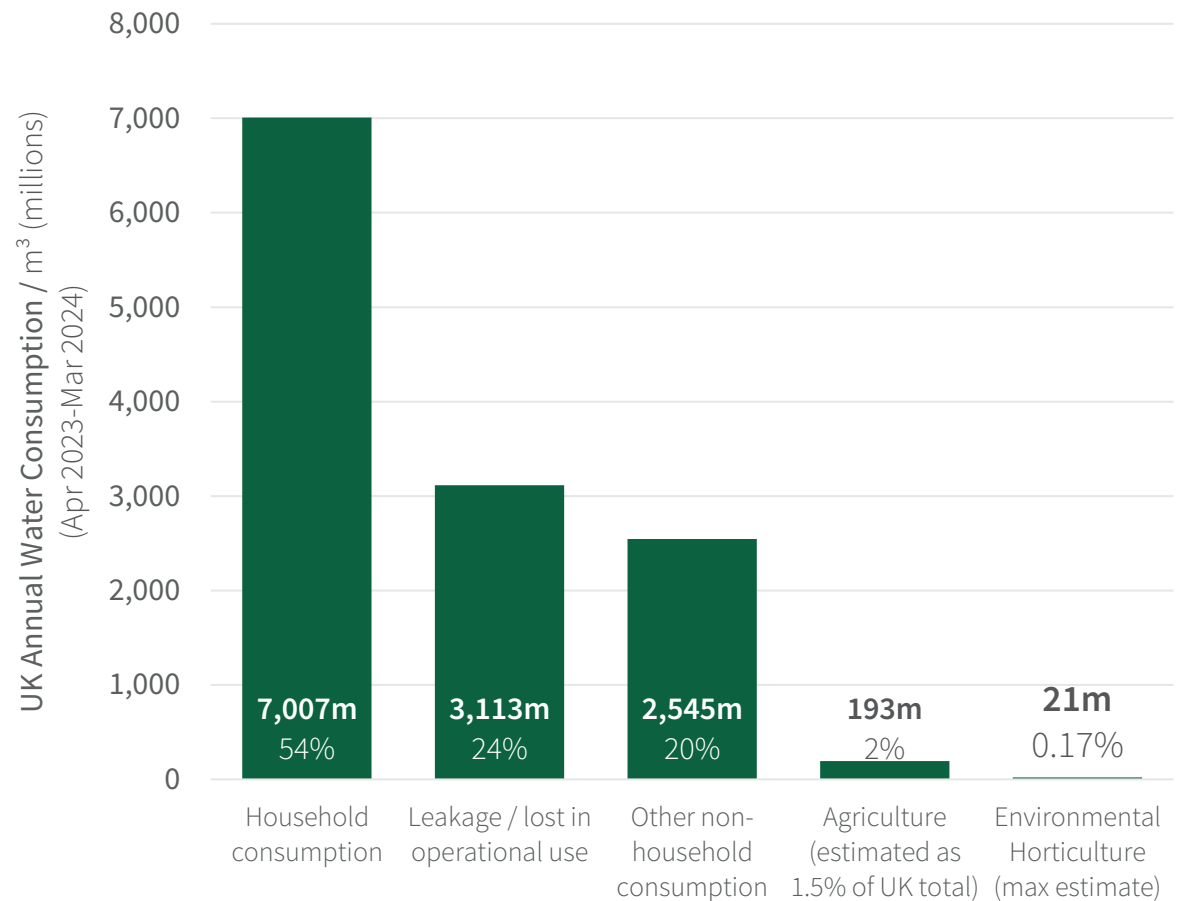
(<https://www.gov.uk/government/publications/water-resources-2023-2024-analysis-of-the-water-industrys-annual-water-resources-performance/water-resources-2023-2024-analysis-of-the-water-industrys-annual-water-resources-performance>)

HTA estimates that UK garden centre retailers and professional growers consume at most **21.3M** cubic metres of water per year.

- This is an upper-bound estimate, based on our highest individual estimates for grower and garden centre water use across three different predictive methods. Minimum total estimate = **16.8M**.

This upper-bound is equivalent to ~0.2% of the UK's total water consumption.

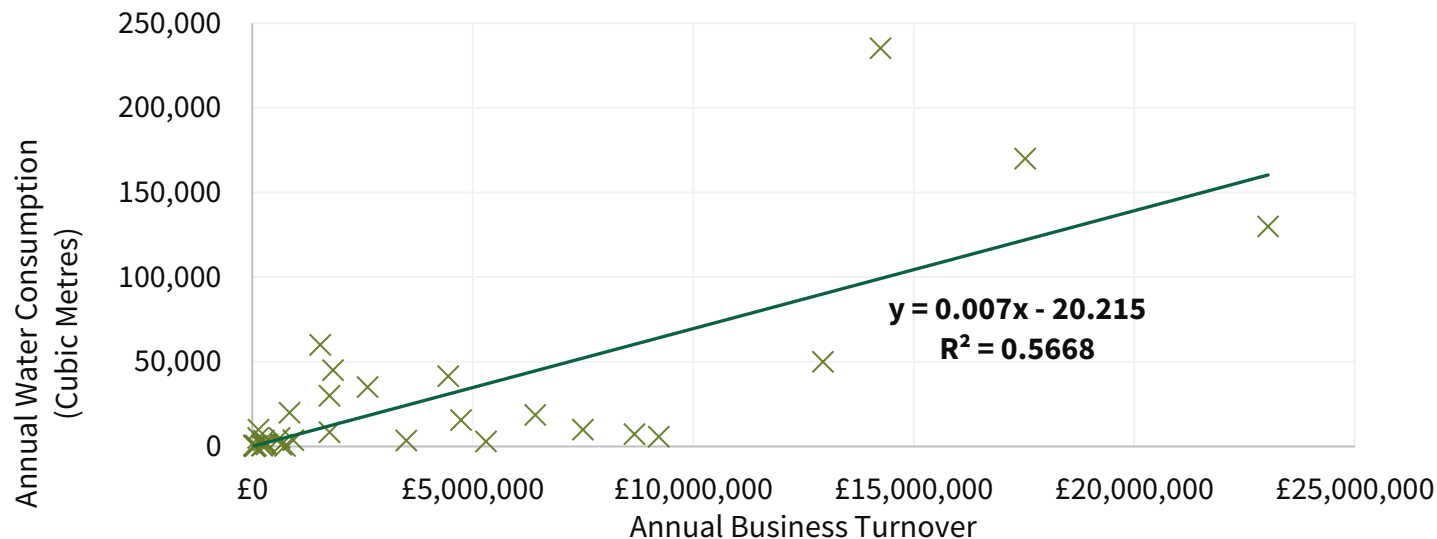
By comparison, the agriculture sector uses approximately 1-2% of the UK's total water consumption.



Grower Water Use & Resilience

UK Growers' Water Consumption

- In 2020, growers' total water use was estimated to be between **12.8M** (from regression) and **15.1M** (from extrapolating by turnover) cubic metres of water per year (**4.2% of agriculture use**)
- In 2025, growers' total water use is estimated to be between **11.2M** (from extrapolating by # of businesses) and **11.9M** (from regression) cubic metres of water per year. At most, this is equivalent to **6.2% of total agriculture use**
NB: two specialist hardy growers were excluded from the sample due to abnormally low water consumption
- Moderately low $R^2 = 0.5668$ highlights high variation between different growers – no clear linear relationship between turnover and water use. Grouping growers and grower-retailers likely a factor behind high variation in water use
- Measured water consumption likely decreased due to more growers using water recycling measures (see next two slides)



Regression Calculation:

11.9M cubic metres (m^3) = $0.007 * £1.7bn + 3939.4$

Extrapolation from sample turnover:

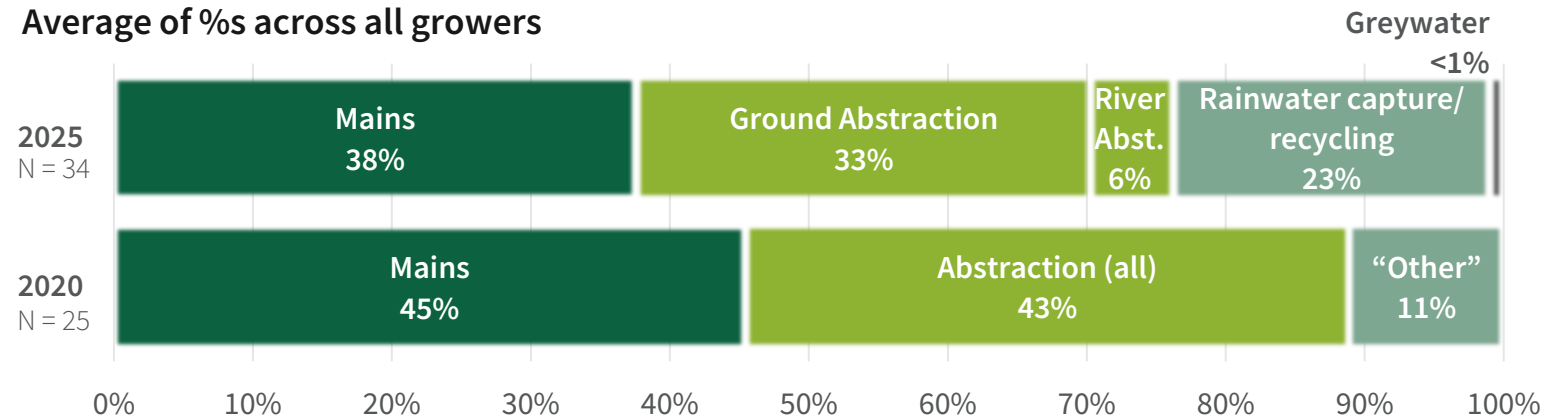
Sample turnover as a % of market value = 6.6%
Total water use reported in sample = 960,788 m^3
Total water use = **11.8M** cubic metres (m^3)

Extrapolation from sample count:

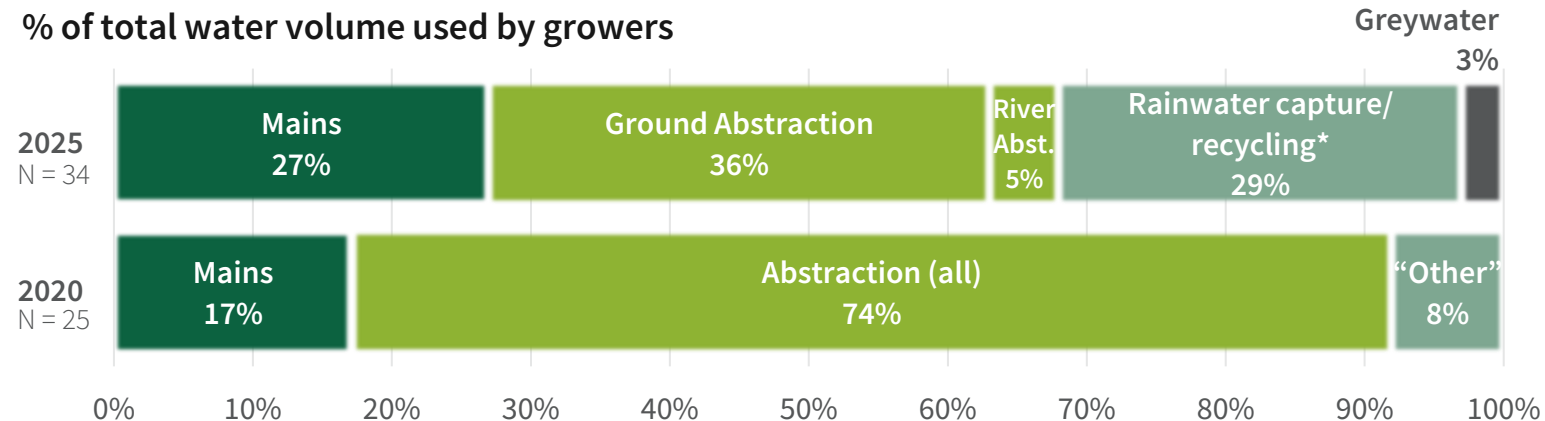
Sample respondents as a % of UK Growers = 8.5%
Total water use reported in sample = 960,788 m^3
Total water use = **11.2M** cubic metres (m^3)

Growers' Water Sources

Average of %s across all growers



% of total water volume used by growers

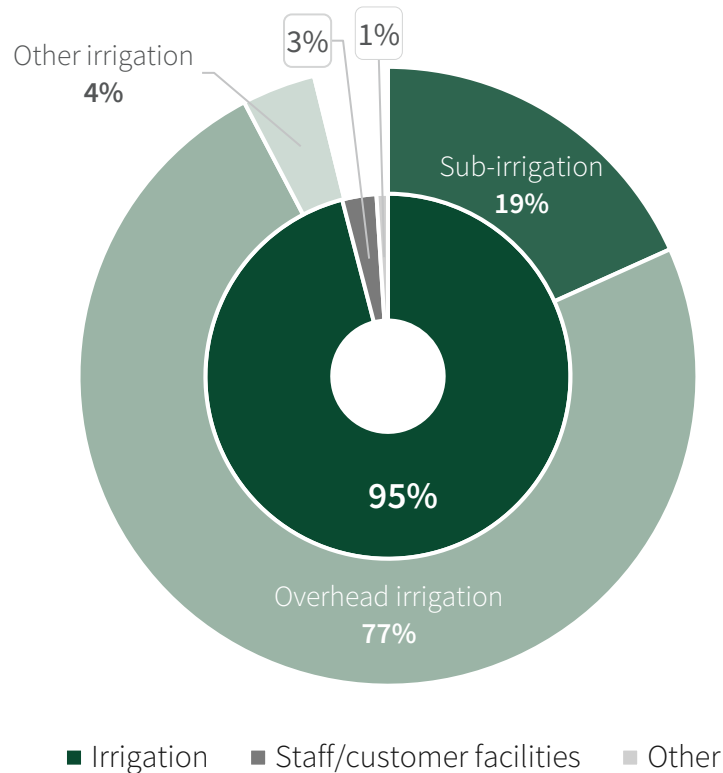


- In terms of total water consumption, there was a significant increase in the volume of water used that originates from rainwater capture/recycling (satisfies $p < 0.1$)
- Other variation could be due to changes in makeup of the sample.

Growers' Water Consumption & Storage

Nearly all of growers' annual water consumption (95%) is used on irrigation

Figures are the % share of total water consumption across all growers

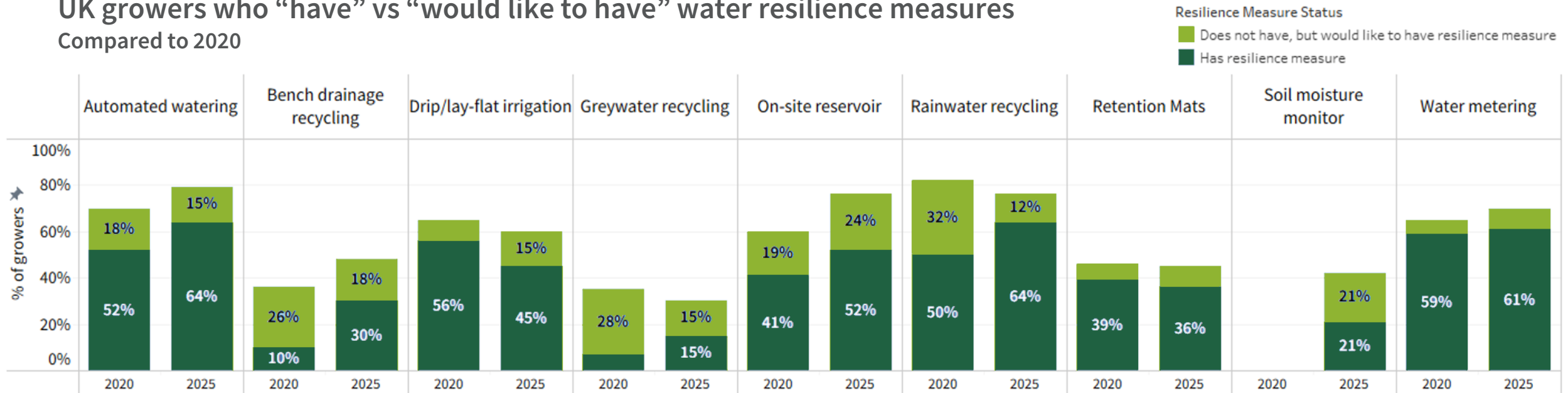


- Growers tend to use more water on overhead irrigation than on other irrigation methods
- On average, growers' water storage capacity is equal to **16%** of their overall consumption
(average % across growers)
- Overall, growers' total water storage capacity is **28%** of their total annual water consumption
(total storage / total consumption)

Resilience Implementation and Demand

- 94% of growers said that they had at least one water resilience measure in place
- Among growers, only the use of bench drainage recapture increased by a statistically significant amount between 2020 and 2025. However, due to the small sample size, the extent of this increase is only indicative.
- No other resilience measures saw a statistically significant increase in uses.
- Generally, uptake of resilience measures appears to have increased slightly, however this is also only indicative.

UK growers who “have” vs “would like to have” water resilience measures Compared to 2020

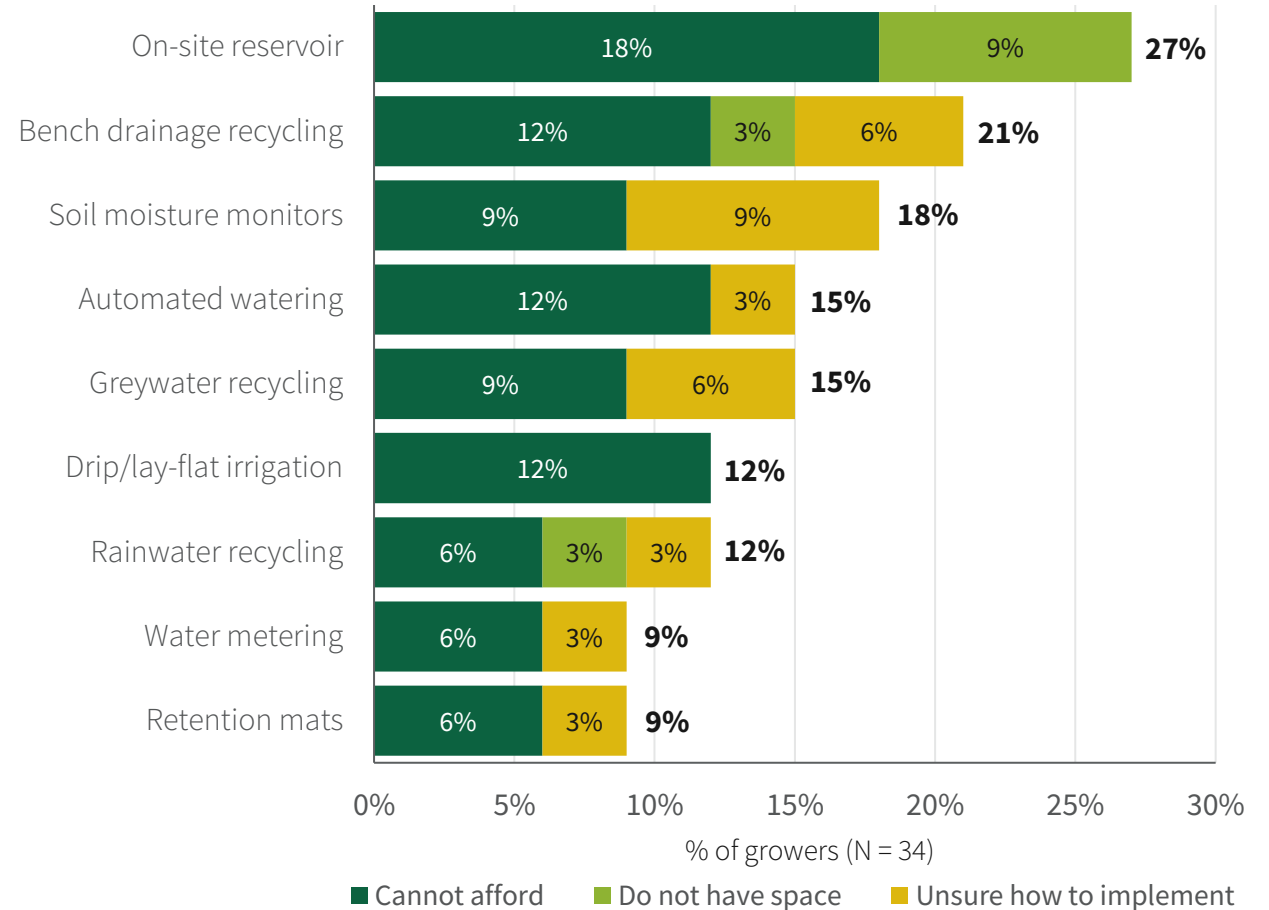


Barriers to Water Resilience

UK Growers

- Out of 34 growers, over half (n = 18) said that they desired a water resilience measure that they didn't currently have.
- Growers were most likely to state cost/affordability as the main barrier to implementing measures
- Onsite reservoirs were most in demand among growers, with space and affordability both key concerns
- The measure most growers said that they were unsure how to implement was soil moisture monitors

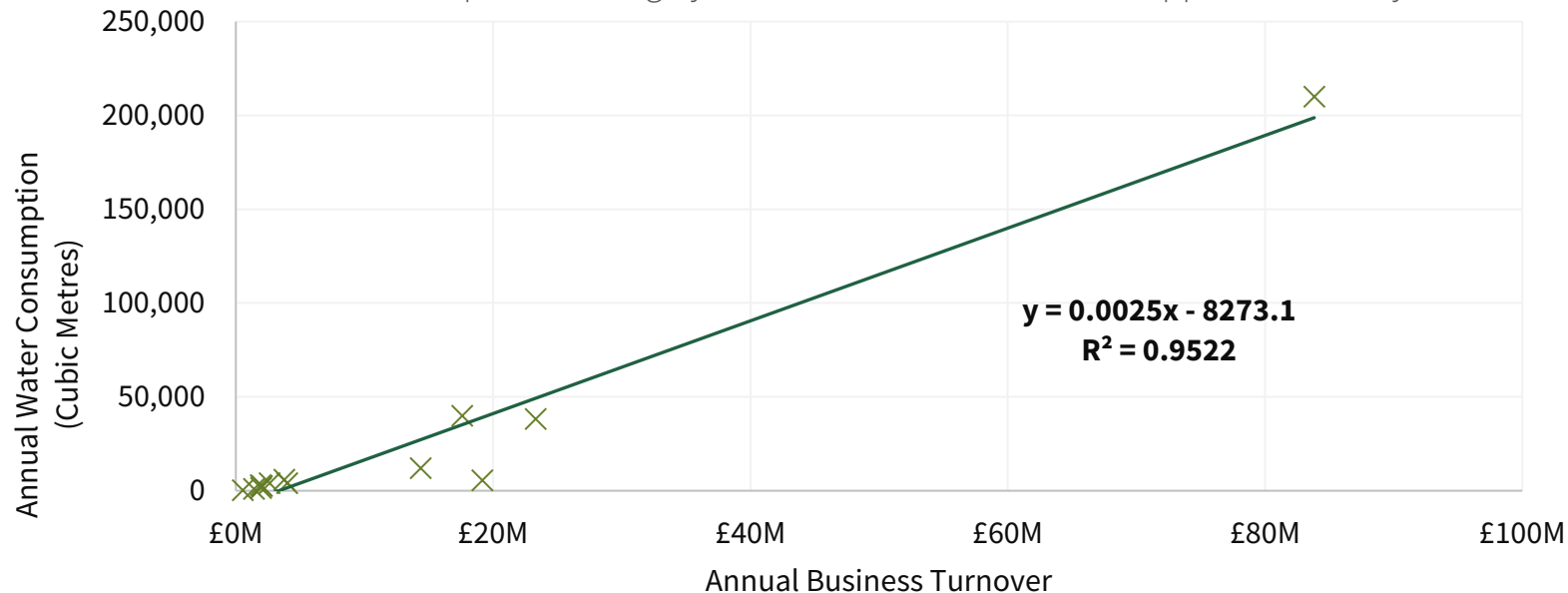
“What, if any reason, has stopped you from implementing the following measures at your business”
(asked only to those who said that they did not have, but would like to have a listed resilience measure)



Garden Centre Water Use & Resilience

UK Garden Centres' Water Consumption

- In 2020, garden centres' total water use was estimated to be between **5.8M** (from extrapolating by turnover) **and 6.7M** (from regression) cubic metres of water per year (**1.9% of agriculture use**)
- In 2025, garden centres' total water use is estimated to be between **5.6M** (from extrapolating by turnover) **and 9.4M** (from extrapolating by # of businesses) cubic metres of water per year. At most, this is equivalent to **4.9% of total agriculture use**.
 - However, the extrapolation by # of businesses is likely overstating garden centres' water consumption, as previously stated.
- High $R^2 = 0.9554$ indicates strong linear relationship between turnover and water use across different-sized businesses
- Bounds for water consumption are largely similar to 2020's research – supports reliability of 2025 measures



Regression Calculation:

7.5M cubic metres (m^3) = $0.0025 * £3.00bn - 8273.1$

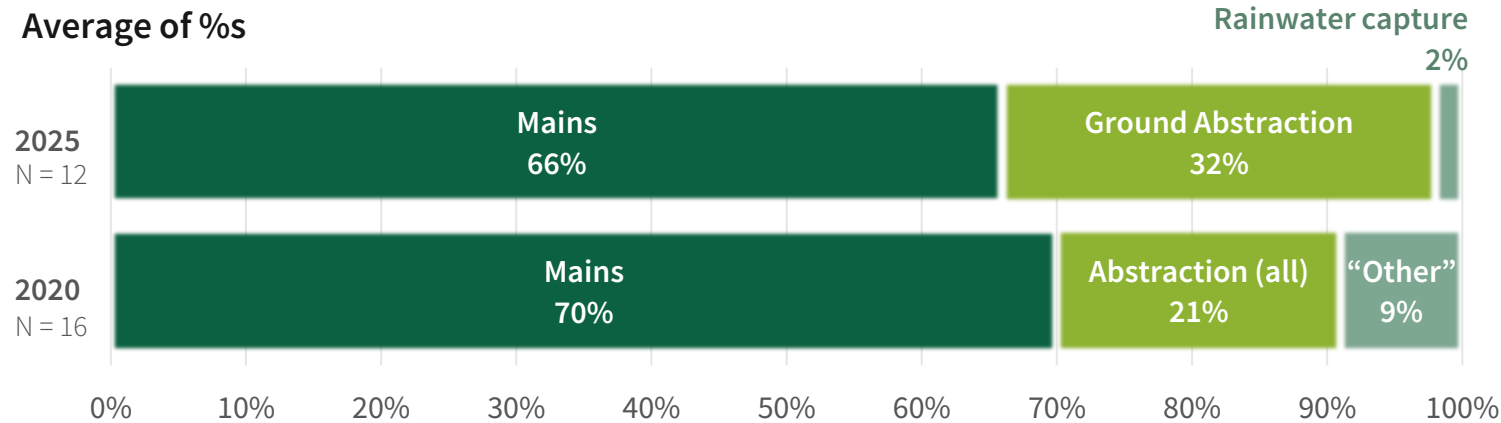
Extrapolation from sample turnover:

Sample turnover as a % of market value = 5.9%
Total water use reported in sample = 328,173 m^3
Total water use = **5.6M** cubic metres (m^3)

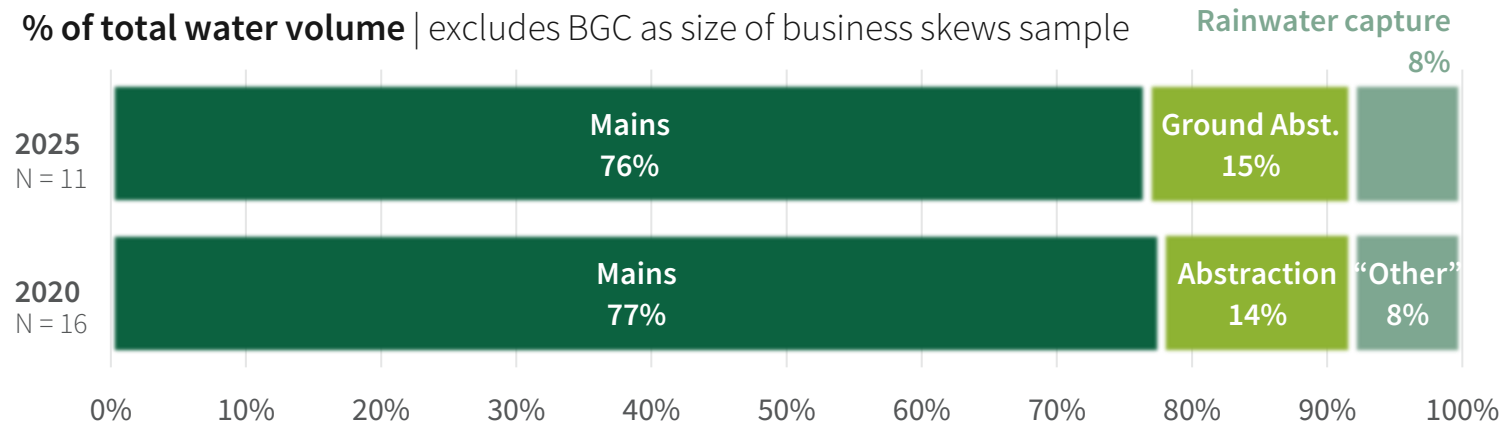
Extrapolation from sample count:

Sample respondents as a % of UK garden centres = 1.2%
Total water use reported in sample = 118,173 m^3
Total water use = **9.4M** cubic metres (m^3)
Likely an overestimate, as stated on slide 5

Garden Centres' Water Sources



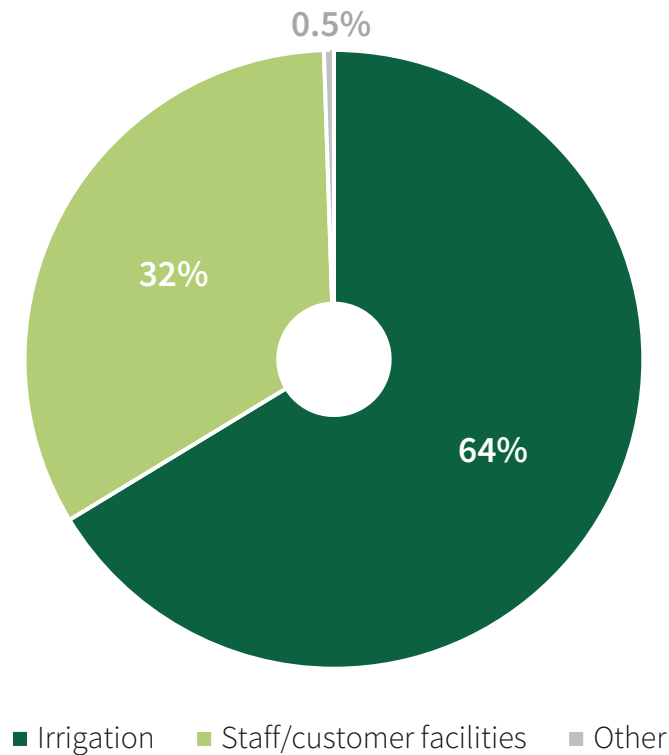
- Garden centres' sources of water are broadly the same as what they were in 2020.
 - No significant difference from 2020 results
- The variation between years may be due to changes in makeup of the sample.
- Due to the small sample and skew towards larger garden centres, results are not generalisable.



Garden centres' Water Consumption & Storage

Irrigation accounts for approximately two-thirds (64%) of garden centres' annual water use

Figures are the % share of total water consumption across all garden centres

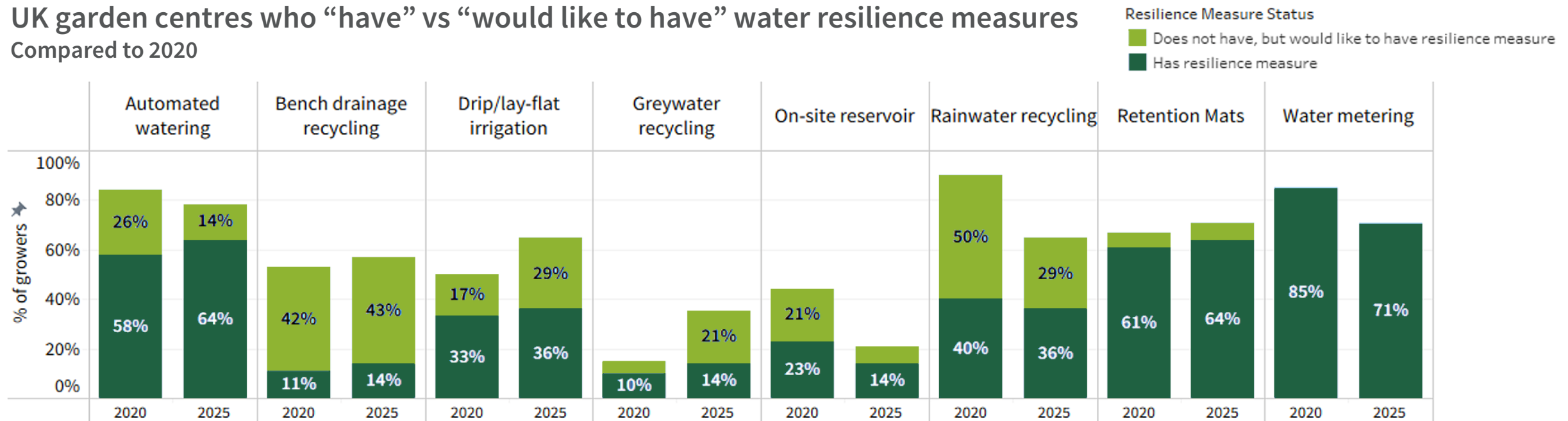


- Garden centres use a considerably higher proportion of their water on staff/customer facilities (**32%**) than growers (**3%**)
- On average, garden centres' water storage capacity is equal to **20%** of their overall consumption (average % across garden centres)
- Overall, garden centres' total water storage capacity is **38%** of their total annual water consumption (total storage / total consumption)

Resilience implementation and demand

- In 2025, 86% of garden centres (12/14) said they had at least one water resilience feature.
- Compared to 2020, the prevalence of water resilience measures was broadly similar for each feature. However, the sample is dominated by larger retailers, similar to 2020, so may not be generalisable to all garden centres.
- Potential shift in interest towards greywater recycling at expense of onsite reservoirs (indicative only)
 - Reservoirs may not be feasible for space/cost reasons, while greywater appears to be on more retailers' radar than before.

UK garden centres who “have” vs “would like to have” water resilience measures
Compared to 2020

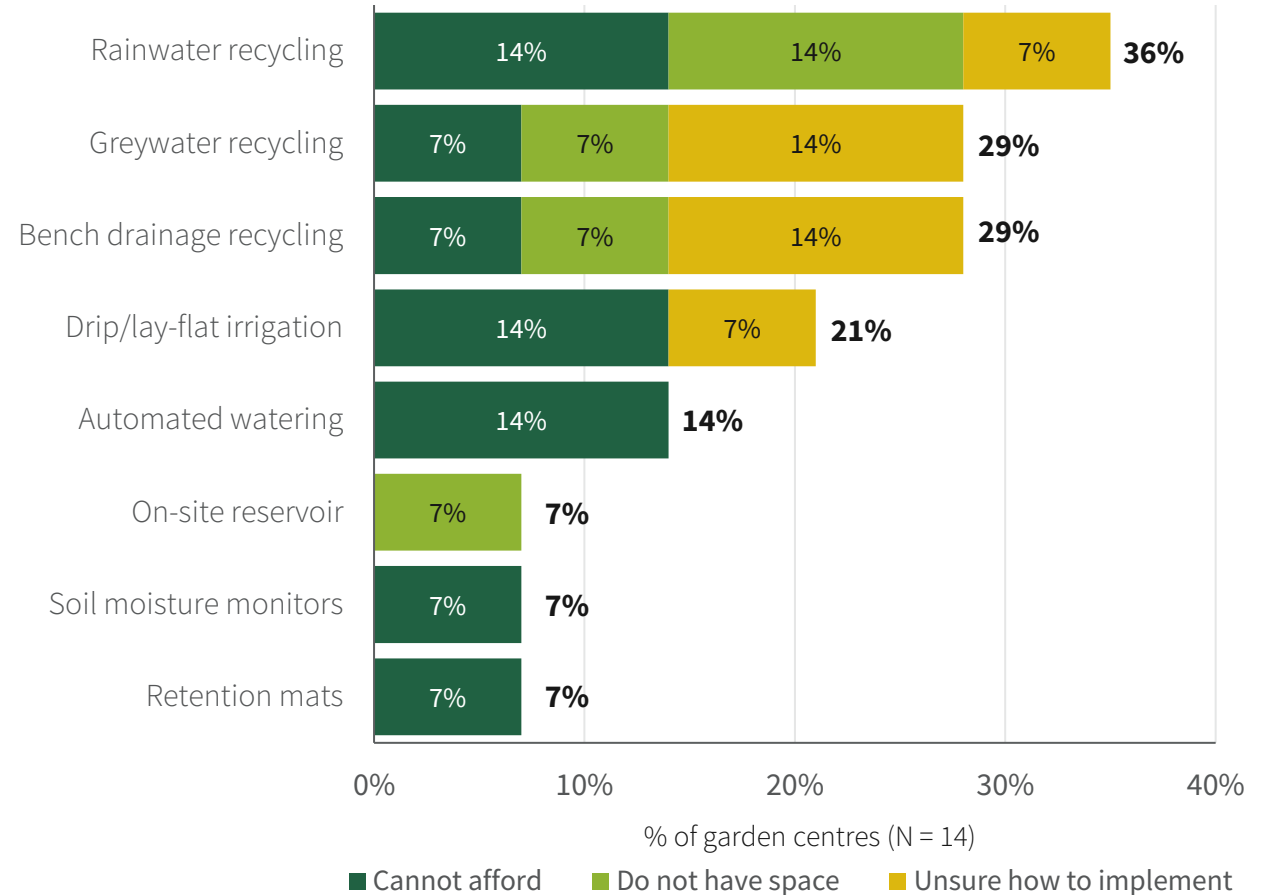


Barriers to Water Resilience

UK Garden centres

- Out of 14 garden centres, 86% (n = 12) said that they desired a water resilience measure that they didn't currently have.
- Similar to growers, garden centres were most likely to state cost/affordability as the main barrier to implementing measures
- Water recycling measures (e.g. rainwater, greywater, bench drainage) tended to be the most in-demand resilience measures.
- Small sample size (N = 14) means results may not be generalisable to all UK garden centres, and sample is dominated by larger retailers (turnover >£1m).

“What, if any reason, has stopped you from implementing the following measures at your business”
(asked only to those who said that they did not have, but would like to have a listed resilience measure)



Contingency Planning

Professional Growers and Garden Centres

Impact of Water Restrictions

- Horticultural businesses remain reliant on access to mains and abstracted water.
- All retailers said that restrictions to their mains or abstracted water would have at least a serious negative impact on their business, compared to 82% of growers
- 59% of growers and 57% of retailers said that it would affect the survival of their business.
- Results are broadly similar to 2020, with small increases in impact severity in 2025 for both growers and retailers (likely a product of sample make-up / could reflect extra caution from some businesses considering water situation in 2025)

Impact level	Ornamental Growers	Garden Centres
No material impact	9%	0%
Minor negative impact	9%	0%
Serious negative impact	24%	43%
It would affect the survival of the business	59%	57%

Contingency Plans

- Few horticultural businesses have contingency plans in place if access to mains/abstracted water was restricted
- 0 retailers (N = 14) said that they had a contingency plan in place.
- 30% of growers (N = 33) said that they have contingency plans in place. This is similar to 2020's finding (24%; N = 34), and is statistically significant from the 0% of retailers with contingency plans
- There was minimal correlation between growers having a contingency plan, and whether restrictions on water would affect the survival of the business – 80% of growers with contingency plans would still face at least a serious negative impact to their business in the face of restrictions.

Impact level	Ornamental Growers	Garden Centres
No material impact	9%	0%
Minor negative impact	9%	0%
Serious negative impact	24%	43%
It would affect the survival of the business	59%	57%
Has a contingency plan in place	30%*	0%

Summary

With regards to water use, environmental horticulture is a low-consumption, high-risk sector.

Businesses use less than 0.2% of the UK's total water consumption, while 88% of businesses say that water restrictions would cause serious harm or threaten survival.

Professional growers have reduced their reliance on mains and abstraction since 2020,

with 32% of their total water consumption coming from rainwater or greywater recycling, up from 8% in 2020.

Most of growers' water consumption is used on overhead irrigation.

Uptake of more water-efficient irrigation methods may help to further reduce the sectors' water consumption

Most members do not have any contingency plan for water restrictions.

No garden centres said that they had contingency plans, and only 30% of growers have a contingency plan.

On average, businesses can only store a small percentage of their annual water consumption

(growers = 16%, garden centres = 20%). Reservoirs remain in-demand for over 33% of professional growers, with cost and space being key barriers against implementation.

Cost and affordability was the most common barrier to implementing water resilience measures.

86% of garden centres and 53% of growers said they desired a water resilience measure that we asked about.

Member Survey Background

- 9% response rate from initial send, with 5% response rate in terms of complete responses.
 - The survey was started by 89 businesses, with 48 completing the full survey.
 - 33 growers and 14 garden centres completed the full survey; compared to 25 growers and 16 garden centres in 2020.
- The water use survey was fielded to HTA retailers and growers, as well as non-HTA member growers.
- Instead of splitting responses by HTA business type (grower / retailer), we asked respondents whether their main business activity was retailing, growing, or “both”.
 - Those who answered “both” were classified alongside professional growers, as any growing activity would heavily distort garden centre calculations.
- Only one garden centre who completed the survey had a turnover under £1m p.a.
 - This means that smaller garden centres are largely not represented in the member survey results.
 - 6 out of 7 smaller garden centres who reached the question on water consumption (Q4 of) did not answer the question – suggests that many smaller garden centres cannot quantify their water use.
 - This may lead to overestimated water consumption when extrapolating water use by number of businesses.
- 54% of growers who completed the survey had turnover over £1m p.a., compared to 68% of membership, therefore grower responses are broadly representative.
- Final sample accounted for approximately 8.3% of all UK growers, and 1.4% of all UK garden centres by number of businesses
 - Results can safely be generalised for growers but are likely not generalisable for garden centres.