

# Extreme weather affecting UK agriculture—but adapting to changing climate a challenge for many farmers

May 11 2021

---



Credit: CC0 Public Domain

Extreme weather is harming UK agriculture—but many farmers have not yet made adapting to the effects of the climate emergency a priority,

a new study shows.

All farmers who took part in the research said they had experienced or witnessed issues caused by extreme weather such as heavy rain or prolonged dry spells in recent years, and expected these to intensify further.

Many were concerned about the impact of heat and drought on crop and [grass growth](#), with knock-on impacts for yield and winter animal feed, and the implications of heavy rainfall/flooding for soil run-off and erosion and for field operations such as drilling and harvesting. For a number of farmers, however, ongoing and future changes to our weather and [climate](#) were seen as too uncertain and too long-term for them to invest significant time or money in planning for them now,

The study shows many farmers are focused on short-term profitability and [business](#) survival in a challenging economic environment, as well as concerned about other political and public pressures. Although there is a growing acceptance that the climate is changing and that there are benefits to taking action, uncertainties about the exact scale, speed and nature of change locally, make it difficult for farmers to plan ahead.

The research, published in the journal *Climate Risk Management*, was carried out by Dr. Rebecca Wheeler and Professor Matt Lobley from the University of Exeter's Centre for Rural Policy Research, in partnership with scientists from the Centre for Ecology and Hydrology, Rothamsted Research and Lancaster University.

Researchers carried out 31 in-depth interviews, 15 with farmers and 16 with stakeholders including advisors, consultants and industry representatives.

A number of agricultural stakeholders said they were concerned too few

farm businesses are taking sufficient action to increase their business resilience to extreme weather and climate change.

Some farmers "hadn't got around" to certain measures they would like to undertake, whilst others were "concentrating on the short term".

Dr. Wheeler said: "Farmers have an array of challenges and uncertainties to cope with, and it is understandable they are focused on the short-term profitability and survival of their business. This seems to be preventing them from adapting to the effects of the climate emergency. It is essential the industry finds ways to build resilience, and that farm businesses are supported in planning and responding to changing weather patterns."

More positively, the research also highlighted the capacity for innovation and adaptability within the farming industry. Many farmers are building resilience within their business through actions to improve soil health, which as well as raising productivity and storing carbon, also increases the ability for grass and crops to cope with weather extremes. There is also reason for farmers to be optimistic about some of the opportunities posed by climate change, such as warmer temperatures enabling new crops and increased yields in some instances, - as long as they are able to 'weather' the challenges posed by negative effects.

As well as improving soil health, positive actions taken by farmers in the research to future-proof their business included continuous evaluation of crop/grass varieties and growing techniques, installing additional livestock housing with good ventilation, increasing rainwater storage capacity, and risk-spreading through expanding the diversity of their crops and enterprises.

Professor Lobley said: "There are many innovative and exciting activities happening on farms across the country, but much is still to be

done to improve the resilience of individual farms and the industry as a whole.

"Few farmers described themselves as directly adapting to climate change but most did see themselves as taking positive steps to respond to the risks of extreme [weather](#) or to generally improve their business resilience. For a number of farmers this primarily took the form of improving soil health."

Industry representatives involved in the research welcomed such positive steps but called for greater uptake of these and other measures. The findings highlighted a need for government and agricultural stakeholders to work with farmers to help them understand the risks posed to their particular business from [extreme weather](#) and climate change. Actions to help farmers respond and adapt to these risks include improved industry collaboration, creating opportunities for [farmer](#)-to-farmer learning, and providing tailored tools and support that take into account the specificities of different farming systems.

**More information:** Rebecca Wheeler et al, Managing extreme weather and climate change in UK agriculture: Impacts, attitudes and action among farmers and stakeholders, *Climate Risk Management* (2021). [DOI: 10.1016/j.crm.2021.100313](https://doi.org/10.1016/j.crm.2021.100313)

Provided by University of Exeter

Citation: Extreme weather affecting UK agriculture—but adapting to changing climate a challenge for many farmers (2021, May 11) retrieved 25 June 2024 from <https://phys.org/news/2021-05-extreme-weather-affecting-uk-agriculturebut.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.