

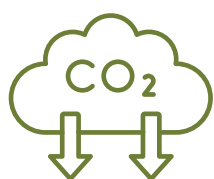
Reducing carbon dioxide emissions



The International Barley Hub (IBH), a Hutton innovation centre, is a prime example of research and application that is improving the resilience and sustainability of crop production and mitigating the impacts of climate and environmental change.



The IBH aims to reduce CO₂ emissions in barley production by **developing more resilient and sustainable barley varieties and growing systems**. In 2022, arable farming in Scotland contributed 20% (or 1.6 MtCO₂e) to total agricultural emissions.



Around half of the carbon dioxide emissions from Scotland's arable area comes from cropping, which is predominantly spring barley. The carbon footprint of barley grain is expressed as CO₂ equivalent (CO₂e) per kilogram of grain. **The aim is to reduce CO₂e by 10% in the next 10 years in Scotland**, i.e. 1% per year. Using an average of 0.45 kg CO₂e per kg of grain, this 1% reduction is estimated to save £2m in CO₂e value across the UK barley agriculture per year.

