

Crop mixtures



Crop species mixtures, also known as intercroops, involve the **growing together of more than one crop species at the same time and in the same area of land**. Although a common practice globally, it fell out of favour in Scotland during the drive to highly mechanised and intensive farming. Potential benefits from mixed crops include the maintenance of crop yields with reduced inputs such as fertiliser, herbicides and pesticides, and greater resilience to environmental variability such as summer droughts.



Farmers appreciate that it is a less impactful way of farming and its use is now underpinned by agri-environment support payments. A pull from the market is also expected as it helps supply chains reduce their scope three emissions - indirect greenhouse gas emissions that occur in a company's value chain.

There is likely to be an increase in demand for mixed crops in barley brewing supply chains; farmers will grow more and the market will increase if there is a reliable supply.

Impacts will be realised via:

- **Biodiversity gains, notably improved bird use compared with monocultures**
- **Reduced GHG emissions – for farmers and supply chains and in society's move to net zero**
- **Reduced cost of herbicides, pesticides and tillage requirements.**



Another example of how crop production is influencing the carbon footprint of products is a **spirit distilled from peas**. The pea crop needs no synthetic nitrogen fertiliser to grow, and after five years of research supported by the Hutton, the world's first carbon neutral, climate positive gin Nàdar Gin was created. The benefits are not only in the carbon credentials of the product, the gin has a carbon footprint of -1.54 kg CO₂e per 700ml bottle, but in soil quality improvements.

