

Increasing yield benefits of intercropping at increased temperatures

Original piece: Rob Brooker (JHI)

In DIVERSify we undertook a meta-analysis based on 153 trials of intercrops from across 14 sites. This showed that crop species mixtures at these study sites generated overall gains in terms of crop productivity, and that the composition of the intercrop can impact on mixture benefits. Most importantly from a climate change perspective it showed a clear positive significant relationship between Land Equivalent Ratio – a measure of the yield benefit of intercrops compared with monocrops – and temperature. This means that as temperatures increase the yield benefits seen from intercropping also tend to increase. This indicates that intercrops may be a more resilient cropping system than monocrops under future climate change, particularly in central and northern Europe. However, there will likely be limits to this effect and future research should look to extend these studies into hotter and more arid climates so we can better understand how resilient intercrops are under the types of conditions likely to be experienced in southern Europe.

> To find out more read: <u>D5.5 Meta-analysis and visualisation tools</u>



