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"Solidarity in a competing world fair use of resources"

Regenerative Organic Agriculture Can Increase Yields with Renewable Resources

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Abstract

Most farming systems use non-renewable resources such as synthetic fertilizers and pesticides. Regenerative organic farming systems prioritise the recycling of organic matter to build soil health and fertility. Eco-functional Intensification, using functional biodiversity and agroecological methods can ensure that the inputs for soil nutrition and pest, disease and weed control can be generated on farm or sourced locally. Most of these regenerative systems are renewable and solar powered through the efficient use of photosynthesis. Published scientific studies show that organic systems can have higher yields under conditions of climate extremes such as drought and heavy rain events. Organic practices based on ecological science have been shown to increase yields in traditional farming systems. A report by the United National Conference on Trade and Development and the United Nations Environment Programme that reviewed 114 projects in 24 sub-Saharan African countries, covering 2 million hectares and 1.9 million farmers, found that organic practices increase yields on average by 116 per cent (range: +54% to +176%). The combination of higher yields, resilient biodiverse production systems and lower production costs can achieve both food and income security for farmers as well as good environment outcomes.

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