



Middle Marches Community Land Trust Conference on Regenerative Agriculture

Some Definitions

Regenerative Agriculture is a relatively recent term becoming more widely used since around 2010, especially in the United States and several major US companies have committed to basing their supply chains on it. However, Regenerative Organic Agriculture was first coined by the US Rodale Research Institute in the 1980s, with defined Standards and certification and a particular emphasis on soils.

Regenerative agriculture is based on techniques such as crop rotation, the application of farmyard manure or compost and reduced tillage. Such approaches MAY rebuild the quantity and quality of topsoil, restore local biodiversity (including native pollinators) and watershed function (increasing soil sponginess and slowing the flow of water off the land). They MAY also play a major role in sequestering CO2 emissions – there has been very little research on this in the UK.

Restorative Agriculture – this term appears to be largely subsumed by the term regenerative agriculture. Storm Cunningham documented the beginning of what he called "restorative agriculture" in his book, *The Restoration Economy, 1951*. He defined it as a technique that rebuilds the quantity and quality of topsoil, while also restoring local biodiversity (especially native pollinators) and watershed function.

Organic farming is based on four internationally-agreed (IFOAM) principles of Ecology, Health, Fairness and Care and was established in the UK in the 1930s, in reaction to rapidly changing farming practices and human health concerns. It has legally binding and inspected Standards for certification and core practices based on working with nature within a biological system. This means ensuring healthy soils and soil life, diversity, use of legumes and good manure management for fertility building, mechanical weed control and high animal welfare.

Herbicides, synthetic fertilisers, pesticides and GMOs are prohibited and veterinary medicines strictly controlled, in order to avoid damage to biological processes, agrochemical pollution and food contamination. Instead, Nitrogen-fixing crops, compost and green manures provide fertility within rotational systems on the farm and biological pest control, mixed cropping and the fostering of natural predators are encouraged. Under organic Standards (eg Soil Association) production methods must contribute to high levels of biodiversity and protection of ecologically significant habitats.

Certified organic agriculture accounts for 70 million hectares globally, with over half of that total in Australia.

Sustainable farming means farming in ways that meet society's present food and textile needs, without compromising the ability for current or future generations to meet their needs. A more sustainable agriculture systematically pursues five goals (Jules Pretty, *The Living Land, 1998*):

- A thorough integration of natural processes such as nutrient cycling, nitrogen fixation, soil regeneration and pest-predator relationships into agricultural production processes, ensuring profitable and efficient food production while increasing natural capital
- Minimisation of the use of those external and non-renewable inputs that damage the environment or harm the health of farmers and consumers and a targeted use of the remaining inputs used to minimise costs

- The full participation of farmers and other rural people in all processes of problem analysis and technology development, adaptation, and extension, leading to an increase in local self-reliance and social capital
- A greater use of farmers' knowledge and practices in combination with new technologies emerging from research, including innovative approaches not yet fully understood by scientists or widely adopted by farmers
- The enhancement of both the quality and quantity of wildlife, water, landscape and other public goods of the countryside

He presents a table of promising and proven resource-conserving and regenerative technologies for European agriculture. Pretty points to the wide range of more sustainable forms of agriculture that are emerging under a wide variety of different names and concludes that they are all forms of *more* sustainable agriculture, but it is difficult to say how much more sustainable one is than another unless one knows about the specific local conditions and technologies in use.

Conventional farming or industrial agriculture, refers to farming systems which include the use of synthetic chemical fertilizers, pesticides, herbicides and other continual inputs, genetically modified organisms, concentrated animal feeding operations, irrigation, intensive tillage, or concentrated monoculture production. Thus conventional agriculture is typically highly resource-demanding and energy-intensive, but also highly productive. Conventional farming is something of a misnomer as it did not become widespread until after the Second World War.

SUGGESTED READING LIST

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Lamkin N, *Organic Farming*, Farming Press Ltd, 2000 (first published 1990)

Meade, T, *A Point of View. Has organic regenerative agriculture come of age?*, Living Earth magazine, Soil Association, 2022

ORC, *Five conversion farmer profiles case studies* – Bulletin – Organic Research Centre, Spring 2022, No 135

Rebanks J, *English Pastoral. An inheritance*. Picador, London, 2020

Robinson, P, *Sir Albert Howard, Shropshire Lad & Champion of organic farming*, The Albert Howard Society (Bishops Castle)

Tree, I, *Wilding. The return of nature to a British Farm*. Picador, London 2018

This sheet was compiled and written by Joy Measures (Greenall) and Dr Richard Keymer for the Middle Marches Land Trust Regenerative Agriculture conference on 6th May 2022 held in Norbury, Shropshire.