

# Crop rotation in the British agricultural revolution

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## DESCRIPTION

The British Agricultural Revolution, or Second Agricultural Revolution, between the mid-seventeenth and late-nineteenth centuries, there was an unparalleled increase in agricultural production in Britain due to increases in labour and land productivity. Over the century leading up to 1770, agricultural output outpaced population growth, and productivity remained among the highest in the world. This raises the stakes. The rise in productivity has been cited as a cause of the Industrial Revolution because it has accelerated the decline of the agricultural share of the labour force, adding to the urban workforce on which industrialization was reliant: the Agricultural Revolution has thus been cited as a cause of the Industrial Revolution. Historians disagree about when exactly such a "revolution" occurred and what exactly it included. G. E. Mingay claims that there were a "profusion of agricultural revolutions, one for two centuries before 1650, another for the century after 1650, a third for the period 1750-1780, and a fourth for the middle decades of the nineteenth century," rather than a single event. The switch from fallow to turnips and clover as a crop rotation was a significant change in farming methods. Turnips can be planted in the winter and have deep roots, allowing them to absorb minerals that shallow-rooted vegetables cannot. Clover converts atmospheric nitrogen into a sort of fertiliser. This allowed for extensive arable cultivation of light soils on enclosed farms, as well as the provision of fodder.

## CROP ROTATION

The creation of the Norfolk four-course rotation, which considerably enhanced crop and livestock outputs by enhancing soil fertility and eliminating fallow, was one of the most important innovations of the British Agricultural Revolution. Crop rotation is the technique of planting a variety of different types of crops in the same area over time to help restore plant nutrients and prevent infections and pests from accumulating when one plant species is repeatedly cultivated. By alternating deep-rooted and shallow-

rooted plants, rotation can help improve soil structure and fertility. For example, turnip roots.

The Norfolk four-field system was notable for employing labour at periods when demand was not at its height. Cover crops like turnips and clover were not allowed to be planted in the common field system because they obstruct access to the fields. Furthermore, the turnips might be grazed by other people's livestock.

Convertible husbandry was the practise of switching a field from grazing to grain. Ploughing up pasture and planting cereals resulted in good yields for a few years because nitrogen builds very slowly in pasture. Convertible husbandry had a number of drawbacks, including the time and effort required to split up pastures and the difficulty in building them. Convertible husbandry is significant because it introduces. By 1870, the area under wheat had increased to 3.5 million acres (1.4 million hectares), barley to 2.25 million acres (0.9 million ha), and oats to 2.75 million acres, while rye had decreased to 60,000 acres (25,000 ha), less than a tenth of its late mediaeval peak. Grain yields increased as a result of new and improved seed, as well as improved rotation and fertility: Wheat yields climbed by a quarter in the 18th century and nearly half in the 19th century, with an average of 30 bushels per acre by the 1890s. Convertible husbandry was the practise of switching a field from grazing to grain. Ploughing up pasture and planting cereals resulted in good yields for a few years because nitrogen builds very slowly in pasture. Convertible husbandry had a number of drawbacks, including the time and effort required to split up pastures and the difficulty in building them. By 1870, the area under wheat had increased to 3.5 million acres (1.4 million hectares), barley to 2.25 million acres (0.9 million ha), and oats to 2.75 million acres (1.1 million ha), while rye had decreased to 60,000 acres (25,000 ha), less than a tenth of its late mediaeval peak. Grain yields increased as a result of new and improved seed, as well as improved rotation and fertility: Yields of wheat increased by a quarter.

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