

6. The contributions of organic additions on soil quality

This report looks at the role of organic matter within soils and reviews the effect organic additions have on soil quality.

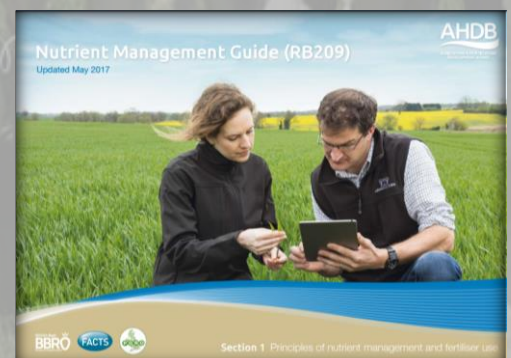
It separates the **organic additions** that a grower may generate on their own holdings, such as *livestock manures, cover crops and plant residues*, from those which may be imported as a by-product from an industrial process including *compost, digestate, green waste and other biosolids*.



Organic Addition	C:N ratio
Farm yard manure	17-20:1
Livestock slurries	4-10:1
Wheat straw	80:1
Oat straw	70:1
Pea straw	29:1
Green wastes and composts	30:1
Vetches	11:1
Paper waste	150-200:1
Biosolids	14:1

Understanding the **Carbon: Nitrogen ratio** is key to successful soil and crop production management. Easily degradable organic additions and those that lock up nitrogen are part of this process.

The recently updated **RB209** (May 2017) gives a comprehensive nutrient management guide and is a clear starting point from which UK growers can calculate organic and inorganic fertiliser.



Whilst organic additions have a large part to play in soil health, other factors such as *crop rotation, inorganic fertiliser use and cultivations also play a role in maintaining soil organic matter*. Minimising soil erosion, introducing biomass crops and retaining woodland also have an influence on wider landscape management. These can be additional management practices to help soil organic matter.