

**Poul Hoveson,  
Salle Farms Company  
Norfolk**



***‘Healthy soils produce a healthy crop; how healthy soils produce the yields you want’***

*Poul Hoveson is currently the Farm and Estate Manager at Salle Farms, a large estate in Norfolk, England. Poul, alongside his team of staff have transformed the estate into a business that proactively protects soil quality on farm.*

*Salle Farms Estate covers a range of production systems from arable to grassland pasture to Christmas tree production and dense woodland. This range of cropping means that soils and sustainable management is key to the success of the farm business. Poul Hoveson and his team believe in an integrated and detailed approach to soil and crop management. They believe that understanding your soil, being careful with machinery on the land and looking at a whole system is vital for sustainable soil management.*

Poul and his team evaluate the soil land through regular soil testing and nutrient mapping. Nutrient testing is a priority for the estate as getting the correct amount of nutrients for each crop not only protects the soil but is vitally important for high yields and successful crop production.

In 2014 cropping included spring barley, spring beans, sugar beet, winter barley, winter wheat and winter oil seed rape. An extensive rotation has been implemented since Poul took over management of the farm which has led to the soil being protected and biological function increasing. Blackgrass has also nearly been eradicated on farm.

The success of the soil management approach can be seen through the consistently high crop yields from the estate and the soil tests which show excellent soil health. Healthy soils produce a healthy crop, and Salle Farms produce higher than above average yields.

Improving organic matter	Crop rotation Cover cropping Nutrient and soil mapping Controlled application of nutrients
Reducing the risk of soil erosion	Cover cropping Reduced tillage for better soil structure
Reducing compaction on land	Wide tyres on all tractors and machinery Discordon cultivator to minimise passes and to improve efficiency

**Crop rotation**

The crop rotation is extremely important within the Salle Farms production system and has been in place on the farm since the late 1990's. The rotation implemented at Salle Farms allows for the land to be prepared especially for each crop with the soil nutrients to be managed accordingly. The rotation shows the importance of organic manure that is high in nitrogen within the rotation. Turkey muck is used before winter oil seed rape and sugar beet; both are financially profitable crops which need the correct balance of nutrients for success.

The cover crop is an important part of the system, allowing for increased organic matter and allowing for over winter coverage for erosion. Especially with a spring crop, it is vitally important to build up soil quality but also protect the resource from winter erosion and when used before sugar it acts as a soil conditioner.

	<u>Crop</u>	<u>Preparation for the crop</u>
Year 1	Winter Wheat	Plough or Discordon* for Winter Barley
Year 2	Winter Barley	Discordon for Oil Seed Rape
Year 3	Winter Oilseed Rape	Discordon for Winter Wheat
Year 4	Winter Wheat <i>Followed by Turkey Muck for nitrogen and then a Cover crop</i>	Plough for Sugar Beet
Year 5	Sugar Beet	Plough for Spring Barley
Year 6	Winter Wheat	Plough or Discordon for Spring Beans
Year 7	Spring Beans	Discordon for Wheat*

\*The Discordon is a one pass cultivator for primary cultivations. The discs at the front of the machine chop and mix soil and stubble, and the following tines lift and infiltrate the soil pan. The back row of discs turn and level the soil and the roller consolidates the soil surface to limit evaporation. The system mitigates the risk of capping compaction by combining organic matter into the system and aerating the soil with the light cultivations. The cereal and bean crops are sown with a Vaderstad Rapide Drill, the Sugarbeet is drilled with a separate precision drill.

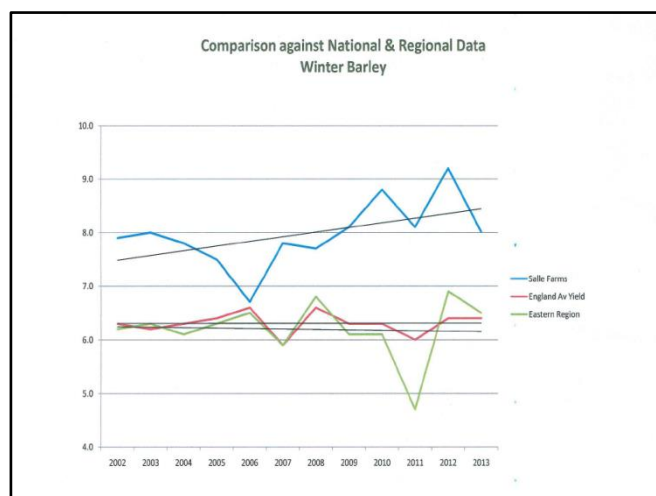
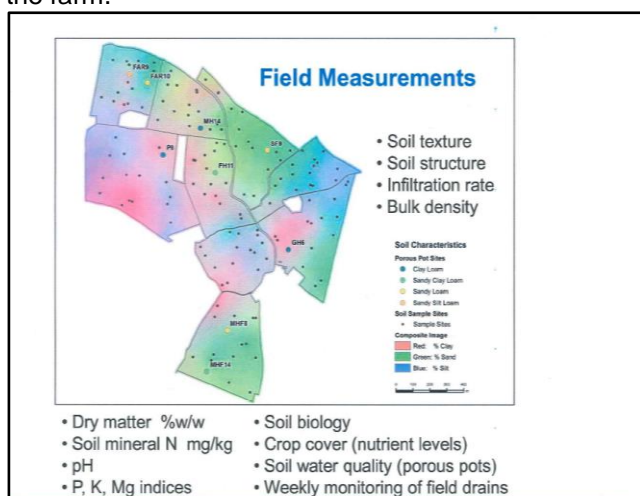
### Machinery and cultivations

By varying the cultivation techniques soil issues such as compaction and erosion are reduced. By integrating the Discordon cultivator into the system, it enables organic matter and trash to be incorporated back into the soil profile. The Discordon reduces passes over the land, helping to address soil compaction issues.

All the farm's machinery is maintained to the highest standard and wider tyres are used on most of the cultivations to reduce the risk of soil compaction. Furthermore all staff are trained to consider the soil, not work in adverse weather conditions and be extremely detailed in all aspects of machinery maintenance and care. Poul noted that some pieces of machinery are over 10 years old, but by using the machinery efficiently the machinery protected and so is the soil.

### Agri Environment Schemes

Protecting the environment especially resource protection is hugely important on such a large estate. The land is farmed under a High Level Stewardship agreement and management options such as buffer strips aim to reduce the risk of erosion and sediment loss, so complementing the soil management on the rest of the farm.



2015  
International  
Year of Soils

