SOIL FIRST FARMING

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Conservation Agriculture
is a set of 3 soil management principles based on…

Minimising Soil Disturbance
Reduces damage and carbon loss from the soil, allows the soil to stabilise and improve the environment for biological growth. Lowers cost of crop establishment

Residue Cover
Conservation Agriculture requires 60-100% soil cover to protect the soil, reduce soil erosion and boost weed control

Crop Rotation
Rotation is used to help control weeds and crop volunteers plus bringing diversity to the soil biology

The aim of these principles is to manage carbon in and on the soil.

Soil First Farming has joined the 21st century and finally has a Facebook page and Twitter account! Follow or Like us and join in the fun of No-Till farming

www.soilfirstfarming.co.uk

Don't wake the WEEDS…

A lot is said about weed control in no-till or more precisely Conservation Agriculture (CA), particularly about our 'friend' black-grass. Weed control in CA, is based on a system, a system of cultural methods (non-chemical) as opposed to a magic bullet that will give the control we all need of weeds like black-grass.

The first part of weed control in CA is to recognise that it is a different system to minimum tillage or conventional plough based systems. Therefore you should question any weed control advice, making sure that it fits the system you are using.

The difference for me is that weed control in CA is about creating 'conditions' or an 'environment' in which the weed finds it very difficult to grow or thrive in. This is opposed to, for example, the use of stale seed beds in min-till systems where conditions are deliberately created for the weed to grow, and be controlled outside of the crop, therefore reducing the amount of weeds that the herbicide programme has to deal with.

Most arable weeds currently endured on arable farms are what I call 'cultivation' weeds or plants that thrive in a soil disturbance environment – black-grass is a prime example of this as I am sure you have seen, like I have on many occasions, strips or lines of black-grass growing in a field directly related to where a cultivation of some type has been used!

So – The first part of CA weed control is - don't wake the weeds up or encourage them to grow – this can be achieved by minimising soil disturbance when drilling. Do not underestimate how powerful this is in the battle against weeds and particularly black-grass. Black-grass, as I understand requires a millisecond light flash to start its germination. If soil disturbance is kept to the minimum then so are manmade light flashes! What this means in practice is don't mix your systems, don't be tempted to rake your stubbles or make a little stale seed bed (just to help with weed control) and then look to no-till your crops – this is all min-till and should be treated as such.

Another area causing confusion is drilling dates, especially for cereals in black-grass situations. Late drilling for me is anything from October onwards - essential for good black-grass control in min-till and conventional systems, but not for CA, especially for farms just starting to adopt the system. I recommend no-till drilling when conditions are better, more often than not, in September.

By the use of minimum soil disturbance and making use of at least 4 other CA weed suppressing techniques black-grass control can be what you need it to be on your farm.

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Suffering from Low Grain Protein Concentration?
Failed to Make Milling Grade?

There has been plenty of talk of above average wheat yields this summer, even perhaps a new world record in Lincolnshire. There is also plenty of talk of low proteins and diluted nitrogen levels due to the extra yield with some new varieties coming in for particular criticism which is probably unjustified.

But is it simply a case of applying more N? Or is there more to achieving higher grain protein concentrations than a late application of nitrogen?

As with all crop nutrition, many elements need to be in place in the right quantities at the right time for the plant to utilise them in the way it needs to. This is critical for protein synthesis.

Yes nitrogen is a major building block of protein, but so is sulphur, while potassium and zinc are needed to drive the protein synthesis. The presence of adequate water supply is also a prerequisite.

How do you ensure the plant has the nutrition it requires? This can be done through adequate soil testing which will identify possible nutritional shortages. These can then be addressed via solid fertiliser applications to the soil and liquid foliar applications at the correct time, using the correct form of nutrition. With greater protein levels also comes greater specific weights.

Soil First Farming welcomed James Warne to the team in April this year. James is now in full swing of his first Soil First Farming harvest.

'…it is very refreshing to know that you are actually making a genuine contribution to peoples crops, soil, business and ultimately the environment'

James is primarily looking after the nutrients side of the business so if you need any help please give James a call. Alternatively you could just chat about the cricket!

Get your autumn drilled crops off to the best start.

When seeds germinate they are totally reliant upon the stored carbohydrate and protein contained within the seed. This food supply tends to last until the plant has 2-3 true leaves then the plant is dependent upon its root system to supply the nutrition it needs. You can only be sure that the soil contains what the plant needs if a recent soil analysis has been completed.

It is therefore critical you get the crop off the right start by drilling (where possible) into moist warm soil with good seed to soil contact at the right depth. The next step is to ensure the crop has access to good levels of phosphate, manganese and zinc that will enable the plant to establish quickly and maximise its ability to capture light and cover ground efficiently.

These essential elements can be applied as a seed dressing or as a foliar treatment at 2-3 leaf stage. As most seed has now been ordered it is most likely that it will not have a micronutrient seed dressing applied. It is vital therefore to consider a foliar application at the 2-3 leaf stage.

Steve 07989 402112 or James 07969 233163