



TECHNICAL NOTE – JULY 2016 LESSONS LEARNT DURING THE MGA TRIP TO FRANCE IN JULY SIMON DRAPER AND FELLOW STUDENTS!

Grower and commercial members teamed up recently to head to Picardy in Northern France with Simon Draper, MGA agronomist, to learn what is new from French researchers and growers.

Below is a summary of the points picked up by the travellers. We hope the summary proves useful to members and would ask that questions you have be channelled to Simon, via the MGA office.

The group set sail (via the Eurotunnel!) on Sunday 10th July heading for Villers-Saint-Christophe in North East France where they met Bertrand Carpentier, Regional Director of Arvalis (the national body, originally funded by government but now funded by a grain and seed levy, focused on maize agronomy). Arvalis run 27 research stations across the country. The group visited the station at Villers-Saint-Christophe to review ongoing research on Monday 11th before heading out onto two commercial farms in the Pas Du Calais region on Tuesday 12th. Information picked up included the following:



Bertrand Carpentier (dead centre in green)
– Put together an excellent trip itinerary

- **Plant population**

The aim should be a 100000/ha plant pop on 75 cm rows (predominately on light soil types), however that said much more maize is being drilled in northern France in 50 cm rows – The French have not done much recent work on target plant populations required for 50 cm rows, earlier work did show that the narrow row crops were more at risk from maize smut due to increased drought stress issues.

- **Starter fertiliser**

A large number of trials have been undertaken in the past and continue to be repeated to this day. The conclusion so far is that 150 kg/ha of DAP was best. Trial work indicates there is no benefit from micro granules and the benefits of using foliar N are doubtful.

- **Nitrogen**

160 kg/ha N is the French recommendation for nitrogen to the maize crop (UK NVZ limit is 150 kg/ha)

A standard fertiliser recommendation would be 20-40 t/ha slurry + 80 kg/ha N

- **Seed Dressings**

Mesuroil is not allowed in France and they may also lose Sonido. Lack of dressing options has led to some problems with Rooks in Northern France and Frit Fly in Brittany. It was suggested that the only sensible method of control for Rooks is to use plastic film which leads to better crops as well.

Frit fly losses have been serious in Brittany this year – in the region of 20,000 has of crop have been lost. Where Sonido was used, the crop has been saved - all other seed treatments (including Force) had no effect.

Where Sonido is to be used, the advice is not to dress the seed used in the first four rows of the headland. The theory is that the bees will not travel further into the field.

- **Varieties**

Varieties are tested and listed and placed into very early, early, normal, late and very late categories - currently there are some 800 varieties on the list in France.

- **Weed control**

Generally, recommend a two spray programme - a pre-em followed by an early post em (similar to UK).

Discussion took place focused on successful weed control under film. Generally it was felt that Wing P was best, but it does not give good control of charlock and rape and no control of volunteer potatoes.

There is likely to be a ban on the use of Glyphosate in 18 months' time in France. That said there is a view that the ban could be restricted to some tallow amine containing products as it is thought that the wetter is causing the problem and not actually the glyphosate.

- **Harvesting**

Harvesting date can be assessed when the crop is flowering - As a general rule 50 % silks should be visible on the first of August. For every day later than this harvest date is delayed by 2 days.

The French have tried using NIR machines on the forage harvester but have found that they are expensive and need to be calibrated every year to remain accurate.

- **Protein in maize silage improvements**

There is interest in increasing the protein content of maize silage. As yet progress is limited however there does appear to be some increase as the result of growing 2 rows of maize alongside 2 rows of sorghum. It was also understood that white grain maize may have relatively high higher protein levels.

- **Maize silage and cheese production**

The group learnt that maize silage impacts on some cheese making and that certain cheese factories will not take milk produced from maize silage.

Observations from the field trials and farm visits.

The general impression gained by the travellers is that there is a significant amount of BYDV (Barley Yellow Dwarf Virus) in trials (seen by purpling of the leaves of large plants). The BYDV was caused by the grain aphid present early in the season infecting from cereal crops. To avoid this, Cypermethrin should be applied to the maize crop at the 2 leaf stage. It is not known if BYDV causes any long term yield loss in maize!.

In the seed dressing trial, the crops that had Force applied as a seed dressing, when compared to the Sonido treated plots, were shorter and less well developed.

The heavy rainfall in May resulted in damage to soil structure and some runoff.

Maize under film was very impressive and clean of weeds – The late maturity varieties under film were tasseling at the time of the visit!.

Maize Eyespot disease is not generally a problem in central or eastern France, although

a few lesions were seen on a crop just starting to tassel.

The first of the two farms visited were selling milk via their Co-op to Hargen Das. The farm is involved in a machinery ring for the arable operations on the farm – The 7 farms involved in the ring have 3000 ha and are working on a 1.2 hp machinery/ha ratio. The ring is looking for English students to work on the farms if anybody interested?



Beet pulp added to maize at harvest

The second farm visited was at Verchocq, nearer the channel coast. Maize was established via min till technique. The maize here looked less developed than that sown in the conventionally cultivated fields nearby. Digging down with a spade identified a substantial compaction pan at 10 inches. The pan had developed, even though the field had not been deep cultivated/ploughed for at least 7 years. There was speculation that the soil compaction may be the result of harvest damage.



English travellers cast their eyes over the cows on the farm visits

Research centre and farm visits complete, the group headed home on Tuesday evening via the tunnel. By all accounts the trip proved to be a success with many interesting and most importantly practically useful lessons learnt.