

Learn from last year and look forward to more good yields

Before discussing agronomy for this year's crop it's worth reflecting on the 2011 crop.

2011 saw one of the best rape harvests we have ever seen, five ton crops were numerous and most achieved their best rape averages for many years. Having ridden on a few combines at harvest and seen yield monitors hit seven and eight tonne per ha the true potential of this crop is really exciting. While it might be nice to pat ourselves on the back for a job well done we must accept that Mother Nature more than played her part and there are agronomic lessons to be learnt from that.

Why was 2011 so good?

In the simplest terms, our rape crops finished standing proud so every pod had the chance to photosynthesise and optimise yield. Crops had rooted well and were picking up nitrogen late enough to remain green. Disease levels were low and had robust fungicide regimes to maintain green leaf and pod plus the late rains ensured there was adequate moisture for the good root systems to find. The cooler than average June and July with good sunlight meant crops held on and finished well, in the end a little later than normal.

Although the spring seemed to have more than its fair share of problems with pigeons, late frosts, drought and higher pollen beetle numbers than we'd seen before, the crop still rallied. This was due in part to what had been ideal autumn establishment with excellent weed control (especially from black grass products). It seems a long time ago now but frequent rains in late August and September got the crop off to a great start. Phoma was a real threat last year and most crops had two sprays giving very good control. Crops went into the winter in great nick and this helped them cope with the rigours of the early spring.

The spring drought played a big part in setting crops up to finish, delayed nitrogen uptake and poor growing conditions self growth regulated crops which meant there was virtually no canopy lodging even in crops that were a bit thick.

As we consider this year, our objective is to work towards a crop structure and development that has the same opportunity as last year. Crop values remain strong and Rape has the potential to deliver the highest gross margins in the rotation.

Heading into October we have established our crops of Rape with an appropriate seed rate to give optimum number of plants and with early broad leaf weed control taken care of, then the next issues to address in the autumn are disease and growth regula-

Gary Bosley, regional technical advisor for UAP discusses autumn Oilseed Rape disease control



tion. Apart from soil borne diseases such as Verticillium Wilt and Club Root, the two main problems in the autumn are Phoma and Light Leaf Spot.

Phoma – Can lead to leaf symptoms in the autumn and stem cankers in the spring/summer which substantially reduce moisture flow and lead to 'whitehead' development and early senescence. Phoma spots can also affect pods and reduce photosynthetic area during pod fill. Survey data indicates that 50% Phoma symptoms on stems can lead to 0.5-0.7t/ha yield loss (£200 - £280/ha at £400/tonne).

Light Leaf Spot (LLS) – Leaf symptoms in the autumn can lead to leaf loss and poor growth and rooting. In the spring/summer further leaf loss can occur as well as pod spotting. Surveys indicate that 20% Light Leaf Spot can lead to a 0.3t/ha yield loss (£120/ha at £400/tonne) – this can be up to 1t/ha in the north of the country.

The fungus which causes LLS is able to survive the summer months on debris from the previous oilseed rape crop. After the initial infection the disease is spread by rainsplash-dispersed spores, because of this, new infections develop around a foci and so the disease appears to be patchy within the field.

Autumn disease control

Fortunately the control of both diseases is almost the same.

Variety choice – In parts of the country where either disease is common choose a variety with the greatest resistance. For

example in the South where Phoma is more common than varieties with a stem canker rating of 6 or more should be chosen ie. DK Cabernet 6, Cash 8, Excel 9. In the North where LLS is more of a problem choose a variety with a high LLS rating ie. Compass 6, Catana 7, Cuillin 9 or where both diseases may be a problem then a variety with a higher rating for both diseases should be considered.

Cultivation – Because both diseases are spread by wind-borne spores then burial of previous year's crop residues on neighbouring fields will reduce infection risk – however you have no control over your neighbours!

Fungicides – A recent HGCA funded study suggested that rape fungicide programmes should include two autumn/winter sprays targeting phoma and LLS control, followed by

at least one if not two further treatments in the spring/summer. UAP and manufacturer trials have shown that there is a difference in activity between the various Triazole fungicides on autumn diseases. The best results come from Prothioconazole (such as in Kestrel, Prosaro and Proline), followed by Flusilazole (Genie, Punch C), then Metconazole (Juventus) and Tebuconazole (Folicur). Optimum timing for Phoma control is when 10% of plants are infected, with possibly a repeat dose 3-6 weeks later, and for LLS a spray should be applied as soon as infection is seen.

Growth regulation

Managing the architecture of the crop through growth regulatory products combined with precision establishment and crop nutrition, has a major impact through increasing rooting (and therefore nutrient/water uptake), maximising light interception, reducing lodging risk and ultimately improving yield. Again UAP and manufacturer trials have identified a difference in growth regulatory performance between the main triazoles with Metconazole (Juventus) and Tebuconazole (Folicur, Prosaro and Kestrel) the best with Prothioconazole (Proline) and Flusilazole (Genie, Punch C) giving little or no growth regulation activity. The best timing is at the 4-6 leaf stage of the crop.

Therefore if we can learn from the lessons of last year and put them into practice in the new crop we stand a chance of repeating some of the good yields of 2011.