Light leaf spot control in winter oilseed rape

Disease threat increasing

Light leaf spot is favoured by cool wet conditions. Air-borne spores - spread from infected stubble or infected seed - lead to leaf infection. The symptoms are pale green or bleached leaf blotches, often surrounded by a halo of white spore droplets. Symptoms can appear from November onwards, but generally peak in early spring. Stems and pods may also develop lesions in the summer.

Each year regional forecasts of light leaf spot risk are produced by PASSW O R D, a software program developed with HGCA funding. Users can register on www3.res.bbsrc.ac.uk/leafspot/ and request updates by e-mail or fax.

For 10 to 15 years, winter oilseed rape growers have been reliant on triazoles, eg tebuconazole (Folicur) and flusilazole + MBC (Punch C). In areas of high disease pressure, in northern Britain, triazoles have typically increased yield by around 1-1.5 t/ha.

Other fungicides - Bravo, Thiovit and Dithane - have been tested but did not offer acceptable alternatives to triazoles.

Triazole resistance

Triazole fungicides provide control in most cases. However, field observations show that triazole fungicides have provided poorer than expected light leaf spot control in oilseed rape during recent seasons. This has been particularly true in high disease pressure areas in Scotland.

With no satisfactory alternatives to triazoles available, it is essential that strategies are adopted to ensure they remain effective.

If you are unsure about any of the suggested actions, or want them interpreted for your local conditions, consult a professional agronomist.
A two-year project in Scotland investigated fungicide sensitivity of light leaf spot populations and the influence of dose rate to ascertain factors responsible for the decline in triazole efficacy.

Isolates of light leaf spot taken from different areas of Scotland varied greatly in sensitivity. This was measured as the minimum fungicide concentration needed to halt fungus growth.

Some isolates were up to 40 times less sensitive than others (Figure 1).

**Choosing dose rate**

Increasing dose rate to three-quarters or more improved disease control but did not always increase yield (Figure 2).

Use of less than half full commercial dose rate is not likely to be effective. This is because of the decreased sensitivity of much of the light leaf spot population.

Dose rates must be high enough to control less sensitive light leaf spot isolates but not so high as to reduce crop vigour.

Where light leaf spot occurs regularly, early control with an autumn – usually November – spray is essential. Otherwise, spray when the first symptoms appear.

In south, central and eastern England, most fungicides targeted against phoma leaf spot should also control light leaf spot.

In spring, at early stem extension (GS 3,3), a fungicide is likely to be worthwhile if 25% or more plants have light leaf spot. Yield is lost if sprays are delayed.

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