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ABSTRACT

First detections of Plenodomus biglobosus (Leptosphaeria biglobosa) ‘canadensis’ and new azole-insensitive P. lingam (L. maculans) isolates in western Europe. Kevin King

Phoma leaf spot and stem canker or blackleg is a widespread disease globally, causing significant constraints to rapeseed (Brassica napus) production. Phoma is caused primarily by the ascomycete fungi Plenodomus lingam (Leptosphaeria maculans) and P. biglobosus (L. biglobosa), with multiple genetic subclades of each species identified.

Recently, two emerging threats to European rapeseed crops have been identified at Rothamsted. Previously, only the ‘brassicae’ subclade of L. biglobosus, had been identified in Europe but the ‘canadensis’ subclade was found for the first time in 2021 at multiple UK sites. In addition, decreased sensitivity to azole fungicides was found to be widespread in western European populations of P. lingam, although not yet in P. biglobosus.

Azoles (DMIs; FRAC code 3) are the most widely used mode of action for Phoma disease management.

Further work is ongoing to monitor changes in the populations of these two pathogens and evaluations of the best molecular diagnostic methods to detect the various clades and species will be presented.