Clubroot is widely distributed throughout the UK and has been found in all regions. Historically, the disease was more prevalent in Scotland and western regions, owing to a history of mixed farming and high rainfall, but it is now quite evident that the disease is more widespread, due to the growing of oilseed rape and other brassica crops in close rotations.

Recent UK weather patterns also appear to be trending towards warmer, wetter winters; ideal conditions for the clubroot pathogen to increase and spread, further intensified by the increased flooding events, as seen in the last couple of years.

The Clubroot pathogen, Plasmodiophora brassicae, affects normal root function causing reduced water and nutrient uptake, resulting in reduced yields - even at low incidence. In severe cases, the root function can be seriously impaired, resulting in secondary rots and total plant destruction, although this is not common. The effect of Clubroot should not be underestimated, as crops infected - even if not showing symptoms - will result in a yield penalty.

Lengthening rotations is the most sustainable long-term strategy for managing Clubroot. However, at a time when other brassica species are being used both as break crops and for soil improvement, along with the additional problem of Cruciferous weed species also carrying infection, Clubroot appears to be on the increase.

Clubroot severity is linked to soil pH and crops in acidic soils are especially at risk of severe symptom development. Soil treatments that raise the pH and calcium content have been found to be beneficial in reducing disease severity, although results are variable.

Growers should test soils for Clubroot and pH in fields scheduled for oilseed rape in the next season. If incidence is significant, growers should consider carrying out adequate soil improvement by liming to achieve pH 7 plus. Growers may also consider ‘resistant varieties, in conjunction with an extended rotation of at least four years between brassica crops’.

In areas known for Clubroot infection, varieties with a known ‘resistance’ for the disease are a valuable consideration for oilseed rape growers. Varieties such as Mendel and Cracker have good tolerance and have been shown to offer good control and yield improvement in Clubroot infected regions. (Note: There is a potential yield penalty associated with the use of Clubroot resistant varieties when compared with other varieties in fields where the disease is not present). It is important to be aware that Clubroot is not a single strain disease and that in regions of sequential planting of tolerant varieties, additional strains may develop and can overcome the resistance mechanism.

Over-reliance on resistant varieties in short rotations will increase the risk and therefore it is important to consider crop rotation, length of rotation in conjunction with soil pH and calcium content levels and the use of tolerant varieties as a part targeted programme for Clubroot control.

Archimedes is a Clubroot tolerant variety from the Limagrain portfolio which offers the same resistance mechanism as both Mendel and Cracker. Archimedes also offers superior agronomic traits over its competitors, including good autumn vigour, earlier flowering, early maturity, good Light Leaf Spot resistance and excellent pod shatter resistance. These are important assets for Northern growers. Its stem Canker resistance will appeal to growers further south.

(Additional information for reference: AHDB – CLUBROOT IN OILSEED RAPE – Topic sheet 92)