

Undersowing Now More Complicated

Undersowing of damaged and old ryegrass pastures is just as necessary as always, but has become more complex in recent years, forcing farmers to re-think how they go about it.

Agricom Product Development Manager Gavin Milne said that the practice of undersowing, where ryegrass seed is drilled into old or failing pastures without spraying, has been a common practice on most dairy farms. “In past years, undersowing has been a simple management tool with great success. Recent events however have increased the need for undersowing, but have also caused complications and greater risk of failure. Droughts and mild winters have resulted in very high numbers of black beetle across many regions, and this can have a dramatic effect on the outcomes from undersowing,” he said.

Some have even suggested that undersowing is now just too risky, and that farmers should only plant new pastures following a full cultivation and cropping programme. “However, this method takes many years to repair drought-damaged pasture, so most farmers will be looking to undersow some of their farm this autumn.”

“The choice of species and endophyte for undersowing is crucial if farmers are to achieve both strong gains to production over winter and spring, and also have this effect last for more than eight months. Italian ryegrasses may not be an attractive option because they do not have endophytes that deter feeding from black beetle adults, and tend to die out within a year of sowing,” Mr Milne said. “Perennial ryegrasses may also not be ideal because of their slow establishment. Fortunately hybrid (also called “long rotation”) ryegrasses, which are crosses between Italian and perennial ryegrasses, combine the best of both these species, providing both successful establishment and a contribution for several years, if they have an appropriate endophyte.

The only endophyte tolerant of black beetle and currently available in hybrid ryegrass is AR37. No endophyte stops black beetle larvae feeding on ryegrass roots, but AR37 reduces larvae populations over time by deterring adult feeding and egg laying. Damage from larvae over summer can still occur in pastures undersown with these endophytes where spring populations of adults are very high. It is important to remember however that many farmers will have to undersow pastures this autumn, and when they do, the use of these endophytes will provide much more protection than seed with AR1 or no endophyte.

Insects need to be managed when undersowing. Most pastures chosen for undersowing have high insect populations, because they are often the cause of the pasture thinning out. Black beetle adults will feed on all ryegrass seedlings, unless the seed is treated with the correct treatment such as Superstrike. It is important not to confuse black beetle with grass grub because most seed treatments do not control both.

Seed treatment should protect seedlings for six weeks after planting, when the adults usually stop feeding and hibernate for the winter, unless seed is sown too early. Treatment is required on seed with endophyte because the endophyte does not provide adequate protection through that six week period. Seed treatment does not protect against larvae feeding on seedling roots, so it is important to delay planting until larvae have stopped feeding, just before they pupate, which is normally during late March.”

So it seems that the changing environment has required more undersowing to be done, but also increased risks and altered the choice of best methods and inputs. The keys to achieving good results now seem to be using treated seed, ryegrass with endophytes that deter black beetle, delaying planting till late March, and considering the use of hybrid or long-rotation ryegrasses with these endophytes.