

Managing grassland compaction

► Problem can severely impact profit

OFTEN overlooked as a permanent landscape feature, grassland and the compaction of it can lead to a significant reduction in both the yield and accessibility of the pasture in early and late season.

Machinery travel on grassland is often unavoidable, with a self-propelled harvester and a team of trailers travelling more than 60 to



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JIMMY JONES

70 per cent of the field area at least once during a single cut.

Independent grassland and forage adviser Charlie Morgan, who was one of the speakers at the event at Ludlow Racecourse, said: "Fifty to 70 per cent of variable costs for dairy production come from concentrate. The more milk which can be made from grass, the better the profitability."

Mr Morgan, of GrassMaster, advised that before using grassland machinery to alleviate compaction, growers should dig into the sward to understand both the extent and depth of the compaction they were trying to rectify.

Weather and soil type should be considered when operating deeper working machinery such as grassland subsoilers. In wet conditions where the soil structure does not fracture, the working legs can leave open channels which can increase water and soil run off, actually causing more damage.

He also advised that, whenever possible, machines should be operated at 30-35 degrees to the slope to minimise issues with run off.

Mr Morgan added that the working depth of machines

should be carefully monitored, not exceeding 100mm for aerators and 200mm for sward lifters.

Seasonal timing

In addition, he suggested aerators which incorporated a weighted roller were very effective when operated in late summer and early autumn. The blades and mass of the roller offered effective cracking of the structure, allowing better root penetration and nutrient access during the winter and spring.

Utilising GPS to ensure machinery passes keep to a consistent path can help, however some changes to the machinery set-up can help to reduce the problem.

Also speaking at the event, Jimmy Jones, of Trelleborg UK, demonstrated the importance of tyre set-up on tractors and trailers to maximise the contact area of the wheel and minimise compaction.

He said: "Use the correct tyre pressure for the task being carried out and ensuring the machine remains balanced with a 60:40 weight distribution is crucial for both soil preservation and reducing tyre wear."



Charlie Morgan

"No tyre is designed to run at one pressure, so should be adjusted to suit the job at hand, for both tractor and trailer."

"Even a large, 250hp tractor will require a front weight to balance the load from the trailer to reduce the rear axle load and maximise the tractor's ability to put the power down through the wheels."

