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What can you do to help improve soil structure?

By Jack Kennedy

After the exceptional rainfall in April and May, some paddocks have been damaged and compacted.

Water lying on the surface for long periods is a sure sign that soil structure has been damaged and needs repair. Every farmer knows a paddock that is simply not performing.

Soil compaction from livestock or machinery traffic are among the reasons for poor growth. Others include soil fertility, grass species, poor drainage, or if the paddock is north facing, etc.

If you feel it's a compaction problem, then what can you do?

I spoke with a few farmers who had used different machines this year.

This article is not a machine profile but it shows what you can do if you have paddocks or soils that are easily compacted.

Breaking pans in Clare and Galway

Rather than creating spikes or holes on the surface to let air and water down, more land has a pan layer which has been created from heavy machinery or maybe outwintered stock.

To break the pan requires machines to go deeper into the soil. The Pan Buster is a very different machine to the Aer Way.

You really need to see this working to believe what it can do.

The machine has four furrows which can create a ripple effect, 10 to 12 inches down from the surface, across the whole width of the machine.

It really lifts the soil up as if you were dragging a fencing post along behind the tractor, 10 inches below the surface. Now, if you don't want to go 10 inches down, you can set the furrows to only go five inches down. The roller at the back sets the height of the furrows.

Tipperary farmer and contractor Len Gaynor purchased a Pan Buster in the spring.



Already, he has a number of jobs completed and some of the farmers who have used it are very pleased with the results. Len gave me a demonstration in a grass paddock, which was recently topped to show how the machine works. This machine will bring up stones, so be prepared.



Len said: "One of the selling points that is pushed by those selling the machine is the fact it is built (spring loaded) to cope with stony ground.

"Farmers often say to me that paddocks never held water and, now, because I outwintered, it is holding water on the surface."

Len had a 110hp John Deere in front of the Pan Buster last week. He went back to a number of the farmers he worked for this year and he said the comments were: (a) as the paddock is not holding water, it's more available for grazing, hence higher

utilisation and (b) it actually grows more grass.

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