

Using green waste compost to boost pasture land

 **swarm** farmer profile
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Dairy farmer Rob Taverner of Taverners farm just outside of Exeter keeps a herd of 270 Devonshire milking cows and Friesians and believes the addition of green waste compost can boost the soil condition and composition, producing healthier grass and cows!



Whilst it is nearly two years since farming organically, Rob explains that he still tries to apply the same principles and is interested in permaculture techniques such as the no-dig approach and adding compost or mulch as a top dressing, in the hope of facilitating a more efficient use of fertiliser. He particularly advocates applying green waste compost as a top dressing and is interested in exploring the potential liming capacity of the compost on the pastureland.

“The majority of compost has been ploughed in before a crop in the past - what we’ve done recently, which is less common, is putting it on to grass. Soil is a huge resource of bugs and worms and bacteria. The compost helps draw down what’s needed. Whether it is composted farm yard manure or green waste compost, you’re doing the same sort of thing; providing the plant or bacteria around it with goodness.”

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He adds *“With longer term pasture we’re reseeding a lot, trying to make [fertiliser as efficient](#) as possible.”*

Rob explains that the Phosphate (P) and Potash (K) soil values on the farm have historically always been strong and have never needed to be supplemented with fertiliser. He suggests that applying compost as a top dressing on grass is not a common practice, but believes that a little-and-often on top method, while possibly being considered old fashioned, can have positive results.

He explains that an average field on the farm has about 2900kg weight of dry matter grass to the hectare (ha). When it has been grazed to roughly 1500 kg of grass (3cms tall), a top dressing of the compost is applied at a rate of 12 tonnes(t) /ha. Within 20 days the cattle are back in grazing.

“Permanent pasture can get stronger and more high yielding over a period of time, you’re keeping everything in good heel, the compost helps get the best out of everything and the mineral value is improved.”

Rob expects to be able to maximise on the neutralising value of the compost but has not yet applied it strategically.

“In liming terms you could argue that a maintenance dose of lime every year would be beneficial. With the liming capacity as well as the increased soil organic matter you have the best of both worlds; [liming and pH](#) buffer effect.”

Rob intends to do some trials to look specifically at the liming effect and also at the effects regarding drought tolerance. He

suggests that the best approach may well be to combine ammonia nitrate, urea and compost, drawing on all of their qualities. *“A blend of all the tools in the box is going to be the best way of doing it. With urea you need about half an inch of rain soon after you’ve put the urea on for it to be effective and you need to have a certain amount in your shed to be able to time it well.”* Through working together with the agricultural advisor at Devon Waste Management - who supply the compost, they have calculated that a 12t/ha compost application contributes the equivalent of 1t of lime per hectare.

Rob explains that the application of green waste compost to the pastureland hasn’t always been plain sailing. In the past, they encountered problems when baling... *“We’d go 30 yards then bang stop – another 30 yards bang!... with just one bit of metal – when we were using a forage harvester. The rake was raking all the wire up. Obviously we needed to be careful that it wasn’t digested by the cattle.”*

Rob says that it emphasised the importance of quality assurance and the screening process of the compost, now done with magnets. He believes that screened compost, which generates no or very little waste, is a valuable resource for using on the farm and can go towards helping the farm to be more profitable. Screening is carried out on site to remove all oversized particles and contaminants, using a 25mm mobile screener. See the images below showing the screening process taking place on the farm.



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Rob points out that the advantage of green waste compost as opposed to kitchen waste is that there are fewer restrictions. He believes in the importance of treating grass as a valuable product and thinks that compost, depending on how it's made and used, can potentially be very useful for farmers, acting as a soil conditioner and soil bufferer, and refers to it as a "Well-being product which means happy cows!"



Devon Waste Management can supply a detailed analysis of the content of the compost being applied to your farm and what you can expect to achieve through applying it. Click [here](#) and [here](#) for an example of one carried out for Rob Taverner.

