HORSESENSE

GRASSLAND MANAGEMENT

Natural alternatives

James Kelly, George Coyle and Kim McCall are all using a non-chemical fertiliser on their land – here's what they had to say about it

Leanne O'Sullivan

IN an effort to look at some of the alternatives to chemical fertilisers I met with beef farmer and former horse breeder Kim McCall, James Kelly of Linacre House Stud and George Coyle who produces hay for the equine market – all of which are using a non-chemical fertiliser called Bacteriosol on their land.

Produced by Sobac, Bacteriosol is a pellet fertiliser which is composed of vegetal and mineral matter along with a variety of natural composted plants.

It was developed by Marcel Mézy, a French farmer, in the early 80s. Essentially, Mézy has developed a product capable of rapidly producing humus, irrispective of the nature of the soil or the climate.

Humus acts as a storehouse for essential plant nutrients and helps determine the soil fertility level.

It supplies both basic and acidic nutrients for the development and growth of plants. It also serves as a source of food for soil organisms. Humus is often described as natural compost.

Bacteriosol acts quickly by producing and transforming organic matter, capturing elements in the air (nitrogen, CO2) and reorganising the organic and mineral matter of the soil, to create and increase humus in the soil and restore its natural fertility. Thus helping to reduce or eliminate the use of chemical fertilisers.

Bacteriosol balances and enriches the soil to allow high yields, even in organic farming, and improve the quality of livestock and crop production.

It protects groundwater, by greatly reducing leaching of soluble elements, including nitrates.

Because Bacteriosol is non-chemical it is safe for animals, including horses, to graze the land directly after an application.

With most chemical fertilisers animals have to stay off the paddock for a number of weeks after an application.

For further information on Sobac and their products, Bactriosol and Bacteriolit, contact Tom Stapleton.
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James Kelly's xxxxxx with her xxxx foal by xxxxx out grazing on a field which was recently spread with Bacteriosol

Kim McCall's Aubrac cows resting and eating on a field recently spread with Bacteriosol. There were about five times more worms per square meter in soil dug from his Bacteriosol field in comparison to his field sprayed with Chemical fertilisers

KIM McCALL

Kim McCall has been farming since 1986 and bred thoroughbreds up until 1994. He now keeps approximately 60 Aubrac cows, 70 ewes and 131 lambs – operating an organic all-grass system.

"Horses are very selective grazers and are often grazed on farms where there is no other form of livestock and hence no mixed grazing," McCall began. "This presents challenges to maintaining good quality grassland for grazing. Horses will eat down some areas until they are almost bare while other areas in which they dung are left untouched.

"Luckily I always kept cattle, and they would eat down the grass evenly. Really the ideal is to have plenty of cattle and a few horses, not the other way around. Cattle mix well with horses and won't graze as tightly as sheep. I operate an organic farm, relying on the soils natural fertility. I believe that chemical fertilisers inhibit the land from working naturally as it should. I started using Bacteriosol in October 2012 and since I started using Bacteriosol I have seen higher biological soil fertility which ultimately improved the quality of my pastures and therefore the health of the animals.

"If you are considering using Bacteriosol for the first time on your pasture, I would recommend an annual application of xxx/acre for three years consecutively. Thereafter you can use you own judgement as to whether the pasture needs supplementation.

MANAGEMENT PRACTICES

"Sobac is an excellent tool but you still have to manage your land appropriately. Resting paddocks regularly is important – continuous grazing is bad news. Rest periods can range from 1-5 weeks. Grass health and growth rates will help you determine the length of rest your paddock requires.

"Harrowing is another important element of grassland management. Spring harrowing removes the dead grass, evens out ground that has been poached and breaks up and spreads manure. Harrowing helps the grass that you have to access the air, nutrients and water, whilst allowing excess water to run off the surface rather than stagnate or puddle in old vegetation or poaching marks.

"As I don't use chemical weed killers one of the things I was most impressed about after applying Bacteriosol was that I noticed a significant reduction in the number of weeds, such as docks, thistles and nettles etc.

"You still have weeds but they are greatly reduced and they don't flourish. The grass dominates but you will see buttercups, daisies and dandelions – they are part of the grasslands makeup and that's good. They are there for the pollinators which is also important.

JAMES KELLY

James Kelly of Linacre House Stud was formerly racing and stud manager to Sir Anthony and Lady O'Reilly at Castlemartin Stud for 19 years, before the stud was sold in 2014. During his time at the stud James was directly associated with breeding over 250 individual stakes winners worldwide. James also directly purchased over 50 individual stakes winners on behalf of the stud's owners.

James Kelly's own Linacre House Stud is set on approximately 54 acres and he manages the grassland entirely himself. Up until three years ago, Kelly was mainly using farmyard manure to fertilise his fields, he then switched to Bacteriosol.

"Bacteriosol and foal creep feeders were my two best buys from a management perspective," stated Kelly. "Bacteriosol has helped reduce my feed bill by about €400 euro," he continued. "I currently spend about €550 a week on feed - before I started using Bacteriosol my bill was €900.

"The reduction in my feed costs is directly linked to the fact that I have good nutritious grass growing since the third week of January and the horses are flourishing. Since I started using Bacteriosol I've noticed that the grass comes back much quicker in spring. I now nearly have the problem of having too much grass and I haven't used chemical fertilisers on my land in about five or six years.

"I have a good relationship with a local farmer though and he grazes his cattle with my horses throughout the spring and summer so this helps me to manage excess grass and helps keep the paddocks in good condition. I just harrowed there in the last two weeks, and I would always harrow in the spring as soon as the ground is dry enough.

"One other big change I've noticed is that Bacteriosol has really helped improved with drainage. At the back of one of our fields a small stream runs through and we often get some flooding and the ground tends to be quite wet there but this has greatly improved over the last number of years."

GEORGE COYLE

George Coyle's main crop is hay for the equine market. Just over three years ago Coyle noticed that one of his fields was not yielding as it should – it had become toxic from dung and slurry. Coyle tried out Bacteriosol and quickly noticed a big improvement.

"It's been very good to us," Coyle said. "I'm now using Bacteriosol on just over half the farm. I didn't want to change everything overnight, I'm cautious, but I've been very pleased with the results.

"I do keep some stock and because I have paddocks fertilised with either chemical fertilisers or Bacteriosol I can compare the difference. The stock always seem to prefer Bacteriosol grass, grazing the paddock out evenly.

"When it comes to making hay, the process is definitely easier. The grass isn't pumped up with Nirogen and excess moisture, this makes it easier to save the hay – it has a much higher dry matter content.

"I've had the hay tested and the results show that protein and dry matter content is higher in hay cut from a field where I have spread Bacteriosol and my customers want that hay.

"Next year I will be going 100% with Bacteriosol on all ppaddocks, no question it's better."

Last year a farm talk was held at George Coyle's and one of the topics was soil health. A 2m x 2m test hole was dug in both a field where Bacteriosol had been spread and a field where only chemical fertilisers had been spread.

"In the Bacteriosol field the roots were down almost 1.5m. It was incredible!" Coyle exclaimed. "I'm farming 47 years and I was amazed.

"The other test hole was dug in one of my other good fields, where I had only used chemical fertilisers, and the roots only extended about 18 inches. Really you'd have to see it to believe it.

"Another thing we noted was the difference in the number of worms per square meter.

"There were about five times more worms per square meter in the soil dug from the Bacteriosol field.

"Worms are so important for soil health. They help to increase the amount of air and water that gets into the soil. They break down organic matter, like leaves and grass into things that plants can use. When they eat, they leave behind castings that are a very valuable type of fertiliser.

"When you combine Bacteriosol with the right abount of organic manure you get amazing results, one compliments the other."