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DoloZest® News

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The need for rest

The word need should only be used to provide a sense of urgency and is unfortunately over-used in both everyday discussion and printed material.

It should be an attention grabber, however because it is heard and seen so often it has lost impact in much the same way that the meaning of the word great has become diluted due to it being frequently used to describe competent-only players and sports teams.

I seldom use the word, but right now its use is applicable when discussing both farmer and pasture health.

Spring is always tough and this season especially so.

The physical demand placed on many over the last 4 months cannot be sustained without something breaking.

Add the financial uncertainty of markets and the impact of higher interest rates, a time-out is essential to digest, rework future plans and put gas back in the tank.

When running your own farm, or business, there's always stuff to do. Those of us brought up with the belief that industrious endeavour at all times is good and that time spent in recreational activities is somehow self-indulgent can struggle with the work/rest balance required for best results.

“Taylor’s study . . .” is an excerpt from Grass Productivity by Andre Voisin.

Voisin is widely credited with providing the science behind the revolutionary success of rotational grazing that led to NZ farmers being regarded as the best in the world.

Taylor’s study of the handling of pig-iron

Taylor’s first study was undertaken at the Bethlehem Steel Company in 1897, and was concerned with the handling of pig-iron. The pigs in this factory were handled by a team of seventy-five men of average quality under the supervision of a good foreman who took *special care to see that the men did not loaf*. The work, which was very simple and involved only the hands and arms of the workmen, no special tools being required, was carried out as quickly and as economically as anywhere else at that time.

The time study in itself presented no difficulties. As this was heavy, physical work, it was less a case of determining the time taken to go loaded and return empty than knowing the number of complete journeys there and back a man could undertake in the course of his day. This was a different problem.

Using various tests, they tried to determine the degree of fatigue of the workers. To their surprise they found that fatigue did not depend so much on the weight of pig carried by a man as on the rate at which he carried it. The least-tired worker was the one who carried his pigs *quickest*, so that he could come back slowly and *loaf* without attracting the notice of the foreman.

Barth, the man engaged by Taylor to study these operations, therefore came to the conclusion that *to get maximum productivity from these workmen they would have to be allowed to relax their muscles sufficiently, that is, to take a sufficiently long rest period*. Calculations showed that if a man had sufficient rest in the course of the day he could handle 47 tons of pig against his previous 13 tons. In other words, *judicious resting allowed the output to be at least trebled (in this particular case)*.

Worker Smith was then called in and given three surprises. He was told that:

1. His salary would be increased by 60%.
2. He would have to shift 47 tons of pig per day instead of 13 tons.
3. He was to rest when the timekeeper told him instead of constantly shifting pig as he had done previously.

On the first day, without increased fatigue, Smith shifted 47 tons of pig and made his name famous in the history of Taylorism and Scientific Management.

Grass, like workers, needs rest

In the course of a grazing season, grass needs rest to renew its strength, just as the worker carrying pig-iron has to rest to relax his muscles. Given this condition, it will treble its productivity, like worker Smith.

Whether a grazing interval of 25 – 30 days, or even longer, will treble the amount of pasture grown over summer and early autumn will depend on individual circumstance that includes animal numbers relative to area grazed, and particularly dry conditions.

In dry summer conditions the benefits of a longer grazing interval increase. Where moisture is plentiful such as on irrigated properties the effect of a longer than usual interval is less.

Longer covers in a dry summer reduce the amount of moisture lost via evaporation. Larger pasture plants also have roots deeper in the soil allowing them to access both moisture and nutrient from a greater depth.

Pastures that are clover dominant over this period retain quality for longer. Digestibility of mature clover is far higher than that of grass, as is the energy.

More feed can therefore be consumed in each animals naturally allocated grazing period increasing weight gains and milk production.

The steady decline of annual pasture production and animal performance

This is a condition afflicting many farmers and there are those that attribute it to not having access to the amount of synthetic nitrogen they had previously, and in the short-term that has some validity.

The longer-term work undertaken by Louis Schipper and his team at Waikato University showed carbon has continuously been lost from soil under intensive dairy in the Waikato at the rate of 1 tonne/ha annually for over 3 decades.

Ultimately the productive capacity of land is determined by its carbon content and if our

hypothesis is correct efforts to turn this around requires a fundamental shift in our understanding of work and rest.

Protein v Nitrogen

Applying synthetic nitrogen now stimulates grass growth at the time when grasses go to seed.

In an attempt to keep them short, leafy, and palatable, shorter grazing intervals have become the norm.

Pastures managed in this way are high in nitrogen not full protein. ME testing may give pleasing figures, however to excrete the excess nitrogen the livers and kidneys of lactating animals are placed under increasing pressure.

Milk solid production and weight gains are well below those achieved by grazing longer pastures.

When grazing short leafy pastures, increased animal performance can be gained by having supplement with longer fibre available ensuring better rumination and complete digestion.

When this topic was raised at a dairy discussion group over 40 years ago the response was that cows don't milk on hay, and any hay that is eaten results in lower pasture intake.

What we now know is that animals; cows, sheep, goats, or deer, eat only enough to meet their energy and fibre requirements, not a mouthful more. When implemented there is always higher production and/or more rapid weight gain.

Summer is the time when clovers naturally flourish provided there is sufficient plant available calcium, synthetic nitrogen is withheld, and grazing intervals are extended sufficiently to allow them to flourish.

Pays to keep the eyes open

APROPOS OF A NUMBER of serious shipping collisions in New Zealand waters in '98, we record this actual radio conversation released by the United States Navy. As the *Shipping Gazette* points out, it demonstrates the danger of total reliance on radar at the expense of the Mark 1 eyeball.

"Please divert your course 15 degrees to the north to avoid a collision."

"Recommend you divert *your* course 15 degrees to the south to avoid a collision."

"This is the captain of a US Navy vessel. I say again divert *your* course."

"No. I say again divert *your* course."

"This is the aircraft carrier Enterprise. We are a large warship of the US Navy. Divert your course now!"

"This is a lighthouse. Your call."

Many thanks to the folk who have written with their success stories over the last twelve months.

Stay safe and enjoy the warmer weather.

Regards,

Rein *Carole*

