COVER CROPS AND WATER USE: RHETORIC VS REALITY

Darren Aitken

As Biodynamic farmers we should all understand the immense value of green manure, combined with prepared 500 and careful cultivation, as the most effective way to build organic matter, feed the soil biology and ultimately build humus in our soils. Particularly if we include the widest range of plant species that we can in our green manure to offer a diverse range of nutrients and attributes to our soil when the crop is worked in.

I see what are promoted as cover crops as something quite different to green manure and have noticed an unconsidered obsession with cover crops developing among certain areas of farming in Australia, via the rhetoric from Europe and the US.

It stems from a common belief that the soil biology is found in the top 5–10cm, and that cover crops protect this biology. Whereas we have in fact measured soil biology on Biodynamic farms down to the depth of 60–70cm.

In large parts of Europe and the US you can have the conditions to grow cover crops all year round with little or no irrigation, but that's just not the case in Australia, the driest inhabited continent on the planet. To establish and grow cover crops in summer here (or during the dry season) takes significant use of water, which is a scarce resource even if you're lucky enough to have access to it on your property and even then, it's not really yours but a shared resource that should be used responsibly.

More importantly after many years of careful observation based on reality rather than theory, I am firmly of the view that there is no need to be watering cover crops in the middle of summer (during the dry season) to retain your soil biology.

If the Australian Demeter BD method and 500 have been applied properly you get humus development and air deep in the soil profile. Even in the harshest summers the moisture remains well below the surface, and with it the biology. It hibernates in the depths, so to speak. The surface will look dry and lifeless, but this dry soil is acting as a 'soil mulch' helping to retain the moisture and biology underneath. All you need is enough rain to go through the dry topsoil and form the reconnection with the moisture underneath and the soil biology naturally 'bubbles' back up towards the surface and the farm is transformed again.

Your soil is back, and it's beautiful!