What does biodiversity mean for my farm?

Biodiversity is defined as the variability of living organisms and the environment of which they are a part. It refers to the great number of life-forms ranging from the most obvious eg birds, mammals to the most cryptic eg viruses, bacteria. Included is not only the species but also their genetic variability. In reality the non-glamorous invertebrates make up most of the animal biodiversity. For one year Australian scientists sampled the foliage of 4 Eucalypt species and found more than 1,600 species of arthropods.

Most of the plant diversity in the paddock reside in the ground layer. Trees and shrubs number in their 10's while there are 100's of grasses and herb species and millions of soil organisms.

A patch of trees provide more than aesthetic shade and shelter. They remove carbon dioxide, produce oxygen, use water, may assist in controlling water tables and the movement of wind and water over the surface of the land.

What we don't know is how many species we can lose before it significantly affects an essential function provided by nature. Many plants are pollinated by insects, their loss may mean many plant species will not be able to reproduce. Very few Australians see bettongs or potoroos. At the time of European settlement there were ten species living in Australia. These seemingly obscure animals play a vital role in maintaining the health of many native plant species. They do this by spreading a mycorrhizal fungi, otherwise known as 'marsupial truffles.' Many plants form a partnership with these fungi which have a special way of concentrating soil nutrients in a sheath around the plant roots. This allows the plants to grow faster, be healthier and recover more rapidly from wilting. The problem is the fungi are host specific and have difficulty getting from one plant to another. Bettongs and potoroos dig up and consume these 'marsupial truffles' and in the process spread the spores of the fungi.

Australia has the worst record in the world of mammal extinction since Europeans occupied this country.

Without biodiversity there would be less soil formation, nutrient cycling, natural water purification and pollination of crops. Our farms are a living reservoir of biodiversity. Once biodiversity is gone, so are we.

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