



Are You Farming Biologically?
Part 1

I attended the Australian Biological Farming Conference in November at Southern Cross University Gold Coast campus, along with 360 other people – farmers, consultants, educators and input suppliers. It was an uplifting experience to see the great number of farmers who want to change. The conference was organised by Soil Care, a Landcare grouping from the Northern Rivers area of NSW.

One of the key speakers was Jeff Moyer, director of the Rodale Institute in the US, one of the great organic farming pioneering organisations. He spoke on his development of the roller-crimper, an implement for creating a mulch from a living green manure crop and planting into it. We have his book in the OAA library.

Moyer said modern agriculture was soil destroying with tremendous consequences. In just one year, 2007, the US lost 1.7 billion tons of soil to erosion. The state of Iowa has the most intensive agricultural production and the fattest people on earth. In 1960 health care spending amounted to a third of what was spent on food; now it is the other way around, health care costs are three times the amount spent on food. In 1970 one child in 5,000 developed autism; now it is one in 100. He said in the future all agriculture will be organic; organic farming is not a return to the past but making use of the most advanced scientific discoveries about soil biology.

He emphasised the importance of cover crops, that is, plantings that keep the soil covered during the non-cropping season, winter in summer rainfall cold climates and summer in southern Australian cropping systems. They are most important for soil health, moderating the temperature, feeding the microbes, preventing nutrient loss and soil erosion, enhancing carbon sequestration, and suppressing weeds.

The cover crop chosen should be cheap and easy to sow, highly productive, nitrogen fixing, and easily killed before the sowing of the main crop. Mixtures are good, for example clover, cereal rye, and canola. The best time to kill the cover crop is at flowering time. A good method of killing is the roller-crimper, which breaks the stem of the plant and lies it down; the following crop is sown directly into this mulch, at the same time (roller-crimper in front of the tractor, planter behind). It takes some experience and skill to determine the best species and the best timing so that the plant does not regrow. Cereal rye is often used at the Rodale Institute, or hairy vetch or peas. Perennial species like lucerne are not suitable.

Tillage can be used instead of the roller-crimper, permitting greater flexibility of mixed species selection. Moyer says that tillage is OK if cover crops are used.

To be continued...

Soil Lovers say: It Is Essential To Develop Soil Friendly Systems

Ref: Report by Alan Broughton