



It Starts With The Soil

This is the story about a huge company ZZ2 in South Africa which produces around 50% of all the tomatoes sold in the country. In addition to tomatoes, ZZ2 also grows avocados, almonds, apples, blueberries, cherries, dates, mangos, onions, pears and stone fruit. ZZ2 currently cultivates 3,000 hectares per year and employs 9,500 people and yet by the late 1990s, ZZ2 was facing a crisis. Its industrial farming practices were increasingly demanding more inputs while generating declining returns. How to turn the company's fortunes? They began with a focus on soil health and expanding to an ecosystems approach to use natural resources most efficiently steering away from conventional agriculture to a system that seeks to farm in harmony with nature.

1st challenge: Learn to work with nature, not against it.

So, company leaders traveled far and wide looking for possible solutions – to a natural farming center and to organic farms to experimenting using essential oils to planting herbs between crop rows. ZZ2's path involved much trial and error. "It wasn't a clear process of 'there's problem, let's solve it.' It was more a process of 'let's play around here and see what works', "Nothing was too strange or too weird.

The 2nd solution: Sustainability begins with the soil

And the 1st solution was Effective Microorganisms, a culture of beneficial yeasts and bacteria discovered by Japanese researchers that work together to facilitate the building of healthy, living soil.

Research suggests that EM cultures can fertilize the soil as well as suppress soil-borne pathogens, decompose organic matter more quickly and increase nutrient availability, among other benefits.

Simply put, ZZ2 started using nature as its teacher and inspiration beginning with a focus on soil health – but does not end there. By applying compost and other biological products to the soil, the company was able to kickstart soil health again. "It starts with the soil. Without the soil, you can't produce a healthy, nutritious crop," Ultimately, ZZ2 began applying compost to all of its acreages building its own plant to produce compost from natural waste products. Initially making and applying compost is more expensive than using the usual nitrogen, phosphorus and potassium soil fertilizer but over the years you start seeing the value, benefits that you can't attach a dollar value to. You get beneficial soil microbes, increased water retention, increased organic matter, more resilience of the plants."– the compost induces systemic resistance to diseases in the plant.

ZZ2 has seen exponential growth in crop yields since moving away from inorganic chemistry to natural remedies.

"Nowadays, we think very, very broadly. Our focus was initially on soil health, now we're thinking at a landscape scale," If you can harness the insights and principles [of an ecosystem], you can use them." To produce good, healthy fruit requires not only healthy soil, but also water – so an ecosystems approach requires that the company work to protect the mountain that provides the catchment area that feeds the local river. Similarly, ZZ2 must work to protect the natural landscape from loss of biodiversity and pollution that would affect the overall climate of its growing areas.

"We strive to produce a nutrient-rich product that at the end of the day benefits our consumer. That's adding value, we want to add value all the time.

Soil Lovers say: For Farming Of The Future We Don't Need To Destroy Nature In The Process

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