

**Fig 1** Flow chart of organic matter transformations by soil microorganisms and the development of soils that may be disease-inducing, zymogenic or synthetic (adapted from Prof. Dr. Teruo Higa).

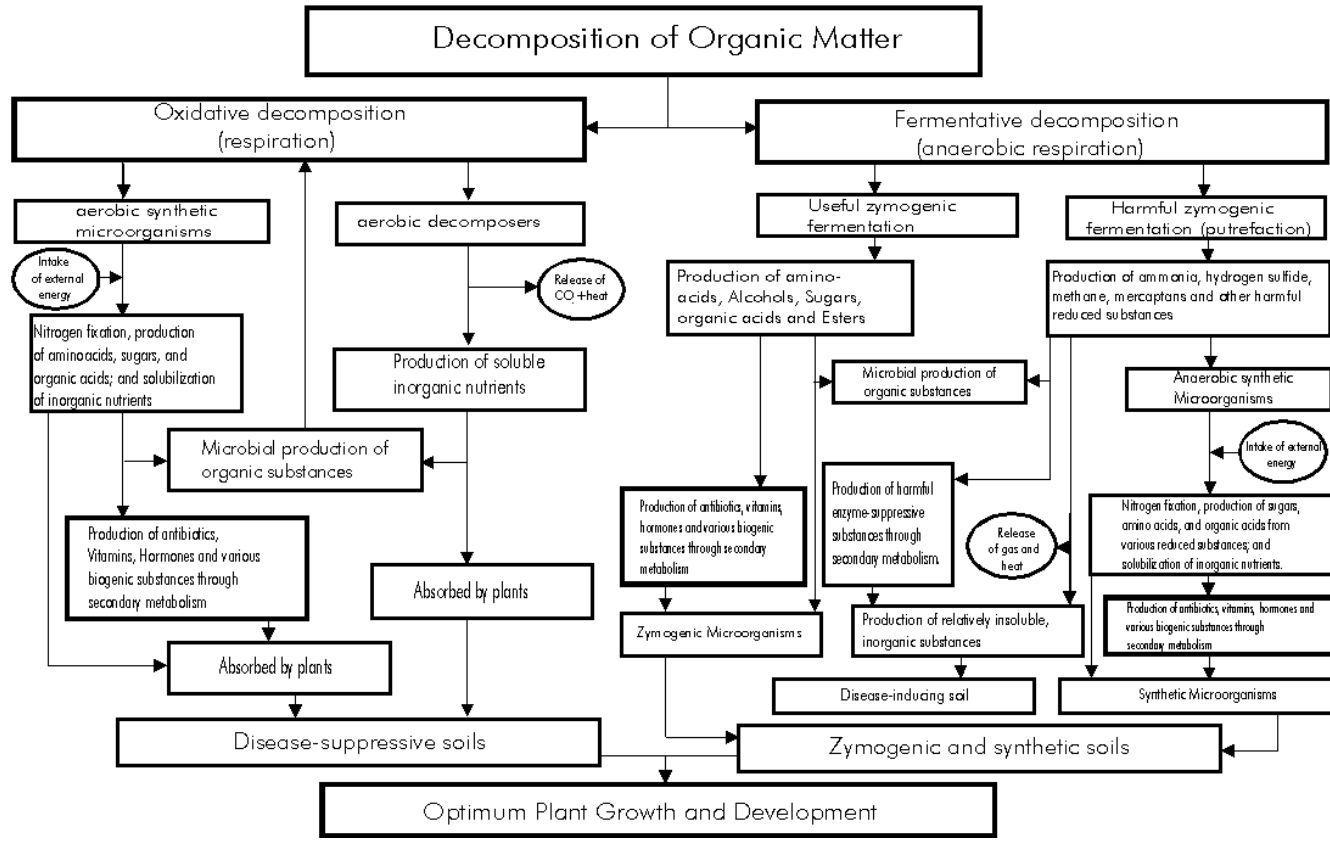


Fig 2

**Classification of soils based on the activities and functions of their predominant microorganisms.**

Disease-inducing soils can be transformed into disease suppressing, zymogenic and synthetic soils that are more conducive to growth and health of plants by introducing beneficial microorganisms as microbial inoculants and following best management practices. The ideal soil for a more sustainable agriculture is a composite of the other three soil types and contains associative groups of beneficial microorganisms to enhance the optimum growth, yield and quality of crops.

