More on Reasons for Multiplying Microbes

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This article originally from EDN Issue: 110_SUPPLEMENT [Download Original Document (https://s3.amazonaws.com/docs.echocommunity.org/original/EDN_110_SUPPLEMENT.pdf?AWSAccessKeyId=AKIAIQHB2SFEBZ2LOP5Q&Expires=1486410032&Signature=OdAz53Cs2mWFZKeygn6p7kMu1wQ%3D)]

Matthew Bakker commented, “In some of the literature that I am familiar with (having to do predominantly with the use of microbes to prevent plant disease), there has been a shift from inoculative approaches toward what is often called ‘microbial community management.’ Rather than applying organisms, these approaches investigate the relative effectiveness of different management strategies (particular green manure crops, cropping sequences, etc) at fostering beneficial (for example, strongly pathogen-inhibitory) soil microbial communities. This is a little bit of a different emphasis.”

A quote from Higa and Parr’s paper (see above) addressed this topic: “Agriculture, in a broad sense, is not an enterprise which leaves everything to nature without intervention. Rather it is a human activity in which the farmer attempts to integrate certain agroecological factors and production inputs for optimum crop and livestock production. Thus, it is reasonable to assume that farmers should be interested in ways and means of controlling beneficial soil microorganisms as an important component of the agricultural environment. Nevertheless, this idea has often been rejected by naturalists and proponents of nature farming and organic agriculture. They argue that beneficial soil microorganisms will increase naturally when organic amendments are applied to soils as carbon, energy and nutrient sources. This indeed may be true where an abundance of organic materials are readily available for recycling which often occurs in small-scale farming. However, in most cases, soil microorganisms, beneficial or harmful, have often been controlled advantageously when crops in various agroecological zones are grown and cultivated in proper sequence (i.e., crop rotations) and without the use of pesticides. This would explain why scientists have long been interested in the use of beneficial microorganisms as soil and plant inoculants to shift the microbiological equilibrium in a way that enhances soil quality and the yield and quality of crops.”

Cite as:

ECHO Staff 2011. More on Reasons for Multiplying Microbes. *ECHO Development Notes* no. 110

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