

# **The Technology of Effective Microorganisms – Its role in Kyusei Nature Farming**

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Distinguished Professors and Invitees, Fellow Scientists, Dear Friends,  
We begin the Sixth International Conference on Kyusei Nature Farming today, in this distinguished University of Pretoria, South Africa, amidst a very eminent gathering of scientists, administrators, environmentalists, agriculturists and friends. It brings me great pleasure to be here today with you to welcome you all - as a person who strengthened the principles of Kyusei Nature Farming advocated in the 1930's by Mokichi Okada, through a technology that I developed. I was also the person who was instrumental in beginning this series of international conferences in all continents of the world. Looking back over the years, being in Africa to begin this important event is something very special to me.

The technology of EM developed by me in the 1970's was first presented to the world at the sixth IFOAM scientific conference in 1986 in the United States of America. However the interest in the international community was very low at that time, when conventional chemical farming was at its peak. However destiny changed with the 7<sup>th</sup> IFOAM conference, held in Burkina Faso, in this great continent of Africa. I attended this meeting held in Ouagadougou during Christmas of 1987 where I presented a poster. There was one person who met me there, and was interested in this technology, due its significant deviation from the normal papers presented, which were case studies and farmer experiences on organic agriculture. We discussed the prospects of developing the technology of EM and also of Kyusei Nature Farming, and an invitation was extended to help out in a small conference that was planned the next year in Thailand. This was to be a meeting of interested people, organized by the Sister University of the one that I work for in Okinawa. The University of Khon Kaen in Thailand organized this meeting, which was attended by 13 countries. This was the First International Conference on Kyusei Nature Farming in Thailand in 1989, with about 60 people. APNAN was formed at this conference, which was also attended by the person I met in Burkina Faso. This meeting was the seed for expanding the program of Kyusei Nature Farming and EM technology all over Asia and then to the world. We have moved from Thailand to Brazil. United States of America, France and again to Thailand and today, I am a happy man as we have here over 180 people from 37 countries at this sixth Conference in South Africa, in the same continent where the initial discussions took place. This is a significant increase in 10 years and a sure indication that what we have begun 10 years ago is moving forwards. After attending many international fora where the same theme is repeated, we here must be happy that at least we are progressing forwards, amidst obstacles that are placed when there is such dynamic activity. It brings me happiness to state that this person, whom I met in 1988, is still playing a small and very silent part in our program

In addition, it makes me happy to see that EM is an integral part of national programs in countries such as Myanmar, DPR Korea, Vietnam and Egypt. It is a

part of nationwide programs in many other countries. Thus it is a technology that has found its niche in the world and is expanding. Furthermore, due to the diligent work of a few people, Kyusei Nature Farming and EM technology is also a part of IFOAM conferences, beginning from New Zealand in 1994, where separate sessions are held.

Kyusei Nature Farming advocates a system of agriculture and livelihood that would save our earth from the current destruction. I will not delve on this subject, as it has been mentioned by the Chairman of the Board of Directors of the International Nature Farming Research Center, Rev. Shinoda, who will present the concepts later in the day. I will at this time take the opportunity to brief you about something that was also mentioned by Rev Shinoda. This is the technology of Effective Microorganisms, commonly called EM and EM technology, which was developed by me in the 1970's, and its role in Kyusei Nature Farming.

As stated by Rev Shinoda, Kyusei Nature Farming is a holistic way of life. Thus, it has a significant role in the context of the modern world, where pollution and destruction of the environment is abundant.

An analysis of the causal factor of this pollution and destruction of the environment and agriculture critically illustrates one single aspect. We are poisoning our environment with toxic substances, which are destroying something that we do not see, but is essential to us all the time. This is the microbial life. If we can enliven this important segment of the detritus food chain, over 75% of problems would be solved.

The technology of EM does exactly this. It adds a mixture of microbes commonly found in all ecosystems, namely photosynthetic bacteria, yeast, and lactic acid bacteria, along with ray fungi and Actinomyces. Hence the technology is simple and easy. It does not require the importation of any microbes from my laboratory in Japan. It is made locally in at least 25 countries. More importantly I do promise that due to its simplicity and adaptability in all countries, it cannot contain genetically modified organisms. These need specific conditions and we cannot find them in all environments, unless, they are free living in the places that EM is made. If one sees the simple facilities that are required for making EM, one would be convinced that the product is safe.

EM was first developed for agriculture. This was to accelerate composting through a process of fermentation and not degradation. Hence it was very suitable to organic farming systems, where productivity is generally low. This was the first link to Kyusei Nature Farming in the early 1980's through a student who did his degree with me.

The link to Kyusei Nature Farming was strengthened with EM as this system of agriculture attempted to preserve the environment. Thus EM was further developed to be environmentally friendly and to overcome pollution. If you all read the Proceedings of the last two International Conferences on Kyusei Nature Farming, you will be convinced of this fact. Furthermore, you will hear more reports of this over the next two days and actually see this in operation on the field visits. Thus the technology blended with the objectives of Kyusei Nature Farming to make this earth a better place for humankind.

The technology of EM did not stop at this point. It is being developed further to mitigate more hazardous problems of radioactive pollution, dioxin management and in some instances to control septicemia and maintain hygiene. You will see this in reality on the 30th on the field day. Thus, I wish to emphasize that Kyusei Nature Farming together with EM technology is very appropriate in the modern world, to develop a safe place for all of us.

At this juncture, I must state that EM is not the cure for all illnesses. This is certain. However, I must emphasize that if used diligently, EM can solve most problems that we face today. This will be evident at this conference. We are all aware of the growing numbers of microbial products being advertised for specific purposes. However, I do not see one that is so versatile in its activities and especially something that is taken by poor peoples in many parts of the world as a medicine! This is the success of EM. This is why we can have a conference on EM where over 37 countries are represented. I do not think that even the most elaborate conference on one microorganism universally acclaimed and used, namely Rhizobium draws this many countries together

The conference is being held at the threshold of the new millennium in this very beautiful country, in an important part of the world. This was planned to enable this part of our world to be educated on the technologies, thorough scientific reports, practical experiences, case studies, discussions and field visits to sites using the principles of Kyusei Nature Farming and EM.

Distinguished guests and dear friends, as the Chairman of this conference, it is my great privilege to welcome you again to this conference. Although there are many conferences, I assure you that this is something special. I also wish to thank all who made this conference possible today.

Please do listen, see, discuss and debate the issues with the presenters and during the field visits. Be aware of the potentials and possibilities of Kyusei Nature Farming and EM. I wish to make a special request to our dear friends of this great continent. This conference is especially for you - to show you what other parts of this world have achieved, so that you too may benefit by the technologies offered.

I wish you all a very happy and memorable conference, where new ideas and strategies will be developed to make your life and of those the future generations on this earth more meaningful, productive, safe and happy.

Thank you very much.