

Agriculture in Brazil: Current Situation and Future Prospects

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Distinguished Faculty Members of Luiz de Queiroz College
Honorable Secretaries of the State of Sao Paulo
Most Welcome Conference Participants
Ladies and Gentlemen,

It is my privilege and honor to represent Dr. Antonio Cabrera Mano Filho, Minister of Agriculture of Brazil, who deeply regrets that he could not be with you today because of unforeseen and unavoidable circumstances. However, on his behalf, I would like to welcome all of you to this very important Second International Conference on Kyusei Nature Farming.

The rapid growth in world population over the past several decades, particularly in developing countries, has led to a concomitant rapid adoption of mechanical and chemical technologies to provide sufficient food and fiber for expanding populations. Unfortunately, the intensive use of these new technologies (e.g., chemical fertilizers and pesticides, large-scale mechanization, and monoculture production of food crops) have often resulted in serious degradation of our agricultural soils through wind and water erosion, and extensive pollution of our environment from sediment and residual agrichemicals.

Adverse effects from excessive use and misuse of agrichemicals have occurred in both developed and developing countries, and Brazil is no exception. In our efforts to achieve the promise of vastly increased crop yields attributed to the Green Revolution, Brazil increased its use of pesticides dramatically. During the 1970's our consumption of insecticides increased by 340%; fungicides by 770%; and herbicides by over 3,000%. Because of the economic crisis that began here in the 1980's, there has been a systematic reduction in the use of chemical fertilizers and pesticides in Brazilian agriculture, although by some estimates the level of consumption still seems to be rather high. I might also add that there is a wide discrepancy about the return on investments that one could expect from the use of agrichemicals. The chemical industry often insists that the return on investment ratio is as high as 20: 1, while research in the United States indicates a ratio of no higher than 3:1. Such estimates do not account for the social and environmental costs of using these agrichemicals. If they did, the return on investment ratio would undoubtedly be lower.

Soil degradative processes such as soil erosion, nutrient and organic matter depletion, waterlogging from impaired drainage, salinization, acidification and desertification all contribute to the decline in soil productivity and environmental pollution. These are often major constraints to the establishment of a long-term sustainable agriculture not only in Brazil, but worldwide. Thus, it is apparent that we must seek new strategies and approaches to help us develop farming systems that produce adequate, healthy, and nutritious food for our expanding populations; that conserve the soil and water resource base; that are economically-viable; that protect and preserve the environment; and that allow man to co-exist harmoniously with nature.

To achieve these goals it will be necessary to integrate agronomic, ecological, socioeconomic, and indigenous knowledge into our technical databases to ensure the highest probability of developing truly sustainable farming systems. The principles of nature farming would appear to offer some new and unique opportunities in helping us meet our goals. This, I believe is the major challenge that we face today and in the few short years remaining in this century.

Again, on behalf of our Minister of Agriculture, Dr. Antonio Cabrera Mano Filho, I would like to wish you a most successful conference. I know that he looks forward to receiving your recommendations and suggestions that will help us to develop and implement meaningful programs on research, education, and technology transfer in the future.

Thank you very much for your participation at this important conference.