

Sustainable and Integrated Agriculture: A Logical Pathway to Follow

Mr. Yves Francois

President, Environmental Commission Chamber of Agriculture, Isere, France

Distinguished Guests

Conference Participants

Ladies and Gentlemen,

My name is Yves Francois and I am what is termed a conventional farmer. I work in the Isere District which is in the southeast of France, in the Rhone-Alpes Region. I am President of the Environmental Commission at the Isere Chamber of Agriculture and also a member of the Environmental Advisory Board of the Rhone-Alpes Region.

First let me say that my attendance at this Fourth International Conference on Kyusei Nature Farming was inspired by a speech that I heard at the international symposium on "Models of Sustainable Development" in March of 1994 in Paris. It was given by Miss Sylvie Bonny, a researcher with INRA, who discussed many of the issues relative to sustainable agriculture that I had been considering for sometime. Consequently, in my comments today I will draw extensively from her presentation.

During this conference there has been much discussion about sustainable agriculture which has been defined in a number of ways by individuals and institutions. For example, the 1987 Brundtland Report defined sustainable agriculture as a system of farming that satisfied our current needs without compromising the needs of future generations. Certainly, this is not a new idea, but the definition says little about what sustainable agriculture really is and how it can be achieved. We must have clear objectives if we are to link sustainable agriculture to the concept of sustainable development.

As I see it, a truly sustainable agriculture must satisfy five important requirements:

1. It must respect the environment, conserve natural resources, and maintain soil productivity for future generations.
2. It must be profitable for farmers and feasible over the long-term.
3. It must provide sufficiency and high quality food for all people.
4. It must be equitable at the lowest economic level between countries and within each country.
5. It must be socially acceptable among countries and within each country.

Some may feel that these are excessively stringent requirements and question whether they are all attainable. Nevertheless, the organic or biological farmers, who comprise about 10 percent of the farmers in France, understand the basics of sustainable agriculture and are meeting these requirements through non-chemical farming methods. Conversely, the conventional farmers who I modestly represent have been experiencing an identity crisis, not knowing exactly what objectives they should be working toward.

Actually, since organic/biological farming methods have made considerable progress in achieving the requirements of sustainable agriculture, especially safeguarding the environment, the general public has increasingly criticized conventional farmers for polluting the environment with agricultural chemicals. Conventional farmers have attempted to counter such criticism by organizing programs and associations to emphasize that they are now using improved practices that will minimize environmental impacts. For example, JUSTAZOTE in the Drome Region, PIL'AZOTE in the Isere District, and founding of the Saone and Loire Environmental Agricultural Outlook Society. These exist on a regional level with the Regional Nitrate Program and on a national level with FERTIMIEUX, and FARRE (Forum for Sensible Agriculture and a Respected Environment). On an international level, there is the FIPA (International Federation of Agricultural Products) which accepted and adopted a report entitled "Farmers for a Sustainable Future" at its 31st international conference in Istanbul in May 1994.

These developments have created a growing awareness among environmentalists, consumers,

administrators, and the farmers themselves that conventional farming methods must change. Consequently, many regions have imposed strict standards and regulations governing the use of agricultural chemicals as to the time, rate and frequency of application. The ultimate objective is to protect the environment from chemical pollution. There is considerable information on the nutritional requirement of crops and livestock at different stages of growth. If conventional farmers follow these guidelines, they will apply only those dosages that meet these requirements which, in turn, will greatly reduce the pollution potential of agricultural chemicals.

The agricultural organizations already mentioned provide instructions for using various diagnostic techniques to determine the proper amounts of chemical fertilizers and pesticides to apply depending on a specific crop, stage of growth, nature of the pest, and level of infestation. In the past, often farmers would apply agricultural chemicals indiscriminately, almost always in excess of what was actually needed and in lieu of good management. In recent times, however, there have been some dramatic changes to ensure that such materials are used properly and with care and caution. Such changes have been brought about mainly by environmental and consumer groups who are insisting on clean water and air, and the safety and quality of our food. These groups greatly influence the public policy agenda and have strongly promoted the concept of sustainable and integrated agriculture.

When debating these issues we often hear strong arguments for “working more with nature than against it,” and that “we should develop integrated systems of farming.” The word “integrated” as we use it here is somewhat ambiguous and needs careful definition, especially in regard to the relationship between agriculture and nature. The dictionary defines integrated as “to incorporate into a larger unit,” “to form into a whole,” or “to unite with something else.” This, of course, means a radical change for some of us; especially for many biologists and agronomists who would be less inclined to dominate nature, but to try to understand it, making it easier to integrate with. What is actually needed is a better integration of the economic and human activities in the biosphere.

You may well ask the question of “where does EM fit into the scheme of this scenario?” I believe that EM technology subtends everything that I have said thus far. The papers that we listened to during this conference indicate that this new technology can provide technical solutions to many of the problems that confront agriculture and the environment.

From an ethical standpoint, EM doesn't “borrow” or utilize technological or industrial products from national or multi-national companies to generate short- or long-term profits. This is important in view of the need to maintain objectivity in the changes that are now ongoing. Nevertheless, in the case of EM, there are many obstacles to be overcome. Research is needed to ensure a high level of consistency in the performance and benefits of EM, and to validate and document both its positive and negative effects. In European countries it is vital that such experimentation and validation be conducted by recognized and publicly-supported agricultural research institutions to obtain maximum credibility. In France the key institutions to validate such products as EM are INRA (National Institute of Agronomic Research) and ITCF (Technical Institute of Cereals and Forages). These institutions are quite open to this type of discovery and will work cooperatively with those who are testing and evaluating the on-farm benefits of EM. Farmers need to play a role in the evaluation process.

EM could help to “re-connect” conventional and biological agriculture. We need to establish a partnership and develop a new social contract that would pursue the objectives that have been defined. Does this sound unreal and risky? Let me respond with a quotation from Louis Pasteur whose 100 year anniversary is being celebrated this year. Pasteur said that “chance only favors prepared minds.”

I didn't choose Pasteur by accident. His work in the field of microbiology completely revolutionized society at that time - and yet few people paid any attention at first. There is still a long way to go, but if we truly believe in what we are saying, then we will progress toward our goal of universal harmony. We are responsible for this planet. To summarize, it seems appropriate to leave you with a profound quotation by Antoine de St. Exupery:

“We don’t inherit the earth from our ancestors, we are lending it to our children.”

Thank you very much for the opportunity to share these ideas with you.