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fo r e (f r o n t) :

from
agriculture
to ecoculture
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This article considers the European agricultural battlefield where farmers face the problem of new challenges to the environment and food safety which only add to the problems of productivity or competitiveness. Logical agriculture (or integrated farming) seeks to reconcile economic competitiveness, product quality and safety in the food chain with respect for the environment by using products to preserve the potential for development for future generations and by establishing quality assurance and certification systems to ensure sustainable development. In order to save the rural aspect of agriculture while simultaneously contributing towards sustainable development the article suggests complementary routes which would smooth the transition from agriculture to ecoculture thereby keeping and reinforcing the trust of the citizen-consumer.

More than ever, agriculture is a battleground. In the past, European farmers organized with the help of the Common Agricultural Policy (CAP), to win various battles, be it the issue of productivity or of modernization. Yet, by increasing the number of hectares and the number of bushels per hectare over the past thirty years, the same farmers have all too often forgotten the old ways. These traditional ways were perhaps less efficient but usually more respectful and more attuned to the seasons and the environment. Indeed, some resources like the soil, water or scenery cannot be treated indefinitely as a steady, ever-renewable flow as the inventory is decreasing in terms of both quantity and quality.

Greater awareness of the pollution of natural habitats would not have been enough to make us question the artificial nature of agricultural

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practices without the influence of the media in the mid-1990s. We need only mention the Mad Cow crisis, the rise of new technology like genetic manipulation (GMOs), without forgetting the Belgian chicken and pork episode. Current events, these examples strike at the heart of food safety. Now all the players in the agri-foodstuff sector are obliged to change their practices to regain the trust expressed by the *vox populi*.

Greater productivity figures and fewer neighbours

The demographics are striking. France, for example, lost half its farmers between 1982 and 1999 and the number of people tilling the soil is now 700 000. How many can we expect in 2010? Probably no fewer than 400 000. Agricultural producers are condemned to working more, often to earn less. Indeed, the prices of agricultural products, especially grain, are likely to fall, thus progressively falling in line with the famous international market index which are in reality determined and controlled by the USA, not on the basis of returns but on the basis of optimal pricing to move their own inventory.

The Americans are all for an open market when it suits them. Consequently whenever they contest the Common Agricultural Policy (CAP), they should be reminded that if the overall cost of agricultural policies (subsidies, duty exemptions, credits etc) is one-third higher in Europe than in the USA, the *per capita* support for American farmers is twice that of European farmers!

It would be unfair to penalize European farmers for their productivity. In thirty years, the wheat harvest has increased from a few dozen quintals per hectare to over one hundred quintals in the best fields. Farmers are only responding to previous demands from the public authorities which encouraged them to invest in order to produce and export.

The time has come to accept that we live in an international economy. Accordingly, we suggest that there are only two types of competitive agriculture:

- intensive 'no soil' agriculture, using greenhouses, eg vegetables and above-ground plants or tree/plant growing as in Brittany and the Netherlands ; and
- extensive, less intensive in terms of financial, technical and human capital, and low polluting because it is spread out over a large areas where low productivity goes hand in hand with low costs and high profitability, eg livestock in Argentina.

Between these two types of effective agriculture, France hesitates over which camp to choose. France, given its population density at half the

average, looks like a wide open reservoir of land in the heart of Europe. France should therefore play its extensive agriculture card (especially tree/plant growing) in all the areas that are now turning into green deserts. It costs the community no more to maintain shepherds and 30 000 sheep than to invest in Canadair(r)! Nevertheless, negotiating between extensive and intensive is not always easy. In fact it is easier to process the waste from intensive growing than the free flowing pollution of pigs in the open air!

The policy dictated by Brussels, which dictates that land remain fallows to regenerate, actually leads farmers to intensify their production on the land already tilled. Rather than pay subsidies to leave land fallow, it would be better to support the development of intensive crops.

How then can we avoid the collapse of French agriculture, farmers' despair and the death knell of rural life? These recurring questions urgently require answers because the farmer faces new challenges in the environment and in food safety which only add to problems of productivity or competitiveness.

The challenges of 'logical agriculture' and the need for trust

The race to be productive leads farmers into illogical practices, eg the extensive use of growth hormones, and adulterated food that goes against nature. Raising chickens in under five weeks when nature requires five months is excessive. That infamous cow would not have gone mad if she had stayed out in the field!

We have opened Pandora's box and cannot close it. From now on, all problems must be brought into the light, otherwise each new scandal revealed by the media and the distrust expressed in public opinion regarding food will grow stronger. The tainted blood scandals should make officials be responsible, ready to act and fast. After the Belgian dioxin chicken crisis, are we waiting for part two, 'Insane Salmon'? Note this possibility should not be discounted among fish raised artificially. The use of herbicides like atrazine is highly restricted in Germany whereas in France this chemical may be found in massive amounts along the roadside or near railway lines as if the trickle down effect into other fields did not exist. There is also good land that must be erased from the agricultural map because of long-term contamination by urban waste including heavy metals.

Yet we should not be Luddites who reject technological progress and preach a back to basics philosophy. If life expectancy has risen, it may be

due to the fact that our food is healthier and more balanced than before. The all-natural state is not without danger, though. In the past people died after consuming a grain parasite, the ergot. Without pesticides, people could not eat as much as they like; moreover, the consumption of 'bio' products also introduces risks. For example, if we do not treat apples against certain diseases, they can develop deadly toxins.

However, the intensive use of fertilizers and pesticides also has its limits. It would be better to protect the water table and to optimize the use of such products with a more logical form of agriculture. Technology provides new answers with GMOs, or various forms of genetic manipulation, which intend to modify plants genetically to avoid the use of pesticides. Nevertheless, these answers are full of question marks and anxiety. By manipulating nature, man may lose control as did the fictional character, Frankenstein.

Society's attitude towards risk is often paradoxical. Genetically manipulated organisms (GMOs) scare people. Moreover, those who reject them as a precaution are correct in refusing a risk which provides not tangible advantage in return. Nevertheless, no one has criticized Limagrain who genetically modified the tobacco plant to produce an artificial blood component for humans (haemoglobin). GMOs have not yet killed anyone, but they encourage opposition while Viagra is socially accepted, despite the deaths associated with it. Why? Viagra presents a real usefulness for those who take it. Accepting genetically manipulated products means waiting for the arrival of 'pharmafoods' drawn from genetic modifications considered beneficial to health.

In any event, the choice should be left to the consumer while non-GMO sectors are being developed. As always, the principle of erring on the side of caution must also keep the future open. In this sense, the experimental production of GMOs must continue, otherwise the Europeans, especially the French, the world's second largest seed exporter, will become dependent on American technology. As Marcel Cazalé argued: 'Although vegetal genomes are deposited in America, we do not intend to let the intelligence slip between our hands into those of the competition so that future generations have to pay'.

It is merely an illusion to pretend to forbid genetically modified wheat or corn crops in France while continuing to import tons of American soya, which is genetically modified as animal feed. If a danger is indeed there, the entire milk chain must be protected.

As in the GMO or genetic manipulation issue, the stakes have reached on a geopolitical and ethical level around the world. The questions will not be answered at the national level; in fact, more than ever, the European dimension is

necessary. Once again, will Europe have to speak with one voice to play on the same field as the USA with its powerful companies that set the rates for the world agricultural market and dominate agricultural research, eg Monsanto.

For French farmers, the early years of the new millennium promise to be rather eventful. The new wager has just been given in the Agenda 2000. Not only will production assistance be decreased, a positive point in order to avoid chronic surpluses and to come closer to the international market rate, but they will also be increasingly linked to limits and objectives in agricultural practices. In fact, it is in this spirit that territorial contracts and logical agriculture will apply. Logical agriculture (*agriculture raisonnée*) seeks to reconcile economic competitiveness, product quality and respect for the environment by using products (pesticides, etc) to preserve the potential for development for future generations. In other words, to align logical agriculture with sustainable development.

Logical agriculture, in certain contexts called integrated farming, is still in its early stages in France, and implies that rules and correct practices be monitored by specific 'statements of requirements'. For farmers to regain the public's trust, a vast majority of them would have to opt for this form of agriculture and not hesitate to increase the number of 'open farms' that allow the public to see how practices have evolved.

Yet logical agriculture is an obligation only in terms of methods, it does not guarantee results in terms of product quality or safety in the food chain. Quality and safety requires development in agriculture, as has been established successfully in the industry through quality insurance and certification systems, which in themselves suppose products may be traced from the table to the stable.

The actors in the chain must set consistent standards to avoid putting farmers in a position where they struggle or even fail to meet their obligations. This would be the case if a major distributor sought to stand out through its marketing by applying statements of requirements for each brand. This would raise questions as to the quality of other products sold by the same distributor. The consumer would have trouble sorting out contradicting statements, as previously seen in the battle over phosphate-free laundry detergent. After the dust settles in this type of advertising war, nothing has been gained, except the consumer's distrust and confusion.

In order to keep and reinforce the trust of the citizen-consumer, the actors in the sector would do well to set out the code of 'good conduct' for a form of agriculture that is more logical and reasonable. With transparency and consistency throughout the agri-foodstuff sector, farmers will gain in terms of consumer trust and the popular

opinion. At the same time, they will also have more confidence in their own future.

Agriculture to 'ecoculture'

The citizen-consumer knows that, on average, half of a farmer's earnings comes from public assistance. Since farmers have almost become civil servants, society has the right to ask them, in return, for the best contribution possible in general and in terms of sustainable development.

In order to save the rural aspect of agriculture, an essential component of the French identity, three complementary routes should be preferred:

- move from improving products, which benefit highly productive farms (that could even do without) to helping the individual, taking into account the farmer's family situation, and to adding the remuneration of services provided by humans and the maintenance of the landscape that farmers provide for the collectivity. Otherwise we cannot maintain an inhabited rural landscape the way the Swiss or Austrians do. Otherwise the never-ending race for productivity with artificial techniques and environmental damage will continue, eg wastelands next to factory fields. Otherwise many people in the countryside will be forced deeper into debt, leave the farm or resign themselves to a violent nihilism. Remunerating non-merchandise production, eg maintaining areas and landscapes does not mean turning farmers into social welfare recipients. They must remain entrepreneurs concerned by financial restrictions.
- open up and master 'multi-tasking' or several commercial activities, either for a family business (rural employment problems for future spouses) or for the head of operation (maintenance, forestry, hospitality). Currently 'double employment' involves only a minority of farmers and develops primarily where the possibilities for local employment are the best. What is missing primarily are salaried jobs for women, hence the high number of bachelors and sometimes of suicide cases among young farmers. Yet even more startling is the new rise in rural divorce figures, given that divorce was previously an exception in agricultural communities.
- diversify production and enhance product quality by insisting on the 'countrystyle' image without overdoing it. Just because a product bears a local name does not make it a bestseller. More and more marketing and distribution make all the difference, as seen with Dutch cheese and cut flowers. Note that most of the flowers cut in the Grasse region and sold in Nice pass through Amsterdam! Not to mention the success of Beaujolais wines and Nantes

greens (mâche lettuce). Diversity is the order of the day. However, one must diversify in a coordinated fashion in order to avoid overproduction that hurts everyone, eg the foie gras example, yet differentiate one's product through image and quality. In general, all the countrystyle (terroir) products and the specific culinary traditions of the regions of France should be reconsidered. In addition, eco-tourism may serve as a platform so that the products with the most potential become known.

The changes that the rural world is facing are similar to those faced by the iron and steel industry in the 1970s and 1980s. For most farmers, survival will require a shift in mentality. They must stop thinking in terms of quantity but rather in terms of sales. They are selling rare services which thus have a high added value. The value of non-merchandise production must be recognised, in other words, maintenance of the rural landscape. If these changes are not met, much of rural France, especially the fairly mountainous regions, will become a green desert. The Las Vegas example aside, wastelands do not attract tourists. This is a fact that must be faced if France intends to maintain its top international ranking in tourism.