



SEARCH



When the leaders of the six core nations of the European Economic Community (EEC) established the Common Agricultural Policy (CAP) they did so against a background of the periodic starvation of their peoples and the wish to avoid future military conflict in Europe.

At that time, almost 60 years ago, the agriculture in Europe was far less intensive than today and yields were substantially lower.

The industry operated on principles which today would be described as 'Organic', simply because the innovations of weed control, crop protection and fertiliser use were in their infancy and not available to the vast majority of farmers.

Indeed, in 1946, the average yield of wheat in Britain was a little over 2 t/ha, the same as it had been in the 1800s. Today, yields have reached a plateau with the national average at about 8 t/ha.

The CAP was set up to encourage farmers to produce food, to support production and to ensure that the people of those six nations would not go hungry again.

In the intervening years, as the EEC evolved into the European Union (EU), those essential principles have remained unchanged.

During this time yields of all commodities have increased, owing to plant breeding (which has increased wheat yields by about 3% each year since 1950 in Britain) whilst improvements to field drainage, nitrogen fertilizers and crop protection have been applied to all crops.

The basic principles of the CAP were retained to control what was perceived to be the unacceptable high yields of dairy products and cereals when quotas and set aside were introduced, during the 1980s and 1990s, as mechanisms to restrict production.

There is little doubt that the CAP is primarily responsible for the well fed nature of the largely urban population of the EU. The plentiful supplies of food and improved economic well-being have created a population which is not only increasingly remote from the basics of food production, but also nostalgic for what is perceived to be a lost rural idyll.

At the same time there seems to be increasing antagonism to using any crop protection products to help improve yields. In the last 60 years the population of the EU area has also grown, with consequent demands on the 'countryside' for additional infrastructure, new towns and industry/business parks to provide homes and employment.

A consequence of these pressures has been an increasing fragmentation of the rural environment. This has led to rising human pressures on the remaining open spaces. No doubt these pressures have helped accelerate the decline in habitat and wildlife, so obvious across much of Europe, for which farmers so often get the sole blame.

There is a further factor; as affluence has increased there is more leisure time, so more public access to, and consequent unrecognized pressure on, the 'countryside'. Importantly, a benefit of the affluence and leisure is more appreciation of the need to preserve habitats and wildlife.

The increasing numbers of people who support conservation charities provide a good illustration of the point. This is not restricted to Europe, for example, the numbers of native Indians visiting tiger reserves has increased substantially as the economy has developed in the last 15-20 years.

These important points carry a warning. The world faces a dire crisis of food needs in the next few decades. As articles in this journal have shown, there is little more land we can bring into cultivation to produce the extra food we need.

There is no doubt some food can come from improvements in distribution networks to reduce the post-harvest losses, estimated by FAO to be almost 40%. The food and agriculture industries recognize the need for a technical revolution so that more yield per unit area can be produced at lower cost, if the challenges ahead are to be met.

In recent years there has been a revolution in the understanding of molecular genetics. This has led to substantial improvements in medical diagnostics, treatments, drug development and forensic science.

Advanced biotechnology is well established as part of the medical scene. In agriculture, advances in biotechnology are exploited throughout the world, except in Europe, where production is restricted to a small number of crops in a small number of countries.

There is an extraordinary irony, some may suggest hypocrisy, that in order to feed our farm animals we in Europe need to import soya and maize supplies which benefit from advanced biotechnology; but we will not let our farmers grow the crops themselves.

It is fair to ask why there is the contrast in European attitudes, between widespread adoption of advanced technology in medicine, and a refusal to adopt the practice where food is concerned. If the farming industry is to meet our production needs in the next 25 years without increased resources and with a changing climate it can be argued we need to explore all the technologies at our disposal.


Perhaps we need to reassess public attitudes to science and ethics and explore these issues in our schools as well as in open debate. Maybe it is also time for plant scientists to affirm how similar the understanding of, and systems in, animals and plants are and how appropriate technologies may be able to help us improve crop yields and quality as they have helped in medicine.

We in World Agriculture recognize the challenges Man and his environment face. We welcome the debate and the need for decisions to be based on sound evidence rather than hearsay or uninformed opinion.

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## Comments