(Don't) let them eat cake

Brussels, 2027: The recent decision of the European Council of Environment Ministers to uphold the bans imposed by 12 EU member states on the growing of wheat has caused consternation and confusion. The Council voted to reject the Commission's recommendation that the bans be declared unlawful, overturning the unanimous advice of a panel of scientific experts.

The issue is not only one of ecological concern; it also has major public health implications, and obvious ramifications for trade policy. In its decision the Council also emphasized the cultural importance of member states' agricultural and gastronomic traditions.

The countries that have taken a stand against the cultivation of wheat argued successfully that, as a genetically modified crop, wheat posed a serious threat to the wild grasses of central Europe and the Mediterranean. Even with the standard 300 metre quarantine zone, the promiscuous nature of wind pollination and seed dispersal makes it impossible to guarantee that wheat will not damage the natural environment, with potentially catastrophic effects on biodiversity. The Council invoked as a precedent a seminal decision taken as far back as March 2009 about the rights of member states to impose a blanket ban on GM crops.

In effect, all that needs to be decided in each individual case is whether a crop plant or livestock is, or is not, genetically modified; the merits of any such modification are largely irrelevant. This is illustrated sharply by the celebrated case of Divine Raspberries Inc., who tried to argue—unsuccessfully—that the presence of fungal and bacterial DNA segments in the genomes of their stress-resistant varieties could not be attributed unambiguously to genetic engineering and that, instead, intelligent design on the part of a supernatural creator could not be excluded. The fact that the plants had been cultivated safely for more than a decade and that the

unusually delicious raspberries had been consumed with no more adverse effects than those customary in cases of over-indulgence, was of no importance. Their cultivation was summarily prohibited.

The Council's designation of wheat as a GM crop is clearly more arguable. Genomic analysis of seeds recovered from an Egyptian tomb of the pharaonic era has revealed that the ancient genome of *Triticum aestivum* has been substantially corrupted and manipulated during the course of history, with evidence of repeated invasion by foreign genetic elements originating both from other grasses and even from much more distant taxa. To some this seems to constitute a *prima facie* case of what one minister described as “unnatural selection at its most insidious.” However, the vast weight of genetic opinion is that this simply reveals the adaptive capacity of any organism experiencing severe environmental pressure.

In rejecting scientific advice, the Council is following a well-trodden path. “Obviously public policy must take all factors into consideration,” the Council President explained. “Ministers cannot be bound by the opinion of so-called experts who have a vested interest in propagating the fruits of bio-engineering. Amongst scientists it is always possible to find a dissenting opinion, especially when it comes to assessing the risks of GM crops.” Clearly, scientific issues cannot be decided by democratic ballot. Even where 1,000 scientists all hold a common view, a lone dissenter might still be right. However, the EU has apparently taken this principle to its logically absurd conclusion, by asserting that if 1,000 scientists all agree on something then they must all be wrong.

Unusually, the Council's decision in this case was influenced by other criteria. One of these was the financial burden placed on the health-care system. Unlike other GM crops, the consumption of wheat products is severely detrimental to a significant fraction of the European population,

in particular children, who are least able to make informed choices.

“The epidemic of celiac disease is directly attributable to the specific traits for which wheat has been engineered by biologists, namely its extremely high gluten content,” stated the Director of Paediatric Services of a leading Scandinavian hospital. Furthermore, even if the link between adult consumption of wheat-derived products and the onset of type II diabetes remains controversial, obesity and cardiovascular disease are undoubted consequences of excessive carbohydrate intake driven by ‘the wheat-economy’.

The EU decision seems to have been driven mainly by protectionist pressures from member states defending the unecological cultivation of other cereals. The desire to preserve ‘culturally significant foodstuffs’ such as risotto, haggis and mämmi, not to mention the European beer and whiskey industries, seems to have been a factor in rejecting what the final communiqué described as “the monoculturalism of wheat.” The interests of some other states, where the manufacture of patisserie became the main economic activity following the demise of the European car industry in the 2009 recession, have clearly been disregarded. “This is a further step towards the criminalization of what was once just another innocent pleasure,” commented the General Secretary of the European Federation of Pastry Chefs.

Even if this reaction verges on the hysterical, the current European directive on food labelling and retailing already requires that wheat-containing products be clearly marked and separated in stores from non-wheat foodstuffs. The pressure to include an explicit health warning will be given fresh impetus by the Council decision, and is apparently already being considered as a ballot measure in one Swiss canton.

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