

dustrialized kind in Western Europe, where there are many who wish to extend the free-trade rules to cover financial services, another of the issues that may yet appear on the new GATT agenda. What the industrialized countries have not yet understood is that they stand to make as much on the swings (of free trade in services) as they lose by the protection of their agriculture. If properly managed, the new GATT negotiations could ensure that there will be no losers, either now or in the future, but there would be conspicuous winners in the developing world. Low-income countries, to be represented for the first time at the GATT negotiations, will be keen to make that point.

Meanwhile, this weekend's summit meeting could marvelously prepare the ground. The past few months have seen too many assaults on the complacency of the well-to-do nations of the world for any of them to enjoy a self-confidence commensurate with its gross domestic product. What the world needs now is an acknowledgement by the richer creditor nations that their future prosperity requires that the low-income nations should be enabled to be richer than merely necessary to pay their debts. Curiously, it will help enormously if the seven heads of government can bring themselves to confess that this is the case.

Meanwhile, there is also AIDS (acquired immune deficiency syndrome), an international conundrum which is also, in its implications, economic. Throwing money at researchers will not, on this occasion, suffice. The need is to galvanize a search for an understanding of the distribution of the infection and of the mechanisms of its transmission as well as an appreciation by governments of the seriousness of the threat. Even if the issue is a little off the usual beaten track of governments at summit meetings, the time spent in drafting the appropriate paragraph (and making sure that it is understood by those who sign it) would be well worthwhile. □

Whose red face?

The European Communities' needlessly stringent radiation standards deserve ridicule.

ALL radiation is potentially harmful, right? (Everybody agrees.) And so the smaller the amounts of radiation that people ingest in their food, the safer they will be? (Right again.) So why not seize every possible opportunity to tighten the regulations that determine the amounts of radioactivity permitted in the food that people eat? This chain of argument is the most respectable rationalization of how the European Commission reached its decision last month (see *Nature* 327, 267; 1987) that the permitted limits for radiocaesium in foodstuffs should be fixed at 1,000 becquerels per kg for dairy products and 1,250 Bq per kg for other commodities. But this is only a thin excuse for having reached a thoroughly irrational decision whose immediate (and adverse) consequences, if any, will be economic, but whose long-term effect will be to bring into disrepute the careful process of setting radiation standards worked out over the past half century.

The origins of the Commission's proposals are political, not technical, and go back to the aftermath of the accident at Chernobyl in April last year. Several European governments then rushed to restrict the import from Eastern Europe of foodstuffs contaminated with fallout from the accident. West Germany plucked out of the air a working limit for radiocaesium of 600 Bq per kg, a quantity apparently determined more by reference to the quantities of radiation in Polish foodstuffs than waiting for clearance at its frontiers than by a deliberate consideration of the risks that would be entailed by allowing them to be put on sale. Just over a year ago, an ill-prepared meeting of a representative committee in Brussels found a compromise between the rigour of the West German standard and the earlier recommendations of committees which had calculated what would be the risks of ingesting radiocaesium, and which had concluded that working limits of between 9,000 and 30,000 Bq of caesium

radiation per kg of food would be appropriate: the European Commission eventually settled for a temporary limit on radiocaesium of 600 Bq per kg, with the understanding that a more permanent figure would be promulgated by the end of October this year.

That radiocaesium has been at the centre of attention is hardly surprising. Like iodine, caesium is among the more volatile of fission products; large quantities were indeed released from Chernobyl. But the principal fallout isotope of caesium, caesium-137, has a radioactive half-life measured in decades, forms chemical compounds which are soluble in water and, by an ion-exchange process, tends to hang about in the upper layers of soil. This is why radioactive caesium has reappeared in European grass in the spring a year after Chernobyl; it will remain, with a flush of reappearance every spring, for some years to come, if in declining quantities. The spring season, which is when grass grows most quickly, is that in which caesium will be most conspicuous. Those who drink milk or who eat meat derived from grazing animals will inevitably take in some caesium.

The good news is that caesium is not appreciably concentrated in particular organs of the body (as iodine is concentrated in the thyroid) and that its average residence time in the adult human body is estimated at 110 days (but is somewhat less for children). Despite the continuing numerical uncertainty about the chance that small doses of radiation from radionuclides systemically delivered will cause cancer, it is a much easier to calculate the relative risks of caesium-137 and other similarly distributed isotopes. The yardstick by which the standard of 30,000 Bq per kg of radiocaesium in foodstuffs is arrived at is the calculation that people perpetually eating food contaminated to this degree should incur a risk of contracting cancer which is statistically imperceptible compared with the natural risk of cancer.

So why should Europe now be anxious to settle for a more stringent limit? The Commission gives two reasons — the need to coordinate standards with those elsewhere (Scandinavia, for example) and the need to fix a limit that commands "public confidence". The first argument does not stand up. However stringent are the limits in force elsewhere, a stringent European standard will not by itself ensure that caesium is cleared from European soil or that European foodstuffs will comply with other people's standards. On the other hand, the new standard has the dubious advantage of justifying some of the potentially controversial practices of European governments in the present growing season; some British lambs from North Wales and Cumbria have been kept off the market (as were more last year), giving the authorities responsible the air of being vigilant (and the farmers concerned a sense of having a hole in their pockets). With a little luck, of course, these inconveniences will have blown over by next spring, when caesium concentrations in the soil will have further declined.

The Commission's argument about "public confidence" is potentially much more dangerous. The assumption seems to be that a show of stringency will give people who live in Europe a sense that their governments are zealous in their regard for public welfare. But what if, at some stage, there should be a nuclear accident in Europe. With the needlessly strict standard now proposed, much less damaging accidents than that at Chernobyl could make it necessary to take European foodstuffs off the market — or to relax the standards on the spur of the moment. Is that the best way to inspire confidence? It would be much more prudent of the Commission to promulgate a standard consistent with what the logic of the circumstances suggests, thereby helping a large and sophisticated population to appreciate that it must learn to live with radiation — and to thank its lucky stars that, for the time being, radioactive contamination of the food chain is well within the limits set for them. European governments, which will be required to approve the Commission's proposals during the summer, would be well advised to throw them out in favour of more rational proposals based on scientific recommendations. □