

GOURMET FUTURES

Colin Tudge

We're told, as a billion people remain hungry and human numbers continue to rise and the biosphere collapses around our ears (mass extinction, global warming) that we must curb population growth by whatever it takes, and that those who are left must curb their appetites. To be responsible citizens (we are told) we must learn to eat austerely. Ideally, we should all strive to be vegan. Our lust for meat (it's assumed that we have a lust for meat) must be satisfied with ersatz muscle spun from the proteins of beans or fungi and possibly microbes – or, which is the latest high-tech dream, our technologists must create a simulacrum of animal flesh in the laboratory from cultures of suitably doctored animal cells. Austerity with high-tech: that's the message from the oligarchy of big governments (like Britain's), corporates, and their supporting intellectuals (scientists and economists) who now dominate our lives.

The gentle art and craft of gastronomy – the preparation and appreciation of great food – is seen essentially to be frivolous. A luxury. Elitist. Gastronomy is taken seriously in sombre circles only insofar as it has become big business. Some chefs become celebs but the millions – billions – of workaday cooks who toil in their tiny kitchens to feed their families are seriously underrated. A whole industry has grown up to replace their efforts with whatever can be put in cans, or frozen, or de-hydrated, and sent without too much deterioration from the factory to the supermarket to be resuscitated and heated up as and when.

But as almost always is the case in all things, it seems that in matters relating to food and farming the truth is almost the precise opposite of the advice and pressure that comes down to us from on high. Rising population is a problem but there is no need to panic. The percentage rate of increase is falling and numbers should level by 2050 or so at about 10 billion –

which is a lot but should certainly be manageable. And – which is the point of this article – we absolutely do not need to be austere, or not at least in the conventional sense. People in rich societies should certainly eat less meat but that should not be a hardship and we certainly don't need to be vegan. What we really do need is the very thing that is seen to be a luxury – gastronomy; that, and the craft that modern food technology seems largely to be designed to replace – cookery.

Indeed, the world's food and farming strategy should not as now be led by politicians and economists or even by scientists (though scientists of the right kind have essential roles to play) but by farmers and cooks. The future belongs not to the ascetic, to the high-tech equivalent of the Desert Fathers, living on seeds and insects, but to the gourmet – the gastronome; the person who really cares about food in all its variety and wonder, and will take the time to seek it out, and pay the proper price for whatever is good. Gastronomy isn't just for TV chefs, fat cats, and celebs but in truth is the most important human pursuit of all, at least of a material kind. Indeed, we would do well to build our entire economy around it.

All this may seem outrageous. But if we break down the issues one by one, questioning all the suppositions that now underpin world thinking in food and farming (and indeed in everything else) we see that it is so. Thus:

We don't need more food

Present-day farming strategy is geared to production: production, production, production. As is typical of the *genre*, a highly influential report from the British government in 2011 on *The Future of Food and Farming* declared that we need to produce 50 per cent more food by 2050 just to keep pace with rising numbers and 'rising demand' – particularly the supposed demand for more meat. Others since have upped the ante and call for 100 per cent more by 2100. How could it not be so? The present population stands at 7 billion plus and a billion of them are undernourished, according to the UN. But numbers continue to rise and by 2050 there will be 9 to 10 billion. Furthermore, as societies grow richer people 'demand' more meat. The big cities of China now heave with burger and fried chicken 'outlets' – because (self-evidently!) that's what people want. The

traditional bowl of rice with bits and bobs is for the peasants. Backward-looking. Obsolete.

Furthermore, the vast extra quantities of food we need can be provided only with high tech, and can be made affordable to the masses only by scaling up. So we need industrial farming with big machines, industrial chemistry, and biotech (genetic engineering), on the largest possible scale. The small peasant farm is obsolete, too. The proof is in the stats. Modern arable farms in East Anglia may produce 15 tonnes of wheat per hectare (in a good year, if the price is right). Traditional Third World farms – like most of Britain’s farms 100 years ago – are and were content with two or so tonnes per hectare.

But a little more arithmetic shows the lie of all this. Thus, the world now produces around 2.5 billion tonnes of cereals per year (wheat and rice are the leaders) and since one tonne provided enough calories *and protein* for three people for a year, that’s enough for 7.5 billion people. Cereals are by far the most important crops but even so they account for only half our protein and energy. The other half comes from non-cereal grains, pulses, nuts (especially coconuts), tubers, fruits, fish and meat. Put cereals and the rest together and we have enough for 14 billion-plus. By 2050 on present trends the percentage rate of increase of human numbers per annum should be down to zero – which means that numbers should stabilise. After that, if the trend continues, numbers should start to go down. By 2050 humans will number 10 billion or so. So we already produce 40 per cent more food than we should ever need. The continued emphasis on production has nothing to do with real need and everything to do with commerce: profit.

In truth the emphasis must now shift, wholesale, from production to sustainability and resilience – and to kindness (to animals and people) and social justice. The key to all of these is low-input farming, which really means organic; and diversity. In general, the more diverse an ecosystem is – or a farm – the more it can survive changing conditions, and the quicker it can recover after set-backs. If farms are organic and diverse they are obviously complex and need lots of tender loving care – plenty of small farmers and growers. With enterprises that are complex and skills-intensive there is little or no advantage in scale-up so the kind of farms that really meet the needs of the present and the future should in general be

small to medium sized. Thus the farms we really need are the precise opposite of the high-tech, profit-driven, huge industrial monocultures that we are being told are *de rigueur*, and in both Europe and the US are massively subsidised with our (taxpayers') money.

But can small, mixed, essentially traditional farms produce enough? Well, worldwide, they still feed 70 per cent of the world's population, even though they receive little or no support from the powers-that-be and are often actively done down. There is growing evidence to show, too, that with support – usually economic and logistic rather than technical – many or most traditional farms could readily double or even triple their present output, and still remain people and wildlife-friendly.

In addition, of course, it's now known that people in the richest countries habitually throw away a third of their food even after it has reached the kitchen – largely, I suggest, because they have forgotten how to cook (or don't have time for it) and don't know how to use leftovers. Even worse, about half the world's grain is now fed to livestock – which is why so many thinking people now suggest that we need to give up eating meat. But again, the thinking is muddled.

Meat

We should not, of course, feed more than a small proportion of cereals and pulses to livestock – staple foods that we could perfectly well eat ourselves. But that doesn't mean we shouldn't eat meat at all, or that livestock has no part to play in future agriculture.

The trouble, as always, lies with false ideals (the powers that be are trying to do the wrong things) and above all with the fixation on profit. Today's agriculture, and indeed the whole food chain, is designed not to provide everyone with good food (while keeping the biosphere in good heart, and creating agreeable, flourishing rural communities) but with maximising and concentrating wealth.

Thus, the true roles of livestock should be as they are in traditional farming. Omnivorous animals – poultry and pigs – should in the main be raised on leftovers and surpluses. They should live on the farm, cultivating the fields and eating the parasites after harvesting. In Britain and still in many traditional societies pigs in particular were kept expressly for this

purpose. The meat they provided at intervals was simply a bonus. The herbivorous livestock – mainly sheep and cattle – were and are kept on land that is too steep or rocky or dry or wet or cold or hot or windy to make it possible or at least worthwhile to grow arable crops, vegetables, or fruit.

In short – very obviously – the way to ensure that we produce enough food for everyone, with minimum collateral damage, is to focus on arable (to supply the bulk of protein and calories) and on horticulture (for micronutrients, flavour, and texture) and to employ animals primarily, or exclusively, as fillers in. If animals are kept as fillers-in then they *add* to our total food supply, as well as making it more interesting. They become profligate and unsustainable only if we seek to produce as many animals as possible so as to maximise profit.

But this is where the powers-that-be become self-righteous. For, they say, if we raised animals only as fillers-in then we would not produce very much; far less than we do now, when they are given a billion tonnes or so of grain a year in industrial feed lots. But we have a duty to produce loads of meat, say the powers-that-be. For people given half a chance *demand* meat; and it is a key principle of democracy that public demand should be met. Those who call for less are elitist ‘eco-fascists’.

This is yet more muddled thinking of a tendentious kind. The intellectuals who advise the world’s political and commercial leaders seem to suspend their critical faculties when they hear the rattle of the till.

The great serendipities

Is it really true, for a start, that people, when un-pressured, actively *demand* meat? I have seen demonstrations the world over with placards demanding better pay and conditions, or justice for oppressed peoples or for animal rights, but I know of no campaigns to demand more meat. Of course people *like* meat. It’s tasty, and quick and easy: the original fast food. It’s true, too, that if you are underfed then meat – high in calories as well as protein, and able to make good various mineral deficiencies – can just hit the spot. Percy Bysshe Shelley became a vegetarian in the early nineteenth century before nutritional know-how and modern retail made this a safe

option, and grew thinner and paler, until his friend the novelist Thomas Love Peacock advised him to eat 'three mutton chops with pepper'.

But meat has many other connotations that have nothing to do with nutrition – or, necessarily, with flavour. In times of austerity – as in most of China for most of the twentieth century, and as in the US during the Depression – meat becomes a symbol of affluence and success. Meat, available and affordable, was a sign that the bad times are over. Modern commercial propaganda really does work, too, which is why companies spend so much on it. The people of Beijing may well be eating burgers and fried chicken in part because they like it but in large measure too it's a reaction to their own history and because, now, it is the smart thing to do. We need not assume a positive 'demand'. Among those who are used to wealth, in California and Germany, it's fashionable to be vegetarian. Fashion – social pressure – trumps innate, hypothetical, predisposition.

If we designed agriculture as if we really wanted to provide everyone with good food then we would focus on arable and horticulture, with livestock only to fill in the gaps, and so we would produce plenty of plants, not much meat, and – because of the focus on diversity – maximum variety. Present-day industrial agriculture is almost entirely the opposite: as much meat as possible, and very little diversity. Industrial chemistry and big machinery lead us to monoculture. The apparent variety we see in supermarkets is largely spurious – artful permutations of a few crops that are easily grown on the commercial scale, including maize, soya, and rapeseed.

But here we encounter a series of serendipities. For 'plenty of plants, not much meat, and maximum variety' – just nine words – encapsulates the essence of *all* the most reliable nutritional theory of the past sixty years, which recommends diets that in general are low in fat, moderate in protein, high in fibre, and as diverse as possible. Diversity is needed to provide us not only with the minerals and vitamins that we know about but also with the newly recognised class of micro-micro nutrients which the food industry calls 'functional foods' and the pharmaceutical industry calls 'nutraceuticals' and I prefer to call 'cryptonutrients'. They include agents such as plant sterols which are not vital, but do seem to lower blood cholesterol; and all the many thousands of recondite materials produced by microbial fermentation, found in pickles and live

yoghurt and real cheese. There are far too many of these minutiae ever to analyse exhaustively but modern studies suggest that we should seek to imbibe as many and as much as possible – through a diet that is as diverse as possible.

In short, good farming – designed expressly to provide us with *enough* food without wrecking the biosphere – is entirely compatible with the best nutritional theory. If we grow well, we can eat well.

But there is a further – very large – serendipity. For all the world's greatest cuisines and almost all traditional cuisines *are* primarily plant-based and use meat (and offals and bones and fish and so on) only sparingly: as garnish and for stock. Meat is eaten in bulk only occasionally, for feasts. This is true in general of near and Middle Eastern cuisines (Turkish, Persian, Indian, Chinese, Thai) and of course of all of Asia and the traditional cuisines of the Mediterranean (Italy and Southern France). A typical meal from Turkey to South-East Asia is a pile of rice and or various wheat-based breads with whatever nuts and vegetables grow locally and are in season (which in the tropics means year-round) with spices and herbs – and small fragments of meat and or fish, and molluscs and crustaceans, if and when they are available. The result even in a modest household is, or can be, a meal fit for a sultan.

Historically, too, even the cuisines of northern Europe were far more plant-based than they are now, with heavy emphasis on cereals (wheat, barley, oats) and, from the eighteenth century onwards, on potatoes – plus a whole host of seasonable vegetables and fruits. Wheat-based pies and pastries abounded, and thick soups. The 'roast', traditionally, was the centre-piece of the British diet, at least for the yeoman class – but the roast was only for Sundays. On Monday cold meats were served and any left after that became shepherd's pie (one of my favourites). Animals still had fat on in those days and bread-and-dripping was a treat – as indeed are chips cooked in dripping. I am old enough to remember that tradition and very good it was too. A fatty shoulder of lamb, raised on the hills on natural herbs, or on the sea-shore on salt-marsh, was a thing of wonder. Nowadays butchers and chefs (alas) favour meat that is lean, (and hence, often, all but flavourless, or at least anonymous). Chickens were food for the Gods. Chicken was expensive – but it was eaten only a few times a year; a real treat.

Today's farmers could farm in the traditional ways – seasonal, local, various – if only they could be sure to sell their produce. We, the consumers – not the wholesalers who feed the supermarkets – can and must supply the necessary markets. But consumers won't take the trouble to seek out the kind of foods that are really good for us, grown in ways that are good for the biosphere, and with justice for the farmers, unless we really care about food. We need truly to appreciate fruit and vegetables grown within a few miles and in season; cattle and sheep raised on natural pastures on the uplands and by the sea; chickens that have spent fairly long lives scratching to find a more or less natural diet.

In other words, we, the consumers, have to be gourmets: gastronomes. The kind of farming we really need must be guided by principles of ecology and morality of course – but led and encouraged by a true appreciation of food. Thus gastronomy emerges not as an indulgence, a frivolity, but as the *sine qua non*; in some ways the most important pursuit of all.

Coda

Some will say that all of the above is junk. For in truth only the rich can *afford* to be gourmets. Most people need cheap food, and to keep prices down food must be produced in industrial ways and sold on the industrial scale through supermarkets. Only a middle-class elitist could write an article like this one. There are many among the powers-that-be who make this very argument. You might not like what we do, they say, but it is *necessary*. The kind of farming I am recommending here would cost far too much and would condemn many more people to hunger.

But this is perhaps the most specious and deceptive argument of all. For in truth, of all the money spent on food in supermarkets, less than 20 per cent goes to the farmer. The rest goes to the food chain itself. A high proportion – perhaps most – of all the money spent on food – the 20 per cent the farmer gets and the 80 per cent that goes to the supermarket and the middle-men – goes to the bankers, who loan the money to buy or rent the shamefully overpriced land and all the machinery needed to scale-up and industrialise. Industrialised farming depends entirely on oil and oil is as cheap as it seems to be only because the price is adjusted so that it is always just affordable. Many people in Britain can't afford supermarket

food (a million resort to food-banks, though Britain is the world's fifth richest economy) – but largely because they are obliged to spend so much on housing. Food prices are adjusted, too – the 'free' market is an illusion – and it is impossible to establish a reasonable price when, as in Britain, the top ten per cent are nearly twenty times richer than the bottom ten per cent, and the top one per cent are a thousand times richer.

In short, industrial agriculture now seems cheaper than the kind we really need only because the economy is biased so strongly in its favour, making the rich richer and the poor poorer. With suitable economic tweaks food produced on small mixed farms and sold locally should be *cheaper* than the kind supported by armies of accountants and managers and battalions of lorries and fork-lift trucks *and* support rural economies and societies *and* be wildlife friendly. It's all within the compass of governments to make the necessary changes. Or, since governments of the present kind have forgotten what they are there for, and have ceded so much of their power and our sovereignty to the corporates, we can and must do what needs doing for ourselves – working in general not as individuals but as communities.

Clearly, though, we can't put agriculture to rights (or anything else) unless we re-think the economy from first principles. Certainly, neoliberalism won't do. But whether we do re-think the economy or leave things as they are (until there is a major uprising and/or the biosphere collapses) we do need to recognise that we can never have the kind of farming the world really needs until and unless people at large take food seriously and support the farmers and growers who really are trying to do the job that needs doing. Consumers do have power but they cannot use that power for good unless they know what really is of benefit, and why. In short, food will never be the quality it could be, and we will never ensure that everyone has enough and that we keep the biosphere in good heart, unless we, consumers, care enough, and are knowledgeable. In other words, we need to become gastronomes.