

OUR FOOD

Spring is wonderful. On a warm sunny day the new flowers are covered with a mass of whirring, buzzing insects hungrily devouring nectar. There are bumble bees, honey bees, hoverflies, ordinary flies and many, many more. They do not realise that what they are doing is to pollinate the plants so that seeds will be produced for the next generation – or fruit will be produced for us to eat. From this pollination hybrids will occasionally be produced. That is where two very similar plants have their genes mixed by pollen exchange to produce something entirely new. I recall once I grew my favourite runner bean (an ancient variety called Painted Lady) immediately next to some climbing French beans. I usually let some bean pods mature so that I can dry and store the seeds for winter – and keep some for sowing the following year. On this occasion I had a surprise. Some of the runner bean pods had the usual grey/brown Painted Lady runner bean seeds. However, some other pods had smaller, jet-black seeds and others had bright red seeds. Evidently the insects, through their cross-pollination of runner beans with climbing French beans, had produced some novel hybrids. However, I wanted my Painted Lady seeds to remain true and luckily I had, in addition to my main crops on the allotment, planted-out a few in the garden up a Monet arch, so I used just those for seeds for the following years.

That is how amateur gardeners can make a lot of money. If you, by chance, produce a new hybrid which has superior qualities (taste, size of crop, better colour, disease or insect resistance etc) and you can propagate it, then the seed companies may beat a path to your door.

There is big money to be made from new varieties and the seed companies produce them under scientific conditions in giant greenhouses or polytunnels where insects are excluded so that stray pollination is avoided and only the controlled experimental pollination can proceed. Sometimes the resulting new variety is labelled “F1” and carries a warning that seed from the resulting plants will not run true. So the individual gardener has to purchase more of the F1 seeds every year – and keeping your own seed is no longer an option for F1 varieties. Nevertheless, the improvement in the crops we have been able to grow in recent years is really impressive. Many species of vegetables and fruit are so much better than their predecessors. We can rejoice in the work of the seed scientists. (Caveat. Some say that the old varieties taste better.)

But there are other scientists who, not content with natural hybridisation from the exchange of pollen, want to go further and splice genes to create plants with certain special characteristics. By splicing I mean adding genes from non-vegetables to a vegetable as an example - something which would simply not happen in nature. For example, genetically-modified crops which are engineered to be immune to that great weedkiller glyphosate. Farmers can then spray their fields with glyphosate knowing that every weed will be killed but not their crops. So the very expensive chore of hand-weeding can be avoided. The farmers can produce their crops at a lower cost and, other things being equal, make much larger profits. Farmer A, even though he/she may have misgivings about producing genetically-modified food, is more or less forced into line since if neighbouring Farmer B produces genetically-modified crops at a lower price Farmer A will be unable to compete in the marketplace. Ruin stares Farmer A in the face, so he/she falls into line and goes for the genetically-modified variety also.

(I have to say that I cannot decide one way or the other whether GM crops are a good thing. There is no evidence so far of any risk to human health. The UN have said that we need to double food production by 2050 to feed the estimated population of 9.2 billion with their more-meat-eating lifestyles. A doubling of food production in 35 years means a level of innovation in food production equivalent to that seen over the past 10,000 years. GM crops seem to be the only answer. Yet GM crops so far have not increased yields. They have merely made growing crops more efficient, adding to farmers’ profits and the profits of the companies supplying the farmers with GM seeds and the associated chemicals.)

The state of play at the moment is that in the USA genetically-modified crops meet little resistance and are freely grown by gung-ho farmers. So far in Europe there has been an almost total ban and

only one type of genetically-modified crop has been authorised – Bt maize. Bt maize is grown in five European countries, mainly in Spain. There is much resistance in the other 23 countries of the European Union. And now we come to something really controversial. In the EU authorisation has not been given to GROW genetically-modified crops in general, but authorisation has been granted to IMPORT GM CROPS FOR HUMAN CONSUMPTION. So far 58 such GM crops have been authorised and another 19 are being authorised as I write. These crops are multiple varieties of maize, soyabeans, oilseed rape and cotton seed (for vegetable oil). In the USA 25 GM crops have received regulatory approval and 85% of maize, 91% of soyabeans, 85% of cotton and 95% of sugar beet are genetically-modified. In the USA and UK, 80 to 90 % of cheeses are made using GM Chymosin (rather than animal-sourced rennet). So the powers that be are horrified of cross-pollination of “normal” crops with GM crops but are quite content to let people eat the stuff. Quite a paradox. The EU population may think that, if the growing of GM crops is virtually banned then they will be spared from eating the stuff. Nothing could be further from the truth.

The UK’s National Farmers’ Union have recently stated that 47% of our food is imported. The British consumer has no means of telling whether what they are eating has been genetically-modified since labelling does not contain such information. Even milk and meat produced in the UK is affected since the principal animal feed is soyabeans grown in the Americas and which is almost-all genetically-modified (60% of feed for animals is imported). Taking refuge in crops labelled “organic” is no certain solution since the EU allows “organic” food not to be labelled as containing GM ingredients as long as those GM ingredients are less than 0.9%. So “organic” food can contain up to 0.9% of GM ingredients. 0.9% is like being a “teeny-weeny bit pregnant”.

With 47% of our food being imported, and foreign farmers being more free to grow GM varieties, and the lack of labelling of such food as GM, there is no hope for the British consumer who does not wish to eat GM food. The average person already has around 30 man-made chemicals in his/her body from chemicals introduced into the environment and now we are munching GM crops in another gigantic experiment with the un-natural. (The advent of GM food on our plates has coincided with galloping obesity. Is that a coincidence?)

Bon appétit!

MIKE MASON

P.S. You could of course grow your own to avoid future genetically-modified fruit and vegetables and become a vegetarian to avoid meat from animals fed on GM feed, avoid all sauces, cooking oils, margarine, butter, prepared meals, cheeses etc, and avoid milk. Put your name down for an allotment NOW!