

# FoEE Biotech Mailout

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## **REVISION OF DIRECTIVE 90/220/EEC - THE FINAL STAGES**

So the revision of Directive 90/220 draws to an end. By early December, it appeared that the Conciliation Procedure was virtually finished, bar official approval by the Council and the Parliament, which will most likely happen in early January. A summary of some of the key points discussed in conciliation is given below.

### **A victory on Public Registers!**

At its second reading on the revision of the Directive in April this year, the European Parliament had adopted an amendment (n° 39) on public registers: "To facilitate monitoring, the location of GMOs grown shall be recorded in public registers". This amendment would require that records be made accessible to the public on the location of commercially cultivated GMOs.

The proposal met with some stiff opposition from the Council, notably from a few Member States such as the UK. Opponents of the amendment raised various arguments, such as Public Registers placing yet another burden on farm-

ers already snowed under with paper work, and the fact that 'eco-warriors' might use the information recorded in public registers to illegally destroy GM crops. Supporters of the amendment, however, dismissed the argument that Public Registers would be unacceptable administrative burden. As pointed out by those in favour, in-

cluding the European Society of Chartered Surveyors, Public Registers of GMO crops can easily be maintained using a map-based system of the kind used to record crops grown under already existing EU schemes, e.g. for recording set-aside and arable subsidy payments (satellite tracking and mapping).

Even the Parliament itself, which had voted by 315 in favour of the amendment in second reading, seemed to be back-sliding in the conciliation discussions at one point. The Socialists came under fire from their Green colleagues in the European Parliament when they appeared to be about to concede the point on Public Registers, an amendment which had been tabled by their own rapporteur David Bowe (PES, UK). In a press release of 10<sup>th</sup>

November, the Greens accused their Socialist colleagues in the Parliamentary delegation of bowing to industry pressure by failing to push for the Public Register amendment. Commenting that the provision of Public Registers was one of the good things to come out of the second

reading, Friends of the Earth also urged MEPs not to let this important amendment become a casualty of the Conciliation Procedure.

In the end, it was agreed that the location of GMOs grown commercially must be notified to the Competent Authorities of the Member States and "shall be

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Friends of the Earth

made known to the public in a manner deemed appropriate by the authorities". Member States must also establish Public Registers for all GMOs released for field trials. This is good news, although exactly how well it will work in practice remains to be seen. The current Directive 90/220 already stipulates that information about field trials of GMOs cannot be kept confidential - yet many Member States either flaunt or take the legislation to the very limit by making access to information about experimental releases as difficult as possible.

### **Antibiotic-resistant marker genes**

Although many public interest groups, including the British Medical Association, have called for marker genes which confer resistance to antibiotics (ARMs), to be banned, the European Parliament only adopted a very weak compromise amendment (n° 48 and 52) on this point in second reading. The amendment called for particular consideration of GMOs containing ARMs "in order to identify and phase out by 2005 antibiotic resistant markers in GMOs which may have adverse effects on human health and the environment".

Following the Conciliation Procedure, there is now a time frame for ARMs in both commercial and experimental releases of GM crops: In the case of GMOs released for commercial cultivation, ARMs will have to be phased out by the end of 2004; for GMO trials, ARMs must be phased out by the end of 2008. Until those dates, the environmental risk assessment carried out on new GMOs should pay special attention to the point of ARMs on a case by case basis.

***This pushes the deadline for eliminating ARMs back even further***

This pushes the deadline for eliminating ARMs back even further. It also still leaves open to interpretation exactly what constitutes - and in the eyes of who -, "adverse effects on human health and the environment" since the scientific community itself is divided on this issue.

### **Exemptions for pharmaceuticals**

In second reading, the Parliament adopted an amendment calling for exemption of GMO pharmaceuticals for human use (such as vaccine-producing potatoes) on condition that such GMOs are subject to the same risk assessment procedures as those foreseen under Directive 90/220. The compromise reached in the Conciliation Procedure foresees exemption of GM medicinal substances and compounds provided that voluntary release is not carried out with the intention to place on the market. For experimental (research) releases, the revised directive will apply, including risk assessment.

### **Labelling and traceability**

All products authorised under the revised Directive 90/220 will be labelled "this product contains genetically modified organisms" (as opposed to "this product contains or consists of GMOs" as adopted by the Parliament in second reading, amendment n° 35). The European Commission, which has already circulated to Member States a working document on "Traceability and Labelling of GMOs and products derived from GMOs", will commit itself to making a legislative proposal in this regard prior to the end of 2001. (Next year will therefore be a busy year for the Commission which has also committed to propose legislation for **environmental liability**, including GMOs, before the end of 2001.)

Lack of traceability and labelling of GMOs continue to be one of the main reasons for the on-going EU moratorium on GMO approvals. At least half a dozen Member States are known to favour continuing with the moratorium until this important question is resolved (*see separate article in this Mailout*). As a matter

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of information, the European Commission has now indicated that the proposal for a **Novel Feed Regulation** - promised in the White Paper on Food Safety for September this year - has been shelved pending progress being made on traceability and labelling.

### **Alignment with the Biosafety Protocol**

The text adopted by the European Parliament in April made several references to the Biosafety Protocol, in particular amendment n° 28 which calls on the Commission to bring forward a proposal to implement in detail the Cartagena Protocol on Biosafety within six months of signature". Following conciliation, the Commission will be requested to present a proposal by July of next year which should meet Parliament's desire to comply with the requirements of the Protocol, particularly as far as exports of GMOs are concerned (notifications to and Advanced Informed Agreement from importing countries).

### **Third reading and implementation**

As mentioned above, formal adoption of the text resulting from the Conciliation Procedure is expected to happen in early January, with the third reading in the European Parliament in February 2001. Transposing the new directive into Member States' national legislation should be completed by the end of 2002.

## **GM CROP RISKS ARE UNKNOWN SAY US SCIENTISTS**

A review of the environmental risks and benefits of GM crops published in the 15<sup>th</sup> December issue of the US journal "Science" concludes that it is not possible to predict the long-term impact of GM crops because of the lack of reliable evidence.\* The authors, both scientists with the US government (one at the Environmental Protection Agency, the other at the State Department), say genetic engineering and selective breeding may not have the same long-term effects. According to one of the authors, "We are ways away from really having the answers".

The experts based their conclusions on a review of all the scientific literature relating to genetically engineered plants. They say neither the risks nor the benefits of GMOs are certain or universal. The ability of scientists to predict the ecological impacts of introduced species, including GMOs, is imprecise and the data at their disposal is limited. This uncer-

tainty may require modifications in risk management strategies, say the scientists.

**"We are ways away  
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the answers"**

The review highlights many uncertainties and unresolved issues:

- neither the risks nor the benefits are certain or universal;
- our capacity to predict ecological impacts of introduced species, including GM crops, is limited;
- additional, unidentified risks could emerge as the "the frequency and scale of the introduction increases";
- GM techniques increase the range of possibilities for causing harm or bringing benefits;
- the ecological consequences of cross-pollination in natural habi-

tats "largely remain unstudied";

- "carefully designed experiments are needed to ascertain what effect individual transgenic crops have on agrochemical use".

Environmental groups including FoE welcomed the report as vindication of their concerns that GM research is moving too fast. "This review hits the nail very firmly on the head and backs up what we have been saying for many years", said Pete Riley, Food Campaigner at Friends of the Earth England/Wales/Northern Ireland. "The alleged benefits of GM crops are not based on independent studies and there is hardly any research on the long-term environmental risks. The question is: why has the biotech industry been allowed to grow commercial crops when the scientific case is so feeble? The biotech industry is using us as guinea pigs and the environment as an open-air lab".

\* *"The Ecological Risks and Benefits of Genetically Engineered Plants"*, L.K. Wolfenbarger and P.R. Phifer, "Science", Vol. 290, 15<sup>th</sup> December 2000.

## **NO END IN SIGHT FOR THE GMO MORATORIUM**

Despite the insistence of the European Commission that it will push forward its proposal for voluntary "gentleman's agreements" with the biotech companies to break the moratorium on GMO approvals (*see Mailout Volume 6, Issue 5, 31.07.00*), all the evidence points to the fact that a majority of Member States have no intention of lifting the moratorium for the foreseeable future.

In July this year, Environment Commissioner Margot Wallström and Consumer Affairs Commissioner David Byrne announced that as soon as the Conciliation Procedure for the Revision of Directive 90/220/EEC was complete, they would enact a Commission initiative to speed up authorisations, using voluntary agreements under which industry would agree to comply with the revised directive before it comes into force (expected end of 2001 - *see separate article in this Mailout*). Despite many protests that "gentlemen's agreements" with industry are unacceptable, the Commission appeared to remain firm on this point, calling into play the fact that 'the moratorium is illegal' and that 'it is the Commission's role to enforce EU law', although many suspect that pressure from the biotech companies as well as the US government is the real reason.

Member States have other ideas, however. The five countries spear-heading the moratorium - Denmark, France, Greece, Italy and Luxembourg - have no intention of allowing any more GMO approvals in the EU until the vital issues of traceability of GMOs and liability of the biotech companies have been resolved. Other countries, such as Austria and Belgium and even Sweden, lean towards this position as well. Since proposals for traceability and labelling are still at the 'Working Document' stage, and the text for the Environmental Liability Directive is only expected by late 2001, the Commission will have to shelve its "gentlemen's agreements" initiative and accept that the moratorium lives on.

## ***FoE DISCOVERS ILLEGAL GMOs IN EUROPEAN SUPERMARKETS***

In the wake of the illegal StarLink maize scandal, Friends of the Earth has discovered that varieties of GM maize not authorised in Europe either against Directive 90/220/EEC or the Novel Food Regulation are present in some food items on European supermarket shelves. FoE tested samples of products from Austria, Belgium, Denmark, Spain and the UK at the independent laboratories of GeneScan in Freiburg, Germany, to detect the presence of any illegal varieties not authorised under EU law.

### **Denmark**

Kim Zapatas chips bought in Denmark were found to contain both Monsanto's GA 21 as well as traces of De Kalb DBT 418, neither of which are approved for cultivation or for import by the European Union (NB: De Kalb is owned by Monsanto). Following the revelation by FoE, Kim's immediately withdrew the product from the market. The Danish authorities subsequently carried out their own testing and confirmed the results announced by FoE following analysis at GeneScan. Danish Food Minister, Ritt Bjerregaard (formerly EU Environment Commissioner) has announced that she will work for an EU common policy on analysis and control of GM foods.

### **U.K.**

Tortilla chips marketed under the Phileas Fogg brand, as well as by supermarkets Safeway and Asda under own brands, were found to contain Monsanto GA 21. In addition, other own brands from supermarkets Tesco and Sainsbury were found to contain traces of De Kalb DBT 418.

As pointed out by FoE, Monsanto is currently seeking EU authorisation against Directive 90/220/EEC for its GM maize GA 21 which has been manipulated to be tolerant of glyphosate (Monsanto's

RoundUp). The EU's Scientific Committee on Plants recently (22<sup>nd</sup> September) delivered its opinion on GA 21, considering that there is no evidence that GA 21 is likely to cause any adverse effects on human health and the environment. A UK government committee, however, concluded earlier this year that there was insufficient information on whether GA 21 could provoke allergic reactions. An application for EU approval of De Kalb DBT 418 was withdrawn in 1999 after concerns were raised about its potential health impact.

### **Belgium**

Neither of the above varieties of illegal GM maize were detected in the samples purchased in Belgium but an approved variety - Novartis Bt 176 - was detected in quantities far in excess of the 1% threshold above which food products must be labelled as containing GMOs. Analysis of Hansmann's pancake mix, made in the USA and sold by some Belgian supermarkets, indicated the presence of as much as 6% of Bt 176! FoE is currently pursuing contacts with the Belgian authorities, the supermarket chain concerned, the European Commission and the American manufacturer on this violation of EU law.

***Why is it left to an environmental organisation to expose the presence of illegal GMOs in food, and the non-respect of EU labelling laws?***

Once again the question arises: As in the StarLink case, why is it left to an environmental organisation to expose the presence of illegal GMOs in food, and the non-respect of EU labelling laws? What FoE has discovered so far is clearly only the tip of the iceberg - reinforcing the urgency for EU traceability and labelling legislation.

## ***FoE BRIEFING PAPER ON LIABILITY FOR GMOs***

Friends of the Earth has published a Briefing Paper "No GMO Liability? No Releases!" explaining why biotech companies should be forced to pay for damage to the environment and health caused by GMOs (*available on request - see p. 8*).

Referring to the various GM seed contamination scandals in Europe this summer, FoE points out that the polluter is not being forced to pay since none of the companies involved in GM seed pollution have been held legally liable for the damage that occurred. Biotech companies which hope to profit from GM technology in food and agriculture are quick to claim potential benefits but less keen to face up to the uncertainties of GMOs, says FoE, including effects on other crops or species, damage to eco-systems, human and animal health, as well as socio-economic factors.

The EU's proposed Environmental Liability directive is 'too little, too late' says FoE. The earliest a future directive could be transposed in national law is 2005. Meanwhile, the White Paper on Environmental Liability undermines 'the polluter pays' principle by: - restricting damage to the environment to so-called 'dangerous activities'; - forcing victims of damage to prove the polluter is liable; - proposing that liability for GMOs should be dealt with under a general legal framework thereby ignoring the unique nature of GMOs; - ruling out claims for previous environmental damage; - restricting liability for damage to biodiversity to a small number of protected habitats; - requiring 'significant' damage to occur before liability is acknowledged; - limiting access to justice for public interest groups.

## ***AVENTIS T25 : UK SEED LISTING IN CHAOS***

The commercialisation of Aventis T25 GM maize (herbicide-tolerant to glufosinate) has suffered a major set-back since the UK's Ministry of Agriculture, Fisheries and Food requested that a public hearing on the seed listing of 'Chardon LL' (a line of T25) be suspended. The request followed revelations that testing required for approval against EU Directive 90/220/EEC authorisation procedure may have only been carried out for one year by the French authorities, instead of the two years required by the directive. The UK government is now awaiting advice from the European Commission as any discrepancies in the original 90/220 approval procedure could have serious EU-wide implications.

The Public Hearing, estimated to cost half a million pounds and which had already lasted several weeks, was initiated by Friends of the Earth England/Wales/Northern Ireland after the British government announced, in April this year, its intention to allow 'Chardon LL' onto the national seed list. Since the beginning of the Hearing, Aventis has refused to give evidence and has been dogged by critical statements from top scientists.

### **Speak up or lose**

In early October, Alun Alesbury, the senior lawyer chairing the Hearing, told Aventis that its application to have 'Chardon LL' listed was likely to fail if the company failed to provide witnesses or participate in cross-examination of witnesses. "The Friends of the Earth representation contains a considerable number of questions in relation to the soundness of any potential decision to add 'Chardon LL' to the national list, which as a straightforward matter of fact are in no way at all answered in the Aventis written representations" said Mr. Alesbury. "I will have to report to

Ministers that there are numerous points of objection which were not addressed in Aventis' original submissions and which have not been answered at all by evidence at the Hearing".

***"As a scientist I wouldn't drink milk from cows fed GM maize with the present state of knowledge"***

### **Scientists hit out at safety tests**

On 18<sup>th</sup> October, Professor Bob Orskov, OBE, Director of the International Feed Resource Unit and a leading expert on ruminant nutrition, appeared as an expert witness for FoE at the Hearing. "The scientific case put forward for this GM maize is not adequate", said Prof. Orskov. "If the GM maize was approved for commercial growing in the UK, then people would be justified in turning their back on consuming milk derived from it ... As a scientist I wouldn't drink milk from cows fed GM maize with the present state of knowledge". Prof. Orskov continued: "Chemical analyses of the kind reported cannot identify potential problems. We need to carry out proper, long-term tests both on the effect of the maize silage for the microbes in the stomach of the ruminants which digest the feed and on the host animals. This has not been done".

Professor Orskov's concerns were echoed by Dr. Vyvyan Howard, Head of the Foetal and Infant Toxicology-Pathology Group and Liverpool University, who dismissed claims by Aventis that safety tests are not needed because 'Chardon LL' is not "materially different" from conventional varieties. "My interpretation is that this GM maize has not been tested thoroughly", said Dr. Howard. "They have taken a protein from another plant and fed it to rats. I do not feel this can be

used as a basis for making judgments about the safety of this maize with respect to cattle."

### **Aventis research severely criticised**

On 3rd November, two scientists working on chicken studies for the Ministry of Agriculture, Fisheries and Food at Britol University told the hearing that Aventis' own feeding studies of chickens was severely flawed. Dr. Steve Kestin and Dr. Toby Knowles were requested by FoE to peer review Aventis research comparing broiler chickens fed GM maize with those fed on conventional maize. The two scientists said the research was "inadequate" and "not of a standard that would be acceptable for publication in a scientific journal". They also voiced concerns about "suspicious" higher death rates among chickens that ate the GM maize during the study. Other criticisms made by Drs. Kestin and Knowles were that there were "far too few replicates" used in the study and an absence of a positive control which was a "major flaw in the design of the study".

After the hearing, Dr. Kestin said "It's astonishing that this study has not been assessed and found wanting by the government, and that it's down to Friends of the Earth to have it properly reviewed".

### **Hearing indefinitely postponed**

On 15th November, Mr. Alesbury announced that the Hearing was indefinitely postponed following the government's request.

### **Italy maintains ban**

Meanwhile Italy is sticking to its ban (announced on 4th August) of 4 GM maize varieties, including Aventis T25. Farm Minister Alfonso Pecoraro said that the government maintains its position that they are not 'substantially equivalent' to conventional varieties, as claimed by the companies in their notifications against the Novel Food Regulation.

# ***GM SOYA IS NO SOLUTION TO BSE CRISIS***

## ***Let EU farmers grow more fodder crops***

Many consumer-interest and environmental groups including Friends of the Earth have expressed serious concerns that emergency EU restrictions on animal feed may lead to millions of tons of genetically modified soya being imported into Europe.

In response to EU-wide panic following recent cases of BSE in French, German and Spanish cattle, the EU's Farm Ministers agreed on 4<sup>th</sup> December a six month ban on the use of meat and bone meal (MBM) in all animal feed as of 1<sup>st</sup> January 2001. The ban extends not just to cattle but also pigs, poultry and even fish farms. Fish meal may still be used to feed pigs and poultry.

As a result, alternative high protein feed has to be found to replace the estimated 1.9M tons of MBM previously fed to the Union's huge livestock population, and it is reported that the EU is already importing soya from the United States, which is not segregated and almost certainly contains genetically modified varieties. The Wall Street Journal of 7<sup>th</sup> December reported that the EU had recently purchased half a million tons of US soya but had handled the purchase "very discreetly" given European sensitivity to GM food. Total imports of non-segregated soya from the US over the coming months could amount to several million tons.

In a press release of 12<sup>th</sup> December, Friends of the Earth said that serious lessons have to be learned from the BSE crisis, notably that we should stop messing about with what we put in the food chain. "Recent disasters have shown how miserable the whole EU food production system is. We should not now accept a lesser of two evils scenario", said Sofie Krogh-Andersen, GMO campaigner at FoE Denmark. "It's like being asked to chose be-

tween the plague (BSE) or cholera (GMOs)!" Adrian Bebb, Real Food Campaigner at FoE England/Wales/Northern Ireland pointed out that consumers have made it clear that they want to avoid GMOs and many food companies have responded positively by going GMO-free. (In March this year, FoE revealed that more than 20 of Europe's top food producers – including Nestlé, Danone and Campbell's - had either gone GMO-free or were moving to eliminate GMOs from their products.) "It would be outrageous if, as a result of BSE, even more GMOs are imported in the EU", he said. "This is just replacing one consumer health/environmental catastrophe with another potential problem".

***Industrialised agriculture - the 'Green Revolution' - has given us DDT, BSE and new variant CJD - now it wants to give us GMOs.***

Commenting on the fact that Europe may be forced to import GM crops under EU/US trade deals such as the Blair House Agreement, Gill Lacroix, Biotechnology Coordinator at FoE Europe, said it would be completely unacceptable to European consumers for the EU to import GMOs from the United States, rather than encourage its own farmers to grow more fodder crops. Reacting to EU Agriculture Commissioner Fischler's remarks that 'Europe can't grow soya and imports are therefore inevitable', she said there are many alternatives for EU farmers. "Europe can grow other high protein crops such as lupins, peas, etc., and we can also import GMO-free soya from Brazil".

Under the Blair House Memorandum of Understanding on Oilseeds, which was negotiated as part of the

final Uruguay Round of GATT (and which is contained in the EU's WTO schedule of commitments), the EU's production of oilseed crops, including sunflowers, soya, etc., is limited and farmers face financial penalties for over-production. On the other hand, they are paid to set aside land for non-cultivation. There is therefore a financial disincentive for farmers to grow oilseed crops, while subsidies under the EU's Common Agricultural Policy are higher for cereals such as wheat.

### **Greenpeace blocks ports**

Greenpeace has already started blocking the arrival of ships carrying GM soya at ports in France, Italy and The Netherlands. In Chioggia, Italy, Greenpeace activists boarded the Argentinian vessel "Auk" which was carrying 30,000 tons of soya destined for use as animal feed. In Bordeaux, where the bulk carrier "Polydefkis P" docked to deliver GM soya, Greenpeace blocked the harbour's cranes until receiving an assurance that only GMO-free soya would be unloaded. The Greenpeace action led to importer Central Soya, a subsidiary of food processing giant Eridania-Behin-Say, promising that it will only process non-GM soya beans in future at their Bordeaux facility

### **India ready to fill the gap**

Although Brazil is thought to be able to provide as much GMO-free soya as the EU wishes to order, India, whose soya production will be 5.3M tons for 2000/2001, is also interested to help fill the gap for high-protein animal feed in the EU. The Soybean Processors Association of India (SOPA) said it hoped to send a delegation to Europe and review the market. "If we can exploit this situation, it would be beneficial for domestic traders as there is a good demand in the European market for non-GMO commodities", said O. P. Goel, head of SOPA.

*As mad cow tightens its grip on Europe, and one food crisis follows another, year-end is a good time to reflect on past times when farming and man's relationship with animals and the environment was more respectful.*

*Things can be different, as this gentle tale from Greece demonstrates ...*

## **THE KINGDOM OF THE PIGS**

The traveller heading from the city of Trikala towards the Pindos mountain range (Southern Alps) sees the imposing passage of the "Gate" opening in front of him. Through this passage - which looks like a wound opened by the sword of a Giant during the mythical times - the river of Oblivion, Litheos, spurts towards the plain to bring life.

The mountains, rising vertically like a gigantic wall, and the "Gate". The "Gate", the passage of the legends from the mountains towards the plain. Through this gate people passed after the earthquake, 50.000 years ago, in order to inhabit the plain which emerged from the bottom of the inner sea. Through this Gate, 13 centuries before Christ, were passing the servants of Aesculapius, bringing the miraculous mountain herbs to the father of Medicine. Through this Gate, nations and civilizations, merchants and invaders, passed towards the plain. In the 11<sup>th</sup> century BC, the Doric Nation; in the 2nd century BC, the Roman legions passed through heading towards Pidna for the battle which determined the fate of the Macedonian King Perseas.

Through here passed Gauls, Crusaders, Bulgarians and the armies of the Serbian Empire which started from Kosovo and reached the Patraic Gulf. The Gate of travellers, merchants, warriors, nations, civilizations, the Gate of legends and history. A place of rare beauty, imposing and ancient, which, when you get closer, makes you feel the unbearable burden of history on your shoulders.

The mountains, the Gate and the plain. The cradle of the 32 greek

nations, their passage towards history and the place where the discovery of agriculture and stockbreeding gave birth to civilization.

The boundaries among the ancient kingdoms of the farmers, who cultivated wheat for the first time, and the stockbreeders who used the acorns, chestnuts and the rich mountain grasslands in order to feed their spreads of goats, sheep, pigs and small cows. The place where History was born. The place where people still cultivate wheat on the plain and still graze their animals on the mountains. Exactly like when it all started.

November 2000 : a few kilometres to the right of the Gate, at the foot of the mountain, on the line where the short mountain range of Hasia connects Pindos with Olympus and marks the plain towards the north, there lie the stockbreeders' villages of Pialia, Megarhi, Oihalia, Diasselo, Eleftherohori.

Pialia is a village of pig breeders and shepherds. It is the same as it has been since ancient times.

The average animal capital of each family is 30 female pigs and 200 sheep or goats. Pialia : a village, a world of boundaries, a boundary of the worlds, a place where the 21st century meets the 13th century BC. Today the village, built at the foot of the mountain, lives simultaneously in two ages. The families living at the side of the plain breed their pigs in small, industrial-type farms. The families living at the side of the mountain, breed free-range pigs in the forest. Their farms are simply small, wooden constructions under ancient walls (possibly the walls of the ancient kingdom). There they enclose the female pigs in order to give birth and keep the newborn safe from wolves and bears until they are 30 days of age. Then the animals are set free in the forest. Apart from some corn that they give to the animals in order to get them used to returning to the farm at night, the animals feed on what they find in the ancient forest : roots, acorns, chestnuts, mushrooms.

Those are strange pigs not like those bred at the industrial farms. Their owners crossbreed pigs of ancient races with wild boars which they catch on the mountain, the result being that almost every farm breeds its own race of



animals. Their productivity and output are extremely close to the output of improved hogs which are bred at the industrial farms of the plain. And their robustness and good health could cause a nervous breakdown for the veterinarians and antibiotic salesmen of the 21st century.

Strange animals with strange stockbreeders who live in two ages. Their houses have all the comforts of a 21st century house, they themselves use mobile phones and go to their farms with modern 4X4 pick-ups. They still bake their bread, however, on wood according to the ancient way and throw coins into the coffins of the dead in order for them to be able to pay the ferryman which will take them to the other world.

The answer to the question of the contemporary traveller - how those people survive together with their animals in the age of industrial stockbreeding ? - is simple.

They base their survival on memory. Here come the inhabitants of the near villages, those who insist stubbornly on cultivating wheat in 4 hectare fields, in order to buy pigs, sausages and pork meat for their Christmas table. From here the families of the plain buy small pigs which they will rear at their houses for Christmas. Ancient people, still keeping alive the ancient tradition. The pigs fattened for December, to honour the

Goddess of Agriculture Demetra, survived through the Christian age together with the Christmas customs of the Greeks. The stockbreeders of free-range pigs survived as well. It is not by chance that such stockbreeding farms still survive in the ancient places : in Pitalia, the ancient kingdom of hogbreeders ; at the foot of Olympus, the mountain of the Gods ; in Arcadia, at the mythical kingdom of Lycaon ; in Thrace, at the ancient kingdom of



Diomedes ; at Vermion, the cradle of the ancient Macedonians. That is where memory still transforms the places into ways.

Perhaps this is not a handy anachronism after all. Perhaps such places show us the solution to the tragic dead-ends of contemporary industrial stockbreeding, with the inhumane

breeding conditions, the antibiotics and the products of dubious quality. Perhaps the solution for our modern problematic societies also lies here, in the activation of people's memory.

When Ulysses returned to Ithaca following his 10 year wanderings in the 13th century BC, after the Trojan war, he couldn't go to his palace. The king's palace was invaded by suitors who wanted to kill him in order to marry his wife and change things in his kingdom. Homer, the blind poet, said that the King found shelter at the house of Evmeos, his loyal pig herd, where he prepared his reaction.

Is this just a coincidence or does the blind poet give a lesson through time, 33 centuries after his era? Perhaps, after all, Ulysses, with all the voyages and adventures he suffered because he defied the Gods and ate the Sun's cattle, is nothing more than a contemporary man who, confused, broke natural laws.

Is returning a solution? Nobody knows. The fact is that in Greece, at the place which once was a way, the descendants of Evmeos, the loyal pig shepherds still survive waiting for something.

Perhaps they are waiting for the Man, the lost King who, after 33 centuries, still travels not knowing his destination. (*Vangelis Stoyannis, Nea Ecologia/FoE Greece*)

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