

GREENING THE CAP

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UN expert says EU farm policies 'impossible to satisfy'



European efforts to make farming more environmentally friendly have done little to address its growing ecological footprint abroad, says a UN expert who calls for a shift to more sustainable consumption.

Olivier De Schutter, the UN special rapporteur on the right to food, criticised European Union farming policies for driving demand that is "literally impossible to satisfy" and requiring vast amounts of "virtual land" in other countries.

"The EU today uses 640 million hectares of land, which is about 1.5 times its own surface," De Schutter, a Belgian law professor who serves as an independent expert to the United Nations, said in a recent speech.

Demand for biofuels, livestock feed and flowers are driving plant and imports from emerging markets in Asia, Latin America and increasingly Africa.

"Globalisation places populations with very divergent purchasing power in direct competition," De Schutter said at a 20 March event in Brussels hosted by the Compassion in

World Farming charity.

The UN Conference on Sustainable Development, which takes place in Rio de Janeiro in June, offers the opportunity to move away from a "productivist paradigm" and commit to "sustainable production", De Schutter said.

More people, more conflicts

Concerns about conflicts between food production and resource sustainability are reflected in a new UN Food and Agricultural Organisation report. It forecasts a 70% rise in global agricultural demand by 2050 – and a doubling of need in low- and middle-income countries – at a time when food production faces threats from climate change, unsustainable water use and deteriorating soil quality.

EU officials have pledged to use the Rio event to promote European policies and, as Environment Commissioner Janez Potočnik has said, to seek "targets, timeframes and political direction" to protect the ecology and create a "zero-waste economy."

Meantime, the European Parliament and national governments are in the process of reviewing the European Commission's plans for 'greening the CAP'.

The proposals are aimed at improving biodiversity and reducing greenhouse gas emissions; using CAP direct payments to encourage farmers to rotate crops as a way to reduce fertiliser and pesticide use; and preserve at least 7% of land for focus areas such as buffer areas or permanent grassland to help reduce emissions.

It also seeks incentives to make livestock farming more compatible with other environmental goals, including reducing farm runoff from manure that contributes to nitrate pollutants in waterways.

Yet such policies have sparked a debate about whether Europe should be considering limits on production when it must import ever-growing amounts of commodities from around the world.

"Today we produce 35 million hectares outside of Europe for our feed and food needs," said Friedhelm Schmider, director general of

the European Crop Protection, an industry group representing the pesticides industry. "So we produce in Africa or in Asia for our food in Europe, which is called land-grabbing."

Schmider told EurActiv in an interview that "we have to increase the land productivity but we have to do it in a sustainable way."

Super-sized diets and waste

Western habits also have other impacts, experts say.

Rich-nation diets are spreading globally – especially to mushrooming middle classes in emerging countries like India, Brazil and China – and with them rising consumption of meat and food that are contributing to soaring levels of obesity, World Health Organisation figures show.

Food waste is a global problem – with consequences for the environment and supply chain. The European Parliament recently called for "radical measures" to slash food discards to conserve natural resources and cut landfill disposal.

"Many, many more are

overeating as compared to the number of people who don't get enough," Jan Lundqvist, senior scientific advisor at the Stockholm International Water Institute, told EurActiv recently.

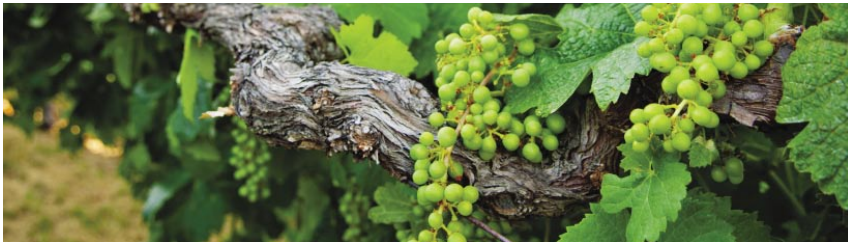
He worries that excess food consumption is destined to grow as middle classes expand in developing countries. "I think those aspects must be considered when we talk about the problems of feeding the world or to supply water."

De Schutter told the UN Human Rights Council in Geneva on 6 March that the spread of Western eating habits was undermining efforts to improve nutrition globally and spurring a rise in obesity.

"Urbanisation, supermarketisation, and the global spread of Western lifestyles have shaken up traditional food habits. The result is a public health disaster," the UN expert said in Geneva.

He called for taxing unhealthy foods products; regulating foods high in fats, sugar and salt, restrictions on food advertising and revamping "wrong-headed" farm subsidies and doing more to support local crop production.

Efficacy of EU's 'green' CAP reform questioned



Farmers' organisations worry that the European Commission's plans to make the Common Agricultural Policy (CAP) more environmentally friendly could leave producers drowning in paperwork.

Yet researchers who have studied farm support programmes such as the EU's CAP say simplification of incentive schemes to encourage sustainable agriculture may not achieve the desired results at all.

Paul Wilson of the University of Nottingham in Britain says conservation and biodiversity schemes need fixed goals with administrative oversight, "rather than simply rolling out general environmental schemes that will achieve some things but not necessarily the targeted types of things that you want."

Wilson and a research team from Britain, Denmark, the European Commission's Joint Research Centre and the United States contend that EU-style "payments for outcomes" are not as effective as "payments for actions".

The EU spends some €5.5 billion on incentives to promote conservation, the study says, a figure that could rise dramatically under the Commission's CAP proposals for 2014-2020 that include requiring land to be taken out of active cultivation to create ecological 'focus areas'.

'Simple and efficient'

The EU executive's plans for the 'greening the CAP' centre on:

- Improving biodiversity and reducing greenhouse gas emissions;
- Using direct payments to encourage farmers to rotate crops as a way to reduce fertiliser and pesticide use;
- Preserve at least 7% of land for focus areas such as buffer areas or permanent grassland to help reduce emissions.

Agriculture Commissioner Dacian Cioloş has called the proposals for the next CAP

– covering 2014-2020 – "both simple and efficient".

Yet farm groups and some national representatives have testified in the European Parliament they fear the EU executive's greening proposals could cause administrative headaches and even drive smaller farmers out of business – defeating goals to encourage small-scale production and to bring young people into a rapidly ageing industry.

The organisation representing European farmers and farm cooperatives – Copa-Cogeca – says the Commission's greening proposals would introduce new layers of reporting while threatening farm income by requiring, for example, that 30% of direct payments be linked to greening performance.

In a briefing paper issued in February, the organisation calls penalties for non-compliance with greening measures "unacceptable".

Referring to the Commission's ecological focus areas requirement, Pekka Pesonen, secretary-general of Copa-Cogeca, called the proposal counterproductive in economically tough times and amid demands for higher world food production.

Pesonen said in an interview that new greening requirement would entail "high-level administrative burden, meaning the farmers will have reporting responsibilities, and most probably the cost of production will go up."

The ecological focus area requirement "means when the farmers are already struggling to make their ends meet, they are facing a situation where part of the land is taken out of production."

Too generic?

But others say setting performance requirements may be the best way to achieve ecological results in a diverse, 27-nation bloc.

Henk Westhoek, part of a team from the Netherlands En-

vironmental Assessment Agency who analysed the CAP's conservation proposals, told EurActiv that generalised approaches are not the most effective way of achieving results.

"It's obvious in the work the Commission is proposing that quite generic measures have to be applied from north Sweden to the south of Spain, and there have been questions how effective are these measures," he said a telephone interview.

He suggested that better approaches would be to encourage farmers to work together – for example through cooperatives – to achieve environmental goals on a wider scale rather than through a patchwork approach based on single farms.

"We have a very good example of this in the Netherlands, where half of our country is covered by farmers' cooperatives who work together on green environment measures, which is very effective and also very stimulating for farmers."

The University of Nottingham's study on farm schemes – "The cost of policy simplification in conservation incentive programs" – was conducted before the Commission unveiled its CAP proposals in October.

But Wilson said any "broad-brush approach" to ecologically friendly farming is "a little simplistic". He acknowledged that more focused ecological requirements would create additional administrative burdens at the national and regional level to ensure compliance.

"It's not about micromanaging farmers and increasing administrative burden on farmers in any way," he said, noting that his study included input from farmers.

Solutions, he said, require policymakers to decide the biodiversity targets that make sense for regional conditions with corresponding administrative management at a national level – "different payments, in different areas to achieve different environmental outcomes."

Feeding the world: A green headache for policymakers

With upwards of two billion extra mouths to feed in the coming decades, food security has become a mantra in debates about Europe's farm-support programme and the UN's sustainable development agenda.

The UN estimates one-in-seven people do not have enough food to eat today, and analysts say nourishing the anticipated 9 billion earthlings by mid-century poses a clear challenge – especially for finding a balance between production and the ecology.

The solution is "beyond individual companies, it's probably even beyond individual countries," said Joachim Lammell, a lead researcher for the Norwegian-based Yara fertiliser company.

"It's not a question of lack of technical knowledge, it's absolutely doable. But it requires that more focus and attention is put behind this challenge," Lammell said in an interview with EurActiv.

Machinery, nutrients, pesticides and irrigation technology helped feed the post-war baby boom, and continuing advances

quality threaten future food production. In another warning about looming resource threats, the Organisation for Economic Cooperation and Development says in a new report that intensified farming to feed a more crowded planet will threaten freshwater supplies.

Wary Europeans

Such concerns resonate among the public and policymakers in Europe.

A Eurobarometer poll released last week showed that 90% of those surveyed believed agricultural pesticides and fertilisers have a large or moderate impact on water quality, and 77% believe overuse of water on farms has an impact on supplies.

The survey shows that concern about agricultural chemicals is nearly universal in Greece, France and Slovenia.

The evolving debate over the EU's Common Agricultural Policy (CAP) centres in part on how to balance environmental protection and future food needs.



could lift yields in parts of the world expecting the biggest population growth in this century, namely Sub-Saharan Africa and South Asia.

But such farming has consequences for the environment.

The UN Food and Agricultural Organization forecasts a 70% rise in global agricultural demand by 2050 – and a doubling of need in low- and middle-income countries – while warning that climate change, unsustainable water use and deteriorating soil

The European Commission has proposed CAP reforms beginning in 2014 that would encourage farmers to take 7% of their land out of production and reserve it for conservation purposes – so-called ecological focus areas.

Yet some farmers' advocates say any policy that would cut cultivatable land does not make sense given the coming spike in global demand.

"If we are to respond to world food security in general, or European food security, and produce more or less the same

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amount of food that we have produced so far, we would have to increase our productivity by that same percentage in order to meet the same volumes or volume quality," said Pekka Pesonen, secretary-general of the Copa-Cogeca organisation of farmers and agricultural cooperatives.

"This is not possible in the short run, and especially when we see a fairly difficult political climate in Europe against productivity improvements."

An organic solution?

Proposed incentives to encourage farmers to switch from single crops and large-scale production to crop rotation and diversification - techniques already used by organic farmers - also raise questions about the impact on production.

A study by researchers at the Wageningen University in the Netherlands shows that organic farming produces significantly lower yields - on average 20% lower - than crops grown with conventional methods.

While the report highlights greater environmental benefits of organics, it points out that it would require larger amounts of land devoted to farming to yield the same amounts as conventional farming.

Organic farmers manage some 9.3 million hectares in the EU, or 5% of farmland, according to the Research Institute of Organic Agriculture in Frick, Switzerland.

Lammel, head of product and application research and development for Yara, sees benefits in the EU executive's efforts to encourage the ecological focus areas in conventional farming.

Better land management, crop care and waste reduction can help address future demands and reduce the need to clear more land for farms, Lammel said, adding that European farm technology and knowledge can help developing regions with the highest population growth.

"We see a huge potential in the world outside Europe because there are so many farmers who do not employ current knowledge and technology," the researcher said.

"Very often you find in Africa, there is a lot of land which is used very inefficiently and if the people would get access to knowledge and technology, they could double, triple or quadruple their yields very easily," Lammel said. "Research and innovation [can help] develop further from the current yield level."

EU looks at technology to make farms greener

One way of meeting the European Union's goal of ensuring sustainability and competitiveness of the farming sector is through green technologies, says Janez Potočnik, the EU's environment commissioner.

The latest technological advances can slash waste and improve productivity, the environment chief told agricultural industry and policy leaders this week.

Phosphorus, an essential crop nutrient that must be imported, is a leading source of water pollution mainly due to agricultural runoff, Potočnik said.

"It is clear that there are many technologies and societal adjustments that could significantly improve the resource efficiency of this and other finite natural resources," he said at the Forum for the Future of Agriculture in Brussels on 27 March.

"Many of them are relatively low cost and need some political impetus to be taken up."

Funding agricultural research

The EU executive has proposed more funding for research and development linked to the ecology and resource efficiency in the LIFE+ environment fund, Horizon 2020 research programme, and the post-2013 Common Agricultural Policy (CAP).

Policymakers are also calling for more coordination and

shared funding to maximise the impact of public money in a time of fiscal austerity.

More than 300 research projects related to agriculture have been funded in the EU's current framework programme for research and development.

Recently funded projects include research into drought-resistant seeds, hand-held sensors using nanotechnology to detect even tiny amounts of contamination of ground water, and water purification.

In separate research that could benefit farmers globally, the Austrian laboratories of the International Atomic Energy Agency - better known for inspecting nuclear sites and verifying fission weapons treaties - are using nuclear techniques to monitor groundwater levels and to develop nuclear micro sensors to improve the efficiency of irrigation.

"Investments in research and development have proven to give a high return rate in other sectors, and agriculture is certainly not an exception," Potočnik said.

The EU executive plans additional support for research and development in the next round of CAP funding - pencilling in €5.1 billion out of the proposed €435.6 billion for 2014-2020.

Agribusinesses seek to catch the opportunity

The agribusiness industry sees advantages to boosting

farm research and technology - higher productivity at lower cost.

Yara, a global fertiliser company, has developed mobile optical sensors that can measure crop nitrogen needs. The Norwegian-based company says its tractor-mounted and handheld devices have been shown to cut fuel consumption and reduce fertiliser use while boosting crop yields.

The tractor-mounted devices cost upwards of €35,000 while devices slightly bulkier than a mobile telephone cost around €2,000. The hand-held device pays for itself in a couple of years through reduced fertiliser and fuel use, the company says.

This and other evolving technologies that cut plant nutrient and pesticide use could help address what the European Environment Agency has identified as a leading pollution threat in Europe - excess chemicals from farming. More than 90% of the EU's river basins are affected by nitrate and phosphorous pollution, the EU executive reports.

Egil Hognna, senior vice president Yara International, told EurActiv that having a technology edge is important but that Europe needs to consider its own productivity. He cited industry figures showing that EU commodity imports equal to nearly one-third of its arable land.

"For the European Union, this is a fundamental question, and also an ethical question: Is it sustainable in the future that

we continue to rely so much on food production on other continents instead of taking the responsibility for our own population and feed it?" Hognna said.

"We need to regain the focus on productivity because if we want to conserve our forests and wildlife habitats, we need to maximise the production on the agricultural land," Hognna said in an interview.

Driving smaller farmers out of business?

Some critics say the EU executive's CAP proposals go in the opposite direction, for example by calling for reducing land under cultivation and introducing measures to diversify crops.

Farm groups, MEPs and some national leaders fear such measures would drive smaller farmers out of business and limit yields at a time of rising global food demand.

But Potočnik defended the so-called greening proposals made by Agriculture Commissioner Dacian Cioloş.

Environmental stewardship must be "at the heart of the agricultural policy," Potočnik told the farming conference.

"Reconciling agricultural and the environment is possible and it is also very much needed, not just for agriculture, not just for the environment, but for the survival of all of us - the human race and the species we share this planet with," Potočnik said.



Pesticide makers walk fine line over public concerns



Manufacturers have recognised their failure to address concerns over the environmental and health risks of pesticides, promising “a huge change of mindset” in engaging with society while sticking to their traditional argument that their products are safe to use.

Friedhelm Schmider, director general of the European Crop Protection Association (ECPA), told EurActiv that the industry has learned from past mistakes and stood ready to address wider public concerns over safety and the environment.

“We got aware that our communication was based on facts and figures – something we are so proud of – but not really listening to societal concerns. And that was big, big give,” Schmider told EurActiv in an interview.

“This means we learn to say: ‘Yes, we consider carefully, we are responding and we are listening’. And we might not always agree but the point is to say we consider it very very carefully.”

This, he added, represented “a huge change of mindset” for the industry, which has long argued that its products are safe if properly used by farmers.

Responding to consumer concerns

When it comes to public perception, ECPA may indeed have a mountain to climb.

On the consumer end, anxiety rose after several studies found residual levels of pesticides in fruit and vegetables

put on supermarket shelves. The European Commission tried addressing those concerns by pushing through legislation banning the use of the most toxic chemicals – those that can cause cancer or affect the reproduction system.

EU legislation also sets limits for pesticides in food – the so-called Maximum Residue Levels (MRLs) above which consumption in large quantities can present a risk for human health.

Should consumers be worried about those trace amounts of pesticides in food?

Schmider certainly doesn’t believe so. “I could easily answer scientifically because the level or residue there cannot be a concern – it is far too low to be toxicologically relevant,” he told EurActiv.

“But this will not satisfy the society,” he admitted. “So we said we would like to bring exceeding of MRLs to zero.”

Saving crops – and the environment

Following the food contamination track, ECPA found many of the consumer issues the industry faced were due to farmers making improper use of pesticides – using too much of the wrong chemical or spraying too close to harvest.

Farmers, Schmider explained, are often tempted to spray excessive quantities, for example, to stop fungi from ruining a strawberry crop 24 hours before harvest.

He said farmers should look harder for alternative

ways. “There might even be a case for not using a particular chemical and use another chemical because it is better suited to the harvest time – 10 days before harvest, or five days before harvest. There could also be a case for diminishing the application rate because you are only three days before harvest.”

But efforts to curb pesticide use have so far yielded few results. Over the years, the consumption of pesticides has remained steady in Europe and has even tended to increase, Schmider pointed out, despite EU legislation aimed at reducing spraying.

As a result, pesticide contamination of European waterways is set to worsen in the coming decades, researchers warned in a recent study for the European Commission.

The EU executive took note of these warnings. In its proposals for the next Common Agriculture Policy, the Commission recommends measures aimed at encouraging farmers to use buffer areas and switch to crop rotation in an attempt to reduce both pesticide and fertiliser use.

Educating the farmers

On the frontline are the farmers themselves, who can suffer severe poisoning from exposure to pesticides, sometimes with fatal consequences.

A French association called ‘Phyto-Victimes’ demonstrated at the Paris agriculture show in February to denounce the

“disinformation campaigns” which they claim are commissioned by industry groups to suggest that pesticides are not poisonous.

Schmider said he understood those concerns but that most of the time, health risks can be avoided by educating farmers to “use the pesticides properly”.

“We have products which have to be biologically active and the consequence is that they have some side effects,” Schmider conceded. He said a safe use initiative, which has been running for over 15 years, will be extended and rolled out to cover all countries in Europe and all crops.

In some cases, Schmider said poisoning can be caused by the imprudence of field workers operating under a baking sun. “If you have to wear in a hot climate condition plastic clothing in which you are sweating like hell, you will not do it.”

“That’s a part where we need a regulation so that the farmers can get protected and get to wear their protective clothing. Normal rainwear is in most cases good enough to protect the farmers. But they have to wear it.”

Few alternatives

Another, more long-term route, is to develop safer alternatives to the most toxic chemicals. Regulatory pressure has already decreased the number of substances from around 1,000 to 1,500 active ingredients to about 450 today, Schmider points out.

“All this regulatory pressure

has led to a situation where we have less active ingredients, which is totally right. But overall the demand is not declining. It is stable or even increasing because we have to produce food.”

As a result, farmers have fewer products than before to rely on when confronted with a crop disease outbreak. And the research pipeline has not yet delivered the safer alternatives that farmers, regulators and the wider society have been calling for.

“When you talk about the most dangerous, the most toxic active ingredients – yes they will be replaced, can be replaced. That’s nicely on track,” Schmider said.

But developing safer chemicals that are still active in protecting crops is a daunting task, which requires many years of research and investment with no guarantee of success.

“Developing innovative products is like saying that you would like to go to the moon, but to get there is not so easy,” Schmider stressed. Today, he said there were only about five companies looking for new active ingredients when there were at least 10, 12 or 15 two decades ago.

“The reason is very simple,” he said. “You spend €200 million and you need roughly 10 years to get the new products. And this kind of investment, only a bigger company can afford.”

“So the dream to find very quickly a solution is not existing, especially with all the hurdles to put in place new active ingredients.”

Researcher: How to make food supplies secure and sustainable

Proper crop nutrition and sharing of knowledge and technology between developing and developed countries can help address the food needs of the planet's growing population, says a top researcher for the Oslo-based fertiliser company Yara.



Joachim Lammel is head of product and application research and development at Yara's Research Centre in Hanninghof, Germany. Excerpts of an interview with EurActiv's Timothy Spence follow:

Food security is a major theme internationally and in discussions on the EU's farm policy. What concerns do you have about food security going into the future?

Our concern is in principle based on the fact that the growth in global crop productivity – which means the annual productivity increase – is below the growth of the population. ... Population growth drives the demand and the growth rate in population is very well known, which means in an ideal world agricultural productivity would grow with this growth in demand, but that doesn't happen.

For example, the Millennium Development Goals of the United Nations said that in 2000, the number of malnourished people should be [halved] by 2015, and at that time we had about 700 million undernourished people, and in 2012 we have about 1 billion. The movement was actually the opposite of what the goal was, and that is a sign of food scarcity. ...

Today wheat is traded above €200 [per metric tonne] while from the '90s to 2007 the average grain prices was €110, €120 – and now we talk about numbers beyond €200. And that is again a reflection of the shortage ... If

grain prices doubles, naturally the consumption goes down which means the inventory numbers stay equal. But if you think about how to nourish the world and how to get stability, it shows that we are [heading] towards an unstable tract.

How do you address that – how do you reverse this trend of declining production, short of stopping population growth?

We aim at creating partnerships with industry partners throughout the world – at the [World] Economic Forum there was a publication, a new vision for agriculture – very interesting reading – where we say everyone involved in the agricultural sector should join forces to address it ...

It's beyond individual companies, it's probably even beyond individual countries. This has to be a joint effort but we believe it is doable. It's not a question of lack of technical knowledge, it's absolutely doable. But it requires that more focus and attention is put behind this challenge.

Studies show that productivity of land in mature markets is levelling off, or declining in some cases. What should be done to change that? Does it mean more land going into production?

First of all, it would be right and appropriate not to increase agricultural area for many reasons – to protect biodiversity, to protect [against] climate change. So in our mind, to employ larger areas for agricultural land is not the solution. ...

We see a huge potential in the world outside Europe because there are so many farmers who do not employ current knowledge and technology ... Very often you find in Africa, there is a lot of land which is used very inefficiently and if the people would get access to knowledge and technology, they could double, triple or quadruple their yields very easily.

If you take it from a global approach, there is a lot of potential with knowledge transfer in countries where agriculture is developing, and in countries where agriculture

is already well-developed. Research and innovation [can help] develop further from the current yield level.

Are you saying that Europe's best exports should be its knowledge and technology?

In my mind it's not an either or. Whether it's Europe or North America, a lot of agricultural research has been done historically in the developed world ... and it's more than appropriate to share that with the global agricultural community ...



Smallholders in Africa or Latin America – or wherever – can only increase income and produce more food by taking more land into production, as increasing productivity is not possible, but it is creating a problem which is beyond his imagination.

The IPCC [Intergovernmental Panel on Climate Change] published in its last report that about 12% of the global greenhouse gas emissions are related to land use change due to agriculture. This 12% is about equivalent to all emissions from EU27 – not just agriculture but industry and traffic. ... The consequence of this has led to a position of Yara as a company to say we advocate and support the idea of not extending the agricultural area, and this is based on the fact it would be very beneficial for the climate, it would be beneficial for biodiversity.

And we believe it can be done and still feed 9 billion people on the existing arable land if people get access to knowledge and technology and if there is a focus in the industrial world

on maintaining a healthy and productive agricultural. We believe it can be done.

And this can be done through crop nutrition?

This is one component. We are far away from saying crop nutrition can solve this challenge, but it is one component as plant breeding, water management and ... storage infrastructure.

I see that your company has just signed a deal in Qatar to turn desert into cropland using solar-

powered desalination and other technology. Is this the future – that the future 'green revolution' in agriculture will be in the desert?

On paper it should work. The purpose of this project is make it work in practice ... but this still very much a research project and feasibility study.

Let me turn for a moment to fertiliser runoff and pollution that the European and international environment agencies talk about – the nitrate pollutants that are affecting the Baltic and other areas. What it being done to address this?

The number one target is to make sure that fertilisers are used correctly, which means that farmers don't apply more than what is necessary and that they apply it at the time when it is appropriate. And that goes back to what we discussed, that you have a plan of how fertilisers

are managed.

There are a lot of data that show that if fertilisers are managed correctly, the discharge of nutrients from land is not much different than what the discharge would be if no fertilisers are applied. Only if too much fertiliser is applied, then there is an increase in discharges – there are increasing losses to the environment.

Is this the problem we have in Europe – on the French coast for example ...

I'm not so sure it is the sole cause of the problem because it is a multifactorial issue, but it contributes. It's very easy said to apply the right quantity ... The issue is that agriculture operates in nature and not every year is the same. If the climate would be constant, to optimise agriculture is very easy.

But since the climate is different – you sometimes have a dry spring, a wet spring, you have a drought and the drought means less crop growth, and you should naturally reduce the fertiliser rate – all these climatic conditions change the yield potential and that makes it difficult for the farmer ... People should adjust within the growing season how much fertiliser they actually require ...

We believe fertiliser should be applied in several doses throughout the growing season but a farmer needs some tools to judge the requirements of the crop and we do research to develop such tools.

The buffer strips and ecological focus areas that European Commissioner [Dacian] Cioloş is proposing, these will also help?

Buffer strips are designed to reduce the runoff. They are largely for surface runoff and they are also designed to avoid a direct intake of nutrients or plant protection products into the water.

Is this a good proposal that he is making – it seems to be very controversial?

I think it's a good proposal. The debate is about how wide should the buffer strip be – and scientists tend to have different opinions...

Pesticides chief: 'We were not really listening to societal concerns'

After years of trying to persuade consumers that their products present no health or environmental risk, the pesticides industry has now recognised its failure to address wider society concerns. Friedhelm Schmider of industry group ECPA promises "a huge change of mindset" in engaging with consumers and farmers.



Friedhelm Schmider is director general of the European Crop Protection Association (ECPA). He was speaking to EurActiv's editor Frédéric Simon.

ECPA recently announced a change of direction in the way it communicates about society concerns regarding pesticides. Why is that?

We got aware that our communication was based on facts and figures – something we are so proud of – but not really listening to societal concerns. And that was big, big give. And learning that curve to listen what the society concerns are and responding to them and talking with the same language and not with the scientific language is a major change.

And this has big consequences. If you would like to listen and to respond, then of course you have to open, invite people to criticise you, responding and listening carefully.

When I talk about a huge change of mindset, this means we learn to say: 'Yes, we consider carefully, we are responding and we are listening'. And we might not always agree but the point is to say we consider it very very carefully.

At the last agriculture show in France, farmers'

organisations have staged a demonstration to protest against some of their members who had been intoxicated by pesticide vapours, leading to serious health problems. What are your answers to the concerns expressed by those farmers?

Let me put this in two ways. One is more driven by research and innovation, and of course we are looking all the time for new innovative products. That is one part. But it's not easy to get that because it takes 10 years to develop new active ingredients.

The other part is more important – because it can act immediately – and that is to educate and help the farmer to use the pesticides properly. Being really careful with it because we have products which have to be biologically active and the consequence is that they have some side-effects. And you have to manage it properly with education programmes, with training programmes looking at the problem and responding to it.

Have you identified specific regions or countries where farmers were not well trained in how to handle the products they were using?

We have been running a 'safe-use initiative' in some pilot countries for over 15 years, something like that. But it was more driven to countries where there might be specific problems.

Our new intention is to go to all countries, in all of Europe and look for the training needs, not looking for pilot countries or specific crops but all countries and all crops.

Have you identified a lack of training on how the pesticides are used by the farmers - generally speaking?

I have an example in Spain where the farmers were not wearing any protective clothing. It seemed it was just a question of style. Because one started it, then the others followed and it was just a style.

Scientifically, sometimes you have regulation where

– because it is a chemical – the authorities ask for protective clothing, like when using a high-toxic compound. Even a normal rainwear will help, but if you have to wear in a hot climate condition a plastic clothing in which you are sweating like hell, you will not do it.

That's a part where we need a regulation so that the farmers can get protected and get to wear their protective clothing. Normal rainwear is in most cases good enough to protect the farmers. But they have to wear it.

Can you give a rough estimate how many farmers are actually not following the guidelines on how to use protective clothing?

I cannot provide you a precise percentage. It depends really much on the crop and the region.

Moving on to the consumer side, how does ECPA plan to address health concerns, for example, related to residual amounts of pesticides that can be found in some fruit and vegetables?

I would like to thank you for this question. I could easily answer scientifically because the level of residue there cannot be a concern – it is far too low to be toxicologically relevant.

But this will not satisfy the society. Of course, we don't like it when MRL [Maximum Residue Levels] are exceeded, there is no need for that to happen. So we said we would like to bring exceeding of MRLs to zero.

And so we followed the track and identified uses, for example, where farmers were applying sometimes at a late stage. Or at other times, they were not using the right compound at the right moment to save the crop.

Is it about the spraying techniques and how you wash the fruits and vegetables after they have been sprayed?

Let's take an example: You are a farmer, you grow strawberries, paprika, these are typical crops which are sweet,

a lot of water is needed to grow them and they are very sensitive to fungi diseases. You are nearby the harvest, you harvest in five days and suddenly the fungi pressure is so high, that the crop is getting ill within 24 hours.

Now you can decide to spray a crop protection chemical to save your harvest and your income, or let your crop die and lose the income. As a farmer you would immediately say, 'Sorry, I would like to survive, I spray a crop protection chemical to save my harvest', and not think what that could mean for exceeding residues in the crop.

But there might be other ways. There might even be a case for not using a particular chemical and use another chemical because it is better suited to the harvest time – 10 days before harvest, or five days before harvest. There could also be a case for diminishing the application rate because you are only three days before harvest. There are a lot of possibilities and farmers should not hesitate to call and ask for help and advice before you treat it because there are solutions around to avoid exceeding MRLs.

So the closest you get to harvest, the more diluted the pesticides will have to be, is that right?

There are all sorts of possibilities. But I would like to avoid the impression that we have enough solutions. It's just the opposite. Overall, farmers and growers have not enough solutions, especially for specialty crops. Because as I already mentioned, the development, the innovation is not coming so quickly and the amount of investment and money is quite high.

You mean development of alternatives to the most toxic chemicals?

That's right. But this is on the other hand a little bit of a dream because 15 to 20 years ago we had in the European Union roughly 1,000-1,500 registered active ingredients. Today, we have around 450, including the new innovations. Now that shows you immediately that there was a reduction of two-thirds. But

in the meantime, only about 100 new active ingredients were invented.

So the dream to find very quickly a solution is not existing, especially with all the hurdles to put in place new active ingredients.

The EU's pesticide strategy foresees a phase-out for the most dangerous substances. How is that process going, do you feel you are on track to meet that requirement?

When you talk about the most dangerous, the most toxic active ingredients – yes they will be replaced can be replaced. That's nicely on track.

On the other hand, there are new diseases created by climate change – warmer weather conditions. And sometimes there is only one compound that is able to kill a disease and you have no other possibilities. And what we are seeing is a tremendous increase in resistance problems so you need even more active ingredients. And overall, we don't have enough active ingredients.

So resistance and new diseases will play an important role for the productivity of agriculture in Europe tomorrow.

Are you saying that regulations have tended to diminish the number of pesticides available for farmers and that this has created problems for them?

That's one part. The other part – developing innovative products – is like saying that you would like to go to the moon but to get there is not so easy. So depending on what innovation and research brings out, there might be a lack as well.

By the way, when you look at companies that are looking for new active ingredients, today we have five looking for new active ingredients, not more. Fifteen years back, this would have been 10, 12 or 15 and the reason is very simple. You spend €200 million and you need roughly 10 years to get the new products. And this kind of investment, only a bigger company can afford.

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What about the impact of EU regulatory pressure on pesticides sales? How do you see the demand for pesticides evolving in the coming years in Europe?

Let me give you an answer indirectly. If you have to produce food, independent of how you grow crops – organic or non-organic – you need crop protection chemicals.

And all this regulatory pressure has led to a situation where we have less active ingredients, which is totally right. But overall the demand is not declining. It is stable or even increasing because we have to produce food.

And when you look at the growing world population, we have to increase our food production by 15%. Then we have to think of how to increase productivity in Europe in a sustainable way, protecting the health of the farmers and the environment.

But we have to increase productivity. Today, we produce 35 million hectares outside of Europe for our feed and food needs. So we produce in Africa or in Asia for our food in Europe, which is called land-grabbing.

So we have to increase the land productivity but we have to do it in a sustainable way.

In France, authorities have adopted a very tough plan called 'Ecophyto 2018', which requires halving the pesticides use by 2018. With the demand staying more or less stable or even increasing, do you think that's a realistic objective that France has set for itself? After all, this is the largest agricultural country in Europe...

Maybe this question touches a point where we cannot communicate properly about what the needs are and what is the language of society.

It's a nice political demand. But if France would like farmers and growers to produce high quality and affordable food, it will be able to make it. And the bill at the end of the day will be paid by the end consumer.

A good example is Denmark, which adopted a pesticide-use reduction programme 20 years back. And what they're doing now is very simple – fruits and vegetables are not in the



programme, it's just sugar beet, wheat or cereals. For sugar beet you could see a decline in herbicide use because we got new active ingredients which allowed using grams instead of kilograms per hectare. And the indicators in the last few years show very clearly that a further decline is definitely not possible or you have to give up productivity, you give up producing food.

So the alternative is either producing at home and therefore using pesticides or outsourcing production to other parts of the world...

That is exactly the point. Which is a shame because we have in Europe the highest standards in the world. And we could use our European model for increasing productivity, but in a sustainable way, and that means environment, social and the economy. These pillars should be in balance. We can do it, yes.

Have you made an evaluation of the wider economic impact of this plan in France to halve pesticide use by 2018?

In Europe, including France, we know that agriculture and the business around agriculture represents roughly 20% of GDP. So it has a tremendous effect at the end

of the day on the economy.

By the way, halving pesticide use will also have a tremendous effect on nature protection as well because the landscape is no longer under agriculture production (which might be good in some corners). But overall, it will be a disaster for the landscape and for nature protection as well.

Talking about nature protection and water, what is ECPA recommending to safeguard water resources? Agriculture is after all by far the heaviest user of water...

There are several elements. First of all, I would like to make it crystal clear that we have no interest in any water being contaminated with pesticides. We don't need that product there, they should not be there.

Sometimes you can argue that it's not avoidable and ... we did a training programme where we looked at point sources. Point sources mean where water gets contaminated at a very specific point and you can follow back the origin and find out why it happened there.

And quite often it was inadequate spraying which was the source of water contamination. So we did a big training programme in 12 pilot countries in Europe and we saw that we can

reduce point sources by 70% with adequate training of the farmers and growers and having adequate equipment for them.

The other part is that we are looking at 'buffer strips'. This has to be adapted to the landscape but buffer strips help avoid residues of some crop protection chemicals contaminating surface and groundwater.

Have you done toxicological studies to assess the risk for human health of residue levels which are above the limits? What are the risks of that for people who drink that water?

Seriously, the risk for the people is zero. Because maximum residue levels are often set artificially, there is always a safety factor of 100,000 in between.

So to have a real health risk, you would have to drink a huge amount of that water every day for a whole lifetime. So the risk is not there, but it should anyway be avoided.

So if there is no risk then why worry, why have buffer zones?

That's exactly the point that we have always argued. 'There is no risk, why should we do it?' But this is not satisfying for the public's concerns.

Others can say: 'Oh it's a toxic chemical, it must be toxic for you as well'. But toxicity is given by the amount you take. The dose makes the toxicity, not the chemical. So there is a part where we just go back to our old argumentation, which the general public doesn't like because we see the public is concerned. So let's go do whatever we can. But we cannot do it by ourselves, we need partners as well.

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