CHEMSEC CALLS FOR A BALANCED IMPACT ASSESSMENT FOR EDC CRITERIA

Concerning the Public Consultation on the criteria to identify Endocrine Disrupting Chemicals (EDCs) in the EU biocides and pesticides legislation, and the Impact Assessment to be performed by the Commission during 2015, ChemSec is worried that the information spread by some industry parties is exaggerated and lacks description of the innovation potential within European companies. There is a need to clarify the state of play and to scrutinize the generally skewed numbers presented by the pesticide industry associations and its allies and the lack of vision for solutions other than replacing one hazardous chemical with another.

We see the following aspects particularly worrying and urge that these will be addressed during the impact assessment:

- The costs for society must be thoroughly evaluated and considered to be at least equally important as the costs for industry. Pesticide industry associations also tend to exaggerate the costs for changing to non-ED alternatives, this must also be taken into account.
- The perspective of downstream users of chemicals should be thoroughly considered and reflected
- The innovation potential and positive effects from stricter regulations on innovation should not be underestimated
- Alternatives must be looked at in a broad sense

The costs for society must be thoroughly evaluated and considered to be at least equally important as the costs for industry

The costs for society from health problems caused by EDCs has been estimated to be at least 13 billion Euros per year in the EU[1], much higher figures have also been suggested. A recent study from the Nordic Council also point to the vast costs of inaction and highlights the importance of taking these costs into consideration in impact assessments regarding EDCs[2]. In addition to the economic costs, human suffering and negative impact of the environment are difficult to estimate and value. Nevertheless these aspects should weigh heavily.

1. *Health costs in the European union – How much is related to EDCs?, HEAL, 2014*
2. *The Cost of Inaction: A Socioeconomic analysis of costs linked to effects of endocrine disrupting substances on male reproductive health, the Nordic Council, 2014*

The perspective of downstream users should be thoroughly considered and reflected

The public consultation on EDC criteria was never aimed at downstream users of chemicals, but their perspective should definitely be taken into account in the impact assessment. Many proactive companies have taken the position to avoid the use of suspected EDCs in their products. They see the risk of such substances being used in their products as detrimental to their reputation among consumers, but also in direct opposition to their long term ambitions.

Today, such companies need to spend significant resources both on setting up their own methods for identification of EDCs, to explain the issue in the supply chain as well as performing internal testing of materials to verify that no unwanted chemicals are used. Having sufficient EDC criteria would facilitate the internal work and supply chain communication for those companies as well as it would level the playfield for them.

The innovation potential and positive effects from stricter regulations should not be underestimated

The impact assessment must take into account that stricter regulation will spark the innovation of new alternatives, alternatives that are not commercially available today. There are many examples of how stricter rules tend to drive innovation, improve multinational competitiveness and spark new inventions[3]. Companies that do not adapt to legislation in time do tend to suffer financial losses, while companies with a high innovation capacity will benefit. The development of the EDC criteria cannot be driven by the agenda of a few economic actors with access to decision makers, but also positive economic effects for developers of alternatives need no be considered.

Pesticide industry tends to exaggerate the costs for changing to non-ED alternatives

Industry systematically inflates cost estimates in order to combat more stringent environmental regulations. Contrary to these figures, scientific research shows that environmental policy measures in general only give rise to marginal costs for industry. Industry generally overestimates anticipated compliance costs and underestimates innovation potential initially[4], but in the end manage well to adjust to new regulations.

Reports from pesticide industry associations and pesticide companies claim that innovation of new pesticide and biocide alternatives would take between 8 and 10 years. Furthermore the development costs stated for new alternatives vary between € 152 million[5] and € 253 million[6]. That is a difference of € 100 million or in other words 66%. As these figures are presented without background information it is impossible to know if and which of these claims that are correct.

Alternatives must be looked at in a broader sense

Many reports have been produced with estimated yield losses in case of ED pesticide ban. These numbers are usually very categorical and based on the simple loss of one chemical without any adjustments or changes in farming techniques. The numbers are often rough estimations and sometimes very questionable. For example, in a report from FERA[7], it is mentioned that Linuron is the key herbicide in parsley production. The loss in yield in case of a Linuron ban is estimated to 100%, they clearly state that parsley could not be farmed without Linuron. This is of course both misleading and inaccurate. Even if it would prove difficult to come up with chemical substitutes to this EDC, biological farming of parsley is not only possible but also already available on the market.

The discussion of substitution of pesticides often focuses on replacing one chemical with another. However, from January 2014 EU farmers have to execute their crop protection according to the principles of Integrated Pest management (IPM) as

3. Driving innovation, How stronger laws help bring safer chemicals to market. Center for International Environmental Law. 2013.

4. Cry Wolf, ChemSec, 2015 and references therein.

5. Testimony of Jay Vroom: "Are Superweeds and Outgrowth of USDA Biotech Policy", CropLife America, 2010

6. Bayer CropScience UK official website.

7. Agronomic and economic impact assessment for possible human health and ecotoxicology criteria for endocrine disrupting substances, June 2013

defined by Directive 2009/128 in Annex III[8]. This means that chemical pesticides should only be used as a last resort in and serve as the basis of crop protection.

Therefore, these principles should be taken into account for any economic impact calculation for the future implementation of criteria. The arguments and numbers presented by pesticide industry and its allies have been ignoring these principles since they until now mainly have focused their argumentation solely on substituting one chemical with another and not on alternative techniques.

A STUDY OF THE FEASIBILITY OF REDUCING PESTICIDE USE in France, shows that a reduction by 30% could be made without any negative impact on farmer's income. For most crops, alternative protection techniques are more efficient than intensive pesticide use. The use of pesticides is often higher than needed since the advisors used by farmers tend to promote higher pesticide use than what would be optimal[9].

ONE EFFICIENT WAY TO REDUCE, or to completely stop using pesticides is to use crop rotation. This well established technique results in higher yields by replenishing soil nutrients and breaking disease and pest cycles. Crop rotation has many agronomic, economic and environmental benefits compared to monoculture cropping. Crop rotation is used to control weeds and diseases, and limit insect and other pest infestations and as a result significantly reduce pesticide use.

THERE ARE ALSO NEW TECHNIQUES that can enable significant pesticide reduction and by that reducing the risk for resistance of substitution pesticides, which is one of the concerns raised by industry. One example is visually controlled machinery[10], a modern high tech invention that enables the machine to visually locate the weed. Commercial robotic weeding machines utilize one of several means to kill weeds including mechanical, flame or herbicidal spray[11].

Summary of the general principles of IPM:

The first step is to **use techniques like crop rotation,** cultivation techniques, tolerant varieties, balanced fertilisation and irrigation practices and hygiene measures. **Harmful organisms must be monitored** and this should decide whether and when to apply plant protection measures. **Sustainable biological, physical and other non-chemical methods** must be preferred to chemical methods if they provide satisfactory pest control. The pesticides applied must be as **specific** as possible and have **the least side effects.** The use of pesticides and other forms of intervention should **not be higher than necessary.** Available **antiresistance strategies** should be applied if there is risk of resistance. The user should also check the success of the applied plant protection measures.

The work ahead

We hope that the Commission will make sure that our concerns are taken into account in the development of an impact assessment.

Criteria for EDCs need to be established as soon as possible, but since this process is very delayed and the EDC criteria not foreseen to be ready until 2016 it is important that the on-going work to regulate EDCs in other regulations continue during this process.

8. DIRECTIVE 2009/128/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009, establishing a framework for Community action to achieve the sustainable use of pesticides

9. Jacquet et al., An economic analysis of the possibility of reducing pesticides in French field crops, Ecological Economics, Vol 70:9, 2011, pp 1638–1648

10. Slaughter, D.C., Giles, D.K. and D. Downey. 2008. Autonomous robotic weed control systems: A review. Computers and Electronics in Agriculture 61: 63-78

11. Robotic Weed Control Mark C. Siemens, Dept. of Agricultural and Biosystems Engineering, University of Arizona http://extension.arizona.edu/sites/extension.arizona.edu/files/resources/Robotic_Weed_Control_CWSS_2014.pdf

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ChemSec January 2015