TEN REASONS FOR THE USE OF PESTICIDES

1 No regional production without pesticides

Without protection against pests and diseases, Swiss farmers cannot meet the demand for regional products. The supply of regional products would fall sharply, and dependence on climate-damaging imports would increase. An analysis by the European Parliament's Scientific Service (EPRS) estimates that without the use of plant protection products, yields would fall by 40 percent for maize and by as much as 60 percent for potatoes. [1] [2]

2 Higher prices without pesticides

Without pesticides, harvest yields fall. If demand remains the same, the price of regional agricultural products will therefore rise. In Switzerland, organic products cost around 50 percent more than products from modern, resource-efficient agriculture. This is because organic farming is significantly more labour-intensive. Weeds have to be controlled mechanically or even weeded by hand. As a result, the number of hours required per area cultivated is massively higher. In 2017, 19,600 ha of organic beet required 80 hours of work. For 20 ha of organic beet, 260 hours of work were required. [3] [4]

3 More climate damage without pesticides

If no pesticides are used, more land is needed to produce the same harvest. Arable farming without herbicides requires more mechanical tillage (higher energy consumption, more erosion). In addition, the tilled soil releases more CO2. Studies from Germany show: Including indirect greenhouse gas emissions, organic farming converts about 147 kg of CO2 equivalents per unit of grain produced. Conventional farming, on the other hand, comes to just about a quarter of that level (34 kg CO2 equivalents). [5]

4 More imports without pesticides

Calculations by the Food and Agriculture Organization of the United Nations (FAO) assume a drop in yield of up to 40 percent if no modern crop protection is used. These estimates also apply to Switzerland. In the case of special crops such as vines, fruit, potatoes and vegetables, total losses would have to be expected. Crop protection products not only help to achieve higher yields, they also reduce crop losses during pre-processing, transport and storage, where additional losses of up to 40 percent can occur. High crop losses are environmentally unsustainable and they ultimately increase imports and foreign dependence in the food sector. [6] [7]

5 More Food Waste Without Pesticides

Food Waste starts in the field. Protecting agricultural crops is a crucial factor when it comes to avoiding crop losses. Also, unblemished produce has a better shelf life. Food with fungal

infestation cannot be processed or sold for food safety reasons. Untreated products lose their shape, colour and flavour, soon become inedible and end up in the bin. The use of pesticides increases the quality of agricultural products and reduces unethical food waste." [2]

6 Less quality without pesticides

If food makes a dull impression in the shop, it will not be bought. Consumers choose products of impeccable quality when they buy them. This is only possible with targeted crop protection. Only with the use of modern crop protection products is it possible to guarantee and maintain the quality level of our agricultural products. Without plant protection, the quality and shelf life of the goods on offer will decline. That is why organic products are also dependent on plant protection products. [8] [9]

7 Less safe food without pesticides

Without pesticides, crops can contain potentially dangerous contaminants. Examples are carcinogenic mycotoxins (fungal toxins) or unintentionally harvested poisonous weeds. Such hazards can be reliably prevented by the use of fungicides and herbicides. Biocides (belonging to the pesticides) such as cleaning agents and disinfectants are also indispensable for hygienic food processing. Their use in the food sector plays an important role in ensuring hygiene along the distribution chains to the consumer. Biocides counteract premature spoilage and contamination with undesirable microorganisms and pathogens as well as pests. Biocides are also used to treat drinking water. [10]

8 No regional specialities without pesticides

Without the targeted use of pesticides, Swiss wine would be almost inconceivable. The fact is that in both organic and conventional viticulture, plant protection products are used in our latitudes. Without chemical-synthetic plant protection, it is difficult to grow rape, which is why only two percent of rape cultivation in Switzerland relies on organic plant protection. All in all, if you want regional products from Switzerland, you cannot completely reject pesticides. [11]

9 Without pesticides, the degree of self-sufficiency continues to fall

The net self-sufficiency rate for agricultural products in Switzerland is 51 percent. If pesticides are greatly reduced or dispensed with, the yields of Swiss agriculture will decline massively. Switzerland's degree of self-sufficiency is falling. For table potatoes, a loss of 40 percent is expected, for winter wheat a loss of 35 percent and for sugar beets the yield is also about 40 percent lower if conventional plant protection products are abandoned. [12]

10 Without pesticides, Swiss farmers have no future

Crop protection products help farmers to achieve a good harvest. Crop failures, on the other hand, mean a loss of income. Crop protection products are therefore a kind of insurance for

agricultural income. Farmers - just like any other profession - cannot simply cope with wage losses of several 10%. Through the sensible and professional use of crop protection products and other technologies, farmers see a future and the farming profession remains attractive to young, motivated farmers. Without crop protection products, farmers' incomes drop massively. [13]

---

[1] Farming without plant protection products. European Parliamentary Research Service. URL : https://www.europarl.europa.eu/cmsdata/185760/EPRS_IDA(2019)634416_EN.pdf
[2] Oerke, E. C., Crop losses to pests, in: Journal of Agricultural Sciences 144/2006. URL : https://www.cambridge.org/core/journals/journal-of-agricultural-science/article/crop-losses-to-pests/AD61661AD6D503577B3E73F2787FE7B2
[3] «Bio»-Produkte kosten 50 Prozent mehr. SRF Kassensturz. URL : https://www.srf.ch/sendungen/kassensturz-espresso/bio-produkte-kosten-50-prozent-mehr
[4] «Warum unsere Pflanzen Schutz brauchen». SBV. URL : https://www.sbv-usp.ch/fileadmin/sbvuspch/04_Medien/Fokus/FOKUS_Pflanzenschutz_DE_klein.pdf
[5] Der Nutzen von Pflanzenschutz. Industrieverband Agrar. URL : https://www.iva.de/sites/default/files/benutzer/%25uid/publikationen/iva_1601_br_015_nutzen_von_pflanzenschutzmitteln_rz_20170118_web.pdf
[6] Smith, L.G., Kirk, G.J.D., Jones, P.J. et al. The greenhouse gas impacts of converting food production in England and Wales to organic methods. Nat Commun 10, 4641. URL : https://www.nature.com/articles/s41467-019-12622-7#Ack1
[7] Potenzielle Umweltfolgen einer Umsetzung der Trinkwasserinitiative. Agroscope. URL : https://www.newsd.admin.ch/newsd/message/attachments/62078.pdf
[8] C. Beretta und S. Hellweg. Lebensmittelverluste in der Schweiz: Umweltbelastung und Vermeidungspotential. ETH. URL : https://www.newsd.admin.ch/newsd/message/attachments/58769.pdf
[9] Betriebsmittelliste 2020 für den biologischen Landbau in der Schweiz. FiBL. URL : https://www.fibl.org/fileadmin/documents/shop/1032-hilfsstoffliste.pdf
[10] Prävention von Mykotxinvergiftungen in Europa. Consumer Choice Center. URL : https://241yjo5ffc43s84vz4462arn-wpengine.netdna-ssl.com/wp-content/uploads/2020/06/Mycotoxin_PolicyNote_German.pdf
[11] Neues zum Bioraps. Bioaktuell. URL : https://www.bioaktuell.ch/pflanzenbau/ackerbau/oelpflanzen/raps/raps-neues.html
[12] Agridea, FiBL, Deckungsbeiträge 2017. Zitiert aus: SBV «Warum unsere Pflanzen Schutz brauchen». https://www.sbv-usp.ch/fileadmin/sbvuspch/04_Medien/Fokus/FOKUS_Pflanzenschutz_DE_klein.pdf
[13] Noleppa, S., von Witzke, H.; Cartsburg, M. Einkommenseffekte des Einsatzes von Pflanzenschutzmitteln in Deutschland. Darstellung der Ergebnisse zum Modul „Einkommenseffekte“ des Projektes zum gesamtgesellschaftlichen Nutzen des Pflanzenschutzes in Deutschland. agripol - network for policy advice GbR. URL : https://www.agrar.hu-berlin.de/de/institut/departments/daoe/ihe/Veroeff/IVA_Bericht_Modul_III_120610.pdf