

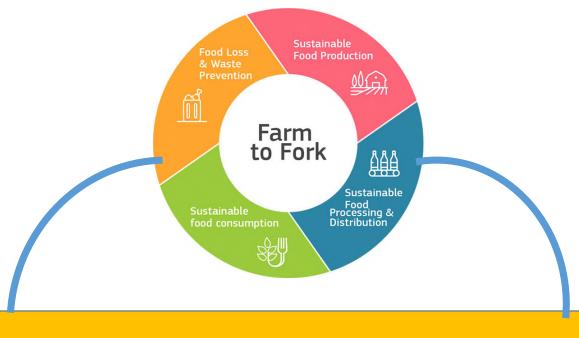


Copa-Cogeca representative for StaDG-ER

Potential emerging risks associated with high pesticides reduction targets



CONTEXT



Reduce the overall use of chemical pesticides by 50% by 2030





CONTEXT IN WHICH TO ACHIEVE THOSE TARGETS

Farmers are asked to achieve this reduction target while ensuring food security and safety in environment with growing requirements and constraints:

- 1. Increasing demand for food, feed and non-food outlet production
- 2. New pests and diseases derived from climate change effects
- 3. Higher requirements for products safety and quality

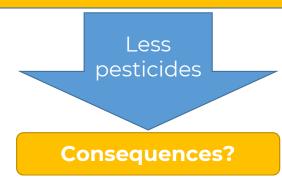




CONTEXT IN WHICH TO ACHIEVE THOSE TARGETS

What could be the consequences of the pesticide reduction target for those requirements and constraints?

- 1. Increasing demand for food, feed and non-food outlet production
- 2. New pests and diseases derived from climate change effects
- 3. Higher requirements for products safety and quality







POTENTIAL CONSEQUENCES: CONSTRAINTS 1 AND 2

- 1. Increasing demand
- 2. New pests and diseases

Less pesticides

With less pesticide and increasing number of pests and diseases due to climate change, it becomes very complicated to ensure food security and answer the increasing demand







POTENTIAL CONSEQUENCES: CONSTRAINTS 1 AND 2

Examples of the consequences of the reduction of the use of pesticides for food security in a environment with more pests and diseases



The chemicals pesticides allowing to combat this pest have been deleted



This resulted in up to 30% broadbean being infected which makes them unsuited for human consumption (*1, 2)





POTENTIAL CONSEQUENCES: CONSTRAINTS 1 AND 2

Examples of the consequences of the reduction of the use of pesticides for food security in a environment with more pests and diseases



The chemicals pesticides allowing to combat this pest have either been deleted or will be in the coming months



This has important consequences for rapeseed production has it could impact its production by 25% to 30% (*3,4)





POTENTIAL CONSEQUENCES: CONSTRAINT 3

3. Higher requirements for products safety and quality

Less pesticides

With less pesticide the quality and the safety of food products could be affected as it would be impossible to combat some organisms developing in edible plants that threatens food safety



The reduction of the use of pesticides is possible, but to reduce by 50% by 2030 could present important risks in terms of food safety





POTENTIAL CONSEQUENCES: CONSTRAINT 3

Examples of the consequences of the reduction of the use of pesticides for food safety



The chemicals pesticides allowing to combat this weed that affects sunflowers might not be available anymore



This could threaten food safety as the Jimsonweed is a tropanic alkaloid highly toxic for humans and livestock. The toxic dose for cattle is 600-900 mg of seeds per kilo of body weight (*5, 6, 7, 8).





POTENTIAL CONSEQUENCES: CONSTRAINT 3

Examples of the consequences of the reduction of the use of pesticides for food safety

The issue of the mycotoxins:

The chemicals pesticides allowing to combat the mycotoxins that affects many cereals might not be available anymore



This could threaten food safety as mycotoxins are toxic for humans and livestock. The Commission is even currently looking at stricter levels for mycotoxins while their presence is increasing due to new weather conditions (*9, 10, 11, 12)





CONCLUSION

The examples presented that relates to food security and safety only represent a faction of the problem





The reduction of the use of chemical pesticides is possible, but if we go to fast and we do not have new tools available, this could have serious consequences for both food security and food safety



Bibliography

- 1. E., Leppik, C., Pinier, B. Frerot, (2014), Paysage chimique d'une agrobiocénose: un exemple la févrole et son ravageur spécialiste Bruchus Rufimanus, Cira, n°10, p. 585. https://www.perspectives-agricoles.com/file/galleryelement/pj/21/77/e8/01/419_9039640194320835273.pdf
- 2. I., El-miziani, S., Lhaloui, M., El Bouhssini, R., Dahan, A., Lamiri, F., Gaboun, F., Andaloussi, (2016), Etude des dégâts qualitatifs et quantitatifs dus aux Bruches sur les légumineuses au Maroc, Revue Marocaine de Protection des Plantes, 83-99.https://www.researchgate.net/publication/318340401_Etude_des_degats_qualitatifs_et_quantitatifs_dus_aux_Bruches_sur_les_legumineuses_au_Maroc
- 3. Seyer, M. (2017, Juin). Altises sur colza: brouiller les pistes grâce aux légumineuses. Récupéré sur La France agricole: http://www.lafranceagricole.fr/cultures/altises-sur-colzabrouiller-les-pistes-grace-aux-legumineuses-1,1,3257978571.html
- 4. BASF. (s.d.). Les ravageurs du colza La grosse altise. Récupéré sur BASF agro: https://www.agro.basf.fr/agroportal/fr/fr/cultures/le_colza/les_maladies_ravageurs_adventicesl_pgc/les_ravageurs3_pgc/grosse_altise_2.html
- 5. Masurel, E. 2007. "Contribution à l'étude de la contamination de l'ensilage de maïs par des adventices toxiques : conséquences pratiques chez les bovins." Thèse d'exercice, Ecole Nationale Vétérinaire de Toulouse.





Bibliography

- 6. Efsa,(2008), "Theobromine as undesirable substances in animal feed Scientific opinion of the Panel on Contaminants in the Food Chain. (Question N° EFSA-Q-2005-223 adopted on 10 June 2008)." EFSA Journal 6 (9):1-66.
- 7. Ujčič Vrhovnik, I., and B. Jakovac Strajn, (2009), "Microscopic feed examination a usefulL method for establishing the constituents of animal origin and botanical impurities." Krmiva 51 (4):229-234.
- 8. O. Favaron, (2019), Haricot: quel plan de bataille contre la datura, Unilet Info, n° 162. http://www.agro-transfert-rt.org/wp-content/uploads/2020/11/2019_Article_Datura_Unilet_infos.pdf
- 9. AFSSA (2009). Evaluation des risques liés à la présence de mycotoxines dans les chaines alimentaires humaine et animale-Rapport final.
- 10. BENNETT, J. W. and KLICH, M. (2003). Mycotoxins. Clinical Microbiology Reviews, 16, 497-516.
- 11. E.M. Janssen, M.C.M. Mourits, H.J. van der Fels-Klerx, A.G.J.M. Oude Lansink, (2019), Pre-harvest measures against Fusarium spp. infection and related mycotoxins implemented by Dutch wheat farmers, Elsevier, Crop protection, n°122. https://edepot.wur.nl/476012
- 12. European Commission, (2006), Commission Recommendation of 17 August 2006 on the prevention and reduction of Fusarium toxins in cereals and cereal products, Official Journal of the European Union.





