

# Adoption of soil conservation and herbicide-free agriculture: the underlying behavioral factors

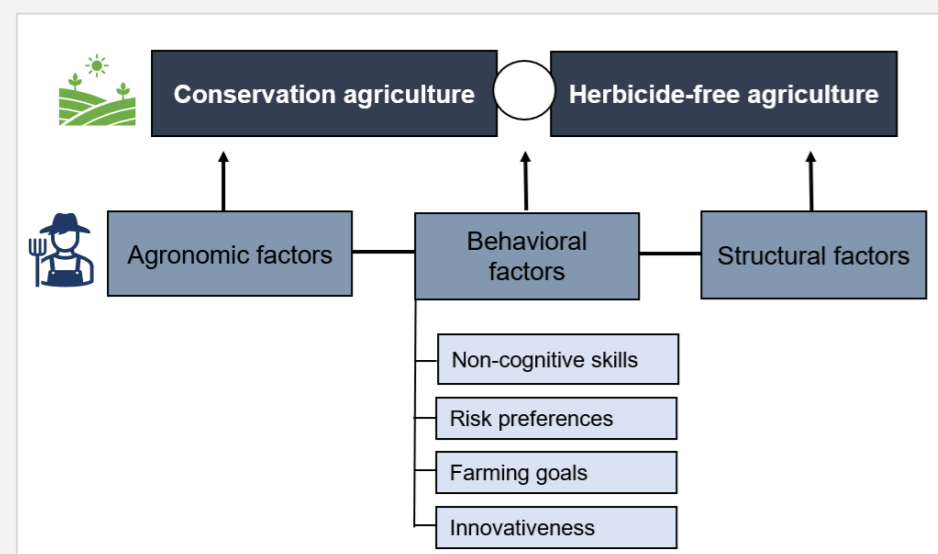
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## Tradeoffs between soil conservation and herbicide-free systems

Soil conservation systems can improve soil quality and reduce production risks, but their reliance on herbicides for weed control poses a challenge to reduce the use of chemical pesticides.

## Objective

We investigate the role of behavioral factors on the joint adoption of soil conservation and herbicide-free production in Switzerland.

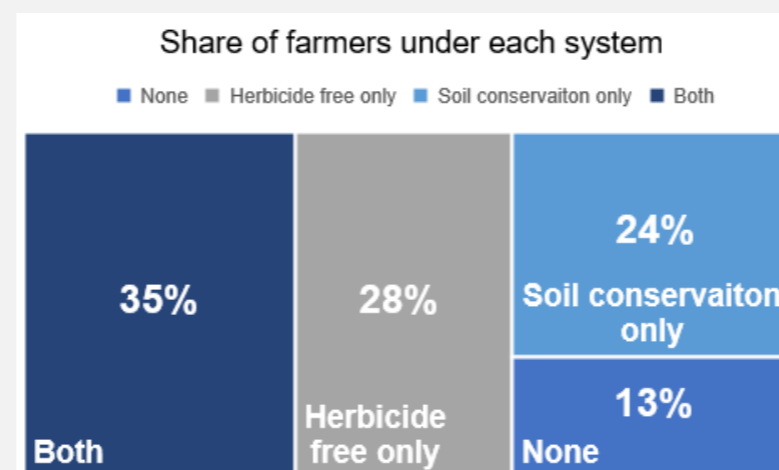


## Method

We conduct statistical analysis and estimate a multinomial logit using Survey data from 1,073 Swiss wheat farmers.

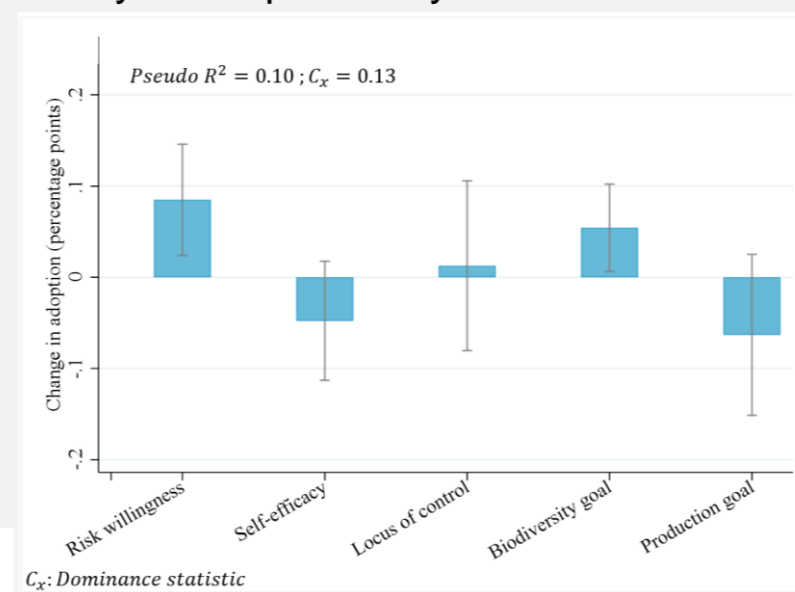


## Results



Behavioral factors explain *at least 13%* of the joint adoption of the two systems:

- i) More risk averse individuals adopt both systems to a lesser extent.
- ii) Farmers with higher biodiversity valuations and lower production valuations are more likely to adopt both systems.



## Conclusion

- Despite production challenges, 35% of farmers jointly adopt soil conservation and herbicide-free agriculture.
- Behavioral factors can help mitigate the challenges of joint adoption.



## Contribution to Sustainable Food Systems

Need for coherent public policies that articulate different interventions and goals, and that recognize the positive and negative synergies between production systems and practices.

Garcia, Viviana, Möhring Niklas, Yanbing Wang, & Robert Finger. (2024) Risk Perceptions, Preferences and the Adoption Dynamics of Pesticide-Free Production. *Journal of Agricultural and Resource Economics*. In press.

Möhring, N., & Finger, R. (2022). Pesticide-free but not organic: Adoption of a large-scale wheat production standard in Switzerland. *Food Policy*, 106, 102188.