Ecological modernisation and sustainable intensification of agricultural practices

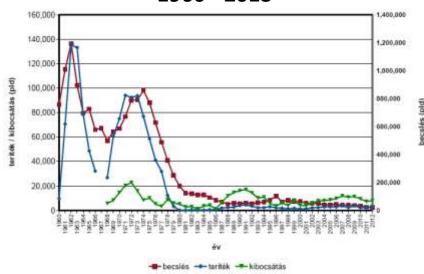




Péter Pál HAJAS Farmer, landowner, wildlife biologist

Grey partridge as a bioindicator – the barometer of the countryside

Grey Partridge dynamics in Hungary 1960 - 2013



Hungarian Game Management Database

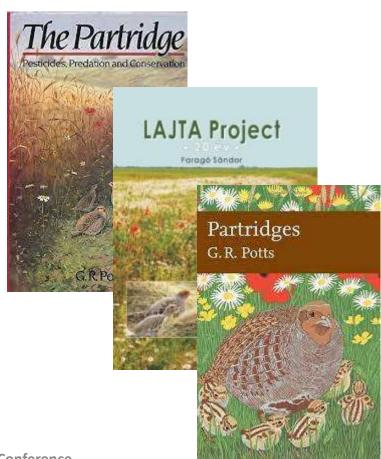
- Status EU: Unfavourable declining
- Status HU: Critical declining >99% since 1964
- 2021 estimate: 10855 individuals (Csányi et al., 2021)
- Rapidly growing number of local extinctions
- Remaining populations below recovery threshold (2 pairs/km² on at least 4km²)
- Once most emblematic gamebird of Hungarian farmland is facing extinction
- Similar but slower trends may be observed in the Farmland Bird Index

The impact of conventional agricultural intensification on farmland ecosystems



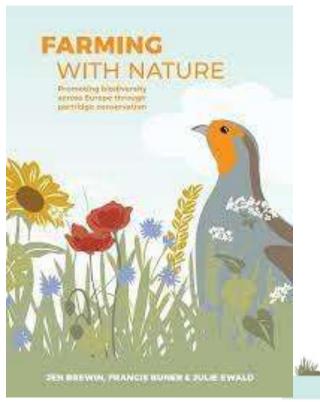


Illustration: Rodger McPhail



A practical package for farmland ecosystem recovery – farming with, not against nature







FUTURE

III. Öko Expó Exhibition and Conference
2022
Hajdúnánás

2000

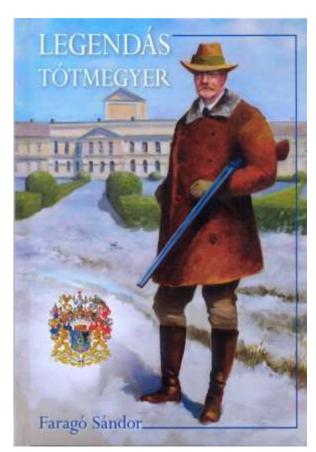
The human and social dimension of the transformation of the countryside and rural society

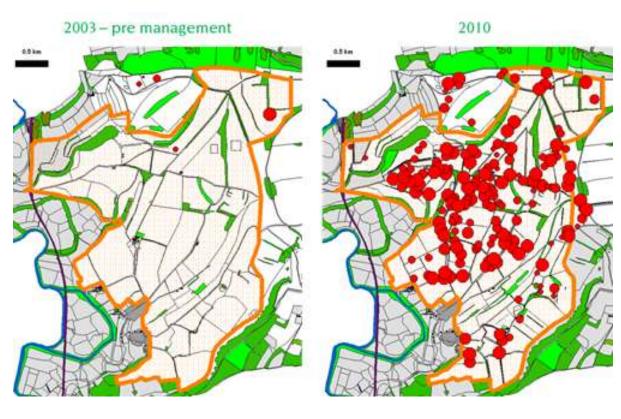






Confiscation of large estates and persecution of historic families, thus the principle "with privilege comes responsibility" forgotten

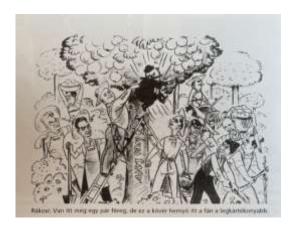




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Persecution of farmers (1948-53), forced collectivization (1948-1961) and transition of land to

collectives (1967)











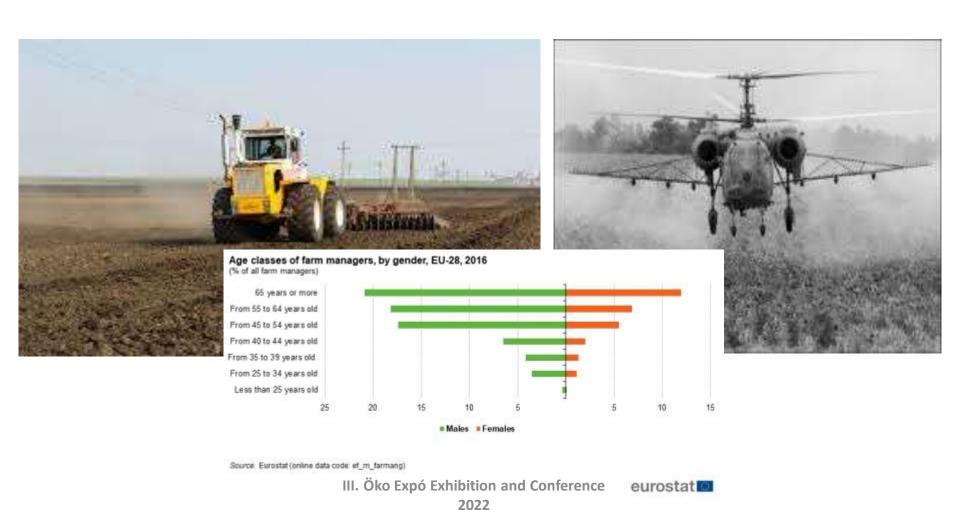


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Destruction of the countryside



New "agricultural" practices on state farms and at collectives – the socialist intensification (1970s & 80s)



Hajdúnánás

Restoration of the green infrastructure on the landscape scale (initial map 2016)



Restoration of the green infrastructure on the landscape scale (and one and a half year later in 2018)



Birds eye view of the demonstration (May 2020)



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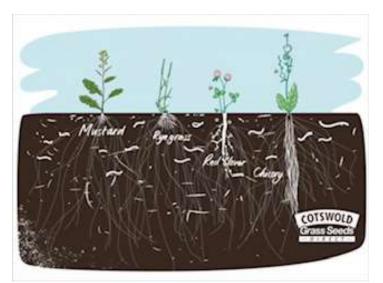
Key natural and semi-natural habitats and ecosystem services gained

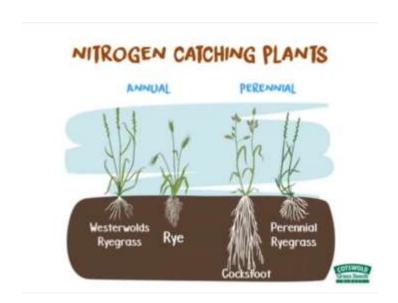


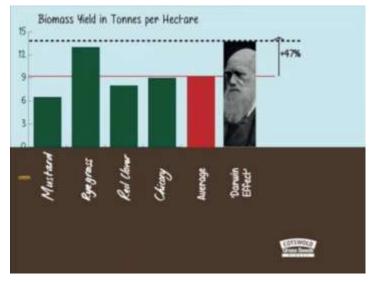
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The role of cover crops in the crop rotation

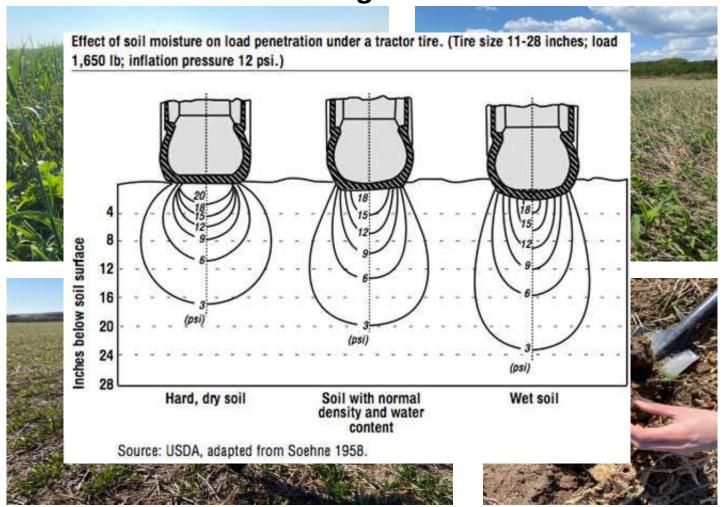






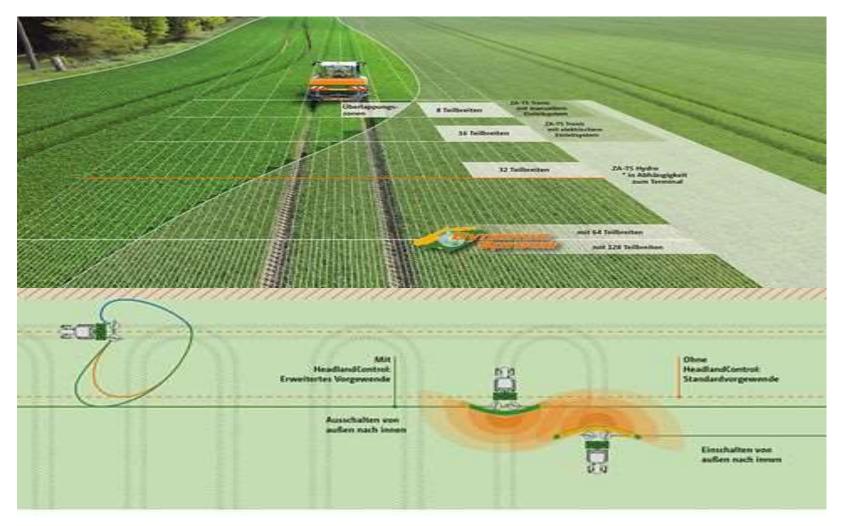


Catch and cover crops, mulch layers, reduced tillage – minimum tillage



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Resource efficiency through precision farming



Improved drought resilience (no-till compared to conventional)



III. Öko Expó Exhibition and Conference 2022 Hajdúnánás

Improved drought resilience (reduced till compared to conventional)



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Recommendations for policymakers

- Changing eligibility criteria of natural habitats for direct payments
- Increasing AE and ECO payments
- Introducing nature/wildlife friendly farming labels to increase consumer contribution
- Higher support of small farms
- Normative payment for precision farming according to scoring system
- Support of "green farm clusters" responsible for collective landscape restoration of farmland ecosystems. Compensation payments for farmers, reimbursment of operation costs for the cluster.
 - Advisory
 - Employment costs
 - Special machinery
 - Collective greening allowed (50% at the farm, 50% at the cluster level)



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