



Digitale
Wertschöpfungsketten für eine
nachhaltige kleinstrukturierte
Landwirtschaft



UNIVERSITÄT
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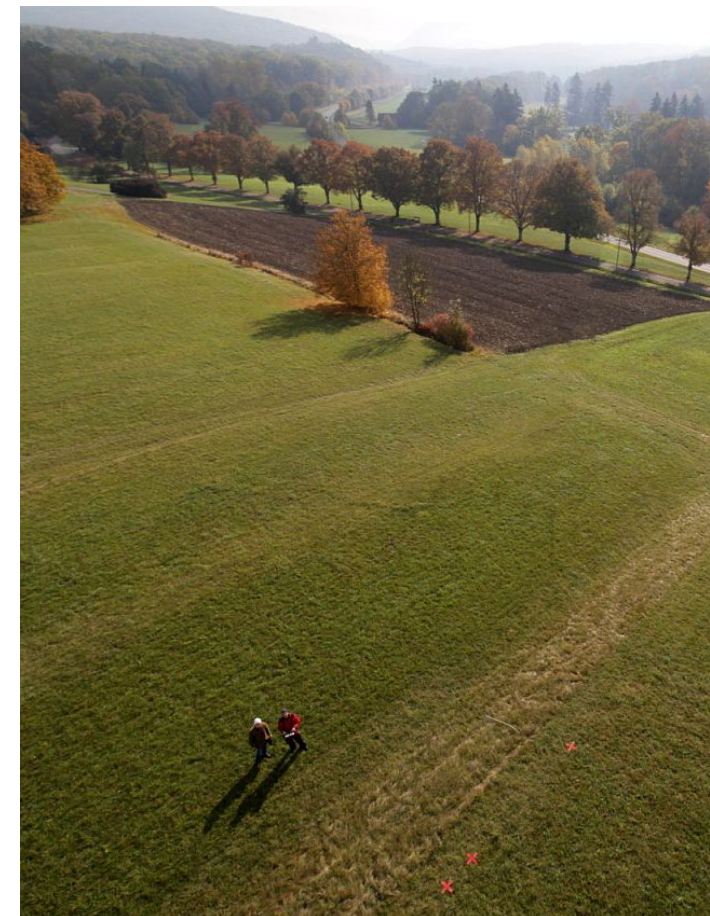


Hochschule
für Wirtschaft und Umwelt
Nürtingen-Geislingen



Konzeptueller Ansatz zur Bewertung der Biodiversitätsleistung in Ackerbaubetrieben

23.05.24 | Rolf Weber

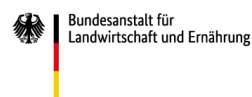


Gefördert durch



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Projektträger



Unterstützt
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MINISTERIUM FÜR ERNÄHRUNG, LÄNDLICHEN RAUM
UND VERBRAUCHERSCHUTZ



On-crop Maßnahmen

On-crop (indicator for agricultural management) composed of the following parameters	Abbreviation	Literature	Selection options	Points
1. Soil cultivation before sowing	onM1	Honermeier, 2006	no-till not turning (ploughless) turning (with plough)	1 0.5 0
2. Chemical and mechanical crop protection				
a. Fungicide*	onM2	Yoon et al., 2013	number of applications	no applications = 1 less than prescribed applications = 0.5 prescribed applications = 0
b. Herbicide*	onM3	Böcker et al., 2019	number of applications	
c. Insecticide*	onM4	Mahmood et al., 2016	yes/no	
d. Plant growth regulator	onM5	Aktar et al., 2009	yes/no	no = 1 yes = 0
e. Hoe for weed control/Harrow or curry comb	onM6	Machleb et al., 2020; Alba et al., 2020	no crossings 1-4 crossings 5 or more crossings	1 0.5 0
3. Chemical seed treatment	onM7	Sekulic & Rempel, 2016	yes/no	no = 1 yes = 0
4. Fertilization Chemical-synthetic or organic*	onM8	Mozumder & Berrens, 2007; Török et al., 2021	only organic organic and chemical-synthetic combined chemical-synthetic	1 0.5 0
5. Intercropping*	onM9	Mala et al., 2020	yes/no	yes = 1 no = 0
6. Undersowing	onM10	Boetzl et al., 2022	yes/no	yes = 1 no = 0
7. Elements of crop rotation	onM11	Venter et al., 2016	7 or more 5-6 4 or less	1 0.5 0
8. Use of precision farming	onM12	Garske et al., 2021; Zanin et al., 2022; Faupel et al., 2023	yes/no	yes = 1 no = 0



Off-crop Maßnahmen

Off-crop (landscape indicator) composed of the following parameters	Abbreviation	Literature	Selection options	Points
1. Mean field size*	offM1	Landis, 2017	<2 ha	1
			between 2 ha and 5 ha	0.5
			>5 ha	0
2. Cultures of neighbouring fields	offM2	Tscharntke et al., 2021	4 or more	1
			2 to 3	0.5
			less than 2	0
3. Longitudinal elements*	offM3	Marja et al., 2018	>2/3 field and field margins	1
			>1/3 to <2/3 field and field margins	0.5
			<1/3 field and field margins	0
4. Hedges/flower strips in or at the edge of the field	offM4	von Königslöw et al., 2021; Tschumi et al., 2016	hedges/flower strips in or around the field	1
			hedges/flower strips sporadically in or around the field	0.5
			no hedges/flower strips	0
5. Surface watercourse	offM5	Dyson & Yocom, 2015	yes/no	yes = 1 no = 0
6. Isolated trees in the field	offM6	Prevedello et al., 2018	3 or more trees in the field per ha	1
			1 to 2 trees in the field per ha	0.5
			no trees in the field	0
7. Sealed area (street, residential area)	offM7	Tobias et al., 2018	<1/3 sealing around the field	1
			between 1/3 and 2/3 sealing around the field	0.5
			>2/3 sealing around the field	0



Logistisches Wachstum für die Bewertung der Maßnahmen

