

Table S1. Questionnaire items and coding scheme for the variables used in the analysis.

Variable	Item	Response format	Coding
Irrigation innovation adoption	Has the farm introduced any irrigation innovations in the last three years?	Dichotomous	0 = No; 1 = Yes
Drip irrigation	Introduction of drip irrigation systems in the last three years	Dichotomous	0 = No; 1 = Yes
Sensor-based systems	Introduction of sensor-based smart irrigation technologies in the last three years	Dichotomous	0 = No; 1 = Yes
Fertigation	Introduction of fertigation techniques in the last three years	Dichotomous	0 = No; 1 = Yes
Water/energy-saving systems	Introduction of system-efficiency improvements aimed at reducing water and energy consumption in the last three years	Dichotomous	0 = No; 1 = Yes
High water costs	In recent years, have there been problems related to the high cost of water for irrigation?	Dichotomous	0 = No; 1 = Yes
Limited financial support	Do you consider the limited availability of financial support to be an obstacle to the adoption of innovations?	Dichotomous	0 = No; 1 = Yes
Shortage of qualified staff	Do you consider the shortage of qualified staff to be an obstacle to the adoption of innovations?	Dichotomous	0 = No; 1 = Yes
Innovation Orientation (IO)			
IO.1	I am enterprising and eager to try/experiment with innovations.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
IO.2	I adopt innovations and influence others to do the same.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
IO.3	I am willing to follow the example of others in adopting innovations.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
IO.4	I am always looking for innovations.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
IO.5	My opinion on innovations is respected by my colleagues.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
Water Scarcity Concern (WSC)			
WSC.1	Water scarcity will intensify in the coming years.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree

WSC.2	The overexploitation of water resources is greater than in the past.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
WSC.3	The quality of irrigation water today is lower than in the past.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
Environmental concern (EC)			
EC.1	Most of the population does not act in an environmentally friendly manner.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.2	The limits to economic growth have been exceeded or will be reached very soon.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.3	Environmental protection measures should be implemented even if this results in job losses.	5-point <i>Likert</i>	1 = Strongly disagree; 5 = Strongly agree
EC.4	I am concerned about the environmental conditions in which our children will have to live.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.5	Newspaper articles or television reports about environmental problems make me angry.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.6	If we continue like this, we will be heading towards an environmental catastrophe.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.7	It is still evident that policymakers are doing too little to protect the environment.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
EC.8	For the sake of the environment, we should be willing to limit our current lifestyle.	5-point <i>Likert</i>	1= Strongly disagree; 5 = Strongly agree
Gender	Gender of the farm manager	Categorical	0 = Male; 1 = Female
Age	Age of the farm manager	Categorical	0 = ≤ 40 ; 1 = > 40
UAA	Utilised Agricultural Area	Categorical/Ordinal	1 = ≤ 6 ha; 2 = > 6 ha and ≤ 14 ha; 3 = > 14 ha
Organic	Organic farming status	Dichotomous	0 = Conventional; 1 = Organic

Table S2. Comparison of odds ratios (OR), robust standard errors (SE), and p-values between the main logistic regression model (UAA entered as an ordinal variable) and an alternative specification in which UAA is entered as dummy variables (UAA class 1, ≤ 6 ha, as reference category).

Variable	Ordinal model			Dummy model			
	Coeff. (SE)	OR	p-value	Coeff. (SE)	OR	p-value	Sig.
Innovation orientation	2.134 (.508)	8.453	<.001	2.130 (.502)	8.412	<.001	***
Environmental concern	0.706 (.388)	2.026	.069	.707 (.389)	2.028	.069	*
Water scarcity concern	.591 (.334)	1.805	.077	.591 (.333)	1.806	.076	*
High water costs	1.385 (.591)	3.997	.019	1.386 (.589)	4.000	.018	**
Limited financial support	.021 (.441)	1.021	.961	.022 (.442)	1.022	.960	n.s.
Shortage of qualified staff	2.529 (.537)	12.541	<.001	2.515 (.562)	12.363	<.001	***
UAA (ordinal, class 1–3)	.915 (.244)	2.497	<.001	—	—	—	—
UAA class 2 (>6–14 ha) vs class 1	—	—	—	.860 (.602)	2.363	.153	n.s.
UAA class 3 (>14 ha) vs class 1	—	—	—	1.820 (.491)	6.171	<.001	***
Gender	-.716 (.503)	.488	.155	-.722 (.499)	.486	.148	n.s.
Age	.334 (.612)	1.397	.585	.338 (.610)	1.402	.579	n.s.
Organic	.414 (.440)	1.513	.347	.414 (.441)	1.513	.348	n.s.
Constant	-16.968 (3.544)	—	<.001	-16.011 (3.403)	—	<.001	—
<i>Number of observations</i>			201				201
<i>Log likelihood</i>			-76.353				-76.348
<i>Wald χ^2 (10)</i>			35.393				35.691
<i>McFadden Pseudo R²</i>			.393				.393

Table S3. Ordered logistic regression on the number of innovations adopted.

Variable	Coeff. (SE)	OR	p-value	95% CI (OR)
Innovation orientation	.933 (.241)	2.542	<.001***	1.584 – 4.077
Environmental concern	.337 (.332)	1.400	.310	.731 – 2.683
Water scarcity concern	-.274 (.226)	.760	.224	.488 – 1.183
High water costs	1.671 (.374)	5.320	<.001***	2.558 – 11.066
Limited financial support	-.471 (.360)	.625	.191	.309 – 1.265

Variable	Coeff. (SE)	OR	p-value	95% CI (OR)
Shortage of qualified staff	.565 (.314)	1.759	.072*	.950 – 3.258
UAA (ordinal)	.654 (.212)	1.924	.002**	1.270 – 2.914
Gender	-.842 (.405)	.431	.037**	.195 – .952
Age	-.073 (.540)	.930	.893	.322 – 2.681
Organic	-.330 (.393)	.719	.401	.333 – 1.553
<i>Number of observations</i>				201
<i>Log pseudolikelihood</i>				-208.323
<i>Wald χ^2 (10)</i>				45.11
<i>Pseudo R²</i>				.114
<i>Test of parallel lines: χ^2 (29)</i>				38.91 (p = .103)

Note: *** p<.001, ** p<.05, * p<.10.

Table S4. Logistic regression models by specific irrigation technology: odds ratios (p-values in parentheses).

Variable	Drip irrigation	Smart / sensor-based	Water/energy-saving	Fertigation
Innovation orientation	2.289 (.003) **	2.936 (.009) **	2.277 (.001) ***	1.692 (.085) *
Environmental concern	1.996 (.045) **	1.516 (.460)	1.373 (.360)	1.207 (.616)
Water scarcity concern	.441 (.004) **	.935 (.862)	1.416 (.243)	.654 (.210)
High water costs	5.003 (.001) ***	2.699 (.121)	5.238 (<.001) ***	5.618 (.001) ***
Limited financial support	.638 (.275)	.391 (.100)	.785 (.553)	.756 (.537)
Shortage of qualified staff	1.499 (.280)	2.201 (.091) *	1.422 (.345)	1.513 (.325)
UAA (ordinal)	1.674 (.043) **	2.147 (.063) *	2.048 (.005) **	2.522 (.005) **
Gender	.381 (.089) *	.281 (.188)	.649 (.395)	.109 (.003) **
Age	.819 (.785)	.737 (.650)	.771 (.593)	1.342 (.701)
Organic	.683 (.369)	1.610 (.382)	.675 (.362)	1.068 (.893)
<i>Number of observations</i>	201	201	201	201
<i>Log likelihood</i>	-93.978	-54.396	-95.689	-79.008
<i>LR χ^2 (10)</i>	24.200	23.518	35.211	25.174
<i>Pseudo R²</i>	.114	.178	.155	.137

Note: *** p<.001, ** p<.05, * p<.10.