

Supplementary Table 1. The soil science knowledge scale (range from 0 to 1) used in this study.

N°	Items*	T/F	Mean score
K056	To remediate sodic soils, it is beneficial to apply organic matter to the soil.	F	0.18
K006	To decrease the salt concentration in saline soil, it is beneficial to incorporate organic matter into the soil.	F	0.24
K052	To improve the salt conditions of a saline soil, it is beneficial to apply agricultural lime (calcium and/or magnesium carbonate).	F	0.24
K076	To improve soil fertility, it is beneficial to inoculate legume crops with various strains of <i>Rhizobium</i> bacteria.	T	0.31
K017	Soils that are lighter in color have a higher abundance of organic matter, compared to darker soils.	F	0.36
K107	To mitigate soil erosion on sloping terrain, it is beneficial to maintain the soil between rows completely uncovered, free of weeds, and without mulch.	F	0.40
K093	The more compact the soil, the more favorable it is for plant development.	F	0.41
K049	To enhance soil porosity, it is necessary to regularly use heavy machinery on the soil.	F	0.49
K061	Creating compost involves forming a pile using only green substances, such as grass and leaves, without the need to add any other type of substance.	F	0.52
K101	Agricultural burning improves soil biological quality.	F	0.55
K059	To remediate an excessively acidic soil, it is beneficial to apply agricultural lime, i.e., calcium carbonate and/or magnesium carbonate.	T	0.57
K108	To boost nitrogen availability in the soil for plants, it is beneficial to incorporate green substances such as leaves or grass.	T	0.64
K025	To remediate a sodic soil, it is beneficial to apply gypsum (calcium sulfate), allow some time for it to take effect, and subsequently wash the soil with a substantial amount of water.	T	0.69
K104	Solarization is the process of disinfecting the soil through the heat generated by solar energy.	T	0.74
K020	To enhance soil aggregate stability, it is beneficial to leave the land fallow, i.e., unused, for at least one year.	T	0.80
K103	Agricultural burning has many negative effects on the environment.	T	0.80
K088	To ensure the most effective composting process, it is essential to regularly aerate the compost pile.	T	0.81
K035	To boost soil biological activity, it is beneficial to apply fermented organic fertilizer to the soil.	T	0.88
K106	Conventional pesticides have many negative effects on soil biological quality.	T	0.95

* The items are ranked by the mean scores obtained from participating farmers (n= 33). A lower mean score indicates that fewer participating farmers answered the item correctly, and vice versa. “T” signifies “true”, “F” signifies “false”.

Supplementary Table 2. The attitudes toward soil scale (range from 1 to 5) used in this study.

N°	Items*	Mean score
C38	Painting one's face with soil provides a pleasant sensation.	3.90
C65	Plowed soil has a pleasant smell.	4.00
C40	The sound of soil when water is added is relaxing.	4.10
C43	Speaking to the soil is intriguing.	4.10
C39	Molding figures and shapes from the soil is fascinating.	4.12
C41	Watching water infiltrate the soil is mesmerizing.	4.17
C53	Paintings made from soil can be beautiful.	4.19
C57	The earthworms living in the soil are beautiful.	4.21
C32	If we have seeds, soil, and water, we have the ingredients for a miracle.	4.24
C68	Observing the insects that live in the soil is fascinating.	4.24
C02	The sensation of running your fingers through the soil is enjoyable.	4.29
C25	Soil has the spirit of growth.	4.29
C14	A nation that destroys its soil, destroys itself.	4.29
C70	The farmer's care is the best fertilizer for the soil.	4.33
C30	Our most important job as farmers is to feed and sustain the life of the organisms in the soil.	4.37
C08	Growing crops is a noble pursuit, but fostering fertile soils is an even nobler endeavor.	4.38
C33	As the soil, so the harvest.	4.43
C55	The organisms living in the soil are the children of the soil.	4.43
C52	The life within the soil is beautiful.	4.55
C50	Soil is a sacred resource.	4.55
C62	Soil fertility is the future of civilization.	4.67
C34	Soil is the skin of planet Earth, and we must protect it.	4.88

* The items are ranked by the mean scores obtained from participating farmers (n= 33). A lower mean score indicates a lower level of agreement among participants with the item, and vice versa.

Supplementary Table 3. The soil conservation behavior scale (range from 1 to 5) used in this study.

N°	Items*	Mean score
B04	I carry out chemical analysis of the organic matter to be applied on my property.	1.32
B19	I inoculate the soil on my property with symbiotic fungi (<i>mycorrhizae</i>).	1.60
B11	I apply <i>Rhizobium</i> bacteria and/or other beneficial bacteria to the soil on my property.	1.70
B21	I maintain cover crops on my property.	1.76
B05	I use mulch in between rows on my property	1.91
B13	I create compost using agricultural waste on my property.	2.27
B28	I leave some land fallow on my property, that is, I leave some land unused for at least a year.	2.45
B18	I calculate the dose of fertilizers to apply on my property based on the results of soil analysis.	2.67
B25	I apply fermented organic fertilizers to the soil on my property.	2.68
B24	I disinfect the soil using the heat generated by solar energy (solarization) on my property.	2.82
B15	I stay informed about issues related to soil resources through newspapers, magazines, websites, etc.	2.91
B02	I apply organic matter to the soil on my property.	3.00
B27	I use pesticides (or herbicides or fungicides or nematicides) of biological origin on my property.	3.55
B8	<i>I burn stubble and/or pruning residues and/or leaves on my property</i>	3.59
B6	<i>When production waste is generated on my property, I dispose of it somewhere.</i>	4.05

* The items are ranked by the mean scores obtained from participating farmers who make decisions on soil management (n= 21). A lower mean score indicates that fewer participating farmers engage with the item activity, and vice versa. Items in *italics* represent negatively formulated statements; the scores for these items were reversed for analysis. These statements should be interpreted as 'I refrain from...'.