

European land quality as a foundation for the sustainable intensification of agriculture



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What is Sustainable Intensification?

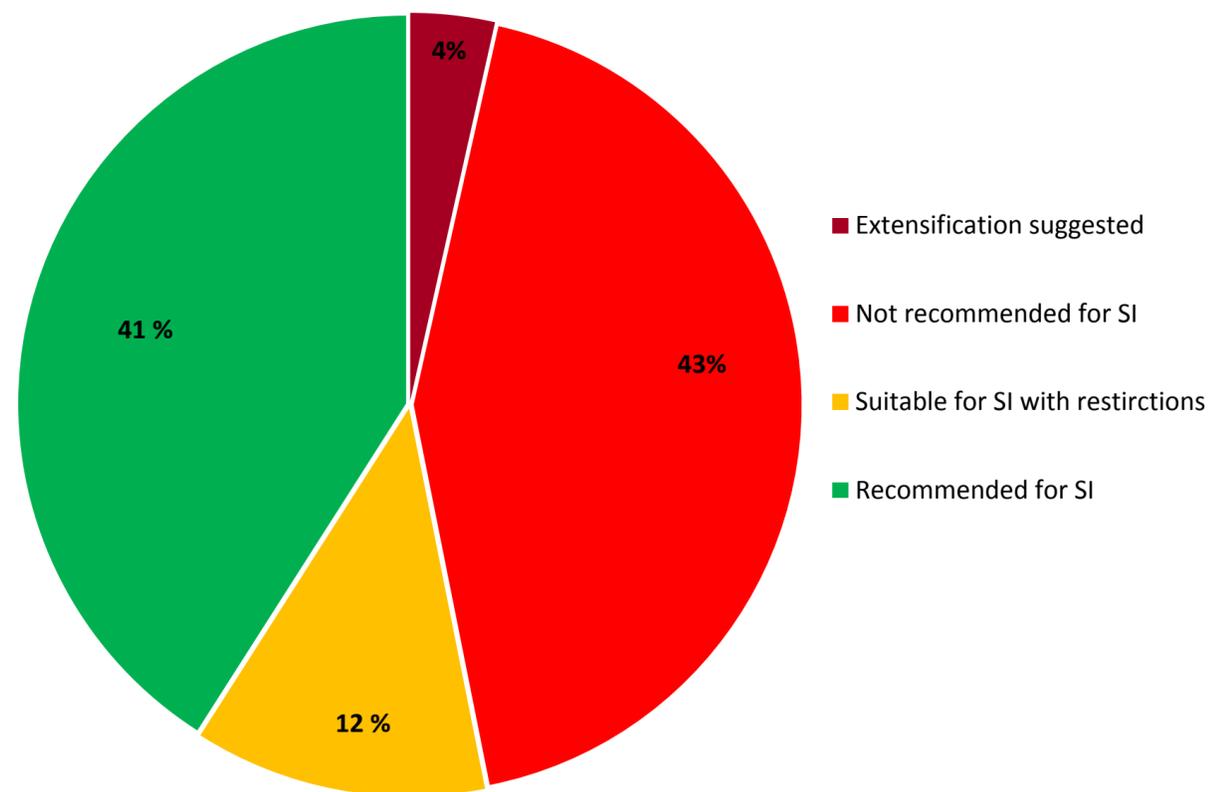
Sustainable Intensification (SI) is a strategy to achieve global food security by improving the productivity and environmental management of agricultural land.

Based on good soil **resilience** (capacity of systems to return to a (new) equilibrium after disturbance) and **performance** (capacity of systems to produce over long periods) soil intrinsic parameters (= indicators) were identified thus allowing for policy recommendations where sustainable agricultural intensification can be achieved in Europe.

	excellent	good	medium	poor	unit
SOC %	>4	2-4	1-2	< 1	%
Clay+ Silt	>50	35-50	15-35	<15	%
pH		6.5-8	5.5-6.5	<5.5; >8	in H ₂ O
CEC		>25	10-25	<10	cmol/kg
Depth*		>60	30-60	<30	cm
Slope**		<8	8-15	15-25	%

* Estimated according to WRB 2006

** Sites with slopes >25% were excluded from calculations



- 43 % of the analysed arable land is not suitable SI
- At 4 % extensification is recommended
- 12 % should be used with precaution
- 41 % of the arable land in Europe can be used for SI