



The agricultural world in the face of the change in model: the situation in Latin America and elsewhere in the world

**Lic. Pedro Vigneau
Honorary President**

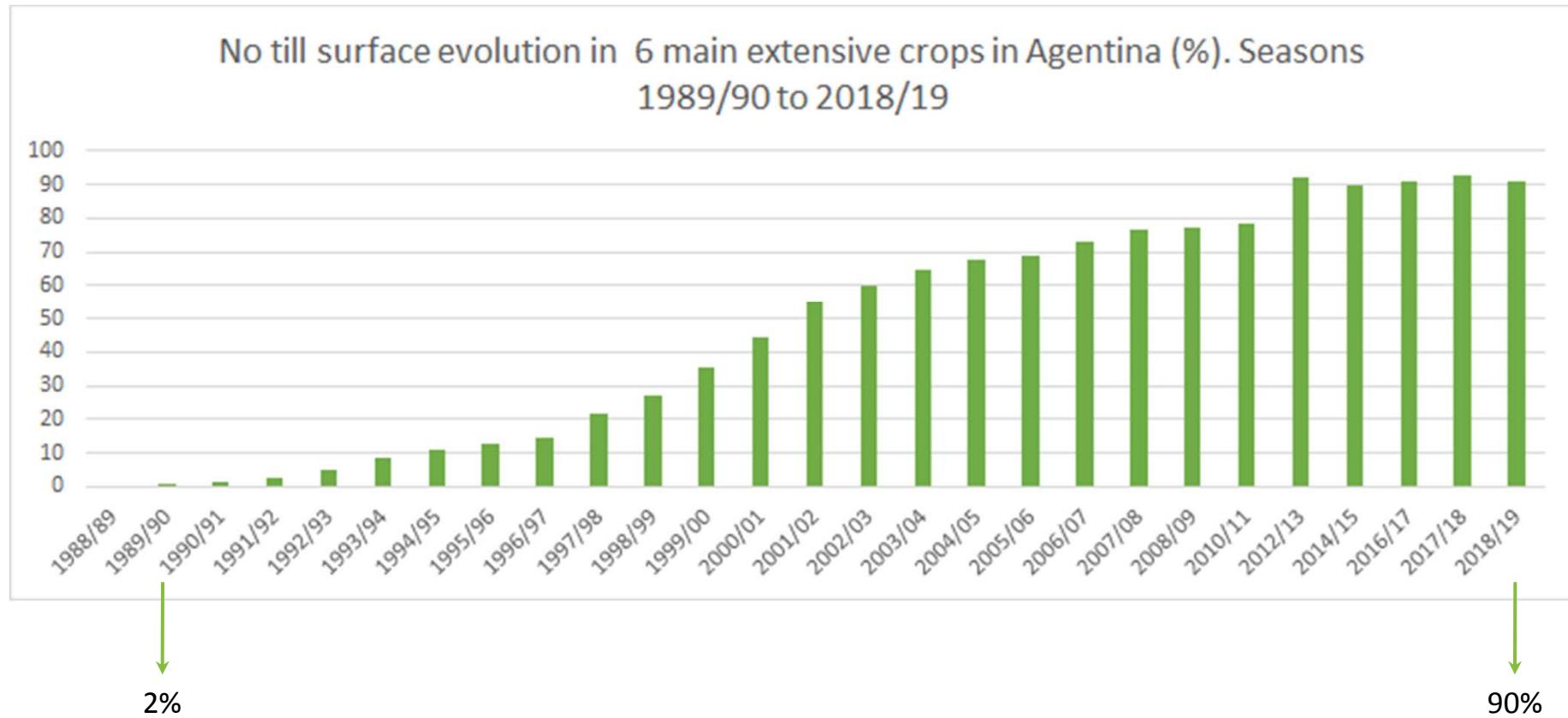


Aapresid's Mission

To promote sustainable production systems of Food, Fiber and Energy through innovation, science and network knowledge management

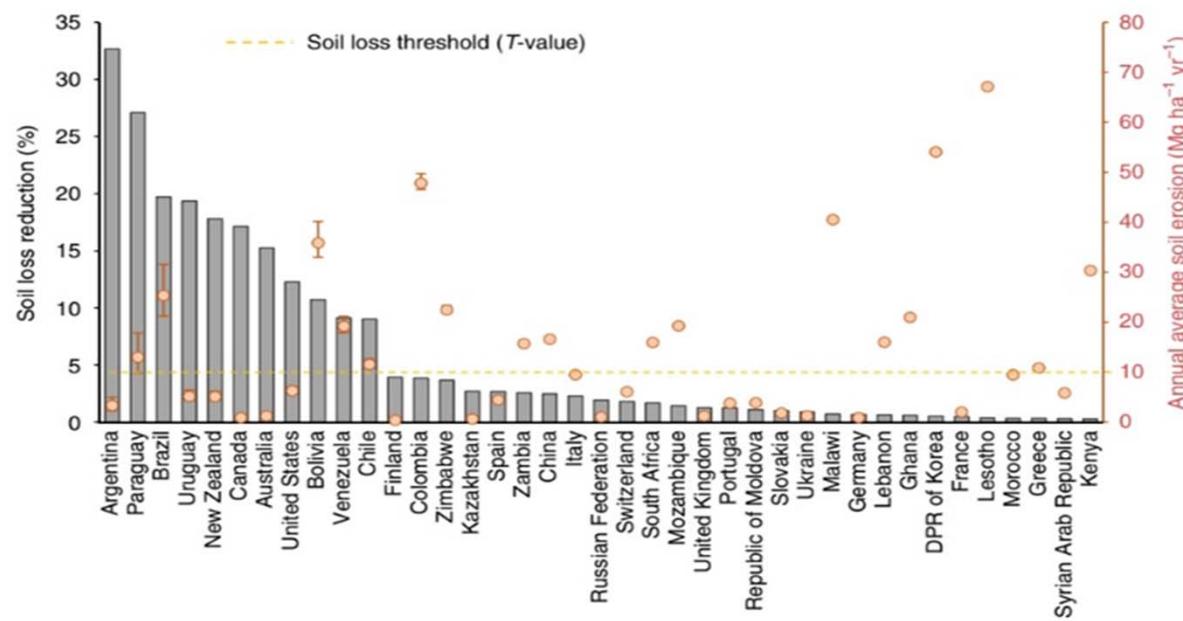


% No till area evolution in Argentina from 1989 to 2019





No Till farming: positive impact



Nature Magazine: Argentina world leader in soil loss reduction

Benefits of the Sustainable Production System based on No Till Farming:

- Reduces erosion by 90%
- Reduces the use of fossil fuels by more than 60%
- Reduces water losses due to evaporation by 70% and improves water use efficiency
- Boosts soils fertility

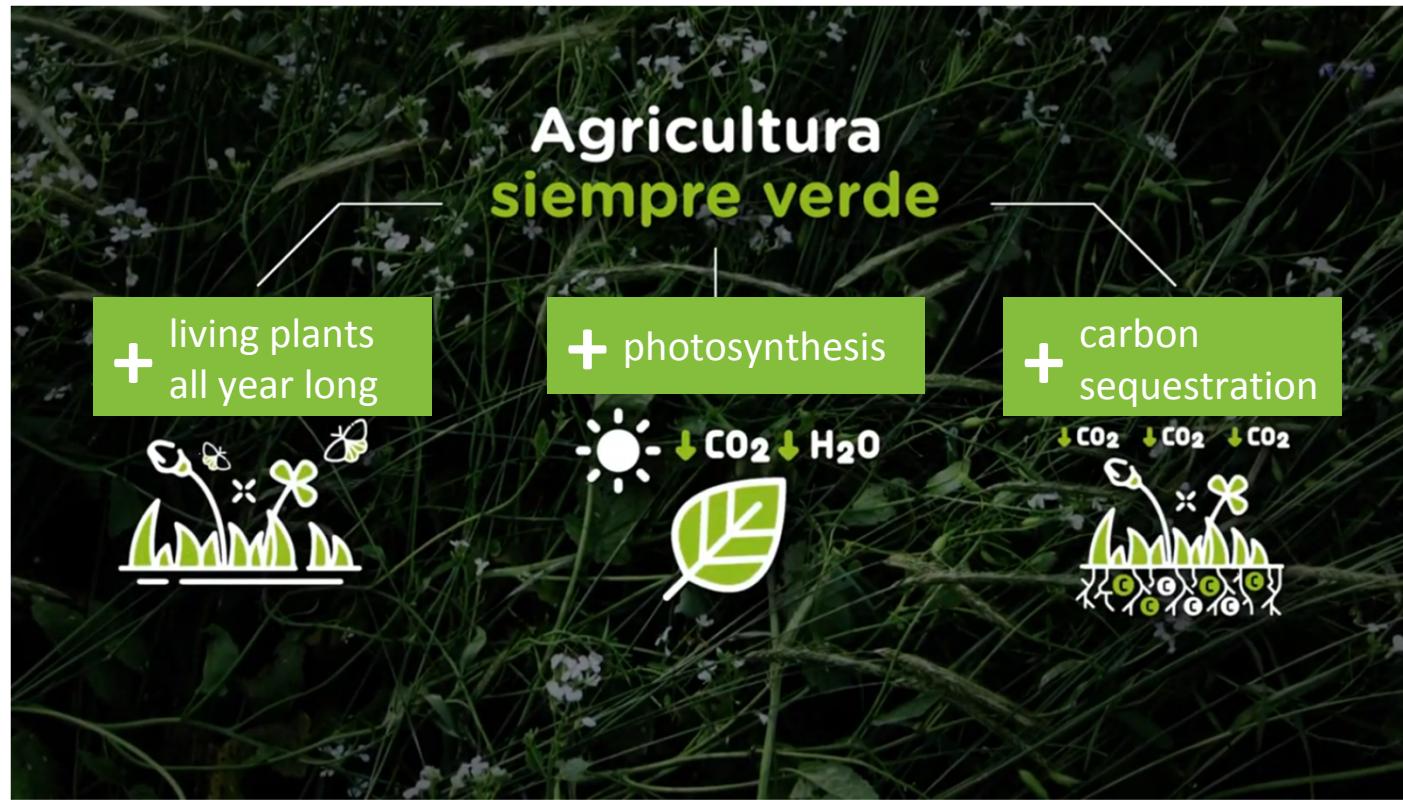


Always Green Agriculture



Services:

- Weed control
- Delivery of nutrients
- Erosion control
- Water management
- Maintenance of biodiversity





How much greener?



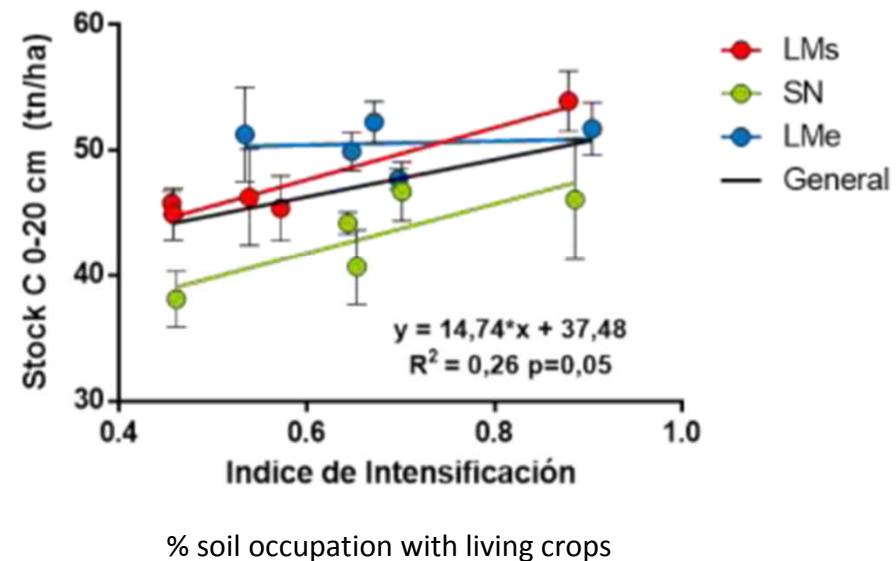
Carbon sequestration

Pergamino:

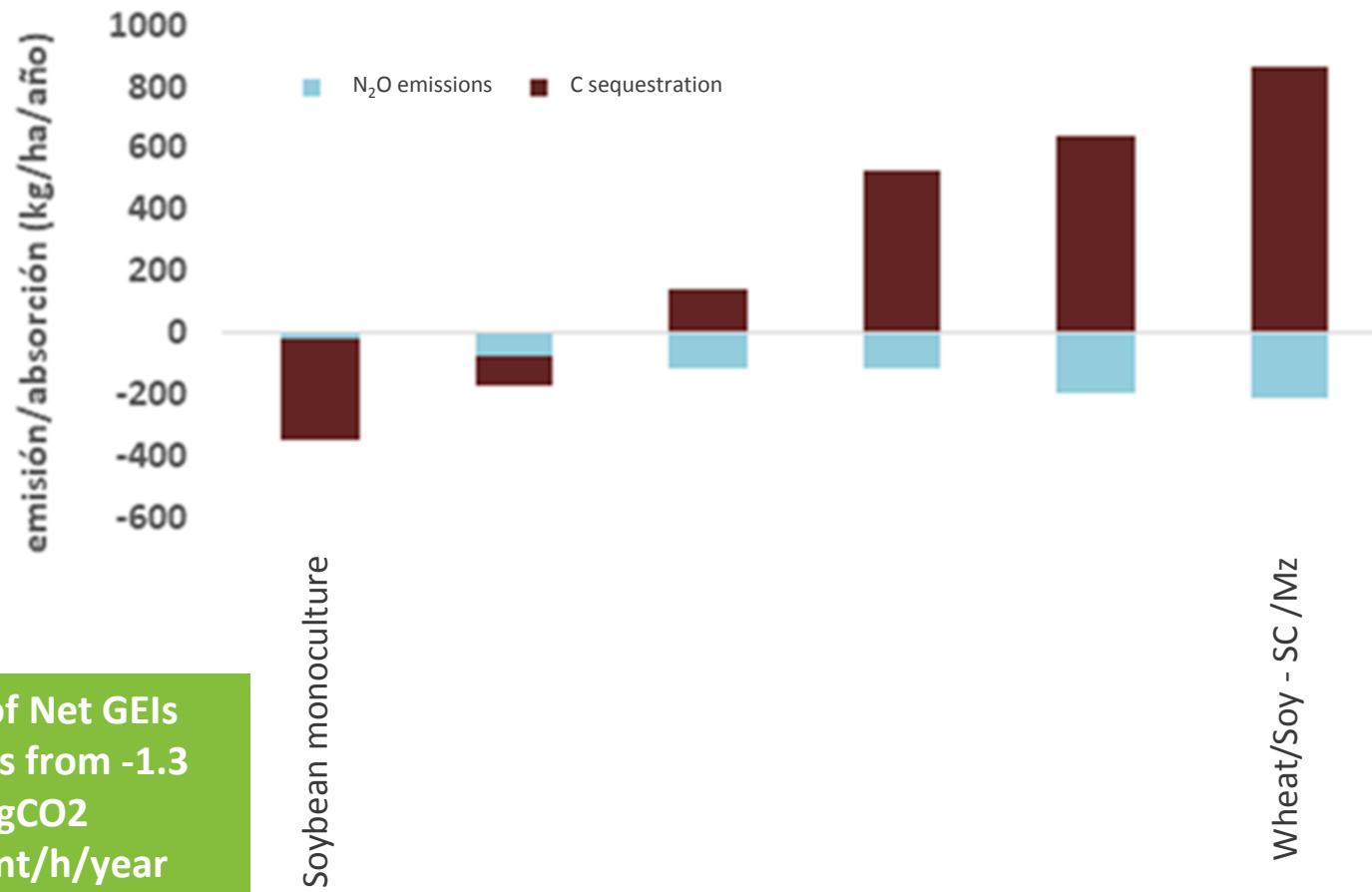
Stock evolution (ton/hectare) and correlation with the level of soil use

Increase in C stock: +
12% (+6 ton C /ha)

Est.	Rotación	IIR	% Gram
LMs	Pastura-Tr/Sj-Ar/Mz	0,88	50
LMs	Tr/Sj-Ar/Mz	0,57	36
LMs	Tr/Mz-Vic/Mz	0,54	90
LMs	Tr/Sj-Mz	0,46	63
LMs	Tr/Sj-Mz-Sj	0,46	50
SN	Pastura-Tr/Sj-Ar/Mz	0,89	50
SN	Tr/Sj-Vic/Mz	0,70	50
SN	Tr/Sj-Ar/Mz	0,65	50
SN	Tr/Mz-Vic/Mz	0,64	92
SN	Tr/Sj-Mz-Sj	0,46	50
LMe	Pastura-Tr/Sj-Cb/Mz	0,90	58
LMe	Tr/Sj-Cb/Mz	0,70	75
LMe	Tr/Mz-Vic/Mz	0,67	75
LMe	Tr/Sj-Ar/Mz	0,65	45
LMe	Tr/Sj-Mz-Sj	0,53	56



Potential in mitigation of GEIs emissions

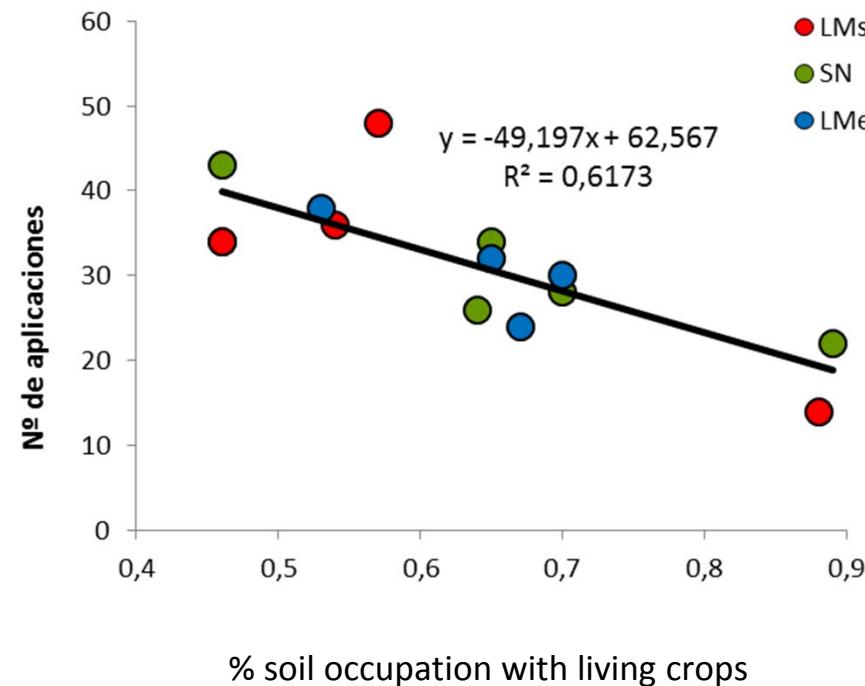


Reduce of Net GEIs
emissions from -1.3
to +2.4 kgCO₂
equivalent/h/year

Source: Taboada, 2019 (INTA)

Reduced use of herbicides

Reduction in Number of herbicide applications up to 50%

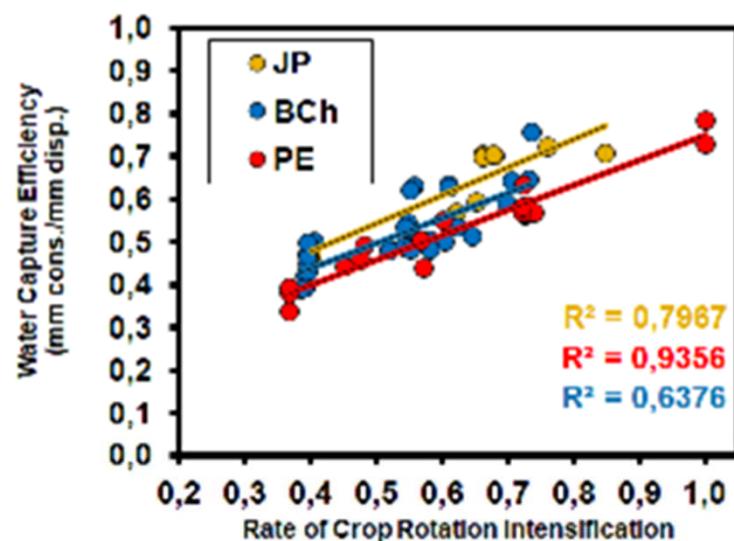


Reduction in the environmental impact index (EIQ) of up to 60%



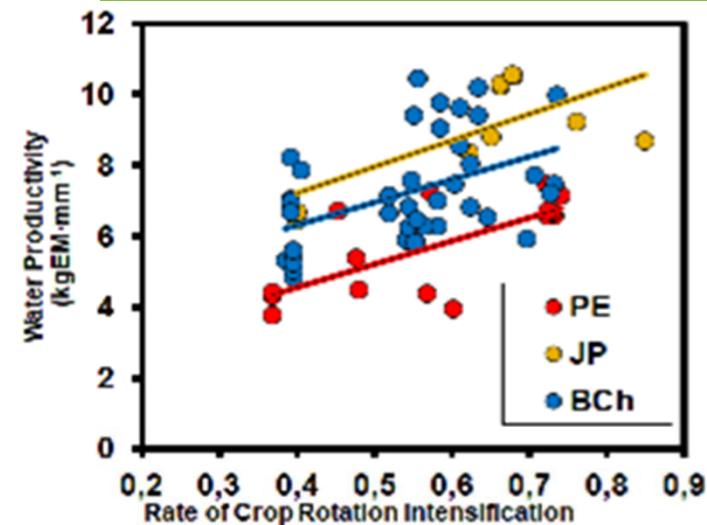
Improved water management

Increase in water capture
up to 40%



% soil occupation with living crops

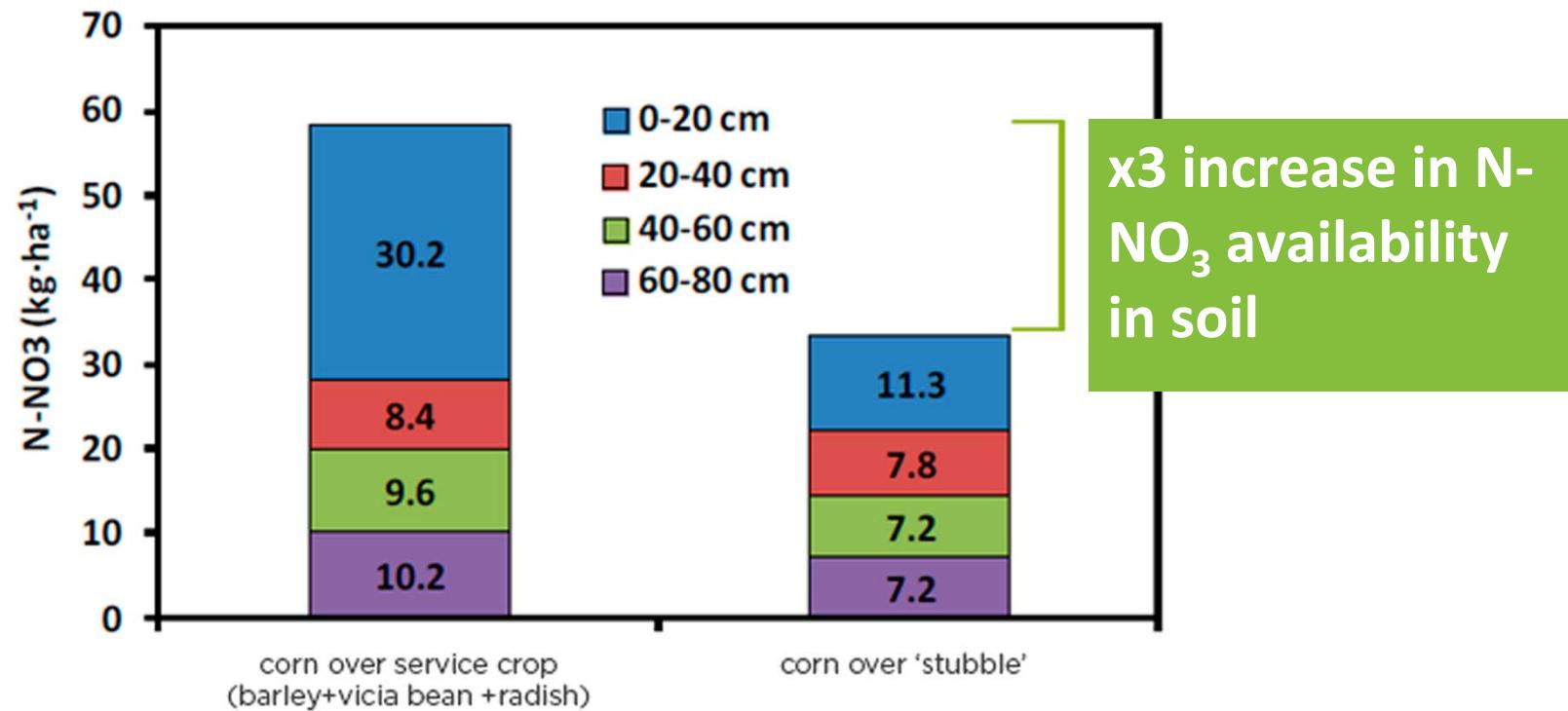
Increase in water productivity
(kg of grain/mm available
water): up to 30%



% soil occupation with living crops

Reduced use of synthetic herbicides

N-NO₃ availability in corn (R1) over different precedent crops.





Interdisciplinary Public-private Network







KEY MESSAGES

**Role of FARMERS in
developing &
disseminating
sustainable
production systems**

**Interinstitutional and
interdisciplinary
NETWORKS**

**Need of adequate
PUBLIC POLICIES**



THANKS!

