



GLOBAL SOIL PARTNERSHIP SESSION

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How to promote sustainable soil management? Crucial elements that the plan should foresee

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To promote the No Till system in order

to achieve an economically, environmentally and socially sustainable agricultural activity based on technological, organizational and institutional innovation, undertaking the commitment to interact with public and private organizations to achieve an integral development of our Nation.











CONVENTIONAL TILLAGE PARADIGM

Virgin soil
Structure
Porosity
Fertility
SOM: 5-6%

HUMAN FACTOR

CURRENT SOIL
Loss of fertility
Loss of porosity
Loss of structure
SOM: 2-3%

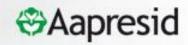
ROUTE FOLLOWED UNTIL THE PRESENT

TILLAGE =
DEGRADATION
UNSUSTAINABLE SYSTEM

PRODUCTION QUALITY
WITH BIG AMOUNTS OF
EXTERNAL INPUTS

ATMOSPHERE CO2

R. Fogante / 98



NO TILL SYSTEM

ROUTE TO FOLLOW

NO TILL

COVERED SOILS

BIODIVERSITY

PROPORTIONALLY LESS EXTERNAL INPUTS

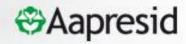
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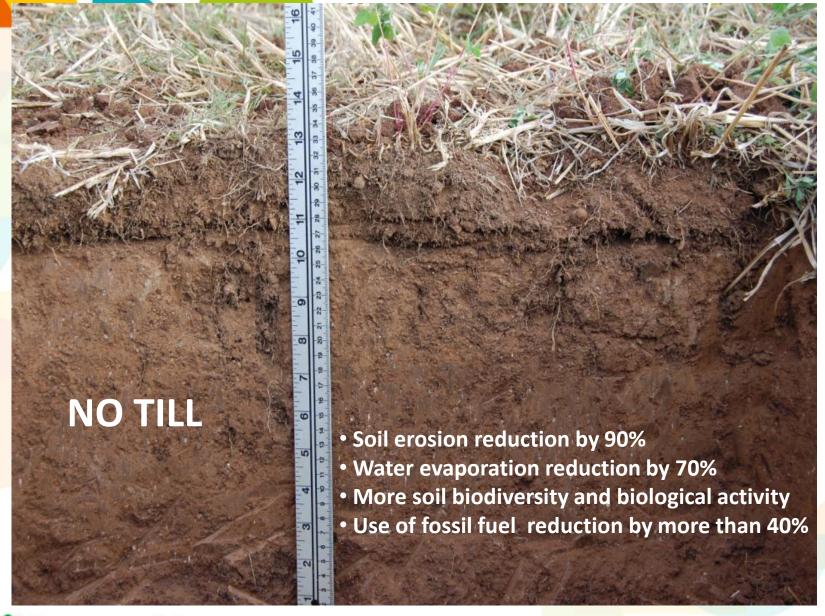
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NO TILL + GOOD AGRICULTURAL PRACTICES









CROP ROTATIONS

BALANCED NUTRITION

INTEGRATED
PEST
MANAGEMENT

RESPONSIBLE AGROCHEMICAL MANAGEMENT

- Better physical, chemical and biological soil conditions
- Increased soil biological activity and biodiversity
- Improved soil fertility and nutrients cycling
- Higher water use efficiency (less consumption and plus storage)
- Carbon sequestration
- Higher yields and increased yield stability



SUSTAINABILITY, a simple equation

NoTill

E V O L U T I O

N

SUSTAINABILITY

Visual and Lab indicators



If this was the Earth (total area 50,9 billions of hectares)



Global agricultural area (1,5 billions of hectares ~ 3%)

Fuente: Ilustración de CropLife America, adaptada por Bayer CropScience

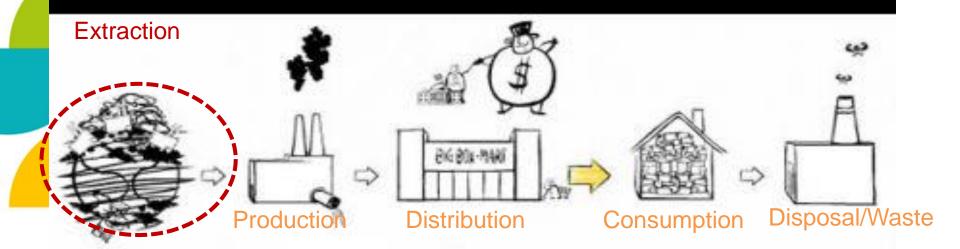
BIOTECHNOLOGY







FOOD GROWING DEMAND

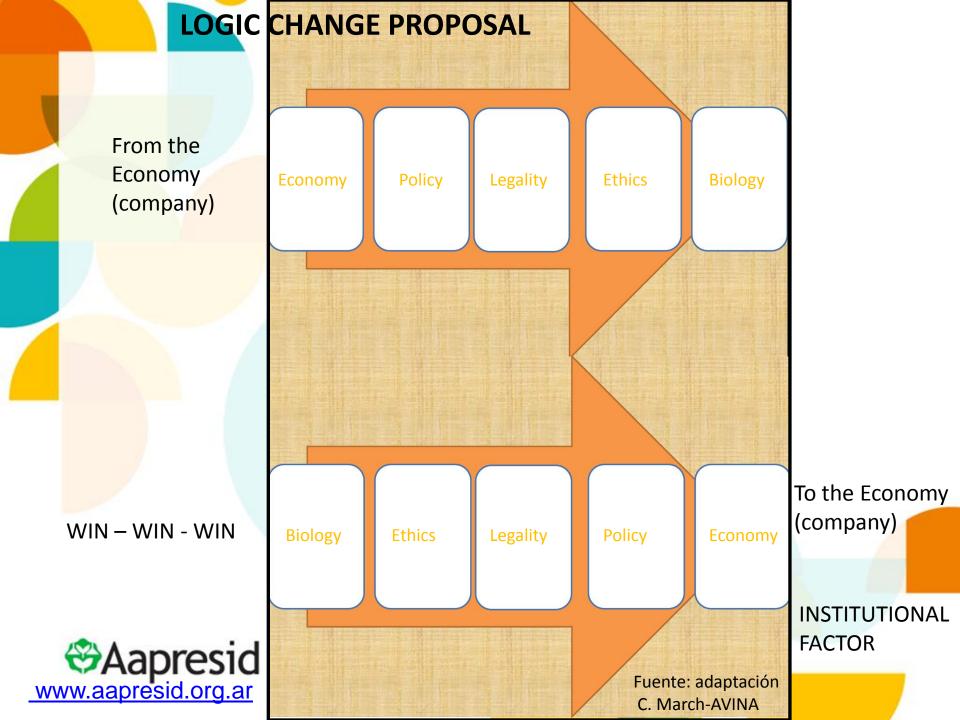


Growing demand for environmental care

SUSTAINABILITY



Source: The Story of Stuff, Annie Leonard



Let's change together !!!!





SOIL + WATER + AIR SECURITY







BIODIVERSITY
CLIMATE CHANGE MITIGATION
RENEWABLE ENERGIES

FOOD SECURITY

MANY THANKS!!!!

