



**ROBINSON AGRI**  
SUSTAINABLE INNOVATION



# THE THRILL OF FRUITS & VEGETABLES



NADINE ELKHOURY  
CHIEF OPERATING OFFICER  
ROBINSON AGRI







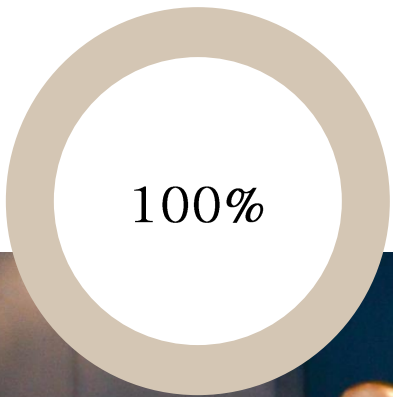
1971





2001





# PEOPLE ORIENTED





# CHALLENGES IN LEBANESE AGRICULTURE



# WATER

Lebanon is naturally water rich compared to other countries in the Middle East and North Africa (MENA) region with 40 rivers of which 17 are considered perennial + Groundwater with a natural recharge rate 500 MCM/year + More than 2,000 seasonal springs giving a total of 1,150–1,200 MCM/year of water.

Limited **water resources** in terms of both quantity and quality, due to:

Mismanagement, Overexploitation, Old infrastructure, Inadequate investment and Loss of non-conventional water resources.





# SOIL DEPLETION



Deterioration of soils in Lebanon are multiple: erosion due to deforestation , pollution, and urbanization.

Small properties : difficult/ Impossible crop rotation

Uncontrolled application of chemical fertilizers : increased salinity





# CLIMATE CHANGE



Climate change affects agriculture in a number of ways, including through:

- ✓ Changes in average temperatures, rainfall, and climate extremes (e.g., heat waves)
- ✓ Changes in pests and diseases; changes in atmospheric carbon dioxide and ground-level ozone concentrations
- ✓ Changes in the nutritional quality of some foods...





DETERMINED TO MAKE A DIFFERENCE



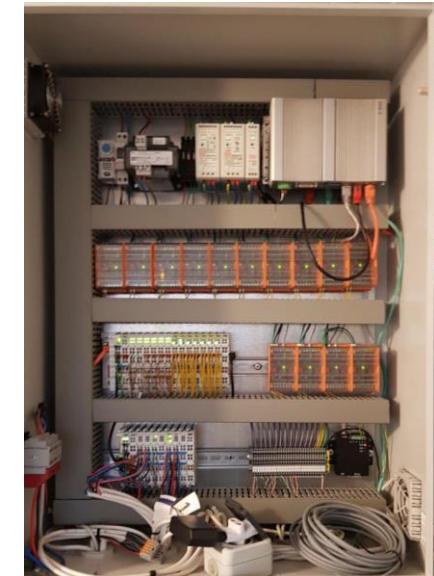
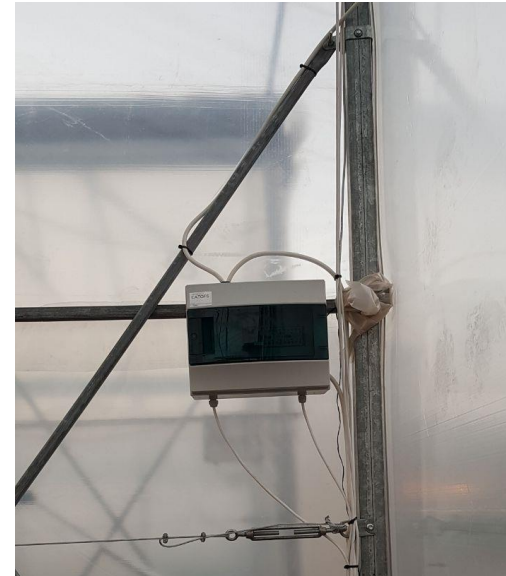
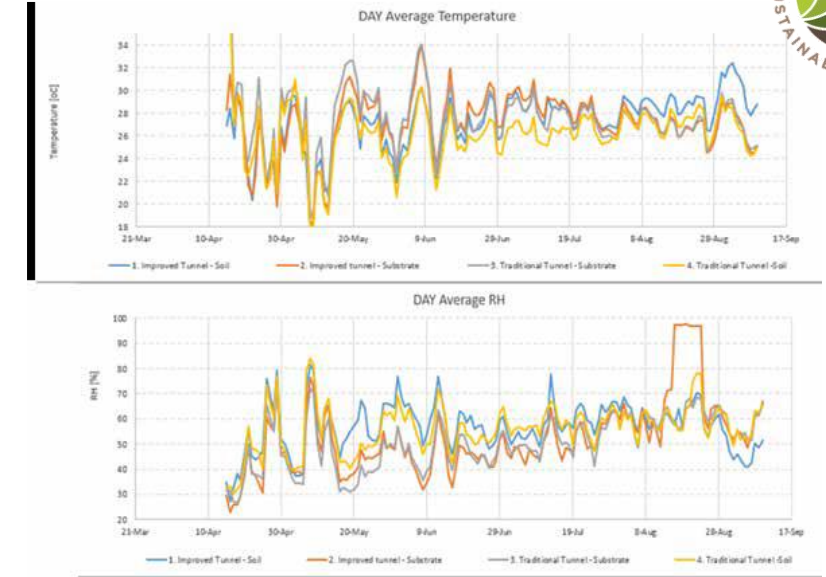
INNOVATION WITH PURPOSE



# GREENHOUSES

CUSTOMIZED – AUTOMATED – PRODUCED LOCALLY  
TURN-KEY PROJECT

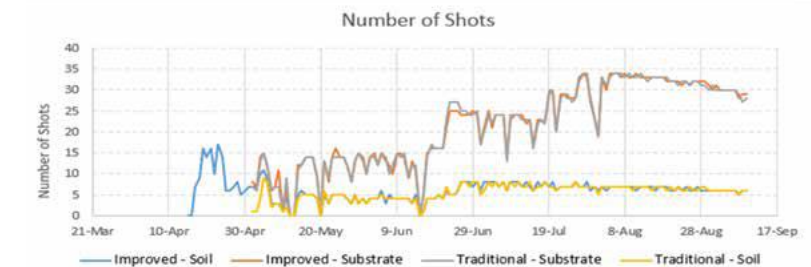
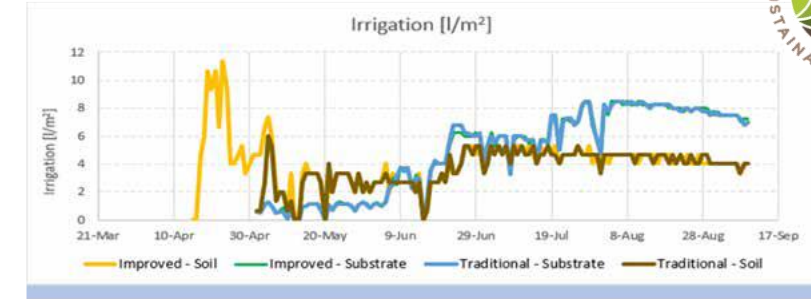
CONTROLLED ENVIRONMENT ( sensors for temperature  
& Humidity )





# SMART IRRIGATION

The use of smart Irrigation is an interesting option for arid countries to decrease water use while maintaining or even increasing food production, and improving livelihood and labor opportunities.





# HYDROPONICS

Soilless & Flat NFT: Closed system , recycled water ,water efficiency , high density per sqm, shorter cycles





# HYBRID SEEDS

Breeding is a very long process : 7– 20 years to obtain the right Variety

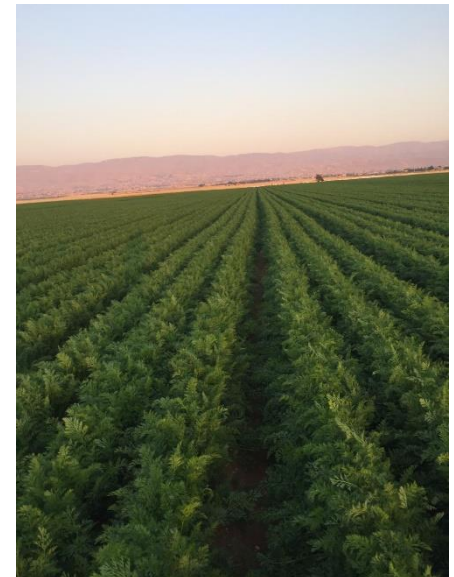
Hundreds of genetic characteristics like:

Resistances

Growth

Stress tolerance

Shape, appearance, taste



# GRAFTING

A complex and delicate form of plant breeding, for a robust increase in production.  
Grafting keeps out soil-borne diseases : less pesticides application  
Important practice after the banning of methyl bromide

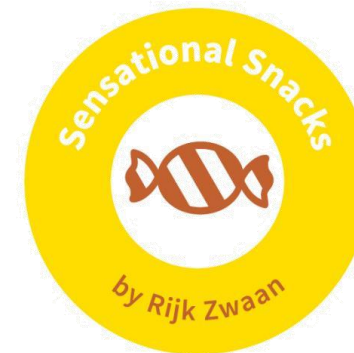




# CONCEPTS, BRANDING & PACKAGING



Supporting the Growers to understand the Customers needs



# SWOT ANALYSIS



STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>✓ Human Capital: Experienced engineers</li> <li>✓ Private Sector and NGO's</li> <li>✓ Possibility of producing Excellent Quality Produce (taste, shelf life)</li> <li>✓ Natural resources</li> <li>✓ Big Agrifood Industry</li> </ul>	<ul style="list-style-type: none"> <li>✓ Low Budget of MoA</li> <li>✓ Non governmental support ( absence of international agreements / Agriculture Calendar)</li> <li>✓ Human Capital : old Fashioned growers</li> <li>✓ Social Capital : low trust in the local produce. Lack of collaboration</li> <li>✓ Infrastructure : no equal access to new technologies</li> <li>✓ High production cost</li> <li>✓ Low awareness</li> <li>✓ High cost for new technologies</li> </ul>	<ul style="list-style-type: none"> <li>✓ New markets : export</li> <li>✓ Diversified crops</li> <li>✓ Investment in Agricultural Sector : NGO's</li> <li>✓ New techniques : hydroponics</li> <li>✓ Renewable energy</li> <li>✓ Subsidies and long term loans for agriculture projects</li> <li>✓ Traceability</li> </ul>	<ul style="list-style-type: none"> <li>✓ Outside Competition</li> <li>✓ Illegal import</li> <li>✓ Unstable economic situation</li> <li>✓ Urbanization</li> <li>✓ Pollution</li> <li>✓ Climate change</li> </ul>





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THANK YOU

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[www.robinsonagri.com](http://www.robinsonagri.com)