DEBBANE AGRI

# Together for a **BETTER AGRICULTURE**

*Since 1952*

# Agricultural Technologies to support grape production in Northeast Baalbek

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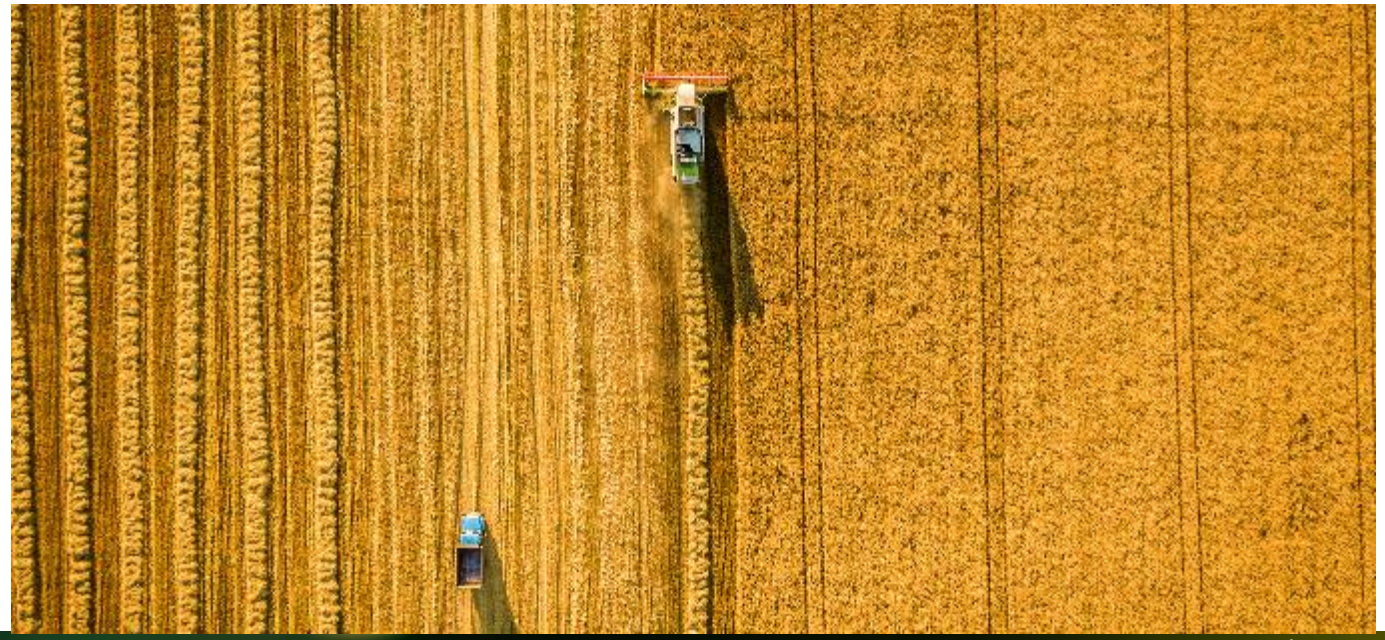
- Since the inception of **Debbane Agri Holding sal** in **1952** as a member of **Debbane Saikali Group**, it has been regarded as one of the Leading Agricultural groups in Lebanon and the MENA region.
- With more than 150 agronomists across the operations, Debbane Agriculture Holding sal is renowned for its contribution to the agricultural sector, continuously **pioneering new techniques** and **specialty products**.
- The close relationships we build with growers allow us to craft solutions to their specific needs, and provide the right products for each market.
- We enrich the market with **quality innovations** from multinational companies by conducting **extensive local trials** and **large-scale demonstrations**, adapting them to local market conditions.







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# OUR COMPANIES

**1952** DEBBANE FRERES - LEBANON
**1976** DEBBANE & CO - SYRIA
**1999** DEBBANE FOR MODERN AGRICULTURE - IRAQ
**2005** DEBBANE POUR L'AGRICULTURE - ALGERIA
**2009** APOLLO SEEDS - USA
**2009** GLOBAL CARE OPERATION (PEST CONTROL) - IRAQ
**2009** DELTA PARS NAHADE - IRAN

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# OUR PRESENCE


**380+** EMPLOYEES

Out of which
**150+** AGRONOMISTS

**6+** COUNTRIES

*LEBANON* *IRAQ* *ALGERIA* *SYRIA* *IRAN* *USA*

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# Agriculture in Lebanon

- GDP contribution: 3%
- 25% of total country area is green
- 12.6% of total country area is arable (132,000 ha out of 1,045,000 ha)

Ref: AQUASTAT, 2012

# Demographics

- Youth: 11% of producers are **below** 34 years old
- 41% are above 55 years old
- 70% of holdings cultivate **less than** 1ha
- Only around 1.8% cultivate more than 10ha

Ref: ESCWA, 2019

# Water Resources

- 60% of available water resources consumed by agriculture
- 25% use drip irrigation - **49%** adopt surface irrigation
- Deep wells are the main source of irrigation; illegal installations are exacerbating groundwater quality and quantity (UNDP, 2014)
- Lack of knowledge in irrigation systems is causing low water use efficiency (approx. 60%)

Ref: ESCWA, 2019

# Agricultural Technologies

- Budget Constraints
- ICT availability awareness
- Farmer acceptance
- Relevance of information
- Operational ICT constraints (connectivity, electricity, etc…)
- Saturation of local market, need for export

Ref: FAO, 2012

# Debbane's Contribution

- Hydroponics
- Grapes projects (Case study)
- Weather stations
- New Technologies department (drones, automated systems, IoT, A.I, etc…)

# Grapes Project
## Northeast Baalbek

- Traditional grapes projects  (planting dates, harvesting dates, overall status of produce and seasons in general)
- What are our projects trying to solve? What is their added value?
- Special Royalty varieties

# Grapes Project
# Global situation




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# Grapes Project
# Current situation

**Low Profitability**

**Productivity average:**
20-30 T/ha

**Min** 7 T/ha
**Max** 55 T/ha

**Selling prices:**
**From 0.5$/kg to 2$/kg**

**Average: 0.7$/kg**

# Grapes Project
# New concept

## Targets

**Harvest windows**

Early---Earlier between May-June
Mid---Higher Yield
Late---Higher Yield and later Production between November & January

**To meet international quality standards**

**To overcome climatic threats**

## Means

New developed cultural practices including training of vines, pruning, leafing, bunch thinning, berry thinning, bunch topping, cane topping, irrigation, fertigation, tilling, harvesting and maturity ( Knowledge)

New varieties (seedless grapes-all colors and shapes)
Rootstocks
Plantation densities
Infrastructure
Plastic/net covering

# Grapes Project
# New concept

**BEFORE**

**AFTER**

# Grapes Project
# **New Structure**

# Grapes Project
# **New Structure**

# Grapes Project
## New Structure

**Productivity average:**
**Up to 40 T/ha**

→

**Selling prices:**
**From 2 $/kg to 5 $/kg**

→

**High Profitability**

**ROI = 4.5 Years**

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# THANK YOU

*Since 1952*