Experiences in Lebanon: Strategies for Improving Apple Markets and Implications for Vermont Growers

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123RD ANNUAL VT TREE FRUIT GROWERS’ ASSN MTG
Huh??

“My name is Gretchen Hanson and I work at Land O’Lakes International Development on the Farmer to Farmer MENA program. We received your contact information from Renae Moran who thought you may be interested in and a good fit for one of our assignment regarding apple cider production. I have attached the scope of work and information about F2F for you to review.”

“The host would like someone, if possible, for mid-October. I understand that this is rather short notice but please let me know if you are interested and available for this assignment.”

September 26, 2017
Global hunger and food security initiative authorized under 1985 Farm Bill

Provides funds to USAID for contracted services provided through non-profit partner foundations

Five-year programs target specific regions and agricultural sectors

Major areas of program focus:
- Horticulture
- Dairy and livestock
- Staple food crops
- Producer organization development
- Financial services
- Marketing and processing
- Agricultural education and training
- Natural resources management.
Land O’ Lakes MENA Project
• 2013-2018 funding
• $8 million
• ~300 assignments across region
Host organization...is interested in making apple cider, due to marketing problems apple farmers are facing with their production. Processing apples would have an added value on the product and better marketability. Host is requesting a volunteer expert to help them in the production of the apple cider in an artisanal way.

Furthermore, if this same expert knows about vinegar production and/or apple juice production as well, we would gladly like some advice in these directions as well.

The objective of this assignment is to:

1. Train the host on the processing of apple cider (pressing, fermenting, bottling, storing etc..)
2. Recommend the required tools/equipment/accessories which are needed for the apple cider production
3. Teach the host basic GMP principles related to apple processing

Lebanon
• ~4.5 million population
  • ~40% Christian
  • ~55% Muslim
  • 50/50 Sunni / Shia
• ~2 million refugees
  • 1.5 million Syrian (2011)
  • 0.5 million Palestinian (1948)
• Lebanese Civil War 1975-1990
Lebanese apples

Introduced by French 1920s - 1940s
- Seedling rootstocks
- ‘Reds & golds’

Scale of industry:
- 13,600 ha (33,600 acres);
- Up to 153,000 MT (3.4 Million bu)
- 11.25 MT/ha (250 bu/ac)

~25% of total fruit production in the country
Lebanese Apple Crisis

Apple farming facing crisis in Lebanon
Published September 25th, 2012 - 12:04 GMT via SyndiGate Info

The apple industry in Lebanon is facing a growing crisis

- 12 M bu produced 2012
  - VT produces ~0.8 - 1 M bu
- Formerly an exporter to
  - Egypt
  - Arab peninsula
  - Syria
  - Europe
- Smallholder (<0.1 ha) farms
- Marketed through traveling ‘traders’

https://www.albawaba.com
Lebanese Apple Crisis

- Growers have pressured Lebanese government for support since 2011
- Closure of Syrian border stopped freight traffic
- Refrigeration systems are lacking
- Phytosanitary standards halt shipment to Europe
- NGOs have provided primary support
Declining value since 2011

Source: Lebanese Customs
Travels

Beirut, Jounieh: NGOs
Byblos: gorgeous port city
Bsharri: Apples, Cedars of Lebanon
Douma, Aaqoura: Apples, cidermakers
Zahle: Winegrapes
NGOs

- Crop management and outreach
- Nurseries & cultivar changes
  - (‘Reds and yellows’)
- Technical assistance
- Value chains analysis
- Integrated Crop Management
  - New initiative 2018

DAI, LAND O’ LAKES

- Value chains analysis
- Food safety
- GMP, processing plants
- Market development

Lebanon—Industry Value Chain Development (LIVCD)

Client: U.S. Agency for International Development
Duration: 2012-2019
Region: Middle East and North Africa
Country: Lebanon
Solutions: Economic Growth
Orchards
Lessons
1. Diversify your product

• ~95% apples are Starking / Red Delicious and Golden Delicious

• Markets for these fruit are shrinking, esp. in Europe

• Competition isn’t just among apples
Prior work: Frem Foundation Modernizing Lebanese Apple Orchards

GNFF has imported, grafted and nursed around 500,000 rootstock-based trees: Apples, Cherries, Plums and Pears.

GNFF also manages its own scion wood orchards from which the highest quality bud sticks are picked and used in the grafting.

Introduced:

• Gala
• Granny Smith
• Fuji
2. Modernize plantings for efficiency...
...but know your land & its limitations
Photo: Ghassan Germanos
Prior work: USAID Pruning
3. Embrace resiliency

Photo: Ghassan Germanos
4. Take care of your space
Lebanese Apple Crisis

Pesticide residues cited as a reason for rejection

UAE Bans Import of Apples from Lebanon

Lebanese apple growers confront political demons
Imports hurt local producers but benefit merchant-politicians, while traditional export markets shun Lebanese produce

http://blogbaladi.com
https://gulfnews.com
Primary apple pests in Lebanon

DISEASES

Apple scab
Powdery mildew
Nectria canker
Crown gall
Glomorella spot
Cedar rust

INSECTS

Mediterranean fruit fly
Codling moth

“The Mediterranean Fruit Fly (Ceratitis capitata or Medfly) is considered the most important agricultural pest in the world. The fly has spread throughout the Mediterranean region, southern Europe, the Middle East, Western Australia, South and Central America and Hawaii. It has been recorded infesting a wide range of commercial and garden fruits, nuts and vegetables, such as apple, avocado, bell pepper, citrus, melon, peach, plum and tomato.”
A pesticide dealer on a village street...

Investigative Genetics

Different waves and directions of Neolithic migrations in the Armenian Highland

Anaït Hovhannisyan, Zarouhi Khachatryan, Marc Heber, Petar Hrechdakian, Tatiane Karafut, Pierre Zalloua and Levon Yepiskoposyan

Investigative Genetics 2014 8:15
https://doi.org/10.1186/s13232-014-0015-6 | © Hovhannisyan et al.; licensee BioMed Central Ltd. 2014
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Abstract

Background

The peopling of Europe and the nature of the Neolithic agricultural migration as a primary issue in the modern human colonization of the globe is still widely debated. At present, much uncertainty is associated with the reconstruction of the routes of migration for the first farmers from the Near East. In this context, hospitable climatic conditions and the key geographic position of the Armenian Highland suggest that it
IPM??

- Limited applications of Integrated Pest Management
- No access to pest / disease forecasting models
- Farm size (<0.1 ha of 100s of contiguous ha)
- Little access to materials for rotation
- Recent interest / efforts (Frem foundation) promoting IPM but culture shift difficult
5. Learn together
6. Follow trends, but don’t expect them to save you
SAVE Lebanese APPLES

Caesar cider inspiration and focus

Summary

Caesar cider is an added value product initiated to support farmers and decrease rural migration in response to the 5 year apple crisis!
Cidermakers & growers

Nicolas & Rachel Maalouf, Douma

Rania Younes, Tannourine
The Apple orchard of Bou Younes is situated in the historic Byblos Mountains Akoura. This Cider comes from granny smith & Golden apples that full of tart, and Juice, balanced acidity, and low in calories. This Cider has a full mouth and fresh aroma.
7. When offered, eat the food
8. Embrace cultures
Thanks...

Dr. Renae Moran
Dr. Diane Cochran
USAID
Land O’ Lakes International
Georges N Frem Foundation

Hosts:
- Phillippe Germanos, Guita Guesthouse
- Ghassan Germanos
- Nicolas & Rachel Maalouf, Cider Manifesto
- Rania Younes, Younes Orchards
- Peter Hrechdakian, Unifert
- Kamal Mouzawak, Beit Douma / Souk el Tayeb
Pest Management
Cider?
Recommendations

• Invest in IPM education

• Invest in cider infrastructure & training to promote quality

• Diversify apple cultivar mix
  • Dessert apples first, cider apples second
  • Cultivate small plots of cider apple cultivars (Galician, etc)
  • Harvest and cultivate small plots of native *M. trilobata*

• Increase infrastructure and export capacity for stone fruit

• Pears?
2016 Export Value Chain Analysis

“In the EU market, Lebanon has the best opportunities in specialty (niche) markets, because the regular bulk markets in Europe are too competitive and massive for the volumes that Lebanon can deliver.”
Lebanon
Rural life
Cedars of Lebanon
Qadisha Valley