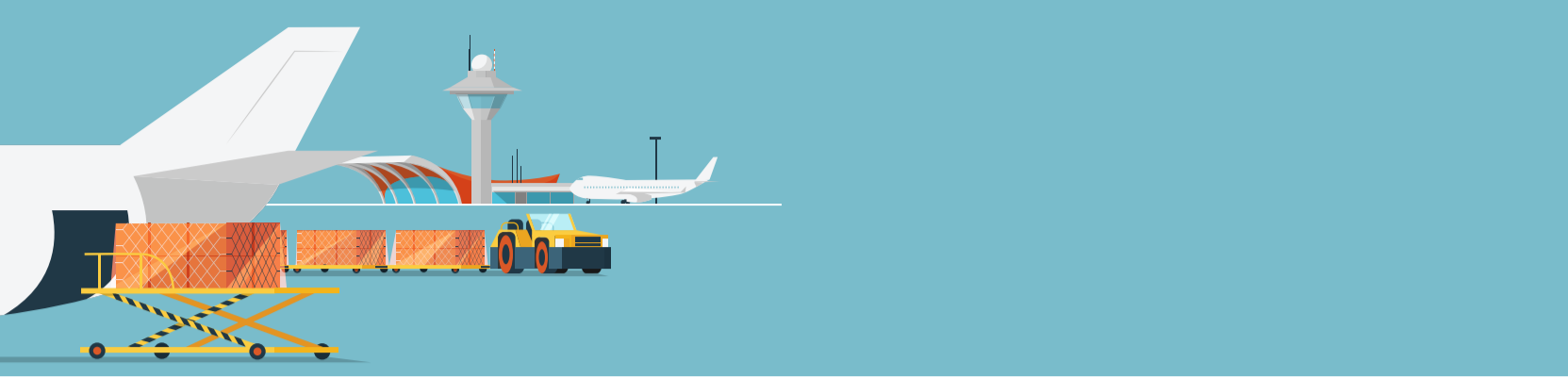


LOGISTICS FACTSHEET FOR TABLE GRAPES AND CHERRIES

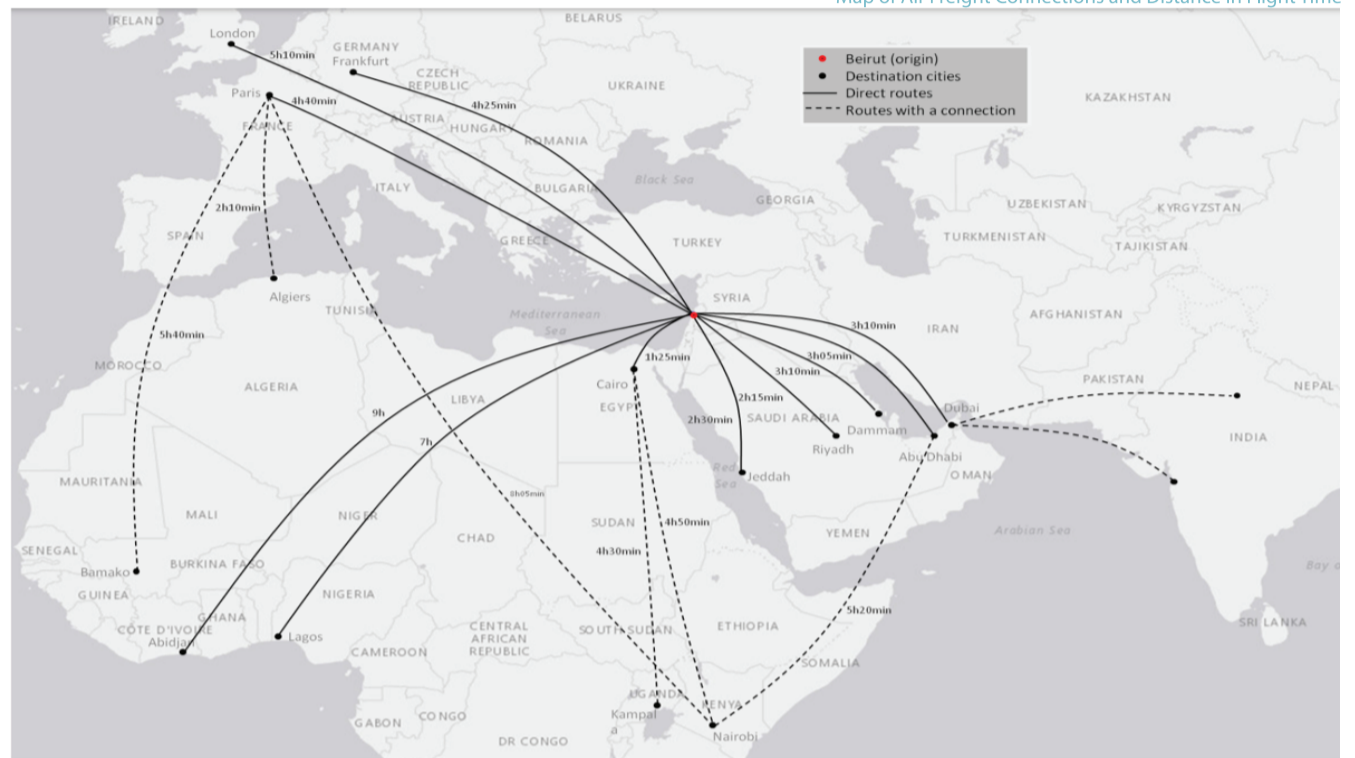


AIR FREIGHT



The map showcases the air freight connections from Beirut to various destinations across the Gulf States, Africa, and Europe. The table below provides an estimate of costs for air freight according to the weight in kilograms and final destination.

It should be noted that these prices are not accurate since prices fluctuate as they are subject to various factors including: seasonality, demand on air shipments, forward/annual contract deals, size of parcel, and different airlines having different prices. The prices are only an approximation based on a market research and intended to enlighten the exporters on potential routes. Exporters are encouraged to do their own research to identify the best routes and prices since they fluctuate regularly.



	From Beirut to	Kg	Price/Kg	Additional Price/Kg
Gulf States	Riyadh	500	\$0.95/Kg	
		1000	\$0.95/Kg	
	Jeddah	500	\$0.95/Kg	
		1000	\$0.95/Kg	
	Dubai	500	\$1.05/Kg	*from Dubai to India \$0.0/Kg
		1000	\$1.00/Kg	
Dammam	500	\$1.05/Kg		
	1000	\$1.00/Kg		
N. Africa	Cairo	500	\$0.95/Kg	
		1000	\$0.95/Kg	
Algeria *via Paris	500	\$0.90/Kg	+\$2.0/Kg	
	1000	\$1.00/Kg	+\$2.0/Kg	
East Africa	Nairobi *via Cairo	500	\$0.90/Kg	+\$2.75/Kg
		1000	\$1.00/Kg	+\$2.75/Kg
	Nairobi *via Paris	500	\$0.90/Kg	+\$2.75/Kg
		1000	\$1.00/Kg	+\$2.75/Kg
	Nairobi *via Abu Dhabi	500	\$0.60/Kg	+\$2.75/Kg
		1000	\$0.55/Kg	+\$2.75/Kg
	Uganda *via Cairo	500	\$0.90/Kg	+\$2.75/Kg
		1000	\$1.00/Kg	+\$2.75/Kg
Uganda *via Paris	500	\$0.90/Kg	+\$2.75/Kg	
	1000	\$1.00/Kg	+\$2.75/Kg	
West Africa	Lagos	500	\$3.50/Kg	
		1000	\$3.00/Kg	
	Bamako *via Paris	500	\$0.90/Kg	+\$0.0/Kg
		1000	\$1.00/Kg	+\$0.0/Kg
Europe	Paris	500	\$0.95/Kg	
		1000	\$1.00/Kg	
	London	500	\$1.10/Kg	
		1000	\$1.15/Kg	
Frankfurt	500	\$1.10/Kg		
	1000	\$1.15/Kg		

For instance, a parcel of 500 to 1,000 Kg from Beirut to Uganda (via Cairo or Paris) costs about 3.75\$ assuming Cairo to Uganda costs 2.75\$.

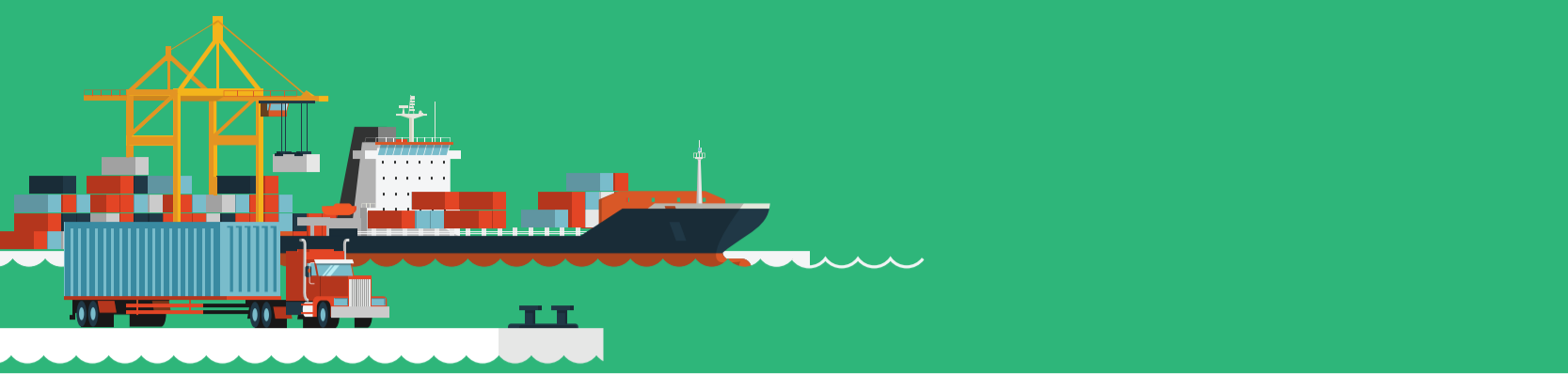
Total freight shipment through Beirut (RIHA) in 2017
77,412,499 kg

Exports
31,986,306 kg

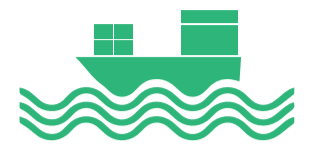


Imports
51,931,933 kg

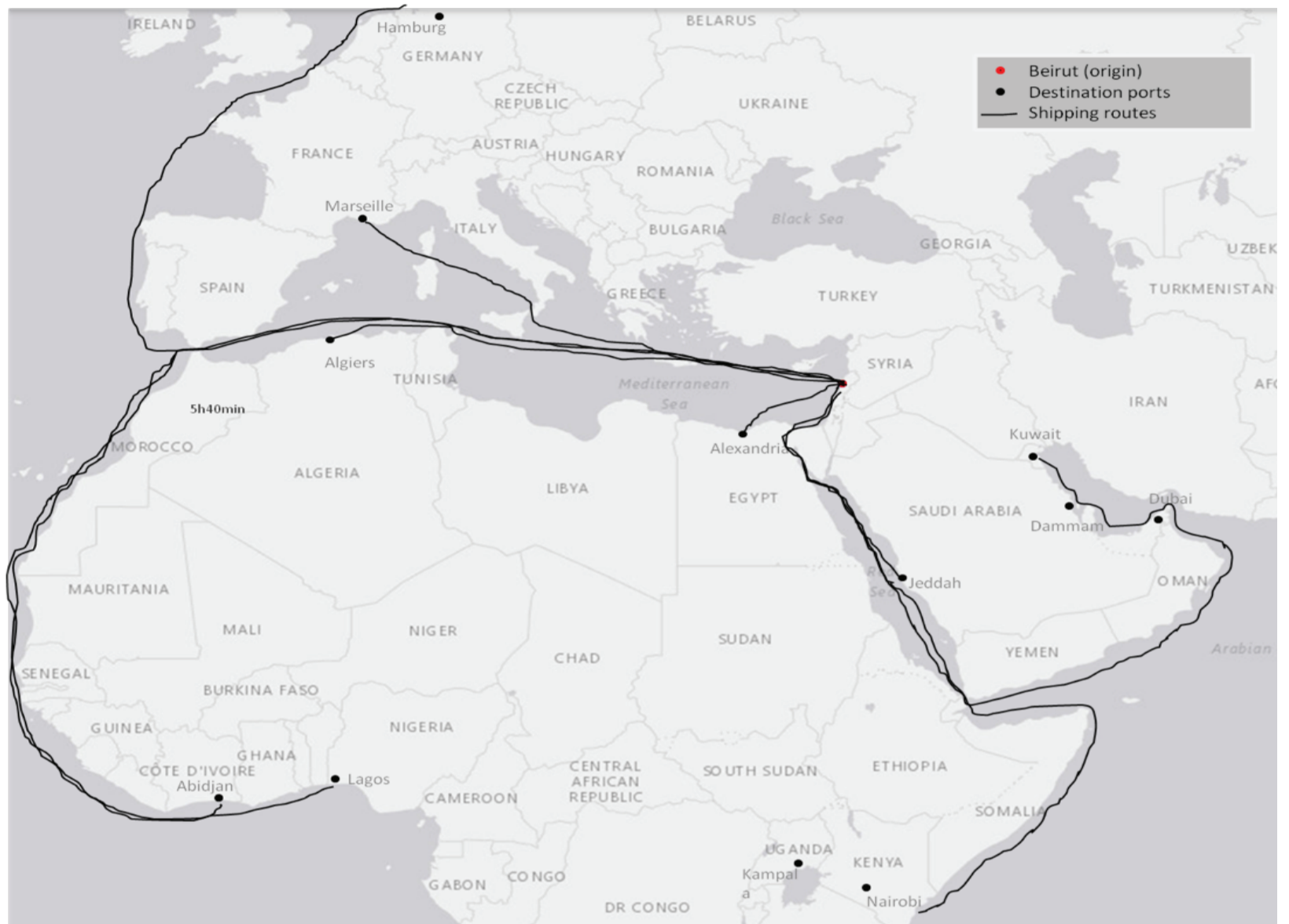
LOGISTICS FACTSHEET FOR TABLE GRAPES AND CHERRIES



SEA FREIGHT



Map of Sea Freight Connections



The table showcases the sea freight connections from Beirut to various destinations in the Gulf States, Africa, and Europe along with the transit time in days, size of Reefer, and price in USD for 40RF.

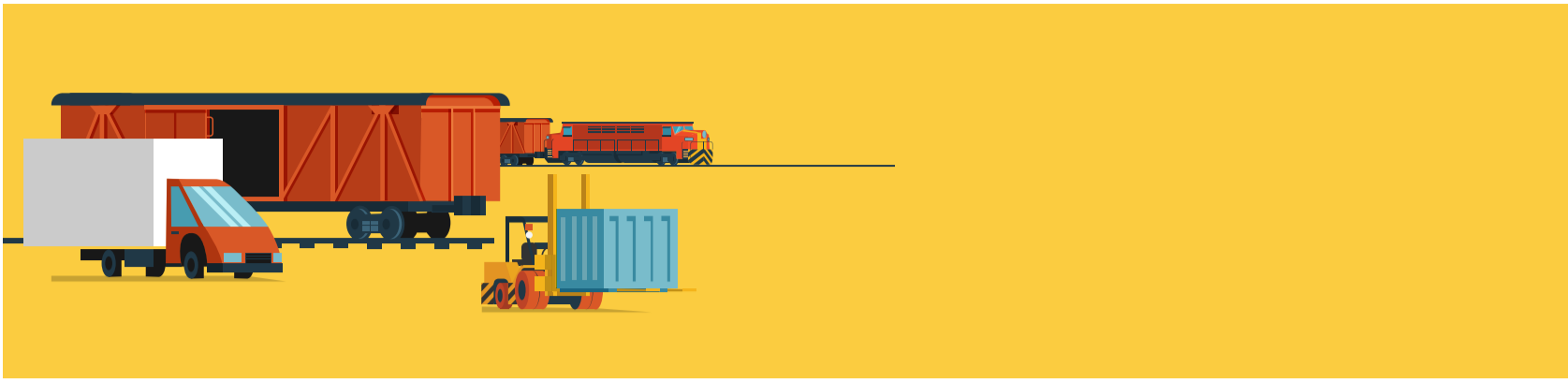
From Beirut to		Transit Time in Days	RF (Reefer)	Price in USD
Gulf States	Jeddah	3	40 RF	\$ 2,800
	Dammam	13	40 RF	\$ 2,800
	Dubai	12	40 RF	\$1,950
	Kuwait	17	40 RF	\$1,950
North Africa	Alexandria	1	40 RF	
	Algiers	10	40 RF	\$1,581
East Africa	Kenya		40 RF	\$3,794
	Uganda		40 RF	\$3,794
West Africa	Cote D'ivoire	23	40 RF	3,794
	Lagos	22		

**From Dubai to India:
+9 days and \$2,650 (40RF)**

**In 2017,
the port of Beirut ranked:**

35
out of 150 countries
in the world
6
in the Middle East

LOGISTICS FACTSHEET FOR TABLE GRAPES AND CHERRIES



LAND TRANSPORT



Map of Land Transport in Lebanon

From CMA CGM's available data, the map shows the land transport connection from Beirut to other Lebanese cities through truck (black lines) and feeder (blue line).

Shipments on a national level are all made using private trucks owned by farmer, aggregators or buyers. Usually all buyers whether retail vegetable stores or restaurants or processors have their own trucks and dispatch them to the wholesale market in the early morning and on a daily basis. Supermarket chains receive their produce through trucks dispatched by aggregators based on contracts and specifications.

The shipment is paid regardless of the size and weight of the batch, but rather based on the size of truck and distance traveled. Approximate prices are listed in the table below based on distance traveled and a truck capacity of 3 to 6 tons.

Source: CMA CGM

Shipping companies such as DHL can provide contract services or one-time service to deliver fruits and vegetables mostly in reefer trucks or in non-reefer mini vans, but they charge much higher than privately owned trucks. The aggregators that use the DHL service do so to comply with requirements of some hotels, high-end restaurants and airport queries which require a reefer truck to receive the refrigerated goods. This happens when the aggregator does not have a reefer truck (most aggregators that have contracts to supply refrigerated goods also have reefer trucks).

There are three types of bodies that do shipping services for fruits:

- A **shipping company** has a direct contact with the consignee in the exporting destination. They organize the bill of lading and other relevant documents for their freighter with the consignee directly through a customer relation manager, who is also in charge of collecting bills and follow up for releasing the goods on the arrival destinations. Here the consignee has the option to either do the certificates of origin and phytosanitary on his/her own and pay the clearing agent duty of clearance, or make the clearing agent organize these documents and do the clearance.

- **Freight Forwarders** are companies that organize all the trade chain between two consignees. They choose the shipping line, book suitable freighter, get the bill of lading, and make the packing list and all other certificates.

- Air: DHL and BCC logistics (+961 1482211)

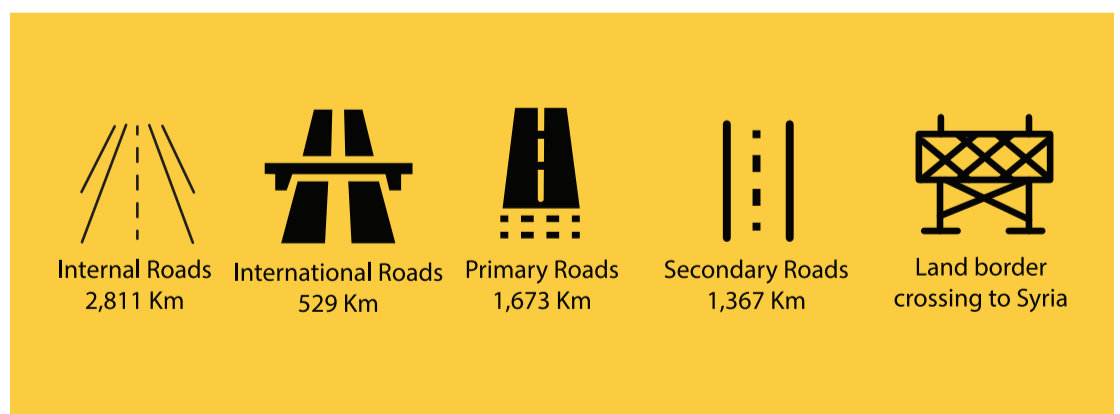
- Sea: Navigators (+961 1570571)

- Land: Ahmad Hajj (+961 3230791)

- Sometimes the **clearing agents** do a similar job to that of the freight forwarders where they organize the booking, bills, certificates, and clearance, but the only difference is that clearing agents have a contract with importing consignees while clearing agents end their jobs on the departing batch only.



From Beirut to		Time in hours	Distance in km	Price \$/trip
South Lebanon	Sidon	47 m	44	100
	Tyre	1h19m	82	150
	Naqura	1h45m	103	200
North Lebanon	Jounieh	41m	19	75
	Byplos/Jbeil	57m	37	100
	Tripoli	1h34m	81	150
East Lebanon	Zahle	1h25m	58	100
	Baalbek	2h	90	150



List of Freight companies in Lebanon		
Air	Sea	Land
MEA (+961 1629999)	CMA CGM (+961 1959200) Maersk Hamburg Süd MSC COSCO UASC	Mohammed Hussein (+961 3 984314)
List of Clearing Agents		
Frederic Ego (+961 3 322441) Alamin Antarspred	Fadi Habchi (+0961 3 513801)	Ezzat abou Haikal (+961 3 230 791)

LOGISTICS FACTSHEET FOR TABLE GRAPES AND CHERRIES

RECOMMENDATIONS - NATIONAL LEVEL

■ Decrease transportation costs at a national level (short-term)

- . Grouping of shipments by farmers.
- . Eliminate the road trips to the Ferzool Market.
- . Invest in efficient vehicles with cooling.
- . Use 3 PL Companies and routing technologies to achieve efficient scale.

■ Improving shelf-life and maintaining quality at a national level (long-term)

- . Pre-cooling and cooling at the source.
- . Use better efficient and intelligent packaging.
- . Eliminate transporting several times (Farm/Market, Market/Distributor, Distributor/Stores, Distributor/Exporter, and Exporter/Airport).
- . Establish regional cold chain distribution hubs and use them.
- . Proper loading and unloading.



RECOMMENDATIONS INTERNATIONAL LEVEL

- . Decrease transportation costs at an international level.
- . Group shipments by farmers to exporters .
- . Exporter to leverage economy of scale by having larger volumes and pre-season negotiated rates.
- . Utilize expert companies in logistics, such as DHL, CMA CGM, UPS, among others.
- . Gather proper documentation ahead of time by using available online tools from shipping companies.
- . Register your orchards/companies with all appropriate agencies and get certified as a trusted source.
- . Improve shelf life and maintaining quality on an International level.
- . Invest in better border facilities for enhanced FFV exports, particularly land crossings with Syria, possibly in close collaboration with the Syrian government and private sector companies from both countries. Such investments could improve the safety and dependability of export routes.
- . Use better efficient packaging and containers.
- . Monitoring the temperature throughout for the entire journey to identify and correct any issues with the cold chain shipment and identify issues impacting quality.

GENERAL KEY RECOMMENDATIONS

- . Improve logistics by promoting private sector investment and by providing training.
- . Investing in logistics can improve the tractability and expedite the delivery of Lebanon's exports ensuring that perishable foods stay fresh and safe.
- . Reducing food losses by intelligent food logistics.
- . Consolidating loads with like shippers (even competitors!) to reduce logistics costs.
- . Package product in the distribution centers and avoid moving several times.

IMPORTANT CONSTANT PRESERVATION FACTORS THROUGHOUT THE COLD CHAIN

- . Pre-cooling.
- . Cooling.
- . Storing and packaging.
- . Moving the products in appropriate temperatures.
- . It is recommended for cherries to be transported at -1° to 0°C and between 90-95% relative humidity.
- . It is recommended for table grapes to be transported at -1° to 0°C and between 90-95% relative humidity. Some slight changes apply to humidity and temperature, such as: solid soluble content of the Grape Berry whether it is 14 or 17 days upon harvest, maturity of the grape, variety, packing type, among other factors.

