Airfreight of Stone Fruit

Handling Guidelines – 2020/2021

IMPORTANT: These guidelines were compiled to give guidance to exporters and operators as far as the airfreight of stone fruit is concerned and are not regulations. Hortgro will not be held accountable in case of losses caused through the use of these guidelines.

Guideline	Comments
1. Use competent C&F agent	
2. Make timely arrangements for required airspace	a. Preferably several weeks prior to the season
3. Use reliable airlines	
4. Avoid transhipments if possible	a. Use direct flights as far as possible b. Check connecting flights
5. Packaging should be airfreight friendly	a. Light b. Strong c. Modular d. Secure fruit in position
6. VERY IMPORTANT!! **Consignments must be pest free (Med Fly/FCM)**	a. As the fruit will not be under cooling (-0.5°C) for extended periods, live insects may be found on arrival that **WILL** lead to suspension of that producer's fruit to the EU b. If phyto problems occur the fruit will be destroyed and this will be extremely costly.
7. Select fruit of optimum maturity - *Very important!*	Just because the fruit is airfreighted does not mean the fruit must be eat ripe. Keep in mind that there is a time lapse from arrival overseas and consumer purchase. Bruising and decay can impact seriously on saleability.
7.1. Apricots/Peaches/Nectarines	7.1.a. There is a misconception that these stone fruit destined for air freight can or should be harvested significantly more mature. Transit temperatures for air-freight fruit vary depending on circumstances. However, in most cases air and fruit pulp temperature recordings on air-freight fruit have indicated that fruit can be subjected to approximately 16 °C for two days. Ripening will therefore occur during air freight and fruit harvested at advanced maturity may become overripe during transit. For this reason it is best to harvest approximately 1 to 2 kg softer than the maximum flesh firmness (in the upper half of the maturity window)
7.2. Plums	7.1.a • Plums are harvested at a mature but unripe stage for airfreight. Most plum cultivars do not ripen satisfactory at ambient temperatures if harvested mature but unripe. Ripening must therefore be stimulated to ensure good eating quality. • To stimulate normal ripening in plums harvested mature, ethylene production must be activated. Ethylene production can be activated by a short period of cold storage near to 0 °C, followed by elevation of storage temperature. This is also referred to as a cold shock. This can be achieved by cooling the plums to below 3 °C for a minimum of two days prior to exposure to ripening temperatures of 7.5 °C or higher. • Air freight temperatures can vary greatly and depends on many factors. It normally entails storage at approximately

	16 °C for two days. Partial ripening will therefore occur during air freight provided that the plums received a prior cold shock.
	• If air freight is considered for plums, the best results will be achieved by harvesting relatively mature (Note that the minimum flesh firmness for most cultivars can be 1.5 kg lower for air freight than for sea freight). Standard packaging should be used. Fruit should be cooled to below 3 °C before air freight and if necessary plums can be further ripened after arrival in the market place. Ripening can be done at temperatures ranging between 7.5 °C and 20 °C. Generally there will be less variation in maturity between fruit at ripening temperatures between 7.5 °C and 10 °C than at 20 °C, but fruit will take longer to ripen.
8. Cool fruit to target temperature	a. A target temperature of between -0.5°C and +3°C is recommended b. Shipment of fruit that has not been cooled, is discouraged
9. Arrange for cold storage at or near the airport	a. If the cold store is not at the airport, transport to the airport should be selected that can restrict warming up of fruit depending on transit times and/or ambient temperatures
10. Make sure of booking before dispatch	
11. Make timely arrangements with PPECB for inspection	a. This applies to fruit that has not been inspected and passed at source
12. Stack fruit on pallets if possible or load freight containers in cold store	
13. Avoid mixing cargo with high ethylene producing products	a. This applies especially to cold storage periods that exceed 24 hours
14. Identification on cargo should be clear	
15. Make timely arrangements with the receiver	
16. Track consignments closely	
17. Use quality feedback to assess handling success	
18. Airfreight is expensive and used for high value products. Make sure your consignment is of quality that warrants airfreight	

Airfreight Workgroup/