Quinces

Revised 2018

Thermal Properties

	English	Metric
Moisture, %	83.80	--
Protein, %	0.40	--
Fat, %	0.10	--
Carbohydrate, %	15.30	--
Fiber, %	1.90	--
Ash, %	0.40	--
Specific Heat Above Freezing	0.91 Btu/lb*°F	3.79 kJ/(kg*K)
Specific Heat Below Freezing	0.51 Btu/lb*°F	2.13 kJ/(kg*K)
Latent Heat of Fusion	120 Btu/lb	280 kJ/kg

Storage Conditions

Temperature	31 to 32°F (-0.6 to 0°C)
Relative Humidity	90 to 95%
Storage Period	2 to 3 months
Highest Freezing Point	28.4°F (-2.0°C)

Quinces behave in storage similar to the early fall apple varieties, such as Jonathan or Grimes Golden. Quince production in the U.S. has been declining for many years, so only a few are stored for processing. Quinces are not eaten out of hand because of astringency. After storage, they are ripened at about 65 to 70°F (18.3 to 21.1°C) and 85 to 90% relative humidity (RH) before processing. Quinces must be handled carefully as they bruise easily. Quinces are subject to many of the same decay-causing pathogens as **Apples** and **Pears**; the most important are described below**.**

Diseases and Injuries

Black Rot	Commonly found east of the U.S. Rocky Mountains. Brown, firm spots of all sizes and shapes anywhere on the fruit, later becoming dark brown or black, sometimes with small black pimples scattered on surface. On removal from storage, spots become soft and mushy. **Control:** No warehouse control. Orchard spraying. Prevention of mechanical damage and prompt refrigeration after harvest.

Black Spot	Most common east of the Mississippi River and apparently does not occur on the West Coast. Black circular sunken areas on any part of fruit, in early stages surrounded by red rings, later surface may crack. The disease does not develop or spread in storage. **Control:** No warehouse control. Orchard spraying.
Blue Mold Rot	As in apples, blue mold rot, caused by *Penicillium expansum*, is the most common disease. Soft watery spots sharply defined from sound tissue, rotted portion can readily be scooped from sound tissue; in a moist environment white fungus and later blue spore masses appear, accompanied by musty odor and flesh tastes musty. **Control:** Careful handling, packinghouse sanitation, fungicidal dips, and prompt refrigeration to 32°F (0°C) with maintenance of proper storage temperature and RH.
Brown Rot	Caused by *Monilinia fructicola*, a relatively unimportant disease of quince. The rot is rarely initiated at temperatures below 50°F (10°C). Insect injuries and wounds are common sites of infection. **Control:** Careful handling, fungicidal dips, and good refrigeration.

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