

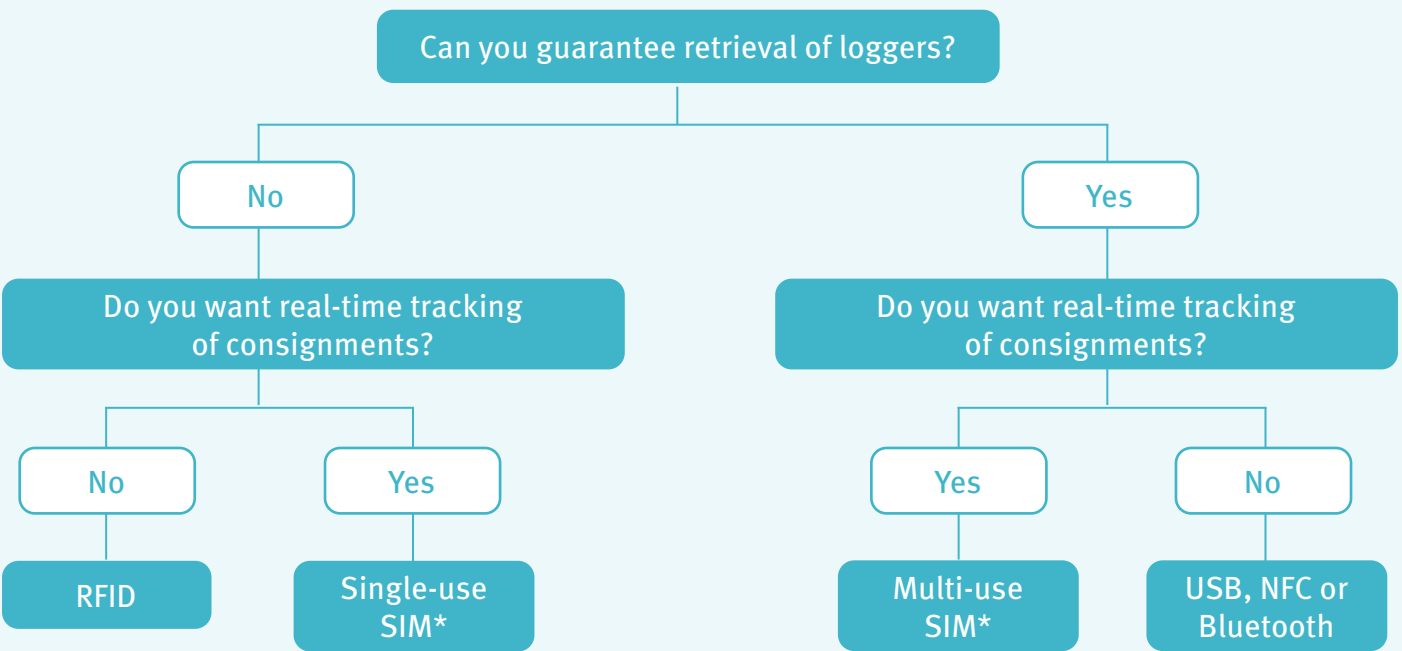


# Choosing a consignment monitoring technology

A range of technologies are available to enable monitoring of a fresh produce cold chain from farm to market. Some of the loggers used to monitor temperature also provide real-time tracking of the consignment.

The decision tree (below) and table (overleaf) will help you to select which technology best suits your needs.

## Which logger technology best suits your needs?



Type of logger connectivity abbreviations explained:

RFID – Radio frequency identification

SIM – Subscriber identity module (cellular connectivity)

USB – Universal serial bus

NFC – Near field communication

Bluetooth – Short range wireless

\* For air freight, logger must have airline approval. Contact manufacturers for their list of approved airlines.

**Table 1** – Features of a range of loggers<sup>1</sup> for monitoring cold chain conditions.

Type <sup>2</sup>	Brand	Model	Air temp	Pulp temp	Location logging	Cost <sup>3</sup>	Other sensors included	Alerts <sup>5</sup>	Smart phone app	Recording battery life (days)	Rechargeable
Blue-tooth	Verigo	Bluetooth PD1	✓	✗	✗	\$ to \$\$\$	✗	✓	✓	90	✗
Multi-use SIM	Controlant	N/A	✓	✗	✓ (via SIM)	\$\$\$\$	Motion, shock, light	✓	✓	Up to 60	✓
	Sendum	PT300D	✓	✗	✓ (via GPS)	\$\$\$\$	RH <sup>4</sup> , light, barometric pressure, motion, shock, orientation	✓	✓	21 @ 2hr pings	✓
	Tive	Tracker TT-4000	✓	✗	✓ (via GPS)	\$\$\$\$	RH, shock, orientation, light	✓	✗	365 @ 6hr pings	✓
NFC	Emerson	Emerson Go NFC	✓	✗	✗	\$	✗	✗	✓	Up to 60	✗
RFID	XSense	BT9 HiTag2	✓	✓	At comms unit only	\$\$\$\$+	RH	✓	✓	From 90-365	✗
Single-use SIM	Emerson	Go Real-time XL (2G/3G)	✓	✗	✓ (via SIM)	\$\$	✗	✓	✓	75	✗
	Frigga	B9X series (2G/3G)	✓	✓	✓ (via SIM)	\$\$	Light	✓	✓	Up to 60	✗
	Sensitech	TempTale® 2G/3G Geo Eagle	✓	✗	✓ (via SIM)	\$\$	Light	✓	✗	Up to 60	✗
	Tive	Solo 5G	✓	✗	✓ (via GPS)	\$\$	RH, shock, motion, light	✓	✗	90 @ 1hr pings	✓
USB	Temp-mate	S1V2	✓	✗	✗	\$	✗	✗	✗	Up to 110	✗

<sup>1</sup> Table 1 is not a comprehensive list of loggers but shows common representatives of logger types suitable for monitoring fresh produce cold chain conditions

<sup>2</sup> Type of logger connectivity abbreviations explained: Bluetooth = short range wireless, SIM = SIM card, NFC = Near field communication, RFID = Radio frequency identification, USB = Universal serial bus

<sup>3</sup> Logger Cost: \$ = up to \$50, \$\$ = \$51 to \$150, \$\$\$ = \$151 to \$500, \$\$\$\$ = \$501 to \$1000

<sup>4</sup> Relative humidity (RH)

<sup>5</sup> When a shipment experiences conditions outside the optimum set range, email and/or SMS alerts are sent to the exporter

## More information

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