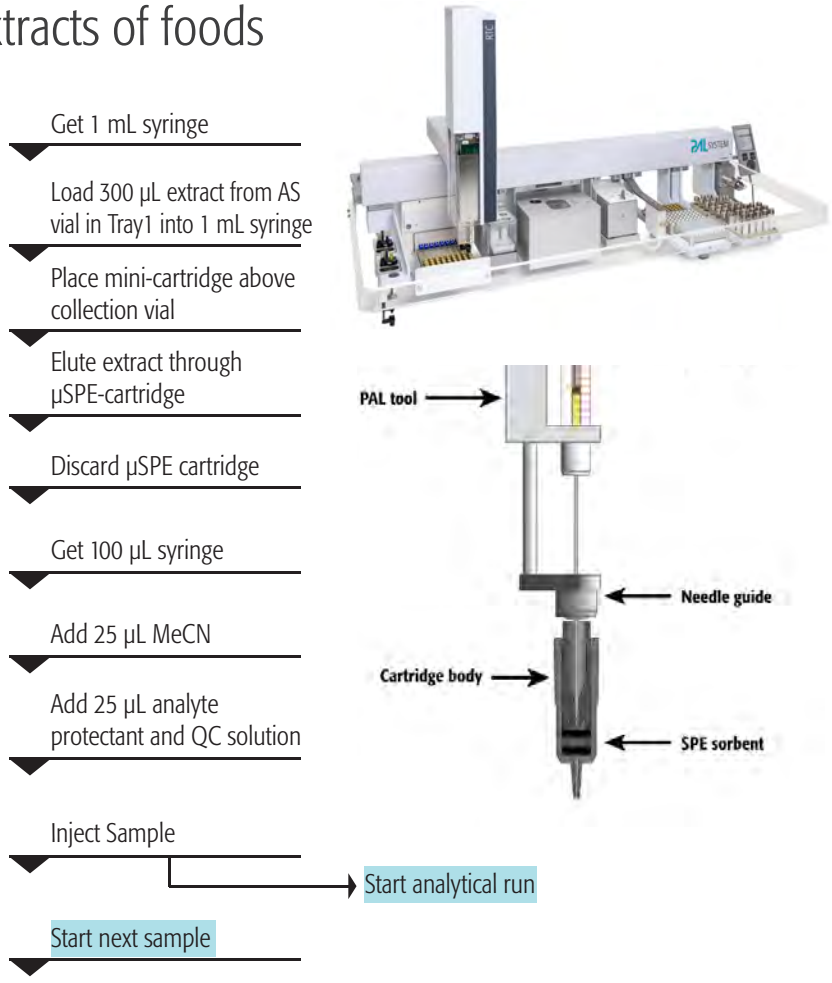
PAL SYSTEM
Ingenious sample handling

Automated µSPE cleanup for GC-MS or LC-MS analysis of pesticides and environmental contaminants in QuEChERS extracts of foods

Clean-up for GC-MS and LC-MS analysis of pesticides and environmental contaminants in QuEChERS extracts of foods

- The µSPE cleanup coupled with GC-MS/MS analysis achieves high quality results for diverse types of analytes and foods (apple, kiwi, carrot, kale, orange, black olive, pork loin, salmon, and avocado; Lehotay et al., 2016).
- The approach enables reliable, high-throughput operations without much labor or instrument maintenance.
- Cartridge-based SPE (µSPE) provides better cleanup than dispersive-SPE (d-SPE).
- Instrument up-time increases significantly because of cleaner extracts
- The automated µSPE step takes 8 min per sample.



Dispersive SPE

- **Limited selectivity,** limited clean-up
  - High sample and solvent volumes
- **Manual operation**
  - Time consuming
  - Low sample throughput
- **Not traceable**
  - Manual operation, no activity log

µSPE

- **High selectivity**, good clean-up
  - compares to LC separation
- **Walk away automation**
  - Fast with < 10 min
  - High productivity
- **Traceable**
  - Processing well documented

Lehotay et. al. Chromatographia **79**, 17, pp 1113–30, **2016** http://link.springer.com/article/10.1007/s10337-016-3116-y/fulltext.html
Morris, Schriner. J Agric Food Chem, **63**, 5107-19, **2015** https://www.ncbi.nlm.nih.gov/pubmed/25702899

For more information on the PAL RTC and PAL RSI visit:

www.palsystem.com