EPPC Pinto Bean Protocol

Equipment Needed:

- 10 qt. Power Pressure XL
- 12 qt Carey
- 8 qt Instant Pot
- 12 Wide mouth pint jars
- 12 Wide mouth lids and bands
- Canning implements: jar lifter, lid magnet/bubbler, funnel
- Pot for presoaking and boiling pinto beans
- Pot for boiling water to add to jars of product
- Spatula and ladle
- Measuring cups
- Data logger probes
- Data logger docking stations
- Data logger software download—Thermoworks.com Logmaster 4.2.11.1 zip file
- Computer to use with data logger software and docking stations
- *So Easy to Preserve,* 2014. Used as reference canning book
- Data Collection sheet
- Data Logger Protocol
- Sharpie Permanent Marker for marking jars and lids
- Hot pads
- 3 cooling racks –one beside each pressure cooker
- Dish cleaning supplies
- Scissors

Pinto Pre-prep
Can use overnight method or quick soak method; 10 minute boil, 1 hour covered soak, then drain beans. Put in fresh water, boil for 30 minutes and bottle--p. 86 So Easy to Preserve 2014
- Overnight soak dry pinto beans in refrigerator, in pot with enough water to cover
- Drain pintos
- Put fresh water to cover pinto beans into pot
- Boil for 30 minutes

Data Procedure

- Start the data logger
- Mark the computer time on the data sheet
- Put data logger in a warm pint jar (**Fig. 1**)
- Mark jar with number of data logger and name of canner it's going in
- Start 2nd and third data loggers using same steps
- MAKE SURE TO MARK JARS with number of logger and canner name
- Start bottling procedure (*so Easy to Preserve,* page 86, "Beans—Dry")

Bottling Procedure

- Packing around the data logger, fill jars with pre-soaked, partially cooked pinto beans leaving 1-inch headspace
- Fill jar with boiling water to 1-inch from top of jar.
- Remove bubbles
- Wipe jar rim
- Adjust lid and band
- Mark lid with data logger number and canner
- Do the same with the second and third jars
- MAKE SURE TO MARK LIDS with number of logger and canner name

Processing Procedure

- Put correct jars into the pressure cookers they have been marked for
- Add unlidded pint jars full of water to each cooker, enough to keep the product-filled jar from falling over during processing
- Put enough warm water into the pressure cooker to go 1/4 of the way up the jars
- Regardless of manufacturer's directions, the pressure time is "High" for 80 minutes
- Following individual pressure cooker instructions, start the pressure cookers
- RECORD THE TIME THE LID IS SHUT AND START HAS BEEN PUSHED FOR EACH PRESSURE COOKER
    - Time is according to the data logger computer clock

Ending Pressure Procedure

- Follow individual instructions for ending pressure time:
    - Carey: natural release (requires at least 1 hour after pressure finishes)
    - Instant Pot: natural release
    - Power Pressure XL: Immediate quick release
- When pressure has been released from cooker, open unit and take product jar out, putting it on a rack or towel to cool
- RECORD TIME for getting jar out of cooker, according to data logger computer clock
- When jar has sealed ("popped"), then jar is available to open

Final Procedures

- Once jar has sealed and is cool enough to handle, open jar lid
    - Jars may stand on the counter overnight, but time *must* be written down when it comes out of the cooker and when jar lid is opened
- RECORD TIME for opening lid, according to data logger clock
- Take data logger out of product jar, throw food product away
- Carefully run data logger under cool water, then wash AND DRY data logger
- Put *dry* data logger into docking station
- Stop the timing on the data logger
- Download data from data logger

- Save to file, noting data logger number and canner, and product code given by Karin
- Export all data to Excel (yes, you want a chart)
- Save under project code
- Double check the raw data has been saved, exported to Excel and saved there as well.
- Reset the data logger and put away in box
- Do 2nd and third jars following same procedures

CLEAN UP

- Once all data has been logged and saved, throw away food used and leftovers
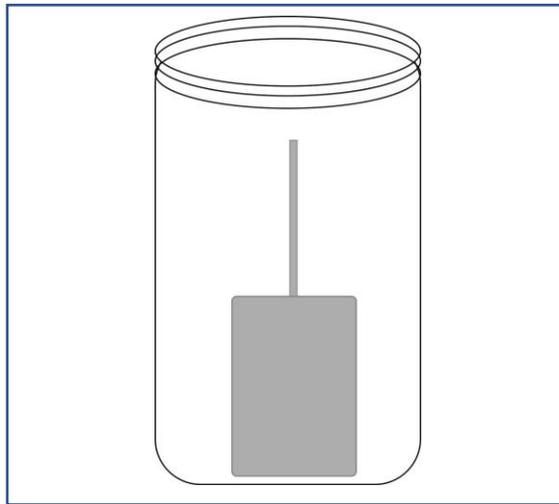- Clean food jar and kitchen counters
- Get ready for next food

Figure 1 – Position of data logger in jar