Genetics Lab Fungal Specimen DNA Sample Labeling Protocol

This protocol describes the steps for making labels for fungal genetic samples to be stored in 1.5mL Eppendorf tubes. This protocol and the DBG_DNA_Sample label template are designed for genetic material sampled from specimens accessioned in the Sam Mitchel Herbarium of Fungi (DBG). If you are sampling specimens from another collection or institution, please use this protocol along with the ExternalCollections_DNA_Sample label template and include the collectionCode if it is not part of the catalogNumber.
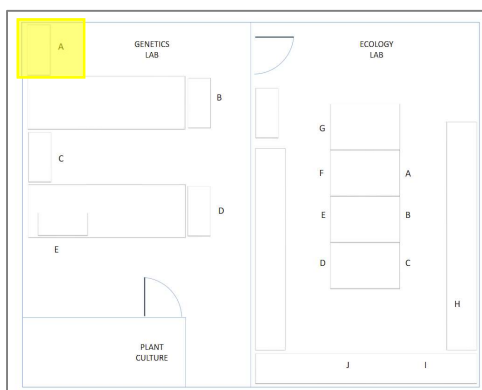
Step 1: Preparing sample data

The scientist(s) preparing samples for DNA extraction should first create and save a list of the specimens that are to be sampled. This list must be either an Excel spreadsheet or a CSV. Two values are required for each sample: **catalogNumber** and the **scientificName**.

	A	B
1	catalogNumber	scientificName
2	DBG-F-030613	Xylaria polymorpha
3	DBG-F-031313	Marasmius oreades
4	DBG-F-031318	Tulostoma
5	DBG-F-031322	Cyathus olla
6	DBG-F-031324	Clitocybe
7	DBG-F-031332	Psathyrella
8	DBG-F-031333	Phallus hadriani
9	DBG-F-031362	Pluteus
10	DBG-F-031358	Geopyxis deceptiva

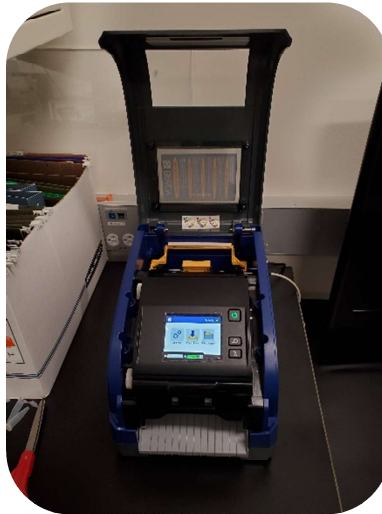**Step 2: Setting up the printer**

Once the list of specimens to be samples has been saved, the printer can be set up for labels to be printed.

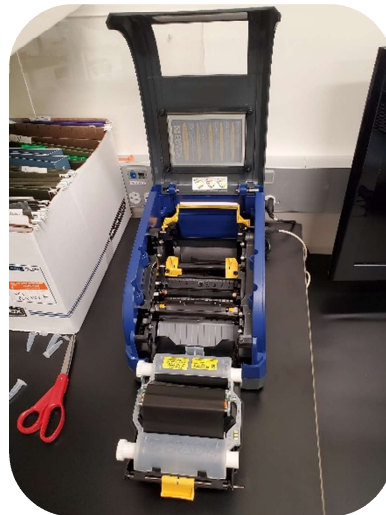The printer is located in the Genetics Lab at Work Space A.
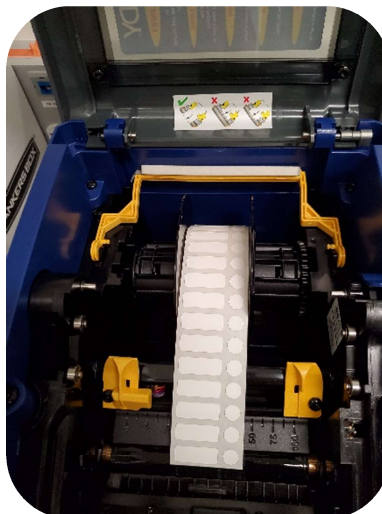
Adding Label Roll
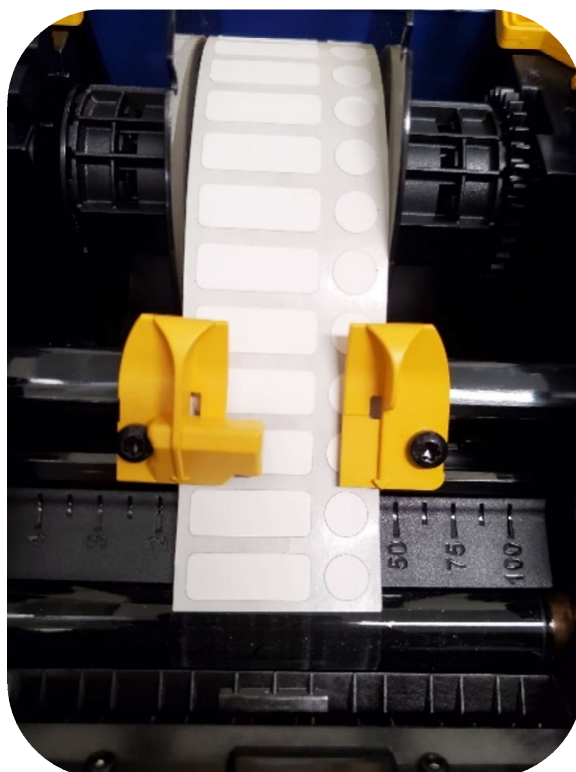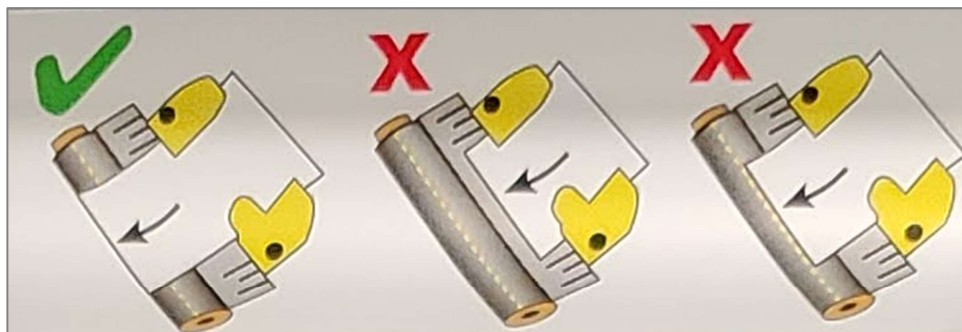Lift the lid from the front to open the top

Press the yellow center latch toward the front of the machine and pull forward to fully open the printer.
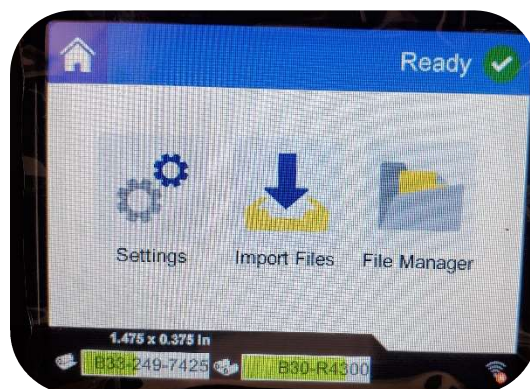

Place the roll of labels into the printer. The roll is designed to only fit into the printer the correct way. Pull the labels over the shiny black roller and wind the reel to retract any excess slack. Labels can be found above the PCR Workstation in the box labeled 1.5 mL eppie tubes.

Pull the labels over the shiny black roller and close the 2 yellow alignment guides so the arrows are aligned with he edges of the label sheet.

Close the front ribbon door and press down gently until the yellow latch clicks. The screen will display an error if the labels are not loaded properly. If there is an error, reopen and adjust the placement of the edge of the labels and the yellow alignment guides. Once successful, close the top lid.
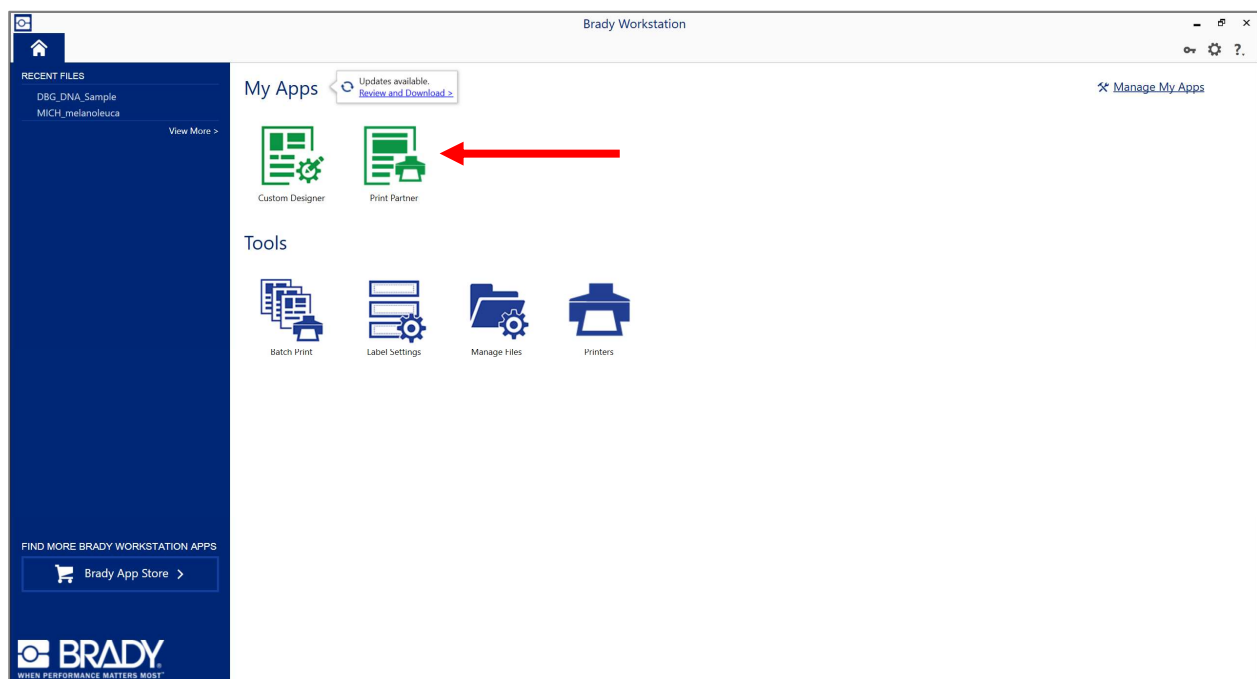
Step 3: Creating and printing the labels

Using the Pinky laptop, open the Brady Workstation application.
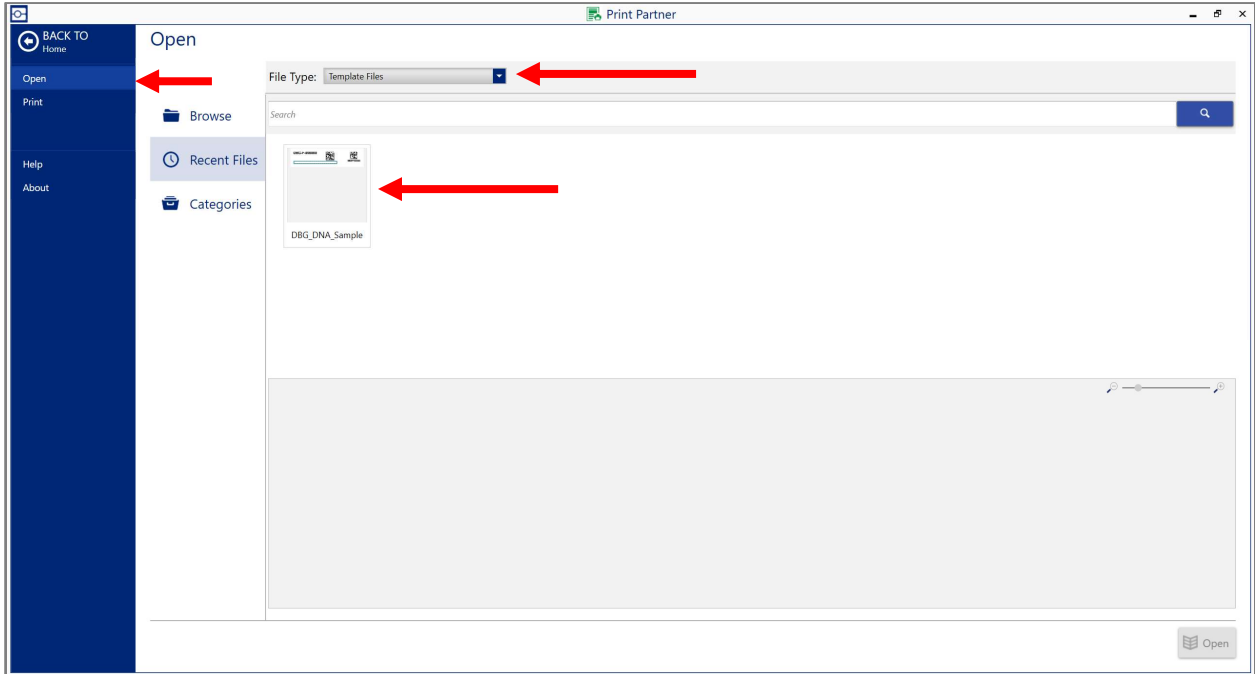

Connect the printer to the laptop using the light grey USB cord connected to the back of the printer
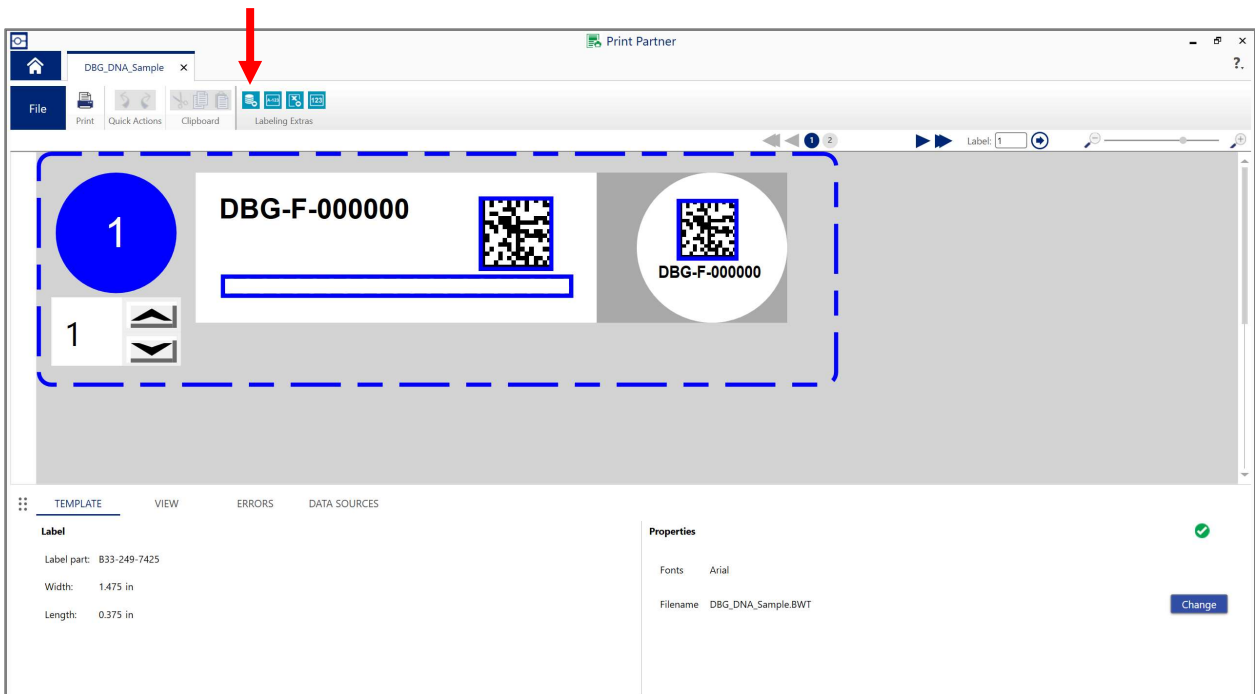

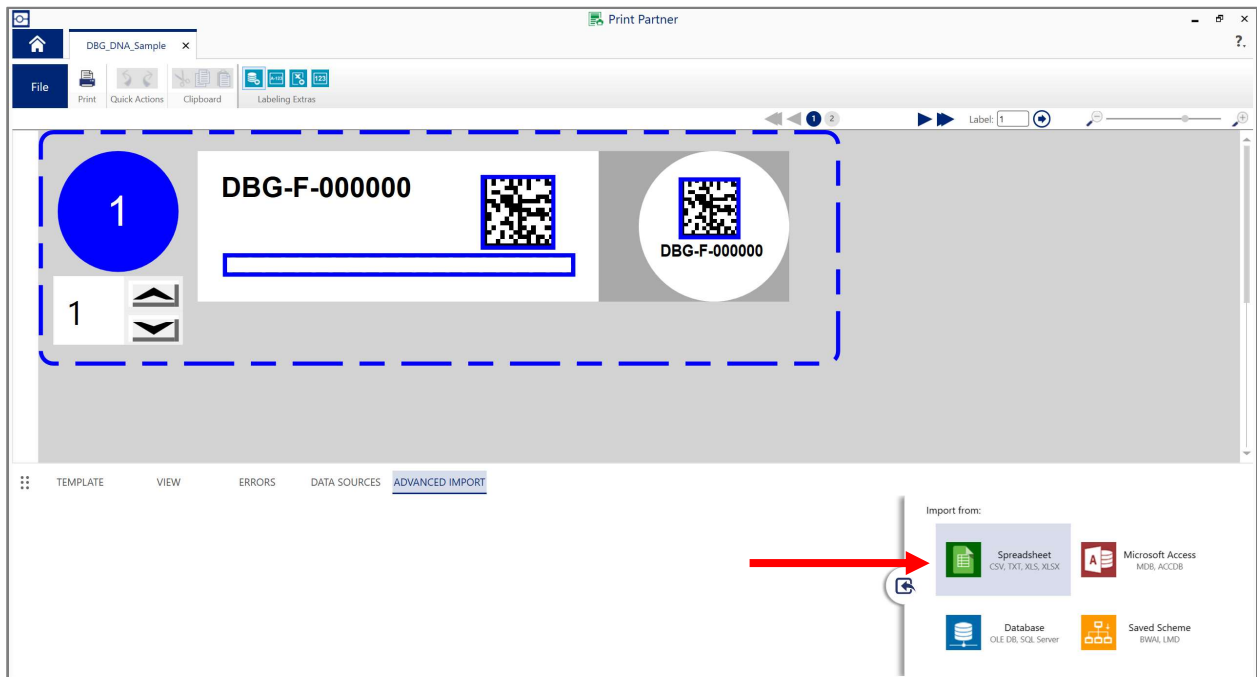
Click the green Print Partner Button

- On the left side panel, select **Open**
- For File Type, select **Template Files**
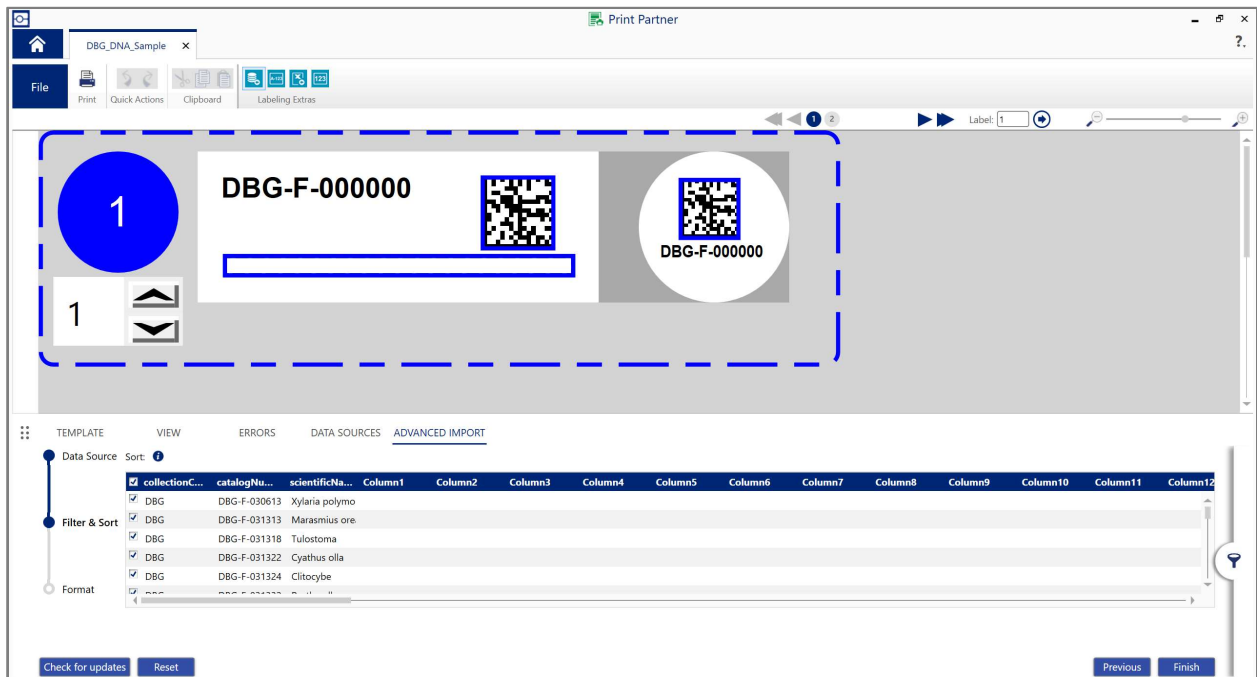- Double Click **DBG_DNA_Sample**

The label template should now be shown on the screen. Click the Advanced Import button to bring in the specimen data.
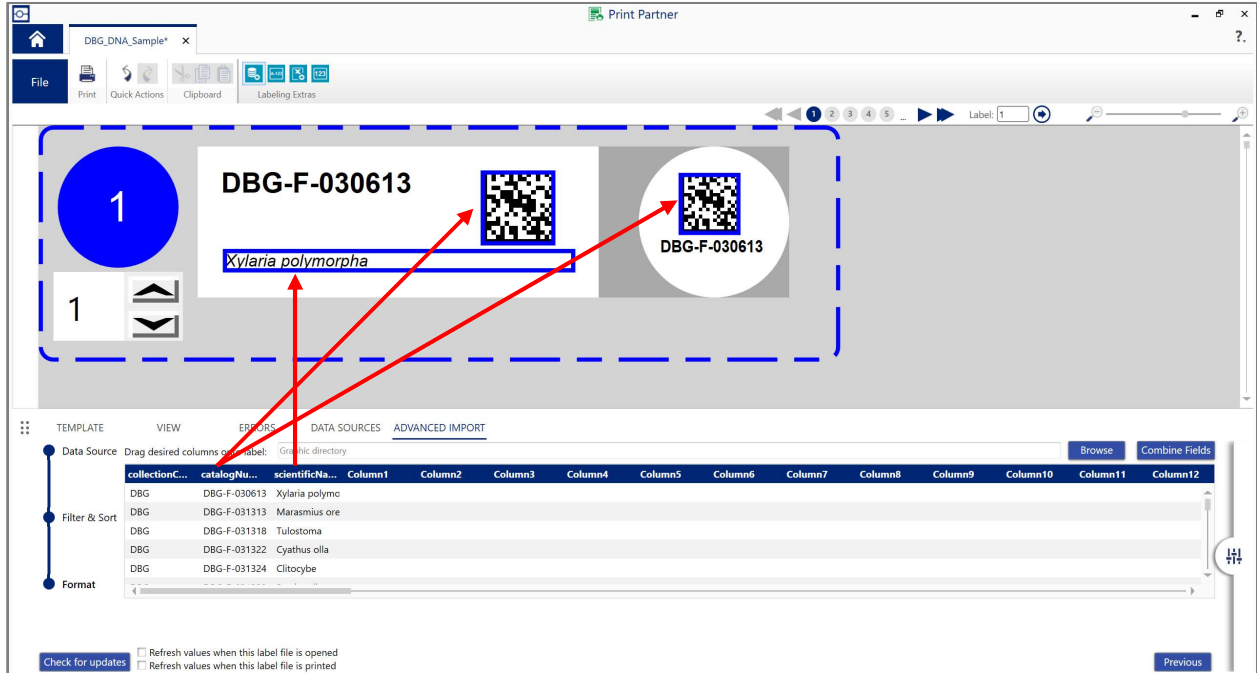
Select Spreadsheet from the menus that appears in the bottom right. Browse to the location of your spreadsheet file and select to import.
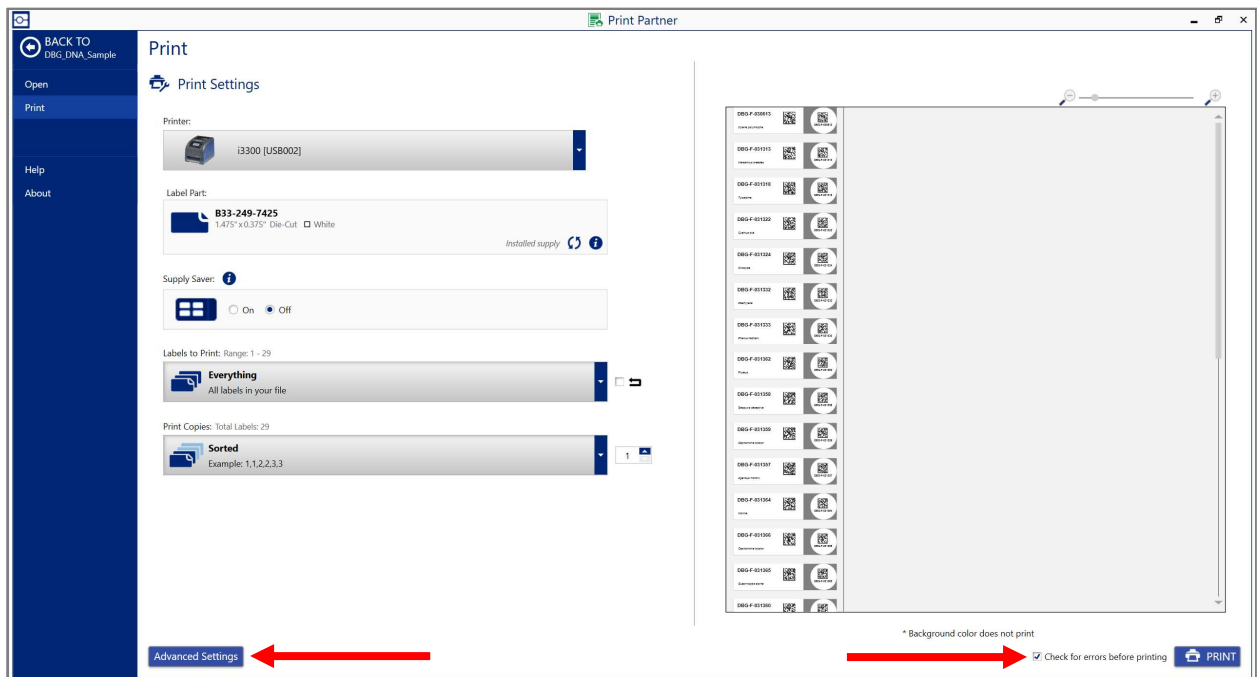

The Advanced Import panel will appear at the bottom of the page, showing the data from your spreadsheet file. Select Next to sort or filter the data. Sort by catalogNumber or by scientificName, depending on how your specimens are organized. Then select Finish.
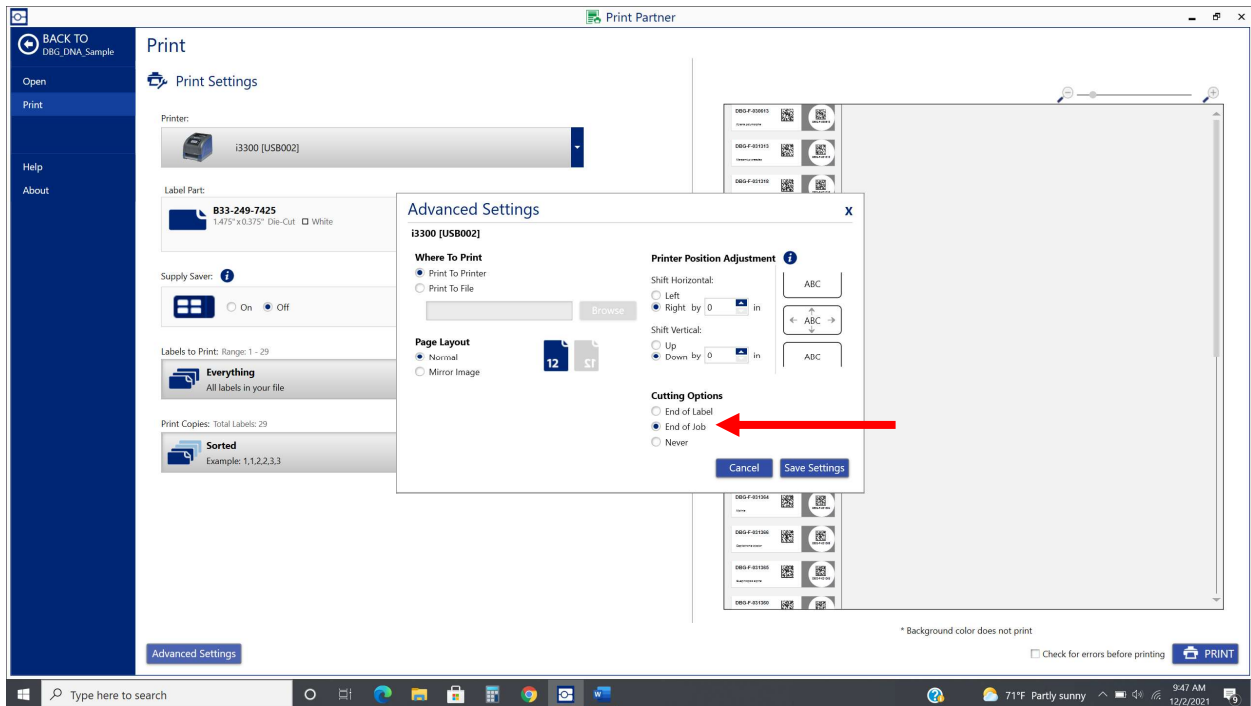
Click and drag the navy-blue column header for catalogNumber to template Data Matrix Code. Select Yes when the dialog box prompts "This object already has content" Repeat for the other Data Matrix Code. The catalogNumber (DBG-F-000000) should be replaced with your imported values on the side and top components of the label. Repeat for the scientificName in the space at the bottom of the side label.

- Select the Print icon.
- In the Print module, check the box in the bottom right corner to check for errors before printing.
- **Select Advanced Settings**

IMPORTANT! In the Advanced Settings dialog box, be sure that the **Cutting Options is set to End of Job** Select Save Settings

Select Print from the bottom right corner and the labels will quickly be produced. If a large number of labels is being printed, be prepared to assist the lengthy strip of paper so as to not cause a jam.

Step 4: Adhering Labels to 1.5 mL Eppendorf tubes

Adhere the labels as shown here

The CODE brand scanner labeled Genetics Lab can be used to scan Data Matrix Codes.