

Materials List for:

High-throughput, Microscale Protocol for the Analysis of Processing Parameters and Nutritional Qualities in Maize (*Zea mays* L.)

Carrie Butts-Wilmsmeyer¹, Nicole A. Yana¹, Gurshagan Kandhola², Kent D. Rausch², Rita H. Mumm¹, Martin O. Bohn¹

¹Department of Crop Sciences, University of Illinois at Urbana-Champaign

²Department of Agricultural and Biological Engineering, University of Illinois at Urbana-Champaign

Correspondence to: Carrie Butts-Wilmsmeyer at cjbutts2@illinois.edu

URL: <https://www.jove.com/video/57809>

DOI: [doi:10.3791/57809](https://doi.org/10.3791/57809)

Materials

Name	Company	Catalog Number	Comments
Canning pressure cooker	Wisconsin Aluminum Foundry Co.	Model 921	Any can be used, but it should be large enough to accommodate multiple canning jars
Single burner or large hot plate	Waring Professional	Model SB30	Any can be used, but it should be large enough so that canning pressure cooker can securely be placed on burner or hot plate
1 quart wide mouth canning jars	Ball	1440096258	Any can be used, but they should be wide mouthed quart jars
1 L Beaker	Fisher Scientific	09-841-104	
Stir plate	Corning	6796420D	
Magnetic stir bar	Fisher Scientific	14-513-67	
1 L Graduated cylinder	Kimble	20027500	
Spatula	Wal-Mart	552145280	
Hot pads	Wal-Mart	556501140	
Scale	Any	NA	Mettler Toledo Model MS105DU or Similar
Weigh boats	Fisher Scientific	08-732-113	
Sugar	Wal-Mart	9259244	
Salt	Morton (Purchased at Wal-Mart)	9244849	
Liquid malt extract	By the Cup (Purchased on Amazon)	NA	https://www.amazon.com/Barley-Malt-Extract-Syrup-Bottle/dp/B01N4SK72C
Labeling tape	Fisher Scientific	15966	
Permanent marker	Wal-Mart	55529894	
Convection oven	Wal-Mart	1598495	
Baking pan (usually included with oven)	Wal-Mart	1598495	
Cooking foil	Wal-Mart	564264789	
Tortilla press	E&A Hotel & Restaurant Equipment and Supplies	CTM-2000	
Parchment paper	Reynolds (Purchased at Wal-Mart)	551219672	
Pizza cutter	Farberware (Purchased at Wal-Mart)	553012200	
Cooling racks	Flytt (Purchased on Amazon)	NA	https://www.amazon.com/dp/B075HQQY627/ref=sspa_dk_detail_7?psc=1&pd_rd_i=B075HQQY627&pd_rd_wg=Wa

SAS Version 9.4	SAS Institute	Version 9.4	
R	R Foundation for Statistical Computing	Version 3.4.0	