Food Preservation: Using Technology-Based Tools to Reach Diverse Audiences

Abstract

Over the past 15 years, there has been a resurgence of public interest in home food preservation as well as development of new ways to access information. Ensuring that Extension educators and consumers have ready access to research-based information is essential to keeping food safe. This article describes how to disseminate information on safe home food preservation using a robust menu of technology-based tools. Extension educators are encouraged to use such an approach with their educational programs to continue to reach diverse audiences and stay relevant in this age of information technology while reducing death and illness associated with improperly preserved foods.

Keywords: food preservation, food safety, educational tools, technology

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Introduction

Over the past 15 years, Oregon State University (OSU) Extension Service educators have observed a resurgence of public interest in home food preservation. On average, the OSU Extension Service food safety and preservation hotline receives over 2,000 calls during the peak food preservation season. Faculty and volunteers reach an additional 34,000 people each year with food safety and preservation advice (Brandt, 2016). This trend may be due in part to a new consumer, the locavore (Local Food, n.d.; The Local Foods Wheel, n.d.), seeking information on how to preserve locally grown foods. Or perhaps, as other authors have suggested, the interest is driven by the public's desire to have more control over the quality and types of ingredients consumed, to increase self-reliance, or simply to return to traditions learned years ago (Dye & Hoffman, 2014; Goard, Hill, Shumaker, & Warrix, 2013). The reasons are as diverse as the audiences Extension seeks to serve and illustrate the need for

Extension educators to possess a broad set of resources and approaches to reach a wide range of audiences.

Beyond addressing learners' interest in food preservation, Extension educators must be able to provide the public with current, reliable, and easily accessible resources on safe food handling and preservation techniques to help reduce or eliminate food-borne illness and death (LaBrode, 2003). Nationwide, food-borne illness is still a major concern (Centers for Disease Control and Prevention, 2016), and botulism, an illness most often tied to improperly preserved foods, can be lethal or very costly to treat. One case of botulism in Oregon costs between $1,457,957 and $1,868,849 (Filipic, 2015).

With more and more consumers choosing to access information online, food preservation resources need to be adaptable to mobile and web-based platforms. Nearly two thirds of U.S. adults access information through social media, with more than 90% of young adults gaining information through these channels (Perrin, 2015). To remain relevant, Extension educators must offer consumers technology-based options for accessing food preservation resources.

Technology-Based Resources

Like many Extension services throughout the nation, OSU Extension Service provides food preservation education using traditional formats, including community education classes, staffed displays at community events, and responses to client calls. Although face-to-face education is an important part of this work, it does not satisfy the needs of increasingly diverse and technologically savvy consumers. In response to this situation, those of us involved with the OSU Extension Service Food Safety and Preservation program have adapted and developed technology-based resources that allow us to provide increased access to information about safe food preservation techniques. These resources include Ask an Expert, the Canning Timer and Checklist app, the OSU Extension Service Food Preservation Facebook page, the OSU Extension Service Food Safety and Preservation Hotline, the Preserve @ Home online hybrid course, and a web portal to our free food safety and preservation publications.

One of the most recent of the aforementioned endeavors was creation of the Canning Timer and Checklist app, which has been downloaded over 2,800 times since its launch in 2017. The Canning Timer and Checklist app (Brandt, 2017) was developed to make safe, tested instructions available at one's fingertips. The app guides the user sequentially through each step of the canning process for boiling water bath and pressure canning. The app allows the user to adjust for elevation, type of pack, and jar size. Future versions will include options for even more items to preserve. With roughly 77% of Americans and 92% of millennials (Smith, 2017) now owning smartphones, adapting food safety and preservation tools for mobile use is a good investment for Extension.

Table 1 provides a description of each of the aforementioned technology-based resources and information on how each resource can be accessed. The resources are available to consumers and Extension educators across the nation. The resources are vetted, reviewed for accuracy, and updated on a regular basis by the OSU Extension Service food safety and preservation coordinator. Most are free or very low cost.

Table 1.

Resources for Current Research-Based Food Preservation Information

Resource	Description	How to access
Ask an Expert	A web-based national online	Available at https://ask.extension.org/ask

	question-and-answer platform. Community members submit an online question, and Extension educators respond within 24–48 hr.	
Canning Timer and Checklist app	A mobile (Android and iPhone) app that provides abbreviated checklists and a timer to guide users through canning steps and processing times for vegetables, fruits, meats, and fish.	Available at https://catalog.extension.oregonstate.edu/pnw689
OSU Extension Service Food Preservation Facebook page	A Facebook page developed to share current research-based food preservation tips. Sixteen faculty, staff, and trained master food preserver volunteers post to the Facebook page, monitor activity, and respond to messages. A yearly calendar	Available at https://www.facebook.com/OSUExtensionFoodPres/

	is developed to ensure ongoing coverage of the Facebook page.	
OSU Extension Service Food Preservation and Safety Hotline	A toll-free telephone hotline for consumers to call to get answers to their questions. The hotline is staffed by master food preserver volunteers July through October and serves all of Oregon.	Information available at http://extension.oregonstate.edu/fch/food-preservation
Preserve @ Home online hybrid course	A hybrid class developed by University of Idaho and facilitated by University of Idaho and OSU Extension instructors through the eXtension platform. The class provides online handouts, videos, real-time facilitated chats, discussion forums, quizzes, and a certificate of completion. An optional hands-on lab is	For more information, contact this article's authors.

	offered regionally in Oregon.	
Pacific Northwest and specialist-produced Extension publications	Online and professionally printed food safety and preservation resources. Extension publications are produced cooperatively by OSU, Washington State University, and University of Idaho. The publications address regional topics such as canning seafood and canning salsa. Some publications are available in Spanish.	Available at http://extension.oregonstate.edu/fch/food-preservation

Note. OSU = Oregon State University.

Conclusion

OSU Extension Service has developed a robust menu of technology-based resources that provide reliable and accessible information on home food safety and preservation. Extension educators are encouraged to employ or adapt the approach of using such resources in their educational programs so that they can continue to reach diverse audiences and stay relevant in this age of information technology while reducing death and illness associated with improperly preserved foods.

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