# Food Preservation Mini-Modules Offer Options for Learners and Extension Staff

**Abstract**

Renewed interest in growing and purchasing locally grown foods quadrupled requests for food preservation classes. Economic times tightened budgets, decreasing staffing levels of Extension educators. Offering options via the Internet was a natural progression to meet the increased demand. Extension educators created 20 5-minute online video-like Food Preservation Mini-Modules ( http://www1.extension.umn.edu/food-safety/preserving/modules/). Over 10,000 home preservers have viewed the online modules. One hundred percent of the participants indicate use of this Internet technology was a good way to receive food preservation information. This article describes how diversifying program portfolios by offering online and classroom options provides choice for the learner and Extension staff.

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## Introduction

Renewed interest to grow and purchase local foods quadrupled requests for food preservation classes. Staffing reductions left three educators to teach classes statewide. Minnesota is 406 miles long from north to south and 358 miles wide from east to west. Offering options via Internet technology was a natural progression to meet the increased demand for food preservation education. Use of the Internet is an efficient way to disperse information to many geographical locations (Haviarova & Vlosky, 2009).

Survey results of parenting newsletter readers found a need to balance online offerings with traditional methods to meet variety of learning styles (Forstadt, 2011). The three food safety educators found this balance by adopting the Community Sponsorship Model. In this model, sponsors coordinate logistics, marketing and registrations allowing educators to dedicate time towards curriculum development and teaching.

To balance the demand of food preservation class requests, educators evaluated viable options to reach multiple audiences. Repurposing the existing classroom PowerPoint presentations into 20 5-minute online Food Preservation Mini-Modules (http://www1.extension.umn.edu/food-safety/preserving/modules/) was an efficient option for staff. Modules are offered as an alternative educational training option when consumers request a food preservation class and none are offered in their area.

## Project Design and Implementation

The 5-minute non-interactive design of each module was chosen based on recommendations from an Internet utilization consultant. Today's Web users read or view online content because it is: "quick and user friendly; timely, relevant and useful; is of value; and answers a question or concern" (Driessen, 2010).

The food preservation mini-modules are uploaded to the University of Minnesota Extension food safety website. Users just click on topic of interest, and the online presentation automatically opens. This automation creates a video-like effect that appeals to new and seasoned users of the Internet (Kinsey, 2010). Each module was created in PowerPoint. Scripts were audio recorded using Adobe presenter. Kinsey (2010) describes step-by-step directions using PowerPoint to make web-based educational videos.

# Topics

Research using the health belief model related to food safety found that understanding the threat of foodborne illness and having self-efficacy or belief as an individual you can do something about food safety was important in motivating actions that protect food safety (Schafer, Schafer, Bultena, & Hoiberg, 1993). Utilizing experiences shared by participants attending food preservation classes, the author shares stories, answers questions, and addresses concerns and fears to increase self-efficacy for each topic.

Module content serves as new information for those with limited or no knowledge of the subject or as an update for those with prior knowledge. Each module emphasizes critical science-based information to achieve a safe and tasty preserved product. Each module provides additional resources to research-tested food preservation procedures targeting home food preservers, 4-H youth, project leaders and food preservation fair judges.

The Food Preservation Mini-Module topics ( http://www1.extension.umn.edu/food-safety/preserving/modules/) are:

1. *4-H Food Preservation Guidelines

2. *Age and Skill Level Ideas

3. Boiling Water Canning Method

4. Canning Equipment

5. Crunch Time Pickling 101

6. *Dry It You'll Like It

7. *Food Preservation: Explore the Options

8. Freezing Fruit for Sweet Success

9. Freezing Vegetables for Tasty Results

10. Home Canning Tomatoes

11. How Microbes Grow & Survive — FATTOM

12. *Jam and Jelly Basics

13. *Must Have, Know about Food Preservation Resources

14. Preserving Herbs

15. Pressure Canning 101

16. Reduce Risks Safety First

17. Stop Botulism

18. Unsafe Outdated Food Preservation Methods

19. *What's wrong with this Canning Recipe

20. *You Be the Judge

* Targets youth, leaders, program coordinators and educators in 4-H.

# Impact

Ten modules were posted online in May 2010. Eight modules were added July 2010, and two modules were added in August 2012. The mini-modules continue to be a successful strategy to teach food preservation information as evidenced by the number of views. The module series had 927 views in 2010; 3,673 views in 2011; and 5,504 views in 2012. Significant increase of 50% from 2011 to 2012 can be attributed to marketing efforts via social media to 2,631 Twitter followers. The URL shortening tool (z.umn.edu) tracked 502 Twitter followers accessed a mini-module after reading a @umfoodsafety Tweet. Viewer data shows modules have an international reach including viewers from Australia, Canada, Great Britain, Japan and Russia. A webpage utilization review shows viewers find the modules through other websites like eXtension, Pinterest, Google Images, Facebook, and Epicurious.

# Evaluation Results

The last slide in every module has a link to an electronic evaluation. The evaluation assesses:

1. Is use of Internet technology a good way for the viewer to learn the information;

2. Is the information useful; and

3. Will the user recommend the presentation to others?

The 2012 evaluation results indicate 100% of respondents (n=150) agreed that use of Internet technology was a good way to present food preservation information. Ninety-nine percent (n=146) recommend the module they viewed to others.

The five most popular modules were: 1) Crunch Time Pickling: 101 (n=1662); 2) Boiling Water Canning Method (n=375); 3) Freezing Vegetables for Tasty Results (n=351); 4) Jam and Jelly Basics: Essential Ingredients for Sweet Success (n=350); 5) Pressure Canning 101 (n=324) (Figure 1).

**Figure 1.**

Modules Watched in 2012

     

## Which mini-module did you just watch?
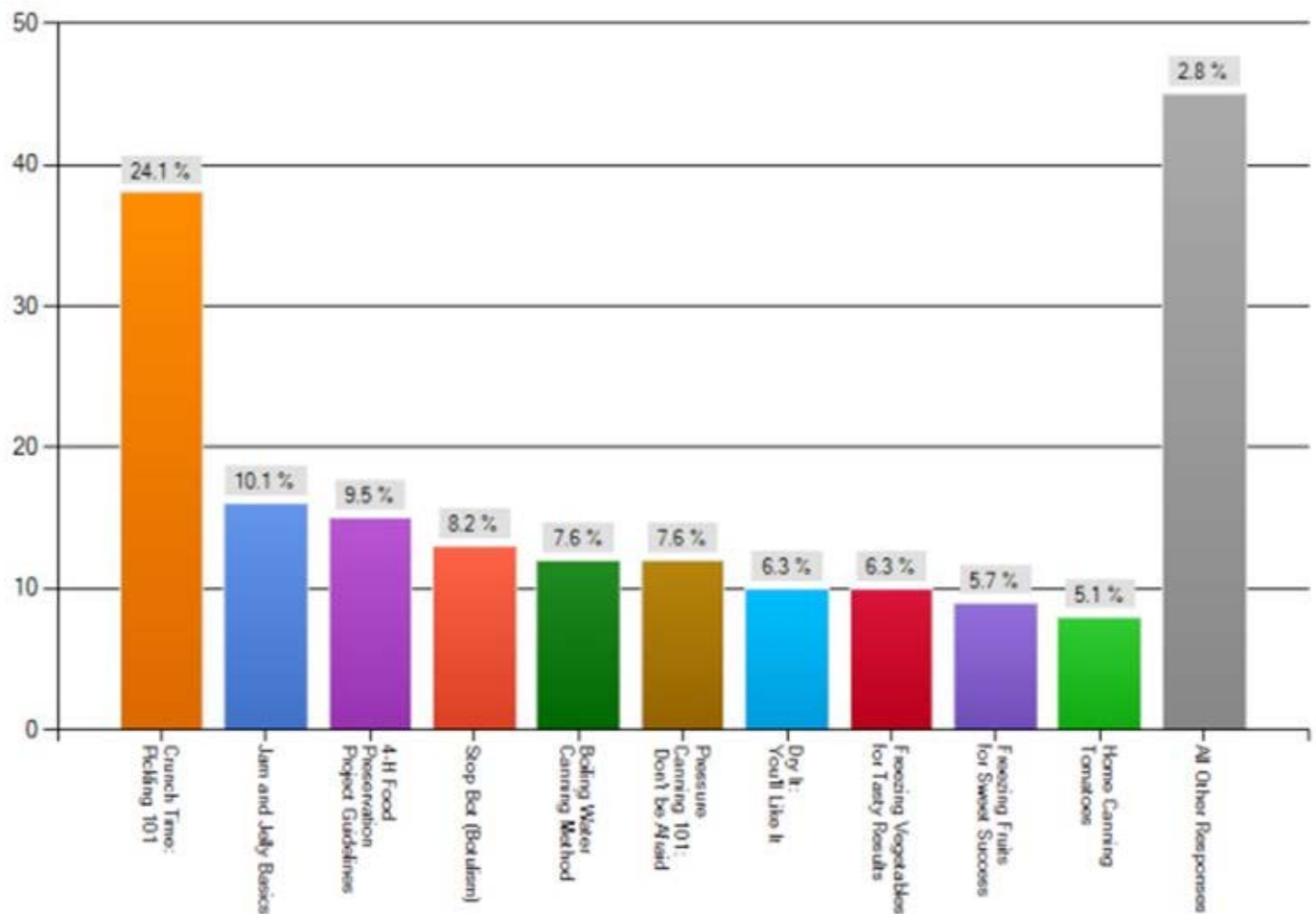


Sixty-eight percent rated the usefulness of the mini-module as "excellent" (n=103). One viewer indicated the module is: "Clear, concise, leaving me with no further queries." Another viewer wrote: "I feel like I received reliable information without having to attend a class. Sometimes I am concerned about the reliability of internet-based recipes, this helped a lot…"

## Conclusion

Considering the realities of limited Extension budgets and staffing levels, use of Internet technology as an option to classroom instruction is worth exploring. This option broadens the educational reach of program efforts while supplementing classroom programming. Providing online video-like learning opportunities helps educators balance the demand of class requests by providing an alternative educational option without having to say "no."

Diversifying program portfolios by offering online and classroom options provide choice for the learner and Extension staff. Learners can take ownership and tailor their education to meet their interests and needs. Extension staff can choose how to allocate staff and budget resources efficiently and effectively.

## References

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