


Cold Storage

Led by Sue Mosbacher
UC Master Food Preserver Program
Manager
1/30 & 1/31, 2025



1

Today's Goals

- Understand the how freezing is an effective long-term storage option.

- Know the what causes soft texture in thawed food and how to minimize it.

- Understand what freezer burn is and how to prevent it.

- Clarify what we teach as UC Master Food Preserver Volunteers

2

Cold Storage Pre-Class Activities

- You read chapter 8
- You completed the quiz
- You watched the cold storage pre-class videos
 1. *Freezing Principles*
 2. *Texture*
 3. *Freezer Burn*
 4. *Packaging*
 5. *Freezers*

3

Agenda

- Opening announcements
- Small breakout rooms
- Cold Storage Q&A
- Break (*Th 7:40, Fri 3:10*)
- Breakout rooms by programs
- What we do as MFPs
- Closing announcements

4

4

Student Breakout Room Questions

- How does cold storage impact bacteria?
- How do you prevent freezer burn?
- Is it safe to eat food with freezer burn?


5

5

Food Safety Q&A by Programs

- You teach me!
 - Take turns by programs - students
- Your program's turn?
 - Video on
 - Video off for next team's turn
 - Now: All off
- Know the answer?
 - Raise hand and wait to be called on
 - Can use books, but be quick

County



6

Cold Storage Food Safety

- *What happens to bacteria when it freezes?*
- *What about parasites?*
- *What's the danger zone for cold storage?*
- *What's essential to keep in the freezer?*

AC & TL

7

Frozen Food: Texture

- *What causes mushy thawed food?*
- *Rinse or soak fruit? Why?*
- *Why is freezing food fast recommended?*
- *Steps to freeze large quantity of food?*

SO

8

Frozen Food: Freezer Burn

- *What is it?*
- *Food safety issue? Why or why not?*
- *How to prevent?*
- *Storage tips?*

S/Y

9

Freezing Fruit

Whole/cut fruit packs

1.	
2.	
3.	
4.	
5.	
6.	

SM/SF

10

10

Freezing Fruit

Discoloration
What causes it?

Prevention

Most effective?

Least effective?

SB/R

11

11

Freezing Vegetables

<ul style="list-style-type: none"> • <i>Pre-treatment Methods</i> <ul style="list-style-type: none"> – <i>Mandatory?</i> – <i>Why?</i> • <i>3 recommended methods</i> 	<ul style="list-style-type: none"> • <i>Part 2 of blanching</i> <ul style="list-style-type: none"> – <i>How long?</i> • <i>Results of over blanching?</i> • <i>Results of under blanching?</i>
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OD: A-J

12

12

Freezing Meat

- *Repackage or not?*
- *Prep?*
- *Wrapping tip for best shelf life?*

- *Freezer paper – which side touches meat?*
- *To thaw, or not to thaw ...*

Sac

13

13

Freezing Leftovers

- *Temperature?*
- *Cooling techniques*
- *Tips*

- *Spices – change in flavor*
- *Pepper, cloves, garlic, imitation vanilla*
- *Onion, paprika*
- *Celery seasonings*
- *Curry*
- *Salt*

OD: K-M

14

14

Packaging & Storage

- *Location*
- *Containers – general characteristics; specific types*
- *The enemy*
– *How to defeat the enemy?*
- *Why not use:*
– *Sandwich baggies*
– *Waxed paper*
– *Cardboard ice cream or milk cartons*

FMM

15

15

Power Outages

- Full freezer?
 - Partially full freezer?
- How to keep it cold inside?
- When to refreeze?
- Organizing tips – just in case?

FN

16

16

Recipes We Use in Outreaches

- Any reputable freezing recipe
 - Follows food safety guidelines: clean, chill, properly package
- Why?
 - Minimal chance of getting botulism from eating frozen food

17

17

Breakout Room Activity

Round Robin Teaching:

- 8 freezing pointers
- Lead MFP assigns each students a number based on first name order
 - More than 8 students? Restart at #1 with 9th student and continue
 - Less than students? Keep rotating through the questions
- One-by-one, students give a brief explanation of the pointer that can help someone produce higher quality frozen food
 - Explain the why

18

18

Freezing Pointers

1. Temp at 0°F or lower
2. Freeze cool foods only
3. Freeze few packages at a time
4. Find coldest spots
5. Space for air circulation
6. Tightly pack already frozen foods
7. Frozen foods inventory
8. Check thermometer

19

19

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20

20

What We Do: Extend Research Based Information

- Teach*
- *In front of people*
 - *Remotely*
 - *With other UC ANR Programs*
 - *Thru outreach opportunities*
 - *Support behind the scenes*
 - *Support statewide projects*
 - *Educate through media*

21

21

Teach with Other UC ANR Programs

- 4-H
 - Food preservation demonstrations (hands on)
 - Project Leader (partner)
 - Jr MFP Program
- CalFresh & EFNEP
 - Extend their class content with food preservation (freezing, storage, food safety)
- Master Gardeners
 - Combination classes: grow it & preserve it
 - Demonstrations/classes in the garden
 - Joint events
- Farm Advisors
 - Guest speaker in public classes; growing and harvesting specific crops

22

22

Teach through Outreach Opportunities

- Farmers markets
- Food banks/pantries
- Community events
- Schools
- Health organizations
- Radio/TV interviews
- MFP radio shows
- UC ANR Podcast guests
- CSA providers
- Libraries
- Garden nurseries
- MG/Community gardens
- Service/church groups
- Youth programs
- Hands-on workshops
- Teaching friends & neighbors

23

23

Support Behind the Scenes

- Planning Committees
- Develop/document program procedures
- Attend other program's online events to get ideas
 - <http://mfp.ucanr.edu/Events/>
- Create event handouts
- Administrative tasks
- New member training (prep/delivery)
- Statewide projects

24

24

Support Through Statewide Projects

- Updating Video Library
 - https://mfp.ucanr.edu/Resources/_Video_Library/
- Blogs: always looking for MFP writers for Food Blog
 - ucanr.edu/blogs
 - Stories that incorporate food preservation
- Statewide MFP Continuing Education Presentations
 - Highlight a successful educational/outreach project
 - Encourage other programs to start a similar project

25

25

Educate Through Media *(varies by program)*

- Newspaper articles
 - Check local website for article archives
 - El Dorado has long history of articles
- Social Media: Facebook, Instagram, Twitter
 - https://ucanr.edu/sites/communicationtoolkit/Social_Media/
- Helplines
 - Ask a MFP
 - Direct email
 - Phone calls to MFP program

26


26

What We Do: Extend Research Based Information

- | | |
|---|---|
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27

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28

Next Class: High Acid Canning

- Read Chapters 3 & 4 in the Training Manual
Read pages 1-1 to 1-27 in the online USDA Guide to Home Canning
- Watch High Acid Canning pre-class recordings
- Take High Acid Quiz (*covers chapter 3 & chapter 4*)
- Continue working on Food Safety Case Study (*due February 28*)

29
