

# REDUCED OXYGEN PACKAGING



Dr. Brian A. Nummer, PhD. © 2021



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Dr. Nummer



**AGENDA**

ABOUT




**Additional workshops/courses**

**Food Code based:** Special Processes HACCP, Fermentations, Charcuterie, Salami

**FDA/USDA:** USDA HACCP, Sanitation, FSMA Preventive Controls

**ONLINE:** Good Manufacturing Practices, FDA Acidified Foods

## GUEST CHECK

Intro .....	1
Hazards and Control .....	2
FDA Food Code.....	3
ROP HACCP.....	4
Total lessons learned.....	<i>priceless</i>



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## GUEST CHECK

Total lessons learned..... *priceless*  
 CEUs earned from NEHA ..... 12

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## Do I get a certificate?

**Yes.** Via DocuSign. You will get a short link to a form where you enter your *name* and *email address*. Then click BEGIN SIGNING.

**PowerForm Signer Information**

Fill in the following form to get your ROP Certificate via docuSign. Thanks. If you don't get a signed copy back to your email, or this form stops working, please email me, Brian

Please enter your name and email to begin the signing process.

**Participant**

Your Name: \*

Your Email: \*

Please provide information for any other signers needed for this document.

**Instructor**

Name:

Email:

BEGIN SIGNING

http://\_\_\_\_\_

Follow instructions. Click finish. Don't save or print anything. After Dr. Nummer signs you will receive a signed copy at the email address you listed.

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## GUEST CHECK

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## Reduced oxygen packaging at retail

### Module 1.

## Introduction

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Food Code  
U.S. Public Health Service  
2017

# Reduced oxygen packaging

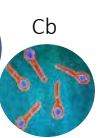
means:

PACKAGED  
FOOD  
< 21% O<sub>2</sub>

(a) The reduction of the amount of oxygen in a PACKAGE by removing oxygen; displacing oxygen and replacing it with another gas or combination of gases; or otherwise controlling the oxygen content to a level below that normally found in the atmosphere (approximately 21% at sea level); and



Lm




Cb

(b) A process as specified in § §(1)(a) of this definition that involves a FOOD for which the HAZARDS *Clostridium botulinum* or *Listeria monocytogenes* require control in the final PACKAGED form.

Food Code  
U.S. Public Health Service  
2017

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
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Food Code  
U.S. Public Health Service  
2017

# Reduced oxygen packaging


**VP** (a) **Vacuum PACKAGING**, in which air is removed from a PACKAGE of FOOD and the PACKAGE is HERMETICALLY SEALED so that a vacuum remains inside the PACKAGE;

**CC** (d) **Cook chill PACKAGING**, in which cooked FOOD is hot filled into impermeable bags which have the air expelled and are then sealed or crimped closed. The bagged FOOD is rapidly chilled and refrigerated at temperatures that inhibit the growth of psychrotrophic pathogens; or

**SV** (e) **Sous vide PACKAGING**, in which raw or partially cooked FOOD is vacuum packaged in an impermeable bag, cooked in the bag, rapidly chilled, and refrigerated at temperatures that inhibit the growth of psychrotrophic pathogens (   )

Food Code  
U.S. Public Health Service  
2017

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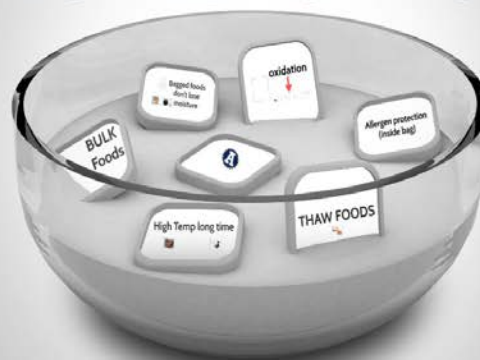
# Is ROP Safe? YES !

- ❑ **Outbreaks associated with ROP in USA = 0**
- ❑ Considered a “Special Process” under US FDA model Food Code because of increased hazards over regular food production
- ❑ Requires a HACCP plan (in most cases, not all)
- ❑ Having a HACCP plan is not “safe”, *but having a HACCP plan then demonstrating implementation and effectiveness is.*

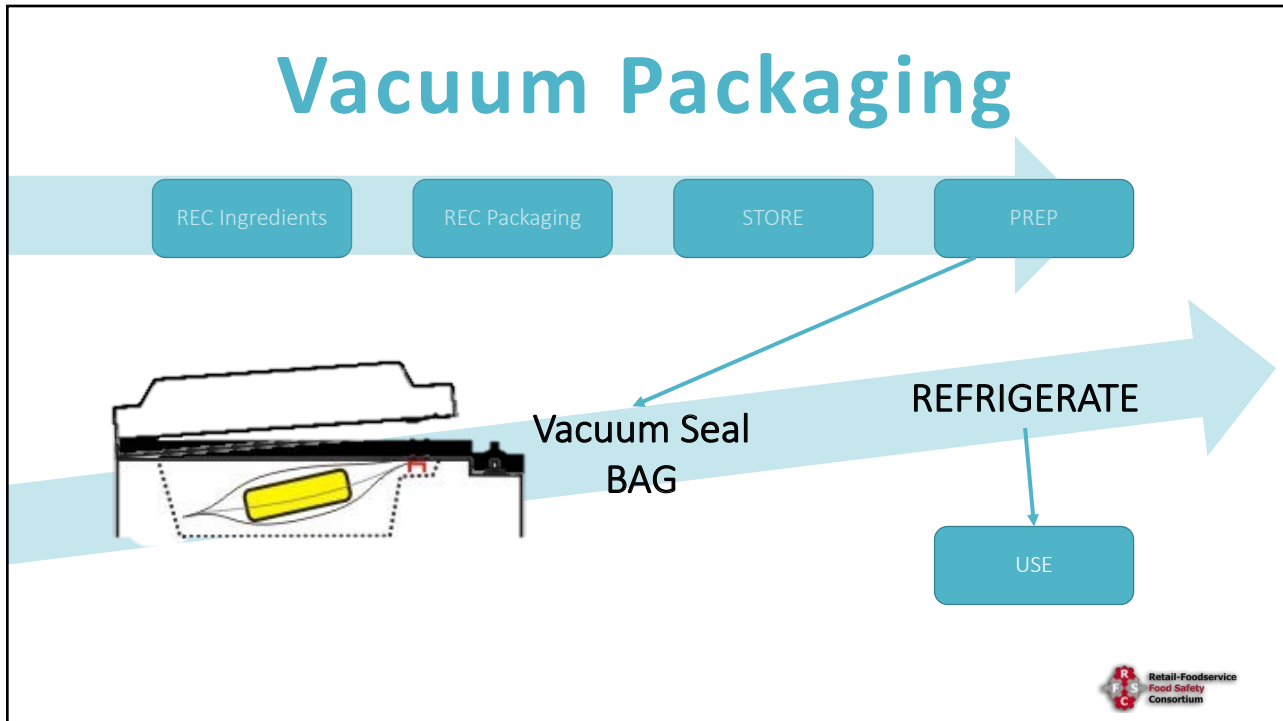


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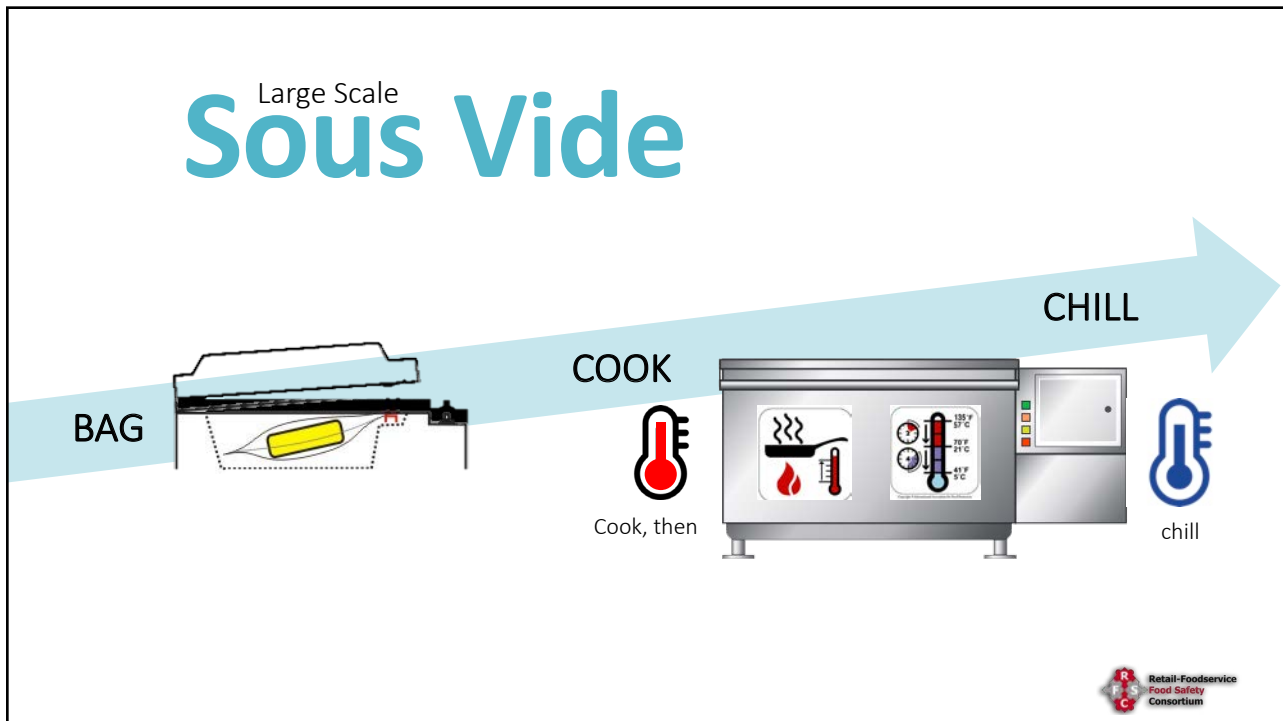
## RECIPES FOR ROP



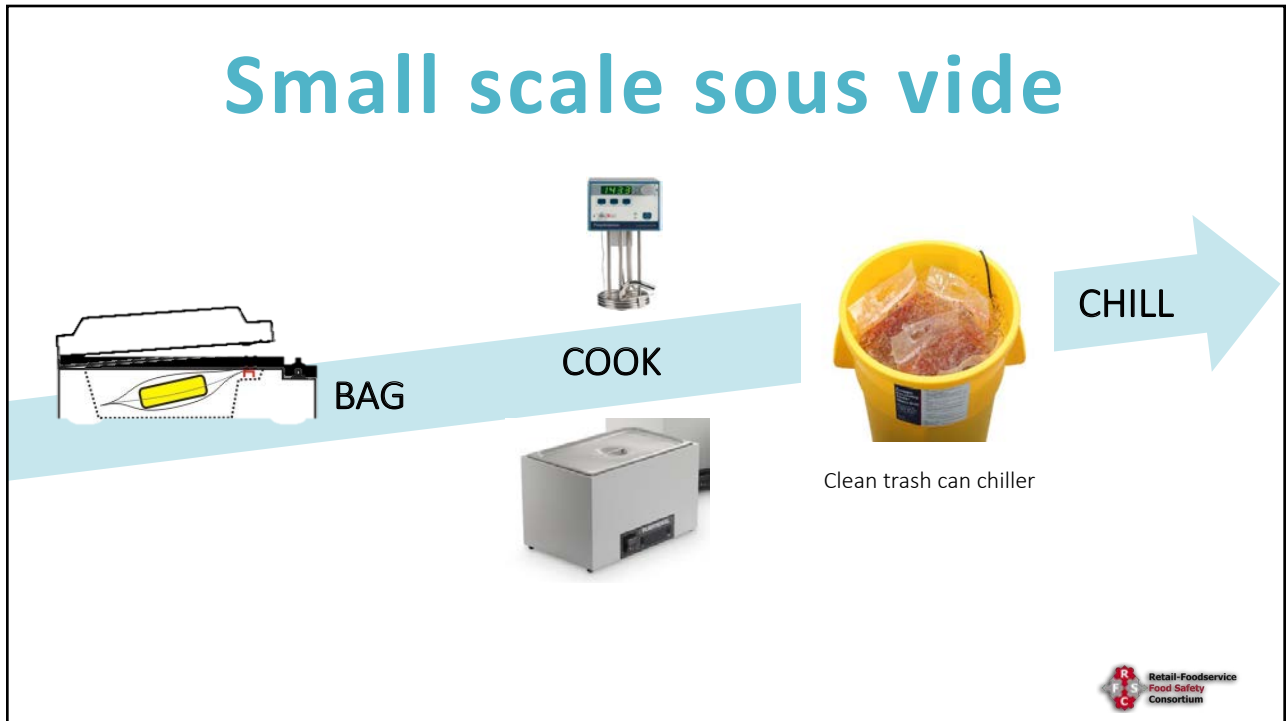
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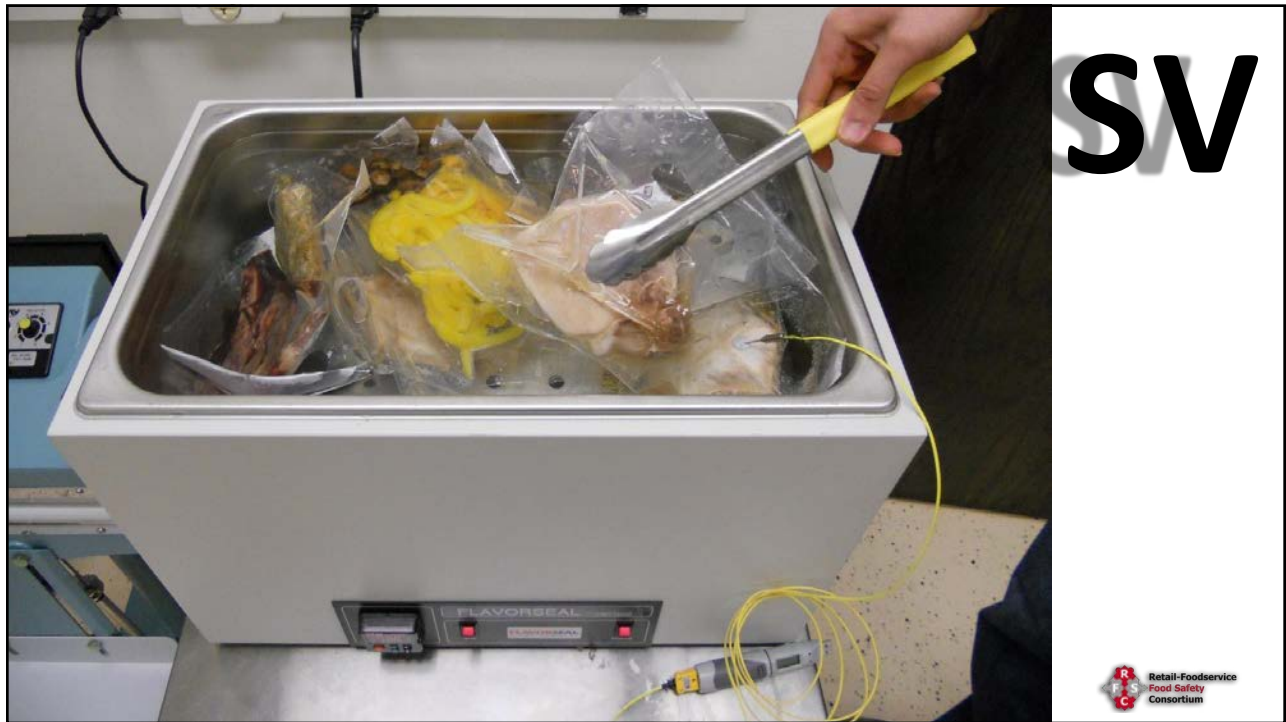
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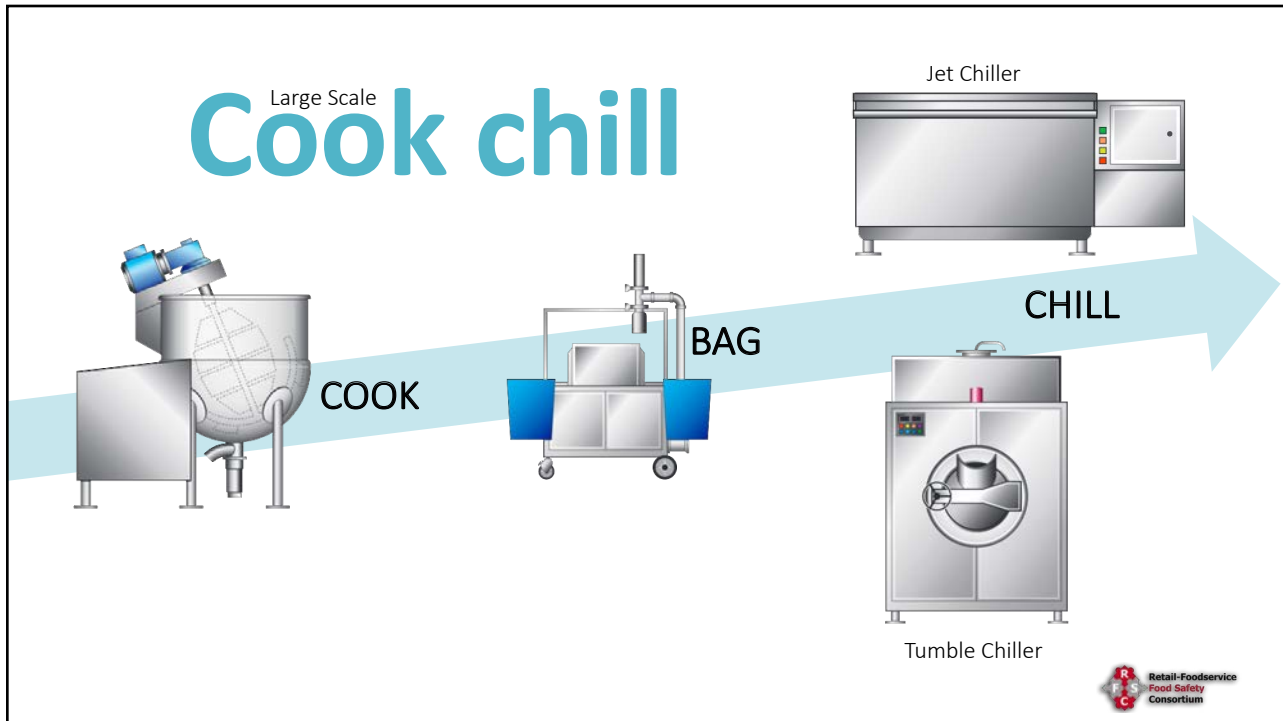
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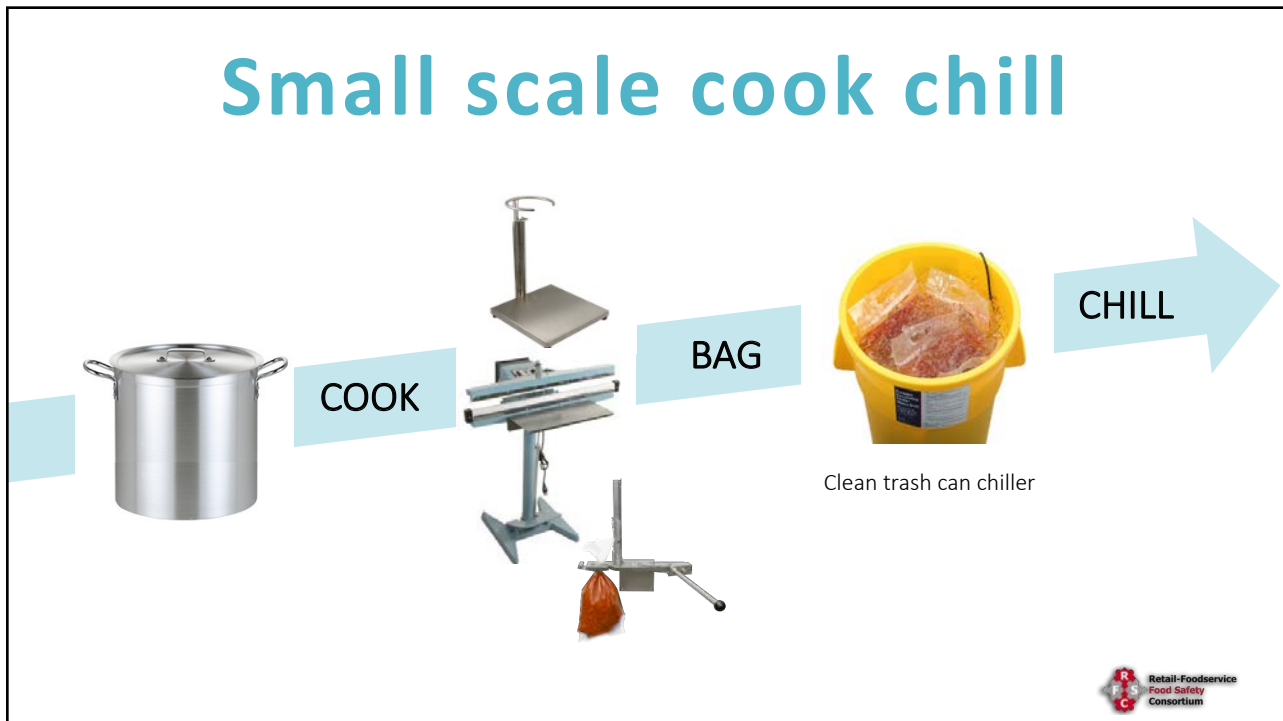
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# Commissary - Satellites

The FDA has said that commissaries are food manufacturers subject to FSMA Preventive Controls (unless the commissary is inside a retail space where more than 50% of the food sold is direct to consumers (e.g. grocery commissaries).  
*Note that if under FDA manufacturer inspection, food code does not apply.*

Satellites are all under US FDA model Food Code

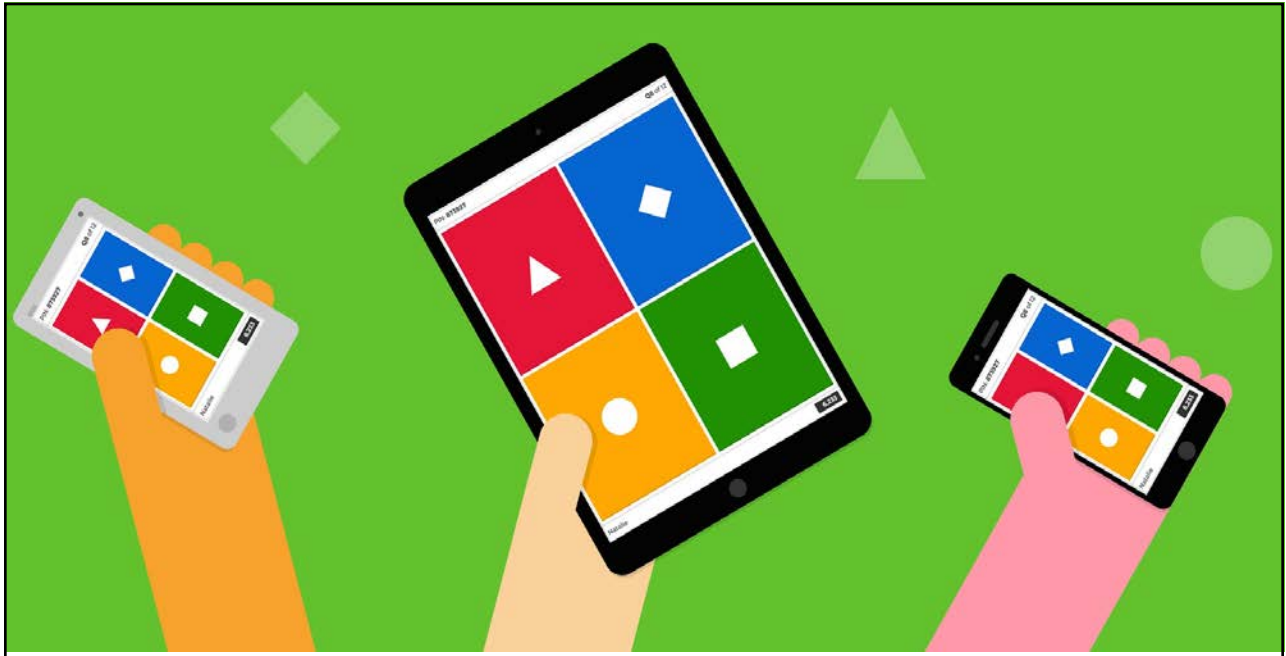
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## CCP CHEAT SHEET

Vacuum packaging	Sous vide	Cook chill
prep	prep	prep
↓	↓	↓
bag	bag & seal	cook
↓	↓	↓
vacuum seal	cook	hot bag & seal
↓	↓	↓
refrigerate	chill	chill
↓	↓	↓
refrigerate	refrigerate	refrigerate

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KAHOOT ROP INTRODUCTION

