## Build a Baking Bridge: Home to Career

## Sharon Davis, Home Baking Association

Family \& Consumer Sciences Education
Director, Program Development



## Today’s FCS CTE Baking Bridge Goals

1. Bridge: Home-to-careers- develop classroom baking education to career opportuni HBA connections, Farm-to-oven- grain, milling \& baking industry professions

2. Baking and milling workforce scope and needs
3. Discuss education strategies and opportunities

FCS CTE educators
FCS CTE students
CEU/Professional development
Students, FCCLA; in classrooms, community, work-sites
Work with HBA, its members
HBA Baking STEAM workshops at ACTE VISION, FCCLA, AAFCS, State FCS/CTE. Train, connect home baking interest and skills with lifelong benefits.


## Bridge Begins Where You Learned to Bake

|  |  | 1st | 2nd | 3rd | Sum of 1st-2nd-3rd |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | At home from a parent or relative | 61\% | 18\% | 14\% | 92\% |
|  | Any social media | - | - | - | 65\% |
|  | TV baking/cooking shows | 11\% | 26\% | 22\% | 58\% |
|  | Watching videos online | 8\% | 17\% | 21\% | 46\% |
|  | Home Economics or Family and Consumer Sciences class | 8\% | 19\% | 12\% | 39\% |
|  | Early childhood program | 3\% | 5\% | 8\% | 16\% |
|  | Community program (eg 4-H, Scouts) | 2\% | 4\% | 7\% | 14\% |
|  | After school program | 2\% | 5\% | 6\% | 13\% |
|  | Career/ tech school class | 2\% | 5\% | 6\% | 13\% |
|  | STEM (science, technology, engineering, math) class | 2\% | 3\% | 3\% | 8\% |
|  |  | 100\% | 100\% | 100\% | - |

Fall 2019 Semester KS State Univ. Baking Science
Aaron Clanton, PhD Instructor reports:

Two classes: 7 of 14 mention start with home baking 28 students, 14 learned baking from family --mom/grandma --FCS, 4-H

Q27: How or where did you first learn to bake? Please select up to three of the first ways you learned to bake. Total of 3,489 "votes" cast.

## Who's The Home Baking Association?

## Since 1929-2023 Baking resources for anyone who teaches baking.

## MEMBERS

ADM Milling
Anchor Hocking
Ardent Mills
Baker Bettie
Bigger Bolder Baking
Canadian National Millers
Chelsea Milling Company
Colorado Wheat
Domino Foods/C\&H Sugar
Grain Craft
Hammons Black Walnuts Hopkinsville Milling Company
Kansas State U. Baking Science Kansas Wheat Commission King Arthur Baking Company Lesaffre Yeast Corporation
Nebraska Wheat Board
North American Millers' Association North Dakota Mill
North Dakota Wheat Commission Northern Crops Institute


Ag commodities Millers
Ingredients
Baking educators
Packaging
Baking Education

Oklahoma Wheat
Panhandle Milling
Renwood Milling
Share Our Strength/Great American Bake Sale
Shawnee Milling Company
South Dakota Wheat Commission
Stafford County Flour Mills Co.
Stone-Buhr Flour Company
Texas Wheat Board
Thermoworks
The Sugar Association
The Uhlman Company
Washington Grain Foundation

## Partners:

American Assoc of Family \& Consumer Sciences (AAFCS)
Family, Career and Community Leaders of America (FCCLA)
Child \& Adult Care Food Programs (CACFP)
National Extension Association of Family \& Consumer Sciences (NEAFCS)
The Family Dinner Project
Wheat Foods Council
Whole Grains Council

## How Does Home Baking Association Fit?

## Bake to Build FCS STEAM

- AAFCS, ACTE, FCCLA, NEAFCS and state conferences sessions, webinars
- Baking STEAM FCS, CTE teacher professional development

Arkansas California Colorado Florida Georgia Iowa Kansas Ohio Oklahoma Missouri Texas Mississippi Montana Nebraska North Carolina North Dakota Tennessee Washington Wisconsin...

- $\quad 1 / 2$ - to 2-day professional workshops, institutes, labs
- Home-to-career bridge for baking terms, methods, teaching resources, distance-learning, www.HomeBaking.org
- Youth leader baking STEAM activities for home, community, out-of-school, STEM
- Child and adult care programs, Parents as Teachers
- Build career connections
- Virtual and in-person

More: FCS, STEM and STEAM. McGregor, S JOURNAL OF FCS, VOL 111, No. 42019.


Spokane, WA New Tech Center


FCS CTE Teachers, Students


Bridge Traditional FCS Kitchens to CTE Labs

## Baking Bridge Spans FCS CTE



## Baking Skills More than Just a Job

## Many children have never seen their parents produce a meal speed or scratch."

- Classes to demystify the process
- Emphasize simple, inexpensive, speed scratch
- Children's skills could teach parents, contribute resources, boost selfconfidence/esteem
- Teens diets improve when help prepare meals
t+t+t+t+t+t+t+t+t+t+t+t+t
"If children are raised to feel uncomfortable in the kitchen, they will be at a disadvantage for life."

JOURNAL of the AMERICAN MEDICAL ASSOCIATION. 2010. Lichtenstein, A; Ludwig, D. 303(21):2109 and cause them to borrow money or owe on credit cards. Federal Reserve Study

Family of 4, Eats "Ready-To-Eat" 4 times weekly \$ 36.00+ (drive through/carry out) -15.00 cost of home meal for 4 21.00 saved per meal X 208 meals per year eaten out \$4,368 per year X 18 years
\$78,624

There are 11 MM children who are
 food insecure daily in the U.S.
Nokidhungry.org
https://cookingmatters.org/

Critical Thinking Q: How many hours and which food and financial content woul significantly reduce food insecurity and lack of savings if adult skills were requir prior to leaving secondary school?

## Baking: 27+ FCS Standards, Career Connections

- Consumer sciences critical in social media age
- Life skills for health, wealth o to 105
- Relationship builder-Peers, family, community, work
- Calculate, control \$\$\$, resources, sustainability
- Test kitchen science--Substitute ingredients; sensory analysis; R\&D new ingredients
$\downarrow$ sodium, sugars, "non-recognizable" additives †potassium, magnesium, calcium, iron, protein $\uparrow$ Whole grains, antioxidants, plant-based, allergen free, fruits, veggies, pulses, seeds, natural preservatives
- Pathways to food sciences, hospitality, human services, consumer sciences





## Baking Career \& Tech Skills

Project time management
Problem solving, creativity' R\&D
Visualization, communication
Reading, comprehension, application
Team building
Cultural/social diversity
Tech resources, computers, equipment
Food handling, safety, storage
Marketing skills, customer preferences, challenges

Employability Skills Framework
 technical expertise, and a set of generall, cross-cutting abilities called "employability skills."

## ©

A Baker's Dozen
Labs linked to FCS
standards, FCCLA
Community
Connections,
CTE Careers and
21st Century
Learning.

- Northern Crops Institute - webinars- https://www.northern-crops.com/education
- KS State University Baking, Milling, Cereal Science grains@kstate.edu

The French Baking School; Johnson \& Wales: CIA

## Baking is Farm to Oven

- Wheat is the World's Number One Crop
- Wheat provides $20 \%$ of human calories; for poor countries, up to $50 \%$ of their protein needs
- Corn, wheat and sugar- U.S., sustainably produced crops


North American Millers, namamillers.com
Wheat 101 NAWG, www.wheatworld.org
Wheat Foods.org, Kernels e-mag; videos; infographics The Sugar Association, www.sugar.org
Your state wheat commission, Dept of Ag, and millsHomeBaking.org

## Wheat and Food Scientists Research Gluten, Wheat, Gut Health

Get the facts. All wheat is non-GMO...modern wheat = heritage and ancient in nutrition...role of gluten

- OSU, KSU, WSU wheat and wheat genome research
- More than 2 million U.S. citizens suffer with celiac
- New genotype of wheat with builtin enzymes to break down proteins causing the reaction
- Barley DNA inserted into wheat
- Research by WSU, Clemson, and researchers in Chile, France, China



## Fact Check, Bust Myths, Gain Skills



- International Food Information Council Accurate consumer and food information Insight www.foodinsight.org
- The Sugar Association (www.sugar.org) Download Sugar Association Farm to Table, Sugar STEAM resources, https://bit.ly/2UvHSkE
- Follow us: @HomeBaking...
- Twitter - @MoreToSugar
- Facebook - @TheSugarAssociation
- Instagram - @MoreToSugar

Access Test Kitchen Guides, Domino and C\&H Sugar


- www.HomeBaking.org
- www.chsugar.com and www.dominosugar.com


## We are advocates for

- Wheat, corn, and oat milling
- Over $95 \%$ of total industry's production capacity
- 38 members in 32 states, Puerto Rico, and Canada
- Wholesale vs. retail flour
- Flour food safety
- www.namamillers.org


Congress...administration...public

## What is milling?

https://namamillers.org/consumer-resources/what-is-milling/

## Milling is the process of grinding, crushing, and sifting raw grain.



| - | JIFFY ${ }_{\text {mixes }}$ | HECKERS CERESOTA |
| :---: | :---: | :---: |
| Ardent Mills. |  |  |


 MILLING

## The Milling Workforce

Current shortage of millers
Jobs in the Mill

- Miller (\$45k-\$65k)
- Maintenance Manager
- Grain Elevator Operator
- Plant Manager
- Safety Manager
- Research \& Development
- Quality Control
- Supply Planner

- Kansas State University only milling science degrees in U.S.
- B.S., M.S., PhD.


## International Association of Operative Millers

## Career Tech Education and Resources

 Milling Technician Certificate Program Correspondence Course in Flour Milling Electrical, Maintenance training Intro, Basic, Advanced Milling courses

- https://www.adm.com/en-us/culture-and-careers/
- https://www.ardentmillscareers.com/search-apply/ cowley.edu/milling
grains.ksu.edu
- GrainMillingCareers.com
- https://www.graincraft.com/careers/
- iaom.org/education


## American Bakers Association

## Who We Are

Christina Donnelly

- 123 years old voice of the wholesale baking industry.
- Serves 1000+ commercial baking facilities
www.americanbakers.org/about/member-list/
- Baking Alliance

ABA , ASBE, NAMA...

www.amercianbakers.org/workforce _gap
https://asbe.org/workforce-gapstudy/
The Workforce Gap in US
Commercial Baking: Challenges
And Solutions, 2016.

The wholesale baking industry mixes tradition and innovation to feed the world and the economy generating some major dough while providing employment to over 1 million people in the U.S.


THERE ARE ENDLESS OPPORTUNITIES FOR YOU IN THE BAKING INDUSTRY


## THE BAKING <br> INDUSTRY <br> EMPLOYS OVER <br> 1 MHLIION <br> PEOPLE

SEEKING MOTIVATED LEADERS OF ALL SKILL SETS TO HELP US
FEED THE
WORLD
yOU DON'T NEED TO BE A BAKER TO FIND A GAREER

## IN THE BAKING

INDUSTRY

CONTACT THE BAKING INDUSTRY ALLIANGE TO LEARN ABOUT POSITIONS IN YOUR AREA cdonnelly@americanbakers.org 202-789-0300 x115 BROUGHT TO YOU BY THE BAKING INDUSTRY ALLIANCE

- How the baking industry impacts your state
https://americanbakers.org/industry-impact/economic-impact
- Follow work force needs https://americanbakers.org/issues/workforce
- Since Sliced Bread podcasts



## American Society of Baking

## FROM THE NAPKIN

TO THE GROCERY SHELF
Bakeicogs
mank trex


Let our creative team of scientists take your ideas from basic sketch to full commercialization.

- Baking equipment
- Clean label (like home-baked)
- Health issues require engineered ingredients, (reduced sodium, sweeteners, gluten-free...)
- Improved shelf life
- New packaging, food safety
- Sanitation

American Society of Baking, www.asbe.org
Bakers National Education Foundation, www.futureinbaking.com/ Kansas State U. Baking Science, https://www.grains.k-state.edu/academics/bakesci/

## RBA Certifies, Trains, Mentors Bakers

- 102 year old non-profit
- Provides four levels baker certification; sanitation certification
- On the job professional development
- Supermarket, independent, food service bakers
- Instructors, suppliers, students, equipment, services

- Forum for industry standards, certifications, networking, learning, research
- Title sponsor, with ABA, of International Baking Industry Expo (IBIE)- Sept. 18-22, 2022, Las Vegas


## What's a baker?

"Bakers mix ingredients according to recipes in order to make breads, pastries, and other baked goods." u.S. Labor industry's definition

## Work locations:

Commercial, wholesale, community, pop-up, cottage businesses, home Retail stand alone, chain; supermarket, club stores
Food services, restaurant, supermarkets
Research and Development (R\&D) - ingredients, bakery, mill

https://www.grains.k-


## The Baking Workforce Gap

"1 in 3 US Employers is seeking entrepreneurial experiences in new hires." TECHNIQUES. Entrepreneuership Education. January 2020, pp 17-21.
U.S. commercial bakers face a shortage of qualified employees.
2.4 MM jobs will go unfilled- 4.6 MM more workers needed up to 2028.


Gap is largest among the following job positions:

- Hourly, skilled production: Maintenance/engineering (78\% 'high' or 'severe' shortage)
- Hourly, skilled production Machine operators (40\%)
- Salaried engineering/maintenance (59\%)

Over 5 years skilled positions grew 60\%

- Increased automation/robotics opens doors for technology/computer knowledge and skills.

By 2025, anticipated shortages among engineering \& maintenance positions - both hourly \& salaried - are expected to remain 'high' to 'severe.

Companies anticipate a significant rise in shortages among

- hourly machine operators and unskilled production positions
- salaried scientist
- R\&D positions


## Baker Top Qualities

Communication skills, team and leadership
Detail oriented
Math skills (basic)
Physical stamina; Physical strength
Problem solving
Top 3 Baking Skill deficiencies:
Same for bakers, maintenance/engineering and machine operators:

1. Specific technical skills
2. Leadership skills
3. Problem solving/decision making skills

The Workforce Gap US Commercial Baking. 2016


HBA Ed Award winner:
Delaine Stendahl,
Baking Science Labs, Whitehall H.S., WI


HBA Baking Immersion Tour,2023
Dave Krishock
\#BAkeACareer
\#FutureInBaking
https://www.futureinbaking.com/


## Consumers want more from their bakers.

## Social and environmental responsibilities.

- "Sustainable food" up 23\% in consumer priorities on social media- "how-to" searches up 4550\% during pandemic
- Immunity, diet focus eating (keto, vegan)
- More ingredients in baking- "Ancient, heritage grains- emmer, einkorn, spelt, teff, millet, triticale, purple and black barley;
- Natural sweeteners- cane and beet sugars, stevia; monk fruit

Define, examine, teach, test bake to learn the bakers' challenges while meeting these.

Track consumers, grain foods, baking ingredients: Insight.org (International Food Info Council)
"Add one more whole grain serving." January 2020
Grain Industry recommends to New Dietary Guidelines committee
 Food Business News, Sosland.com

A lot's About Controlling Ingredients- home or commercial
Controlling ingredients is an even more important motivator than family traditions, and it is the only one where
"strongly agree" exceeds "somewhat agree"


## EXAMPLE Retail and Commercial Baking R\&D

## Key consumer wishes for baked goods

- "Clean label" - ingredient panel reads like a home recipe - easy-to-understand
- Nutrient-rich, whole grains (80\% of consumers view these as healthier)
- Craft breads from ancient and sprouted grains, pulses, seeds
- 6\% of consumers need glutenfree; Less than 1\% vegan

Access The Butter Book offer, https://www.homebaking.org/exciting-butter-book-offer-from-hba/ www.HomeBaking.org/distance-learning/

R\&D Bakers essential- Julien Otto, chef instructor, master baker New HBA member, The French Pastry School ,Chicago (IBIE)


Meaningful FCS Baking education blends consumer sciences, skills, methods, R\&D

Baking methods
Consumer Science
Food Science, chemistry
Sensory Analysis

Who wants R\&D??
-Milling companies
-Baking companies
-Universities
-Tech level to Ph.D


## Plan Baking Labs and Purposeful Baking Proiects

to solve a problem, share experience or expertise, raise awareness change behaviors." Melinda Kolk, Creative Educator

## Apply Engineering Design Process

Museum of Science in Boston

1. Identify problem--Do background research
2. Ideate- Construct a hypothesis how to accomplish
3. Plan-What will it take to make idea reality?
4. Create, measure results--Am I making progress?
5. No? What do I need to improve? Trouble shoot; re-test Yes! Draw conclusions, communicate results Cost, price, market

Entrepreneurship Education... Meaningful Work-based Learning. Techniques, January 2020.


## Apply Test Kitchen R\&D Baking Methods

Equip FCS Labs...scales, thermometers, scoops

Bridge from home tools and methods


## Baking Labs @ Work



HBA/WA-FACSE Baking
STEAM Workshop, 2019
New Tech Center
Spokane, WA

| Pita Pocket Bread <br> Yield: $8(2.75 \mathrm{oz} / 78 \mathrm{~g})$ pita |  |  |
| :---: | :---: | :---: |
| Ingredients | Measurement | Weight |
| Whole wheat flour | $13 / 4$ cups | 6.25 oz/ 175 g |
| Water, $80^{\circ} \mathrm{F}$. | 1 cup | 8 oz/225 ml |
| Active dry yeast | $21 / 4$ teaspoons | 1/40279 |
| Salt | 1 teaspoon | 6 g |
| Olive or vegetable oil | 1 tablespoon | $3 / 8$ oz/14g |
| Unbleached all-purpose flour | 1 to $11 / 4$ cups | 4.25-50//120-140g |

## Directions:

Blend the whole wheat flour, water and yeast until well mixed, stirring about
2. Allow to stand, covered, about 5 minutes (until the dough begins to puff a little). Stir in the salt, oil and all-purpose flour, $1 / 2$ cup at a time, until a rough, moist dough
ball forms. Turn onto lightly floured counter, knead, adding only small amounts of flour while kneading.
4. Knead until the dough is smooth, elastic and no longer needs flour to handle, about 5-7 minutes. NOTE: I I too much flour is added and dough becomes too stiff, 1 and elastic.
Place dough in a bowl, cover loosely with lid and let rest (ferment) $35-45$ minutes in drat tree ( $\left(78-82^{\circ} \mathrm{F}\right.$ ) place (unheated oven, cupboard, microwave oven). Punch down the dough. Form into a log and divide into 8 equal pieces. Shape these pieces into round, smooth balls (like dinner buns, see Lab 12) and cover with oiled or sprayed plastic wrap, or turr the bowl over them to prevent dyying. Let rest $5-10$ minutes.
Place oven racks on bottom placements. Preheat oven to $475^{\circ}$ to $500^{\circ}$. (very hot). (This is not a mistake. In the mid-East, pita bake at $900^{\circ} \mathrm{F}$.)
8. Roll and flatten each round piece of dough until about $6-8$ inches in diameter and $1 / 4$-inch thick. Let circles rest and re-roll if they spring back. Place on ungreased
baking sheet pans, sprinkled lightly with cornmeal or parchment paper liners. No Another excellent option is to bake pita on heated baking stones. (Follow baking stone directions for use and care.)
9. Bake very briefly-just until pita puff up, surface begins to brown and "freckle" with color, two to four minutes. They will puff up and form the pocket as they bake.

## Source: Ethnic is Now. Sharon P. Davis. kswheat

Baker's Note: Do not open the oven door while baking-heat is lost and pita may not puff and form pockets. DO watch the pita puff with the oven light on through a glass door-it's great! If another pan is to be loaded and baked, be sure to let oven come back up to temperature before loading the next pita to bake

Evaluating Pita
Have students label their lab's pita as "control," "reduced salt," or "no salt pita

Pita Lab Rubric

| Top and bottom crust | Very acceptable <br> Everly golden <br> Not burned or pale | Okay <br> Edges <br> browned |
| :--- | :---: | :---: |
| Volume | Doubled in height | Raised <br> somewhat |
| Interior crumb | Tender | Moist and <br> not too dry <br> to eat |
| Flavor | Rich, a little sweet <br> Wheaty, pleasant | Pleasant <br> flavor |
| Keeping quality after 1 day | Still flavorful <br> Good aroma/moist | Edible <br> but not best |

## Coo much oil or fat flavor

ats mouth; unpleasant
Stale (dry; firm
Off flavor

## Critical Thinking:

Shape, bake and sample pita, using rubric to evaluate. Apply Baker's percentage knowledge to answ questions 1-3:
range of salt level in yeast bread dough that is recommended is between $1 \%$ and $1.5 \%$ of the flour weight. (See Bakers percentage). What is the Bakers by 335 g flour $=1.8 \%$ )
Did the lab using less salt succeed? (A: If so, the sodium
could be reduced in this product if flavor is okay
In baking tests to reduce sodium in breads,
nhtrained taste testers could not notice a flavor Does this seem true based on this lab? (A: Students should answer based on their evaluations.)

## Consumer sciences critical thinking

In many countries, pita are eaten as a daily bread, even used instead of utensils. 8 or more pita may be consumed! How many grams of protein would 8 pita provide? (A: 60 g - enough for an adult)
2. How many grain sevings is one of the pita prepared in this lab? (A: 2.5.) How many grams whole grain? (A: Whole grain per pita $=28 \mathrm{~g}$.) Why is pita a great staple (look this word up if saturated fat high in complex carbhydrates sugar, not too high in sodium.)
How does the product you made in lab compare to the store-bought pita? Compare Cost: \$__ at store. Homemade cost $\sim \$ 0.80-\$ 1.00$ for eight pita Nutrition Facts label/ingredients: Commercially made pita are usually higher in sodium. Which is (Be sure to compare an equal per serving weight.)
(Ber Are the pita you made whole grain? (A: Yes, if recipe Arllowed). Are the store-bought pita enriched or whole grain? (A: Answers vary.)
Quality: Store bought are often stale or firm because pita have a very short shelf life. Do freshly made pita have more flavor? - yes _ no Create a menu with pita. What would you serve
inside, wrapped in or with your pita? (A: Consider preparing hummus or falafel to serve with the pita!)

## Develop Essential Baking Test Kitchen R\&D Skills



Taste of Home Blog, 12/2019
www.WholeGrainsCouncil.org


Learn new methods...tangzhong.
Baker's Spotlight, Soft Flatbread, www.HomeBaking.org www.redstaryeast.com Milk Bread

## Conduct Consumer/Client/Test Market Sensory Analysis



Form, p. 4, Kitchen Science: Baking for Special Needs

## Keep up with Food, Ingredient, Consumer Trends, Costs

## Milling \& BakingNews.



- www.bakingbusiness.com
- www.foodinsight.org

Sosland Publishing

- Baking and Snack
- Food Business News
- Milling \& Baking News

EXAMPLE: Swerve ${ }^{\circledR}$ Brownie Mix, zero-calorie sugar

replacement made with erythritol, prebiotic fiber and citrus. Grainfree, keto-friendly, non-GMO mix made with blanched almond flour, cocoa, organic coconut flour, tapioca starch, organic coconut flour, sea salt and baking soda

## WANTED:

## 21st-Century Flour Food Safety Education

Pathogenic bacteria can occur on wheat and other grain kernels, and can survive the milling process at a rate of approximately 1\%.

## 2016:

The \#1 retail
Flour brand in
the U.S.
experienced a recall due to pathogenic
bacteria in flour.

A small amount of bacteria can make a person
sick or cause death.


## 2023:

The \#1 retail
Flour brand in the U.S.
experienced a recall due to pathogenic bacteria in flour.

## Will we leave it to the internet to be food skills and safety teacher?

- Leading online sources mentioned by name: Food Network, allrecipes.com, Taste of Home, google.com, recipes.com, America's Test Kitchen, Yummly, Epicurious

Q29: What online sources do you get baking inspiration from? Please select all that apply. $N=1,830$
NC State Extension
Research
indicates how many
poor food safety
practices
demonstrated on line or food shows


## Commercial Ready-to-Eat Flours Ardent

SafeGuard ${ }^{\circledR}$ Ready-To-Eat Flour

Legacy Ardent Created Safeguard Flour in 2010
Proprietary, Validated Process
Reduces the pathogen risk up to 4 logs, or $99.99 \%$
Functional Flour Maintains all gluten functionality, absorption, starch q and enzyme activity

## Ready-to-Eat Applications

Targeted for use in commonly "mishandled" products e.g., refrigerated cookie dough, cake/brownie mixes, frozen pizzas
$\rightarrow$ Not currently available to school food service or "family flour"


## Key TOPIC: We Need Baking Food Safety Education

Follow Safe Raw Food Practices

Taste Batter/Dough


Who is most likely to "always" taste batter and dough?
Daily bakers! At $62 \%$, compared to $27 \%$ of weekly bakers, and $20 \%$ for all other groups.
Since there are only 217 daily bakers, totals always or frequently tasting is about equally spread across all types of bakers.

Q9: How often do you follow safe raw food practices when handling uncooked/unbaked flour (eg cleaning spills from surfaces before other foods are placed there, etc)? $N=1,783$

Q10: When preparing dough or batter, how often do you taste it or give it to others to taste? $N=1,830$

Flour is a raw, agricultural commodity until it is cooked or baked.



## Did You Know Posters, Video

¿SABIA UD. QUE LA HARINA ES UN
EL trico proviene de la granja,

fentonces, NUNCA SE DEBE COMER HARINA CRUDA: NUNCA COMA MAGA $O$ PASUA CRUDA

wous deviriez donc jamais manger de la farine crue rocc quelques conselic pe santí ar sécurat

NE MANGEZ PAS DE PAlO CRUE


LAVEZ SOIGNEUSEMENT VOS USTENSILES ET SURFACES DE CUISSON
AVEC DU lu: Cu ciaude

MANGEZ DES ALIMENTS CONTENANT DANGEZ DES ALIMENTS CONTENANT LA FARINE SEULEMENT APRE
QU'ILS SOIENT BIEN CUIIS


## French, English, Spanish



Downloads, videos About Milling, Consumer Food Safety https://namamillers.org/consumer-resources/consumer-food-safety/

## Baking Temperatures Critical for Quality, Safety




Heat is An Ingredient

(1)

ThernoWorks


## Mozzarella Mash

Carla Shaer, Illinois


## Thank you!

## Sharon Davis, hbadavis@gmail.com

The Muffin Man and the Healthy Kids Act
Katie Brouwer, FCS, H.S., Story City, IA
Baking Clubs @ Work, cheryl Doyle \& Louann Moos, Pennbrook M.S., PA

Pastry Pizzazz
Marla Prusa, FCS, H.S., Howells, NE
Sugar Detectives!
Elizabeth Hagan, FCS, Bayard, IA


Promote, enter on-line, May 31, 2023


FREE Downloadables, www.HomeBaking.org


