

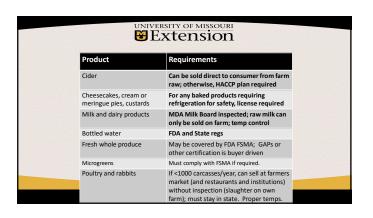


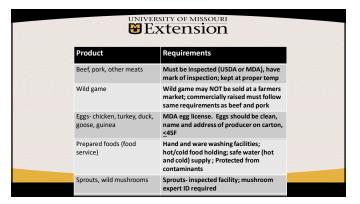
K-STATE











#### Selling to grocery stores, wholesalers, etc-KS or MO?

- Licensing is required for ALL products sold retail/ wholesale, other than
  - Fresh uncut fruits, vegetables and herbs
  - Intact salad greens
  - Cultivated whole mushrooms (fresh)



UNIVERSITY OF MISSOURI
EXtension

#### Additional information- KS

- Kansas Department of Ag Food Safety and Lodging

   http://agriculture.ks.gov/divisions-programs/food-safety-lodging
- KS Value Added Foods Lab (KVAFL- scheduled processes, product testing, nutrition facts)
  - www.ksre.k-state.edu/kvafl/
- KSU Extension Food Safety website
  - www.ksre.k-state.edu/foodsafety/



Knowled

## UNIVERSITY OF MISSOURI EXTENSION

#### Additional information- MO

- MO Dept of Health and Senior Services
- http://health.mo.gov/safety/foodsafety
  - Includes brochure on jams and jellies
- MDHSS food processor requirements
  - http://health.mo.gov/safety/foodsafety/pdf/Pr ocessor\_Brochure.pdf
- MO Dept of Ag
  - <u>http://agriculture.mo.gov/</u>

#### **Contact Details**

Londa Nwadike

Extension Consumer Food Safety Specialist Kansas State University/ University of Missouri

Phone: 913 307 7391/816 482 5860

Email: Inwadike@ksu.edu

http://www.ksre.ksu.edu/foodsafety/

http://missourifamilies.org/foodsafety/newsletters/



UNIVERSITY OF MISSOURI
EXTENSION

Knowled forLife

# PRODUCT EXAMPLE - WHAT ARE THE REGULATIONS? FSMA? Acidified foods? Cottage foods?



#### WHAT DO I HAVE TO DO?

#### It Depends!

Food safety risks (severity and likelihood of illness or injury to consumers) influenced by:

- Types and sources of ingredients
- Packing and distribution
- Consumers
- Facility size

You may be subject to one or more regulations with different requirements, basis for exemption, and documentation requirements

#### FOOD SAFETY MODERNIZATION ACT

Subpart A - General Provisions

Subpart B - Current Good Manufacturing Practice

Subpart C - Hazard Analysis and Risk-based Preventive

Subpart D – Modified Requirements

Subpart E - Withdrawal of a Qualified Facility Exemption

Subpart F – Requirements Applying to Records That Must be Established and Maintained

Subpart G - Supply-chain Program



FDA FOOD SAFETY MODERNIZATION ACT

- Human Food
- Produce Safety
- Animal Feed and Pet Food
- (etc...)

#### FOOD SAFETY MODERNIZATION ACT

#### Subpart C - Hazard Analysis and Risk-based **Preventive Controls**

- Written hazard analysis
- Process preventive controls
- Sanitation preventive controls
- Allergen preventive controls

#### Subpart G - Supply-chain Program

Supply chain preventive controls



FDA FOOD SAFETY MODERNIZATION ACT

- Human Food
- Produce Safety
- · Animal Feed and Pet Food
- (etc...)

#### PREVENTIVE CONTROLS FOR HUMAN FOOD

Subpart A - General Provisions

Subpart B - Current Good Manufacturing Practice

Subpart D - Modified Requirements

Subpart E – Withdrawal of a Qualified Facility Exemption  $\label{eq:SubpartF-Requirements-Applying-to-Records-That-Must} Subpart F-Requirements-Applying to Records-That-Must be Established and Maintained$ 



FDA FOOD SAFETY MODERNIZATION ACT

- · Human Food
- Produce Safety
- Animal Feed and Pet Food
- (etc...)

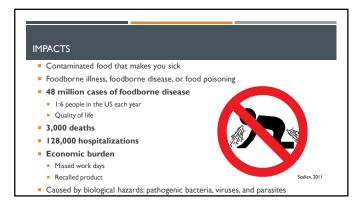
#### **GMPS ARE REQUIRED**

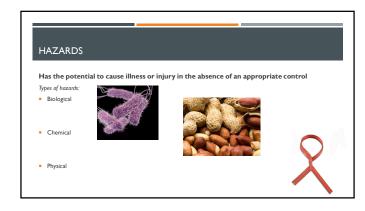
- The current federal GMP regulation specifically applies to all food products regulated by FDA.
- It outlines the basic sanitary controls that are required for all food processing plants, wholesale or food distribution firms and food storage facilities that handle, store or process FDA-regulated food. This GMP regulation also provides a framework for the specific state regulations that may apply to these firms.

#### A REVIEW OF SOMETERMS

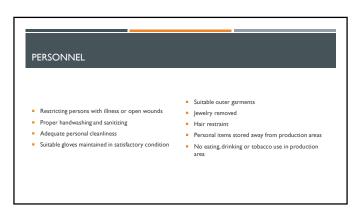
- <u>Food Safety</u> programs or activities that serve to prevent illness or injury that results from eating food
- Hazards the things that cause illness or injury
- Risk the likelihood of illness or injury occurring

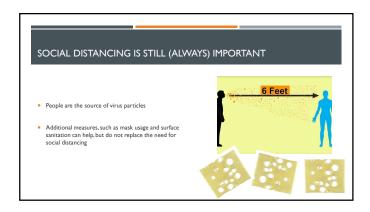
Different food safety programs (and regulations) address the issues of hazard and risk in different ways. Our goal in this module is to: (I) identify pertinent hazards specific to you and (2) consider relevant food safety activities to manage those risks outside of Preventive Controls





# COMPONENTS OF GOOD MANUFACTURING PRACTICES (GMPS) The regulation (21 CFR 117 Subpart B) lists these components that establish the conditions and practices the food industry must follow for processing safe food under sanitary conditions: Personnel Plant and grounds Sanitary operations Sanitary facilities and controls Equipment and utensils Processes and controls Warehousing and distribution Holding and distribution of human food by-products for use as animal food, and







#### PLANT AND GROUNDS

- Removal of debris, unused equipment and uncut vegetation
- Proper drainage of grounds
- Proper waste disposal
- Adequate space for operations and cleaning
- Proper separation of operations to prevent cross-contamination and allergen crosscontact
- Cleanable walls, floors and ceilings kept in good repair.
- Prevent drip or condensate from contaminating the product
- Adequate lighting
- Guard against glass breakage
- Adequate ventilation that does not contaminate the product
- Screened openings to the outside

#### SANITARY OPERATIONS

- Plant maintained in good state of repair
- Cleaning operations not a source of contamination
- Cleaning and sanitizing compounds safe and free from contamination
- Unnecessary toxic chemicals not stored
- Toxic chemicals properly identified, stored and used
- Pest control safe and effective
- Food-contact surfaces cleaned and sanitized before use and after interruptions
- Non-food-contact surfaces cleaned as necessary
- Single service articles protected from contamination
- Recontamination of portable equipment and utensils prevented

#### SANITARY FACILITIES AND CONTROLS

- Adequate potable water supply
- Proper plumbing
- Adequate floor drainage
- Proper sewage disposal
- Adequate, accessible, sanitary toilet facilities
- Convenient hand-washing and sanitizing facilities
- Proper trash and waste disposal

#### SANITIZERS THAT CAN BE USED TO CONTROL COVID-19

- The sanitizer you use for common spaces does not need to be "wine sensitive"
- How do you know the the sanitizer is effective against coronavirus?
- coronavirus?

  Check if the EPA registration number listed on the product
- See if number is on EPA List N
- List N sanitizers are active against SARS-CoV-2



https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

#### 

## PROCESSES AND CONTROLS RAW MATERIALS AND INGREDIENTS Comply with FDA requirements for pests, extraneous material or undesirable microorganisms, as assured by testing, supplier certification or heat treatment Inspect for suitability Store and handle to prevent contamination and deterioration Properly identify rework and prevent contamination, allergen cross-contact and deterioration

### PROCESSES AND CONTROLS MANUFACTURING OPERATIONS

- Prevent microbial growth through:
- Cooking, time/temperature control, water activity control, pH etc.
- Use clean and sanitized equipment, utensils and finished product containers
- Manufacture ice from potable water in a sanitary manner
- Prevent cross-contamination and allergen cross-contact

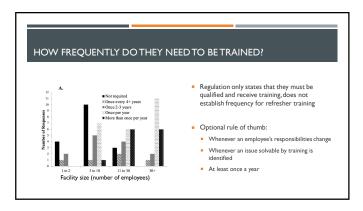
#### HOW HAVE GMPS BEEN MODERNIZED

#### Increased emphasis on allergen management

- This includes issues relating to sanitation and cleanliness to prevent cross-contact
- Transfer of allergens from shared utensils and equipment
- Order of food produced in the facility
- Receipt and storage of allergens
- If you're in a shared-use facility, how do you manage risks posed by others? If you use a co-packer, do you know their policies on allergen management?

# Wear masks, social distance/reduce capacity, increase ventilation How to Align Meetpacking and Meet Processing Workstations, if Feasible \*\*Badd\*\* \*\*Badd\*\* \*\*Control of the processing workstations are within as here of one acother, onlying and state of the processing workstations. Separate workstations, separate work

# REGULATION Subpart A – General Provisions 21 CFR 117.4 Qualifications of individuals who manufacture, process, pack or hold food (a) Applicability. (1) The management of an establishment must ensure that all individuals who manufacture, process, pack, or hold food subject to subparts B and F of this part are qualified to perform their assigned duties. (2) The owner, operator, or agent in charge of a facility must ensure that all individuals who manufacture, process, pack, or hold food subject to subpart C, D, E, F, or G of this part are qualified to perform their assigned duties. (b) Qualifications of all individuals engoged in manufacturing, processing, packing, or holding food. Each individual engaged in manufacturing, processing, packing, or holding food. Each individual engaged in thereof must: (1) Be a qualified individual as that term is defined in 117.3—i.e., have the education, training, or experience (or a combination thereof) necessary to manufacture, process, pack, or hold clean and safe food as appropriate to the individual's assigned duties; and (2) Receive training in the principles of food hygiene and food safey, including the importance of employee health and personal hygiene, as appropriate to the food, the facility and the individual's assigned duties.



# Receive training in the principles of food hygiene and food safety, including the importance of employee health and personal hygiene, as appropriate to the food, the facility and the individual's assigned duties. Could be delivered by: Instruction by supervisor Extension courses Online classes Tradeoffs regarding cost, time, and quality of instruction exist for each training method and options Resources for GMP training provided in subsequent slides

#### **RESOURCES - ONLINE**

https://instituteforfoodsafety.cornell.edu/trainings/good-manufacturing-practices-registration/

- Various online certificate programs

Can be completed over multiple sessions from remote locations

- Module I:GMP Regulation & Training
   Module 2:Food Safety: Microbes & Allergens
- Module 3: Personnel: Health & Hygiene
- Module 4: Plant Grounds & Pest Control Module 5: Plant Construction & Design
- Module 6: Sanitary Facilities: Water, Plumbing & Toilets Module 7: Sanitary Operations: Cleaning & Sanitizing
- Module 8: Equipment & Utensils
- Module 9: Plant Operations & Raw Materials
  Module 10: Manufacturing Operations: Process Controls
- Module 11: Warehousing, Food Disposition & Defects Module 12: Building Sanitation Procedures

#### DOCUMENTATION

Records. Records that document training required must be established and maintained.

- What information is useful to keep on a training log?
- Title of the record, facility name, etc.
- Name of the employee trained
- Date of the training
- Signature or initials of trainer or supervisor
- Type or content of the training (e.g. GMPs, HACCP, thermal processing, etc.)

#### **EXAMPLE DOCUMENTATION** Facility Name: ABC Food Company Record Title: Employee Training Log Last updated: December, 2018 Employee Name Title Training Type Date of Training Bob Jones Shift manager November 2018 PCQI B Jones Candace Doe Line operator December 2018 **GMPs** B Jones Sheryl Cutter Warehouse December 2018 **GMPs** B Jones December 2018 B Jones lerome Cup Pasteurizer GMPs operator Business owner December 2018 GMPs Lisa Marie B Jones Travis Mark OA Technician December 2018 B Jones

#### FOOD SAFETY MODERNIZATION ACT FDA FOOD SAFETY MODERNIZATION ACT Subpart B - Current Good Manufacturing Practice Subpart C - Hazard Analysis and Risk-based Preventive Human Food Subpart D - Modified Requirements Subpart E – Withdrawal of a Qualified Facility Exemption • Produce Safety Subpart F – Requirements Applying to Records That Must be Established and Maintained Animal Feed and Pet Food • (etc...) Subpart G - Supply-chain Program

#### **REGULATION CANNOT BE ONE SIZE FITS ALL**

- No food facility is exempt from the responsibility to produce safe food
- However, different scales and types of supply chains pose varying levels of risk to public health
- One of the parts of this risk-based, scale-sensitive approach was a provision that set forth modified requirements for very small businesses

#### **PCHF REQUIREMENTS FOR A QUALIFIED FACILITY**

- Subject to modified requirements in 21 CFR Part 117.201 of the Preventive Controls for Human Food Rule
- These modified requirements require the business to submit a form to FDA, attesting to its status as a qualified facility

#### **ELIGIBILITY TO BE A QUALIFIED FACILITY**

- I. "Very Small Business"
- Less than \$1 million in annual sales (or the value of food you hold, manufacture, or distribute) of human food, OR
- Less than \$500,000 in annual gross sales (adjusted for inflation) over a previous three-year period AND sells the majority of the food directly to a "qualified enduser"
  - "Qualified end-user": i.e., a consumer, or a restaurant or retail food establishment (e.g., a grocery store) that is located in the same state as the facility or not more than 275 miles from the facility)

### QUALIFIED FACILITIES ARE SUBJECT TO 5 PARTS OF THE PCHF RULE

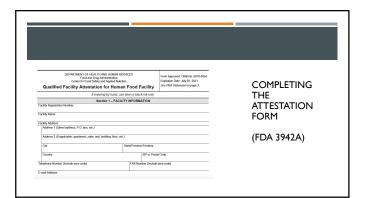
- I. General provisions
- 2. Current Good Manufacturing Practices
- Modified requirements that apply to a qualified facilities
- 4. Certain recordkeeping requirements
- Withdrawal of modified requirements that apply to qualified facilities

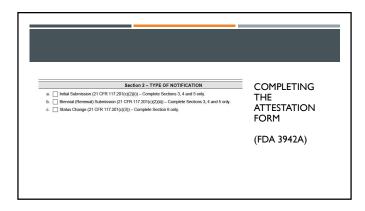
#### DOCUMENTATION REQUIRED FOR QUALIFIED FACILITIES

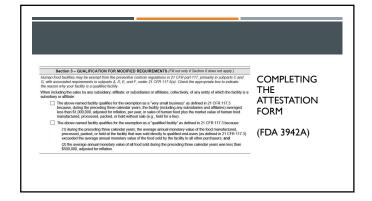
- Under the modified requirements, qualified facilities must submit two types of documentation to FDA:
- $\label{eq:local_local_local} \textbf{I.} \quad \textbf{A statement from the qualified facility certifying that it is a qualified facility}$
- 2. Either:
  - Documentation showing that the facility has identified hazards, is implementing preventive controls, and is monitoring to ensure the effectiveness of the preventive controls; OR
  - Documentation that the facility is complying with applicable non-Federal food safety law (e.g., state, local, or county)

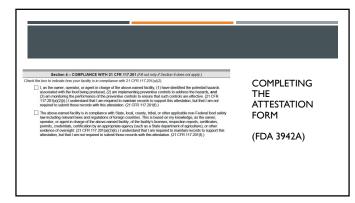
#### FDA BIOTERRORISM REGISTRATION (BT REGISTRATION)

- BT registration requirements existed prior to FSMA you may already be registered.
- If you are not required to BT register, you are not subject to subpart C and G of the PCHF rule
- Still subject to GMPs either way
- If you do BT register, the business size calculation may qualify you for an exemption from subparts C and G
- Who does not have to BT register?
- Farms
- Food service
- Retail establishments
- To register, use Form FDA 3537 available through the same portal as the qualified facility attestation through the "FDA Industry Systems" <a href="https://www.access.fda.gov/">https://www.access.fda.gov/</a>









Section 6 - ATTESTATION STATEMENT; if cut only if Section 6 does not agoly)

In their that, it is the less of my broadering and briefly the elementary provided in this Qualifier 5 andly Albertation in true.

COMPLETING

The country operator, or again in charge of the above named feeling, in much makes those records selectly so the support three allerations of 12 (FM 117-2011) and makes those records grouply invalidable to a day enhanced representation of this country of the above named feeling in much makes those records grouply invalidable to a day enhanced representation of this country of the cou

WILL THE FDA DETERMINE IF MY FACILITY IS A QUALIFIED FACILITY?

NO

You are responsible for determining whether your business meets the definition of a qualified facility

Subject to verification by FDA

# FDA CAN REVOKE QUALIFIED FACILITY STATUS FDA can withdraw a qualified exemption under certain broad circumstances: 1. Foodborne illness outbreak linked to a qualified facility 2. Necessary to protect the public health and prevent or mitigate a foodborne illness outbreak FDA discretion following an inspection Based on conduct or conditions associated with the facility

# CALCULATION TO DETERMINE QUALIFIED FACILITY STATUS How often do I need to do this calculation? Each year No later than July I of each calendar year (21 CFR 117.201(c)(1)).

#### CALCULATION TO DETERMINE QUALIFIED FACILITY STATUS

- Include ALL human food
- Regardless of whether the human food is subject to the PCHF Rule
  - Foods subject to HACCP regulations
  - juice, seafood
  - Food subject to other regulations
  - low acid canned foods, dietary supplements
  - Raw Agricultural Commodities (RACs)
  - produce, grains, milk, eggs
  - USDA regulated products
  - meat, poultry

#### **HOW DO I CALCULATE MY AVERAGE ANNUAL SALES?**

- Determine which three years to include in the average
- Determine annual sales and market value of food manufactured, processed, packed, or held without sale for each of the three years
- Adjust annual sales and market value for each year for inflation
- Calculate the inflation-adjusted average annual sales and market value

#### WHAT YEARS DO I USE IN MY CALCULATION?

- Average is based on the 3-year period preceding the applicable calendar year
- The applicable calendar year is the current year
- If the current year is 2019, the three preceding calendar years would be 2016, 2017 and 2018

### WHAT IF I DO NOT HAVE 3 YEARS OF FINANCIAL RECORDS FOR MY CALCULATION?

- The compliance date for you to keep records to support your status as a qualified facility is January 1, 2016
- The compliance date for you to begin complying with the modified requirements for a qualified facility is September 17, 2018.
- FDA intends to accept records for the preceding 2 calendar years as adequate to support status as a qualified facility.
- If you begin operations between January 1, 2017, and September 17, 2018, your applicable financial records would not cover even 2 calendar years by September 17, 2018.
- FDA intends to accept records for the preceding one or two years as adequate to support your status as a qualified facility until you have been in operation long enough to provide three years of records.
   If you begin operations after January 1, 2018, you can rely on a projected estimate of revenue (or market
- value) at the time you begin operations.
- FDA intends to evaluate the credibility of the projected revenue (or market value) based on such factors as your number of employees

### HOW DO I ADJUST ANNUAL SALES PLUS MARKET VALUE OF HUMAN FOOD PRODUCTS FOR INFLATION?

 Use the U.S. Bureau of Economic Analysis' Implicit Price Deflators for Gross Domestic Product (GDP)

Adjust using the 2011 Implicit Price Deflator as the baseline

Annual sales +
market value of x
food held

2011 implicit price deflator index number

Current year implicit price deflator number

Inflationadjusted sales plus market value

### WHAT IF I SUPPLY INGREDIENTS TO A PROCESSOR WHO IS NOT A QUALIFIED FACILITY?

- Do you control a hazard for that processor?
- For example, you sell chocolate to a granola bar manufacturer. The granola bar manufacturer does not
  apply a baking step to kill pathogens and relies on you to ensure the chocolate does not contain
  Solmonello.
- The receiving facility (granola bar manufacturer) must obtain written assurance that a supplier is
  a qualified facility before first approving the supplier for an applicable calendar year, and on an
  annual basis thereafter, by December 31 of each calendar year, for the following calendar year (21
  CFR 117.430(c)(1)). Note that the receiving facility must obtain other written assurances from
  the supplier every two years.

#### WHAT OTHER EXEMPTIONS FROM C AND G EXIST?

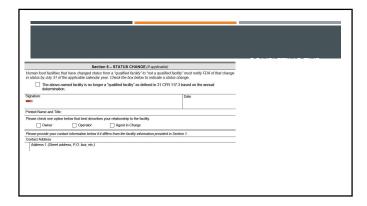
- Alcoholic beverages
- Retail/food service
- 501 3C
- Description can be found in 21 CFR 117.5
- $\frac{https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=117.5}{}$

#### RECORD KEEPING REQUIREMENTS

- A qualified facility must maintain records that support the documentation required
  - Examples: financial records, GAP audit records, hazard analysis, SOPs and associated monitoring documentation, etc.
- These records must:
- Be accurate and legible
- Be retained at the facility for at least two years after the date they were prepared
- Records >6 months old can be stored offsite (must be retrievable in 24 hours)

## RECORDS NEEDED TO SHOW YOUR BUSINESS IS AN ELIGIBLE QUALIFIED FACILITY

- Records to support the attestations you make on Form FDA 3942a
- Records that you use for your calculations of annual sales
- Records of the actual calculations that you make
  - e.g., calculations of inflation-adjusted annual sales plus market value and the three-year average of inflation-adjusted annual sales plus market value



#### BUSINESS GROWTH > \$1 MILLION

- Your food business is very successful great!
- What happens when you exceed sales of \$1 million/year how does that change your regulatory requirements regarding food safety?

### MONITORING AND VERIFICATION OF CRITICAL FOOD SAFETY SYSTEMS

- Consider product and process-specific hazards
- Pathogens like E. coli, Salmonella, and Listeria
- Allergens
- Depending on the product (i.e. acidified foods) you may already have additional record keeping requirements
- Determine what activities you use to control these hazards
  - Cook step, refrigeration, allergen labeling, etc.
- Implement simple record keeping practices to document control over these hazards at established time intervals
- Record time/temperature information, check every batch of product labels for allergen declaration statements

# MAKE SHEETS FOR TRACEABILITY BY BATCHES Records can be prepared by activity (e.g. cooler monitoring log) or by batch (e.g. make sheets) Make sheets allow small processors to record all batch-specific information on one form Time/temperature for processing pH Type of label used and that the allergen statement was present Visual inspection of cleanliness following sanitation Visual check on employees following GMPs Lot numbers for ingredients Batch numbers of finished product

