Any questions from the last webinar?

4-H Youth Development Essential Element
INDEPENDENCE

Youth Development Research Emphasizes Essential Elements
- Belonging
- Mastery
- Independence
- Generosity

Independence
- Opportunity to see oneself as an active participant in the future
- Opportunity for self determination

This pilot project is funded by a Kansas 4-H Foundation Grow 4-H Initiative
Youth need to know that they are able to influence people and events through decision-making and action.

*How can this happen in the 4-H Project you are leading?*

By exercising independence through 4-H leadership opportunities, youth mature in self-discipline and responsibility, learn to better understand themselves and become independent thinkers.

*What kind of leadership opportunities can you provide to young people in your project?*

If the need for independence is met in a positive way, what characteristics would you expect young people to exhibit?

More on Canning...

- Fruits
- Salsa
- Pickles
- Jams & Jellies

Youth Learning Net

- Pressure Canning
- Canning Salsa and Fruit
- Pickling
- Jams and Jellies
- CD

Quality for Keeps

Fruits and Tomatoes

- Choose firm, ripe products
- Do not use overripe fruits
- Use enough produce to preserve within 2-3 hours
- Dirt contains hard to kill bacteria
- Wash everything, even if it’s peeled
- Use several water changes
- Lift the food, do not soak

Prevent Darkening of Fruit

- 1 teaspoon (3000 mg) ascorbic acid to one gallon of water
- Commercial ascorbic acid mixture
  - Fruit Fresh
- Heating the fruit

Other Treatments

- These don’t work the best
  - Citric acid solution
  - Lemon juice
  - Sugar syrup
  - Salt/vinegar solution

Liquids to Can Fruit

- Sweet syrup
- Water
- Juice

A Poll

- A quick poll on Tomatoes

Tomatoes Need Acid

- All Tomatoes have pH between 4 - 4.6
  - Borderline for safe boiling water canning
  - This includes all colors of tomatoes!
- For Pints
  - 1 Tablespoon bottled lemon juice
  - ¾ teaspoon citric acid
- For Quarts
  - 2 Tablespoons bottled lemon juice
  - ¾ teaspoon citric acid
More on Tomatoes

- Vinegar may be used, but:
  - 4 Tablespoons vinegar per quart or 2 Tablespoons per pint
  - Flavor may be objectionable
- Add acids directly to jar before filling
- If too acidic, add sugar to taste
  - Example: 1 tablespoon per quart

Salt in Tomatoes

- Salt is only used for flavor in canned tomatoes
- It can be omitted

Sensational Salsa!

- Unless a tested recipe is used, all tomato-vegetable mixtures **MUST** be processed in a pressure canner, according to the directions for the vegetable in the mixture that has the longest processing time.

Tomato-Vegetable Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Style of Pack</th>
<th>Jar Size</th>
<th>Process Time (minutes)</th>
<th>Dial Gauge</th>
<th>Weighted Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0-2,000 ft</td>
<td>2,001-4,000 ft</td>
<td>0-3,000 ft</td>
</tr>
<tr>
<td>Dry or Canned Beans</td>
<td>Hot</td>
<td>Pints</td>
<td>75</td>
<td>11 lb</td>
<td>12 lb</td>
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<tr>
<td></td>
<td></td>
<td>Quarts</td>
<td>90</td>
<td>11 lb</td>
<td>12 lb</td>
</tr>
<tr>
<td>Whole Kernel Corn</td>
<td>Hot and Raw</td>
<td>Pints</td>
<td>55</td>
<td>11 lb</td>
<td>12 lb</td>
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<tr>
<td></td>
<td></td>
<td>Quarts</td>
<td>85</td>
<td>11 lb</td>
<td>12 lb</td>
</tr>
<tr>
<td>Peppers</td>
<td>Hot</td>
<td>Pints</td>
<td>35</td>
<td>11 lb</td>
<td>12 lb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarts</td>
<td>40</td>
<td>11 lb</td>
<td>12 lb</td>
</tr>
<tr>
<td>Onions</td>
<td>Hot</td>
<td>Pints or Quarts</td>
<td>40</td>
<td>11 lb</td>
<td>12 lb</td>
</tr>
</tbody>
</table>

Salsa Tips

- Drain chopped tomatoes to reduce runniness
- Regulate heat with different peppers
- Optimum flavor is best in 3-4 weeks.
- Prevent fruit from browning by chopping fruit into the acid
- Roast peppers for a smoky flavor
- Do not decrease/increase ingredients in tested recipes

Lemon Juice or Vinegar?

- If a recipe calls for vinegar, you can:
  - Use equal amount of lemon juice
  - Use equal amount of lime juice
- If a recipe calls for lemon or lime juice, you can **NOT**:
  - Use vinegar
  - Not as acidic as lemon or lime juice
A poll on food preservation

In a Pickle!

Four classes of pickles
- Brined or fermented
- Fruit pickles
- Relishes
- Fresh pack or quick process

Pickling Ingredients

- Acid
  - Use vinegar with 5% acidity
- Salt
  - Use canning or pickling salt
  - Do not alter amount
- Sugar
  - Helps plump pickles
- Spices
  - Whole, fresh

University of Georgia

Pickling Ingredients

- Lime
  - Failure to remove all lime can lead to botulism!
  - Use food-grade lime
- Alum
  - Can use in fermented cucumbers
  - Doesn’t work with quick process pickles
- Pickle Crisp™
- Water
  - Soft water is best

Jarden Home Brands

Pickling Ingredients

- Produce
  - Use garden fresh, tender vegetables and firm fruit
  - Use recommended pickling variety of cucumbers
  - Use unwaxed cucumbers for pickling variety of cucumbers
  - Store produce in refrigerator or cool, well-ventilated place if not used immediately
  - Wash produce in cold water and remove 1/16” slice from blossom ends from cucumbers

Sugar Substitutes

- Can cause off flavors, bitter taste
- Some not heat stable
- Do not provide preservative properties
- Leave out for fruits
**Salt Substitutes**

- Can cause off flavors, bitter taste
- Leave out salt for vegetables, meats, poultry, seafood
- Salt needed for fermented pickles and sauerkraut

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**Fermentation Equipment**

- Stainless steel
- Crock or stone jar
- Unchipped enamel-lined pan
- Large food-grade plastic jars
- Large glass jars
- Weight to hold vegetables in brine (heavy plate or plastic bag filled with brine)

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**Fermenting Sauerkraut**

- “Fermenting sauerkraut in jars is not recommended because fermentation is less consistent and keeping the fermenting cabbage properly submerged under the liquid in jars is difficult.”
  
  — Source: Penn State University

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**For Heating Pickled Foods**

- Use utensils of unchipped enamelware, stainless steel, aluminum or glass.
- Do not use copper, brass, galvanized or iron utensils.
  
  — reaction with acids or salts that causes color changes or formation of undesirable compounds.
- Use wood or stainless steel spoons.

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**Processing Pickles**

- Destroys organisms that cause spoilage and inactivates enzymes that can affect color, flavor, and texture.
- Follow tested recipes for safest approach.

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**Low Pasteurization Processing**

- To help prevent softening in cucumber pickles, some procedures allow the following “pasteurization” process:
  
  — Cover pickles in jars with 165°F to 180°F liquid.
  
  — Process with water in canner at 180°F for 20 minutes.
  
  — Must monitor canner temperature with a thermometer.
A quick poll on Jam/Jelly safety

Four components for quality
- Fresh fruit - at peak of ripeness
- Pectin – homemade or commercial
- Acid - improves gel and flavor
- Sugar – balance with acid and pectin
Make only one recipe at a time

Types of Jellies
- Cooked
  - Without added pectin
  - With added pectin
- Uncooked or freezer
- Microwave

Jellies without Added Sugar
- Thickened or gelled by:
  - Special pectins
    • Low methoxyl (calcium bonds)
  - Gelatin
  - Long boiling to concentrate product
- Lack structural, preservative and flavor effects of sugar.

Types of Pectin
- Liquid
- Powdered
  - Regular
  - Low-methoxyl
  - No sugar needed
  - Freezer jam
  - Flex Batch
- Liquid and dry pectin's are not interchangeable!
- Homemade pectin

Using Freezer Pectin
- Must Use:
  - Fresh or frozen fruits or juices
    • Canned juices do not give good product
  - Commercial pectin
    • No heat to activate naturally-present pectins
  - More sugar
Is it done?

- Temperature
- Sheet Test (Spoon test)
- Refrigerator/Freezer test

Do Not ...

- Use Paraffin wax
  - Can cause mold growth
  - Heat processing prevents mold growth
- Invert jars to seal
  - Not recommended by USDA
- Alter sugar or pectin
- Double recipes
  - Product will not set

Tips for Success

- Use reliable recipes
- Follow boiling times explicitly
- Measure carefully
- Use large enough saucepan
- Cool as quickly as possible after canning process
  (Don’t force cool!)
- Add ½ teaspoon butter or margarine at beginning to reduce foaming

Jellies without Added Sugar

- Artificial sweeteners can not be interchanged for sugar in recipes
  - Must use special recipe
  - Read labels carefully - some lose sweetening power after heating or storage
- Follow processing and storage directions on box or in recipe

Remaking Runny Jellies

- Work with no more than 4 to 6 cups at a time.
- Different instructions for type of pectin used
  - www.uga.edu/nchfp/how/can_07/remake_soft_jelly.html

Next webinar
- April 17, 2012
- 7:00pm
- Freezing, Drying, any other topics?