Objectives
Participant will:

1. Explain a health benefit provided by lemons.
2. Describe cost- and time-effective strategies for incorporating lemons into family meals.
3. Explain how to select lemons.
4. Describe preparation and storage techniques for lemons, including cleaning, trimming, cooking, and storing.
5. Prepare and taste food that includes lemons.

Required Materials:

- Recipe ingredients and utensils for demonstrations.
- Lesson handouts (see pgs. 6-8).
- Required paperwork for program.
- Micro-plane, grater, etc. to demonstrate zesting a lemon (see objective 4 pg. 3).

Preparation Required:

- Practice lesson material so you are comfortable giving lesson.
- Practice recipes for demonstrations and understand recipe instructions and techniques.
- Gather ingredients and utensils needed for lesson and demonstration.
- Pre chop fruits and vegetables needed for each demo.
- Make copies of handouts – enough for all class participants.
- Make copies of paperwork required by program.
- Cook chicken for Lemon Chicken Stir Fry (see recipe pg. 7).
LESSON PLAN

Introduction:
Time: 2-3 minutes
• Welcome the class and thank them for making time to come.
• Briefly introduce yourself and the program.
• Ask the class: Complete the following – When life gives you ________.
  o When life gives you lemons, make lemonade.
  o Today we will be talking about one of the most naturally sour plants produced by Mother Nature. Lemons are so sour that we usually don’t think of eating this member of the citrus family plain like we do oranges or grapefruit. Instead, we usually use them more as a flavoring or condiment.
• California and Arizona produce 95% of the lemons grown in the U.S.
• Ask the class: Does anyone know where lemonade was first made?
  o Egypt. It is thought that lemonade was an Egyptian original – at least according to the early documents that say lemon juice mixed with sugar was sold around the year 1104 A.D. in a Jewish community in the Egyptian city of Cairo.
• The cultivated lemon is hypothesized to be the hybrid of a lime and a citron. We all know what a lime is, but what is a citron? It is a fellow citrus fruit that because of its lack of juice is rarely eaten and more commonly used for medical purposes.
• Today the lemons you buy in the store are of two main varieties. Lisbon or Eureka.
  o Lisbon lemons are originally from Australia, their peak season is summer and fall and they typically have more seeds than Eureka lemons.
  o Eureka lemons are California natives whose peak season is spring and summer.
• The third common lemon is the Meyer lemon. This lemon is sweeter and larger than its normal counterparts because it is believed to be crossed with an orange, and therefore can sometimes appear as if it is an orange. This lemon is cultivated mainly by home growers and is frequently used in the south.
• Lemon trees produce fruit all year round, resulting in approximately 500 pounds of fruit per tree per year.

Objective 1: Explain a health benefit provided by lemons.
Time: 2-3 minutes
• Ask the class Does anyone know what nutrient lemons are most famous for?
  o Hint: It’s the same as oranges.
• Because lemons are part of the citrus family they are abundant in vitamin C. Vitamin C is an antioxidant, which may help treat inflammatory diseases like arthritis and asthma.
• The high vitamin C content in lemons also helps to prevent scurvy, which is a breakdown of collagen in the body. Our bodies make collagen, the main component of connective tissue, but only when they have vitamin C to do so.
• Ask the class: During the California Gold Rush that started in 1849 many lemon trees were planted in that state. Can you guess why?
  o The demand for lemons increased greatly when scurvy-prone miners discovered that lemons could keep them healthy. Miners were willing to pay a dollar a piece for a single lemon, which was a lot of money back then.

Objective 2: Describe cost- and time-effective strategies for incorporating lemons into family meals.
Time: 3-5 minutes
• **Ask the class:** Lemons are used around the world in a variety of ways. How do you incorporate lemons into your family’s diet? Do you have any favorite recipes that include lemons?

• Lemons are highly acidic, and the acid reacts with different foods in different ways.

• Ask the class: Do you know why meat marinades often contain lemon juice?
  o The acid in the lemon helps dissolve connective tissues in the meat, which helps tenderize tougher cuts of meat.
  o The acid in lemon juice can also curdle milk, which works as a good substitute for buttermilk. Just place a tablespoon of lemon juice in a measuring cup and add enough milk to make one cup. Wait five minutes and use the curdled milk as you would buttermilk in a recipe.
  o Adding lemon juice to green veggies may add some zing to the veggie’s flavor but it will also turn the vegetable a drab olive color. It will help vegetables such as potatoes and turnips maintain their white color.

• Examples of ways to use lemons: in marinades, sauces, salads, or salad dressings, freshly squeezed on fish, mixed into drinks, flavoring for sherbet and many baked goods, as a preservative (i.e. prevent the browning of apples and bananas).

• Just like your favorite herbs and spices, lemons are handy to have on hand because they are often called for in a multitude of recipes, even when lemon is not in the recipe title. They don’t often take the starring role in a recipe but really shine in their supporting role of adding just the right flavor. They are just the needed thing to enhance the flavor of many foods.

• Try replacing your saltshaker with a squeeze of lemon juice. It is a healthy alternative to salt and your taste buds and blood pressure will love you for it.

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**Objective 3: Explain how to select lemons.**

*Time: 2-3 minutes*

• **Ask the class:** Does anyone have any tips on how to choose a good, fresh lemon?

• Choose medium to large lemons that are heavy for their size. The heaviness signifies lots of juice.

• Lemons should have a smooth firm surface. You can tell if the skin is smooth by touch but also it should look a little bit shiny.

• Avoid lemons that are wrinkly, soft, have bumpy and/or hard skin. These are signs that the lemon is old and decomposing.

• Lemons are available year round with a peak from April to July.

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**Objective 4: Describe preparation and storage techniques for lemons, including cleaning, trimming, cooking, and storing.**

*Time: 5 - 10 minutes*

• Whole lemons can be stored at room temperature for 3 – 4 days or in the refrigerator for up to 2 - 3 weeks.

• Sliced lemons should be placed in an airtight container and then stored in the fridge for no longer than 3 - 4 days.

• Lemon juice is easily extracted from the lemon by first rolling the lemon on a hard surface and applying pressure with your hand, then cutting the lemon in half and squeezing. You can also buy citrus juicers, which can assist in this process, but certainly are not necessary.

• When juicing lemons, let them come to room temperature or put them in the microwave for 30 seconds. This yields more juice per fruit, which is typically about 3 tablespoons.

• All lemons should be rinsed before use, however if you are going to be using the zest of the lemon, give it a gentle scrub.
• Lemon zest is the yellow, outermost part of the lemon. You can remove the zest with a paring knife, vegetable peeler, cheese grater or a micro zester, which looks like a really fine file. You only want the yellow part because the white pith is bitter and does not have the aromatic oils found in the zest. Demonstrate removing zest with one or more methods listed here.

• Although fresh is always best, it is nice to keep purchased bottled lemon juice in the fridge so that you always have some when you find yourself without a fresh lemon in the house. It will not yield the exact same flavor as fresh lemon juice but is an appropriate substitute.

• Freezing whole lemons is not typically done. You can, however, freeze both the juice and zest once it has been extracted from the lemon.

• Ask the class: Besides fresh and bottled juice, what other ways can you buy lemons?
  o You won’t find them canned but can get them dried. Dried lemons are uncommon and therefore they can be expensive.
  o If do have or use dried lemons they can be stored in a dry, airtight container for up to 2 years.

Objective 5: Prepare and taste food that includes lemons.
Time: 20-30 minutes

• Turn oven to 400º.

• Today we are going to make and taste a variety of recipes using lemons.

• Lemon and broccoli go together like peanut butter and jelly. This Roasted Garlic Lemon Broccoli dish is a hit. Demonstrate Roasted Garlic Lemon Broccoli (see recipe pg. 6).

• Ask the class: Have you considered adding lemon to your pasta dishes before? This amazingly easy and tasty recipe can be used as either a main dish or a side dish. Demonstrate Lemon Orzo Primavera (see recipe pg. 6 – while orzo is cooking demonstrate next recipe).

• Stir-fries are a great way to use up any extra vegetables you may have on hand. This awesome recipe is no exception, feel free to add any vegetable, as you desire. The light lemon sauce provides the perfect finish to a dish that appeals to your eyes as well as your taste buds. Demonstrate Lemon Chicken Stir Fry (see recipe pg. 7).

• If you had to choose the one most nutritious food on the planet you would be smart to choose a dark, leafy green like kale. When you put kale and lemons together, you won’t be able to get enough! Demonstrate Citrus and Greens (see recipe pg. 7).

• We have combined lemon with broccoli and lemon with kale. Now we are going to add green beans to lemons and another classic flavor, dill. Demonstrate Lemon-Dill Green Beans (see recipe pg. 8).

• Want to a light, fresh salad that can be whipped up in minutes? This recipe would turn grilled chicken or pasta into a quick, easy, complete meal. Demonstrate Tossed Salad with Citrus Dressing (see recipe pg. 8).

Conclusion
Time: 5 minutes

• Lemons are a naturally healthy way to enhance and add flavor to countless recipes. Let your imagination guide your lemon adventures. Try new recipes or create your own - either way, you’ll be sure to become a lemon lover.

• Ask the class: What did you learn today that you didn’t know about lemons before taking this class?

• Ask the class: What will you do differently to make lemons a part of your families’ diet now that you have had this lesson?

• Ask the class: Are there any questions?

• Thank you for attending.
Serve samples.

References:


This material was funded by USDA’s Supplemental Nutrition Assistance Program – SNAP. The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact 1-800-221-5689 or visit online at http://www.fns.usda.gov/snap/. In accordance with Federal Law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs or disability. To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800)795-3572.
Roasted Garlic Lemon Broccoli

2 heads broccoli, cut in florets
2 teaspoons olive oil
1 teaspoon salt
½ teaspoon ground black pepper
1 clove garlic, minced
Juice of 1 lemon

Preheat oven to 400°.
In large bowl, toss broccoli with olive oil, salt, pepper and garlic. Spread the broccoli out on a baking sheet lined with foil. Bake 15 – 20 minutes or until broccoli is tender and can be pierced with a fork. Remove from baking sheet to serving platter. Squeeze lemon juice liberally over broccoli before serving. Yield: 6 servings

Lemon Orzo Primavera

1 tablespoon olive oil
1 cup uncooked orzo pasta
1 clove garlic, crushed
1 medium zucchini, diced
1 medium carrot, diced
1 (14 oz.) can vegetable broth
1 lemon, zested
1 tablespoon chopped fresh thyme or 1 teaspoon dried
¼ cup grated Parmesan cheese

Heat oil in a pot over medium heat. Stir in orzo and cook 2 minutes, until golden. Stir in garlic, zucchini and carrot. Cook 2 minutes. Pour in broth and mix in lemon zest. Bring to boil. Reduce heat to low and simmer 10 minutes, or until liquid had been absorbed and orzo is tender. Season with thyme and top with Parmesan to serve. Yield: 4 servings

Lemons are available year round with a peak from April to July.

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**Lemon Chicken Stir Fry**

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<tbody>
<tr>
<td>1 lemon</td>
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<tr>
<td>½ cup reduced-sodium chicken broth</td>
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<tr>
<td>3 tablespoons soy sauce</td>
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<td>2 teaspoons cornstarch</td>
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<tr>
<td>1 tablespoon canola oil</td>
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<tr>
<td>1 pound boneless skinless chicken breast, cut into 1 inch pieces</td>
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Grate 1 teaspoon lemon zest and set aside. Juice the lemon and whisk 3 tablespoons of the juice with broth, soy sauce and cornstarch in a small bowl. Set aside.

Heat oil in a large skillet over medium-high heat. Add chicken and cook, stirring occasionally, until cooked through. Transfer chicken to a plate. Add onion, mushrooms, and carrots to the pan and cook until the carrots are just tender, about 5 minutes. Add snow peas and reserved lemon zest. Cook, stirring until fragrant, about 1 minute. Whisk the broth mixture and add to the pan. Cook, stirring until thickened, 2 – 3 minutes. Add chicken and heat through.

Yield: 4 servings

**Citrus and Greens**

<table>
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<th>Ingredient</th>
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<tr>
<td>1 – 2 cloves garlic, peeled &amp; finely sliced</td>
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<td>1 small onion, thinly sliced</td>
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<tr>
<td>1 teaspoons canola oil</td>
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<td>1 bunch kale, tough stems removed and cut in thin ribbons</td>
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<tr>
<td>Juice of ½ lemon</td>
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<tr>
<td>Salt and pepper to taste</td>
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<tr>
<td>¼ cup grated Parmesan cheese</td>
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In large skillet, sauté garlic and onion in oil over a medium heat. Add kale and cook until just wilted. Remove from heat. Pour lemon juice over kale and season with salt and pepper. Sprinkle with Parmesan.

Yield: 4 servings

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**Keep lemons on hand to put in marinades, sauces, salads, or salad dressings, to squeeze on fish, mix into drinks, flavor your veggies and baked goods, and to use as a natural preservative (keep apples and bananas from turning brown).**

**Adding lemon juice to milk makes a good substitute for buttermilk. Just place 1 tablespoon of lemon juice in a measuring cup and add enough milk to make one cup. Wait five minutes and use the curdled milk as you would buttermilk in your recipe.**

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Lemon-Dill Green Beans

2 cups green beans, trimmed
1 tablespoon chopped fresh dill or 1 teaspoon dried
1 tablespoon minced onion
1 tablespoon lemon juice
1 teaspoon Dijon mustard
¼ teaspoon salt
¼ teaspoon ground pepper
1 teaspoon olive oil

Add green beans to boiling water and cook for 5 – 7 minutes or until tender-crisp. Meanwhile whisk dill, onion, lemon juice, mustard, salt, pepper, and oil in large bowl. Strain beans and add to bowl. Toss to coat.

Yield: 4 servings

Tossed Salad with Citrus Dressing

Salad:
4 cups torn fresh spinach
4 cups torn leaf lettuce
2 (11 oz.) cans mandarin oranges
¼ small red onion, thinly sliced
2 tablespoons thinly sliced radishes

Dressing:
½ cup orange juice
¼ cup lemon juice
¼ cup olive oil
½ teaspoon seasoned salt
¼ teaspoon paprika
Pepper to taste

Toss spinach, lettuce, oranges and radishes in salad bowl. Combine dressing ingredients and whisk together until blended. Serve with salad. Refrigerate leftover dressing.

Yield: 8 servings

How to choose a lemon:
Choose lemons that are heavy for their size. The heaviness signifies lots of juice.

Lemons should have a smooth, shiny, and firm surface.

Avoid lemons that are wrinkly, soft, have bumpy and/or hard skin.

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