Objectives
Participant will:

1. Explain a health benefit by eating amaranth.
2. Describe how to purchase and store amaranth.
3. Describe how to cook amaranth.
4. Explain how to incorporate amaranth into family meals.
5. Prepare and taste foods that include amaranth.

Required Materials:

• Container or bag of amaranth grains.
• Container or bag of amaranth flour.
• Container or bag of popped amaranth.

Optional Supplemental Materials:

• Picture of the amaranth plant.

Preparation Required:

• Pop some amaranth while the class is arriving so participants can smell the aroma of the popped seeds (see Amaranth Pops recipe pg. 6).
• Begin the Amaranth, Quinoa, and Corn Chowder Soup by sautéing the vegetables and having the grains on simmer. Have the corn ready to puree and add during the demonstration (see recipe pg. 8).
• Make a batch of granola ahead of time so they will be cool enough to cut into bars. Prepare all ingredients for granola bar demonstration; prepare 9x9 pan for granola bars. Have brown rice syrup, honey, and butter in a small saucepan ready to warm (see Granola Bars with Popped Amaranth recipe pg. 7).
• Have all ingredients for crackers measured and ready to process. Prepare pan (see Almond Crackers with Amaranth recipe pg. 7).
• Review lesson plan and practice food demonstration.
• Gather supplies and materials to demonstrate recipes.
• Make copies of recipes and any other handout you wish to distribute (see pages 6-8) – enough for all class participants.
• Make copies of all required paperwork for lesson.
LESSON PLAN

Introduction
Time: 5 minutes

• Briefly introduce yourself and the program.
• Ask the class: Think about what you ate yesterday. Was it homemade, fast food, frozen food? Think about what your great, great grandparents would have eaten. Where did it come from? How was it prepared? Now think about what people ate a thousand years ago, three thousand, seven thousand. Did people live that long ago?
• Yes they did and grains were a staple in their diet. One grain in particular was grown in Mexico and South America about seven thousand years ago. That grain is amaranth.
• Pass around the samples of amaranth and amaranth flour.
• Amaranth is not actually a true grain like wheat or rice but is classed as a pseudo-cereal (pseudo = false). Amaranth is not of the grass family like true grains but it has a similar nutrient profile and is prepared and eaten in the same way as grains. Amaranth is related to spinach, chard and quinoa. Besides the seeds of the amaranth plant, the leaves are also edible and very nutritious.
• The amaranth plant is tall with broad leaves and bright colored flowers. There are more than 60 different species of amaranth, many of them viewed as weeds, others valued as a great source of quality nutrition.
• In Mexico a traditional treat is made from popped amaranth mixed with honey or sugar called alegria.

Objective 1: Explain a health benefit by eating amaranth
Time: 5 minutes

• Amaranth is an excellent source of plant protein. It contains all the essential amino acids including lysine, which is limited in other grains. Amino acids are the building blocks of proteins and some amino acids are called essential because our body does not make them, therefore we must get them from our diet.
• Our body uses these amino acids to build proteins. Proteins are used for growth and repair, immune functions, hormones, metabolic functions and more. We need protein!
• Amaranth is rich in calcium. Calcium is the most abundant mineral in the body. Calcium helps keep your heart beating and your muscles functioning, and it is needed for proper nerve and cell functions.
• When we think of calcium we think of bone health. Most of the calcium used by the body is needed for bone structure and health. The very small portion needed for metabolic functions is obtained from bones. Remember, it is important to eat a variety of calcium rich foods each day to meet your calcium needs.
• Besides quality protein and calcium, amaranth is also a good source of phosphorus, iron, zinc, magnesium, and vitamins E and B.
• Amaranth will always be a whole grain product and it is an excellent source of dietary fiber.
• Ask the class: Why do we need fiber in our diet? Do you think we usually get enough?
  o Dietary fiber can help lower the risk of heart disease.
  o Fiber can help lower the risk of type 2 diabetes.
  o Fiber can help reduce blood cholesterol.
  o Fiber is important for proper bowel function.
  o Dietary fiber makes you feel full longer thereby helping you eat less and aid in weight maintenance.
  o Americans usually do not get enough fiber in their diets.
• Grains are one of the best sources of carbohydrate. Carbohydrates provide the fuel your body must have every day to function; in fact, carbohydrates are the fuel of choice for the brain.
Amaranth is a gluten free grain and is safe for a gluten free diet.

**Objective 2: Describe how to purchase and store amaranth**
**Time: 5 minutes**

- Whole grain amaranth and amaranth flour can be purchased at some grocery stores, health food stores, specialty stores or online (bobsredmill.com, arrowheadmills.com)
- Amaranth flakes can be purchased online (www.ethicallyessential.coop, www.ourorganics.com.au). The seeds are steamed, pressed and rolled for ready to eat breakfast cereals. Amaranth seeds are small and so the resulting flakes will also be very small; don’t confuse the whole grain with another product with the same name but looks like corn flakes and is not 100% amaranth.
- Puffed amaranth is also available online (www.ourorganics.com.au).
- Amaranth and products made from amaranth can often be found in markets that sell gluten free products.
- **Ask the class:** If you see a product with amaranth in the name such as amaranth cereal or cookies, is it a whole grain, 100% amaranth product?
  - Probably not. It is very likely only a small amount of amaranth is added and the bulk of the product could be any number of ingredients, whole or refined. Lesson: read the labels!
- Most amaranth readily available is ivory colored but it also comes in black. Black amaranth has a higher proportion of bran and can have a gritty texture. It can be used as a substitute for poppy seeds.
- Amaranth seeds can be stored in a food grade container in a cool dry place for up to a year. Old seeds or seeds stored in a warm place develop a bitter taste.
- Store amaranth flour and amaranth flakes in the refrigerator or freezer for six months. Whole grains contain oils that are susceptible to oxidation, especially when ground into a flour, cracked or rolled, and so must be kept cool to prevent the flour or seeds from going rancid.
- Cooked amaranth can be kept in the refrigerator for five days.

**Objective 3: Describe how to cook amaranth**
**Time: 5 minutes**

- Amaranth is easy to cook. All you need is a pot, water and heat. The seeds can be toasted before cooking for a richer flavor. Soak amaranth overnight for quicker cooking time.
- Amaranth makes a nutrition packed hot cereal that will keep you going all morning. It has a slightly sweet, earthy flavor that tastes wonderful with honey. Just add one part seeds and three parts water. Bring to a boil, reduce the heat, cover and simmer until the water is absorbed, about 25-30 minutes. Soaked grains will take about 15 minutes.
- Cooked amaranth seeds will be soft and somewhat translucent, but they will have bit of a crunch to them similar to quinoa.
- The texture of cooked amaranth is viscous due to starches released during cooking. What does that mean? It means you will never get a fluffy pilaf with amaranth, but you will get a great thickening agent for soups and stews.
- You can combine amaranth seeds with other grains. Add a few tablespoons to rice or other grains to boost nutrition and flavor. Add it to soups in combination with other grains or to add body and a nutritional boost.
- **Ask the class:** When you think of popped grain, what is the first thing that comes to mind?
  - Popcorn of course! And guess what? Amaranth pops too! Popped amaranth looks like little tiny popcorn.
  - Add a little honey to popped amaranth and eat like cold cereal.
• Sprinkle popped amaranth on top of soups, salads or vegetables like you would croutons.
• Add it to baked goods like muffins, breads or granola.

- Amaranth flour has a distinctive taste and works well in smaller amounts combined with other whole grain flours. Substitute up to ¼ the amount of flour with amaranth flour for breads, cookies, muffins, pancakes, etc.
- Remember, amaranth is gluten free and will not work alone in yeast breads that require gluten; however it can be added to gluten flours for added nutrition and flavor in yeast breads.

Objective 4 and 5: Explain how to incorporate amaranth into family meals and prepare and taste foods that include amaranth.
Time: 40 minutes

• Ask the class: Is amaranth a new grain for most of you? Amaranth may not be as common or as versatile as rice or wheat, but it deserves notice for its unique qualities and its excellent nutritional profile.
• We’ll start with the basics and demonstrate how to cook a pot of amaranth. First we’ll toast some amaranth in a skillet, which adds more flavor to the grain but is optional.
• Demonstrate toasting amaranth in a skillet. Add toasted amaranth to a pot of boiling water and explain method for hot cereal. Watch the cereal during the remaining demonstration.
• Ask the class: When you walked in today, did you notice a popcorn-like aroma? Well, it wasn’t popcorn but popped amaranth!
• We talked a little about how amaranth pops so now we will learn how to make it.
• Demonstrate how to pop amaranth over medium high heat taking care not to burn the seeds. Have bowls and stirring spoons ready as popping amaranth is a relatively quick process and any delay may result in burned seeds. (Don’t forget to have a high sided pot or you will have escapees).
  o Note: amaranth seeds burn easily. Not all the seeds will pop before they start to burn. The best way to control this is by popping small amounts, about 1/4 cup at a time, and stirring quickly. There will be some toasty, un-popped seeds in a batch of popped amaranth.
• Now that we have our popped amaranth, let’s add a few more ingredients for some homemade granola bars that are delicious and inexpensive.
• Demonstrate granola bar ingredients and method. Move on to the crackers.
• Amaranth flour can be added to many baked goods. It has a strong, distinctive flavor that may be a little overpowering when used exclusively. Today we will pair amaranth flour with whole wheat pastry flour to make crackers. These crackers taste great with soup or a salad.
• Demonstrate how to make the crackers.
• Amaranth is closely related to quinoa and pairs nicely with it. Here we have corn chowder with amaranth and quinoa that just needs a few finishing touches.
• Talk about ingredients, methods and finish soup with the corn and milk. The amaranth starch contributes to the thick texture of the chowder and no roux is needed.
  o Note: quinoa needs to be rinsed thoroughly in a fine mesh strainer to remove the bitter saponin coating.
• Ask the class: What are some the benefits of eating this soup and other dishes we have made today?
  o High quality protein.
  o Calcium.
  o Vitamins, minerals.
  o Fiber.
  o It’s delicious!
Conclusion:
Time: 5 minutes

- We owe a big thanks to those ancient people who figured out a way to harvest and use amaranth! Aren’t we lucky to be able to enjoy and have this nutritious seed readily available? Amaranth is packed with good nutrition and good taste. Try amaranth in these recipes or get creative and make up some of your own!

- **Ask the class:** Any questions?
- Thank class for coming.
- Provide samples of food.

Resources:


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)795-3672.
Cooking with Amaranth

Basic Amaranth Porridge

Try amaranth instead of oatmeal next time you want a hot breakfast. Toasting the seeds adds flavor but is optional. Make a large pot; amaranth porridge is easy to reheat in the microwave or on the stove top.

1 cup amaranth
3 cups water
Pinch of salt

To toast the amaranth (optional), heat a heavy skillet over medium heat. Add the amaranth, stir constantly for about 4 minutes until the grains just start to pop and turn a golden color. To cook, bring the water to a boil and add the salt and amaranth. Return to a boil, cover, reduce heat to a simmer. Simmer until the water is absorbed and the grains are tender, about 20 to 30 minutes. Add additional water if needed to desired consistency. Amaranth cannot be overcooked and the seeds will always retain a slight crunch. Serve with honey, maple syrup or brown rice syrup. Makes approximately 2 cups. Store leftovers in the refrigerator for up to 5 days. Reheat in microwave or stove top, adding more water if needed.

Amaranth Pops!

Amaranth pops like popcorn. Use a high-sided pan, at least 6 inches, because these little seed like to dance! Sprinkle popped seeds on yogurt, vegetables or salads. Add a little honey, maple syrup or brown rice syrup and eat like cold cereal.

¼ cup amaranth seeds
1 high-sided pan

Heat the pan over medium high heat. The pan is ready when a drop of water sizzles as it hits the pan. Add ¼ cup amaranth seeds at a time to the hot pan. Stir constantly and quickly till the majority of the seeds are popped taking care not to burn the seeds. Amaranth seeds will burn easily and all of them will not pop. There will be some toasty, un-popped seeds in a batch of popped amaranth. ¼ cup seeds yields one cup popped.

Amaranth is an excellent source of plant protein. It contains all the essential amino acids including lysine, which is limited in other grains.

Besides quality protein, amaranth is also a good source of calcium, phosphorus, iron, zinc, magnesium, and vitamins E and B.

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Granola Bars with Popped Amaranth

½ cup brown rice syrup 1 cup regular rolled oats
3 tablespoons honey 1 cup popped amaranth
Pinch of salt 1 cup nuts of choice
1 tablespoon butter 1 cup dried fruit of choice

Other add-ins: coconut, sesame seeds, sunflower seeds, etc. Reduce the amount of nuts or dried fruit for additional add-ins for example ½ cup nuts and ½ cup coconut.

Combine the brown rice syrup, honey, salt and butter in a small saucepan and bring to a boil. Remove from heat. In a large bowl, combine oats, popped amaranth, nuts and dried fruit. Pour brown rice syrup mixture over dry ingredients and mix thoroughly. Line a 9 x 9 inch pan with parchment paper or spray with cooking spray. Press mixture firmly into pan and bake at 300 °F for 30 minutes. Cool completely and cut into bars.

Almond Crackers with Amaranth

½ cup amaranth flour ½ teaspoon salt
½ cup almonds 2 tablespoons butter, chilled
1 cup whole wheat pastry flour ½ cup cold water
1 teaspoon baking powder

Preheat oven to 350°F. Toast the amaranth flour in a saucepan over medium heat for 2 minutes, stirring constantly. Put the almonds in a food processor and process to a coarse meal. Add the amaranth flour, whole-wheat flour, baking powder, and salt and pulse once or twice to mix. Cut the butter into chunks. Add to the flour mixture and pulse to form a crumbly meal. Add enough water to make a pliable dough, similar to pie dough. Turn an 18 x 12 inch jelly-roll pan upside down and grease the bottom. Center the dough on the pan and press out to a rectangle. Cover with wax paper and roll the dough nearly to the edge of the pan to a thickness of 1/8 inch.

With a pizza cutter or knife, cut the dough into 1½ inch strips. Cut 1 ½ inch strip on the diagonal to form diamond shapes. Bake for about 15 minutes or until golden brown. Eat while still warm, or cool and store in an airtight container for up to a week. To reheat, place in a hot oven for 3 to 4 minutes.

Whole grain amaranth and amaranth flour can be purchased at some grocery stores, health food stores, specialty stores or online (bobsredmill.com, arrowheadmills.com).

Amaranth is easy to cook. All you need is a pot, water and heat. The seeds can be toasted before cooking for a full, rich flavor. Soak amaranth overnight for quicker cooking time.

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Amaranth, Quinoa, and Corn Chowder

3 tablespoons butter
1 ½ cups finely chopped onion
1 cup finely diced celery
1/2 cup finely diced red or green bell pepper
1/4 teaspoon salt plus more to taste
1/4 cup amaranth
1/2 cup quinoa, thoroughly rinsed
1/4 teaspoon dried thyme
4 cups fresh or thawed frozen corn kernels
1 cup milk
2 tablespoons minced fresh flat-leaf parsley

In a large, heavy pot, melt 2 tablespoons of the butter over medium-high heat. Stir in onion, celery, bell pepper, and 1/4 teaspoon salt. Cook, stirring frequently, until the vegetables are soft, about 5 minutes.

Stir in the amaranth and 3 cups of water. Bring to a boil over high heat. Stir in the quinoa and thyme. Return to a boil. Reduce the heat slightly and cook at a gentle boil, partially covered, for 10 minutes.

Meanwhile, in a blender or food processor, puree 3 cups of the corn kernels with 1 cup water. When the quinoa has cooked for 10 minutes, stir the corn purée and the remaining corn kernels into the soup. Add salt to taste. Reduce the heat and simmer until the quinoa and amaranth are tender, 3 to 5 more minutes. When the quinoa is done, there will be no starchy white dot in the center of each grain, and some the germs’ “tails” may unfurl and float freely. On close inspection, the amaranth will look like tiny opaque bubbles floating on the surface.

Stir in the milk and remaining tablespoon butter. Add more salt, if needed. Divide into portions and garnish each with a little parsley.

Storing amaranth

• Whole grains contain oils that are susceptible to oxidation, especially when cracked, rolled, or ground into flour.
• Store amaranth seeds in a food grade container in a cool dry place for up to a year.
• Store amaranth flour and amaranth flakes in the refrigerator or freezer for six months to keep them from going rancid.
• Cooked amaranth can be kept in the refrigerator for five days.