Blueberry

Objectives
Participant will:

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

Required Materials:

• Recipe ingredients and utensils for demonstrations.
• Lesson handouts (see pgs. 6-7).
• Required paperwork for program.

Optional Supplemental Materials:

• Blueberries in various forms such as fresh, dried, canned, juiced, jam, etc.

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 Blueberry and Walnut Chicken Salad before the lesson (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**: What fruit is in America’s favorite muffin and packs a punch with health benefits?
- In this lesson we will be talking about a fruit that totes one of the highest amounts of antioxidants of all fruits, the blueberry.
- Blueberries grow on shrubs and originated right here in North America. Native Americans used them for medicinal purposes and called them “star berries.” Early settlers of America took a cue from the Native Americans and began first using blueberries to make grey paint for their houses by boiling the blueberries in milk, and then they began eating the blueberries when their food supplies became scarce. We have been enjoying them in our diets ever since!

Objective 1: Explain a health benefit provided by blueberries.
Time: 2-3 minutes

- **Ask the class**: Does anyone know what it is in blueberries that make them a healthy food choice?
  - Vitamin C – an antioxidant that is needed to stop free radicals from doing harm in our bodies. Free radicals form in our bodies from activities that we do everyday like being out in the sun or breathing air with pollution. They promote aging and disease. Blueberries have 38% more free radical fighters or antioxidants than red wine.
  - Vitamin E – another powerful antioxidant, helps us have healthy skin and proper vision.
  - Fiber – one cup of blueberries has 4 grams of fiber, which is almost 20% of the fiber we need in a day!

Objective 2: Describe cost- and time-effective strategies for incorporating blueberries into family meals.
Time: 1-2 minutes

- Blueberries are very easy to add into baked goods like muffins, pancakes, or waffles. You can use your favorite recipe and plop some blueberries in right before. Some tips for making pancakes and waffles with blueberries are to add the blueberries as soon as the batter has been poured on the griddle or waffle iron instead of in the batter. This makes the pancakes easier to flip. It also helps spread the berries evenly and prevents your batter from being dyed blue.
- Blueberries are a perfect addition to smoothies, fruit salads, and green salads.
- Fresh or dried blueberries add a colorful punch to cold breakfast cereals.
- Layer yogurt and blueberries in a glass for dessert.
- Blueberry pie and cobbler are classic favorites that can be enjoyed throughout the year.
- Blueberries can also be made easily into sauces and syrups in savory and sweet combinations. These sauces can be used over yogurt, pancakes, meat, and desserts.
- **Ask the class**: How do you incorporate blueberries into family meals? How do you prepare them?

Objective 3: Explain how to select blueberries.
Time: 2-3 minutes
Blueberries are available in the grocery store year-round. The cheapest times to buy them are from May through October. Blueberries found in the winter months have been held in cold storage and are usually priced higher due to the cool temperature holding.

Frozen and dried blueberries are available year round.

**Ask the class:** Does anyone have any tips on how to select fresh and ripe blueberries at the store?
- Select berries that are firm, dry, plump and smooth skinned.
- Make sure that there are no blemishes on the blueberries.
- Shake the package of blueberries gently – the berries should move freely within the package. If they do not move they may be too soft and overripe.
- Stay away from containers with juice stains which may be a sign that the blueberries are crushed and possibly moldy; soft, watery fruit means that the berries are also overripe.
- The blueberries should be free from any moisture since the presence of water will cause the berries to decay.
- Dehydrated, wrinkled fruit means that the blueberries have been stored too long.
- When purchasing frozen berries, shake the bag gently to ensure that the berries move freely and are not clumped together, which may suggest that they have been thawed and refrozen.

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

**Time:** 5 minutes

Besides the great taste and health benefits, there is nothing better about blueberries than how easy they are to eat – just rinse and pop them in your mouth!

Once you bring your ripe, fresh blueberries home from the store you need to think about properly storing them.

**Ask the Class:** Does anyone know the ideal way to store fresh blueberries?
- Ripe blueberries should be stored in a covered container in the refrigerator where they will keep for about a week, although they will be at their freshest and have the most flavor if consumed within a few days.
- Always check blueberries before storing and remove any damaged ones to prevent the spread of mold and to keep the damaged blueberries from ruining the rest of the package. Just one bad berry in a package can make several more berries become overripe in just a days time.
- Don’t wash blueberries until right before eating them. If you have ever looked closely at a blueberry you may notice that they have a cloudy, dusty looking film on the skin. This cloudy cover is a natural preservative that helps to keep the berries fresh. Washing the berries will remove this protective barrier and the berries will deteriorate much more quickly. Optional: show the class some fresh unwashed blueberries so they can see the cloudy film.
- Blueberries like it cool so if you keep them at room temperature for more than a day, they may spoil.
- Ripe berries may also be frozen, but this will slightly alter their texture and flavor.

**Ask the Class:** Does anyone know the correct way to freeze berries?
- Do not wash the berries before freezing. This will result in a tougher skin. Sort the berries and remove any damaged ones. Make sure the berries are dry. Spread them on a cookie sheet or baking pan and place them in the freezer until they are individually frozen so they don’t freeze in a solid clump and to ensure uniform texture when thawing. Once frozen, the berries may be placed in a plastic bag for storage in the freezer and will last up to a year.
- Wash them just before using.
When using frozen berries in recipes that do not require cooking, thaw them well and drain them before using.

When using frozen blueberries in recipes where they will be cooked, keep them frozen and stir them into your cake or muffin batter last. This will also help to reduce the amount of color streaking throughout your batter.

**Ask the class:** Has anyone had an experience with blueberries changing colors when baking? Do you know why this happens?
- The component of blueberries that gives them their unique color reacts with substances used in baking and changes the color.
- Acids, like lemon juice and vinegar make the blue in blueberries turn red.
- When blueberries are mixed into a batter with baking soda, a base, the blueberries may turn a greenish-blue color.
- These are natural reactions and do not mean the food is unsafe to eat. You are just seeing chemistry happen right before your eyes!

**Objective 5: Prepare and taste food that includes blueberries.**

**Time:** 20 minutes

- Ask the class: Is there anyone in the class who hasn't had fresh blueberries before? Today we will learn a few quick and easy blueberry recipes that are easy to fit into your family’s meals.
- A great way to start the day is with a nutritious smoothie and this Tropical Blueberry Smoothie is exceptionally good for you since it has no added sugar. *Demonstrate Tropical Blueberry Smoothie (see recipe pg. 6).*
- An easy and delicious way to include blueberries in any meal is by adding them to a fruit salad. *Demonstrate Berry Fruit Salad (see recipe pg. 6).*
- Wraps are a great alternative to sandwiches for lunch. Would you have ever considered putting blueberries in your wrap? Adding blueberries to this Berried Tuna Salad Wrap gives the wrap a fun pop and just the right amount of sweetness. *Demonstrate Tuna and Berry Salad Wrap (see recipe pg. 7).*
- A main course salad is another way that you may not have considered adding blueberries to a Meal, but this one will sure to become a favorite. *Demonstrate Blueberry and Walnut Chicken Salad (see recipe pg. 7).*

**Conclusion**

**Time:** 2-3 minutes

- **Ask the class:** Would anyone like to share a favorite way to use blueberries that we didn’t cover in class today?
- Because of their high antioxidant levels, blueberries are considered a real super-fruit offering a delicious, low calorie source of the antioxidant rich vitamins C and E, and fiber.
- Blueberries are a convenient and delicious addition to all meals and snacks from pancakes or a smoothie for breakfast, a wrap for lunch, or a main course salad for dinner.
- **Ask the class:** What did you learn today that you didn’t know about blueberries before taking this class?
- **Ask the class:** What will you do differently to make blueberries 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:

Fruit of the Month: Berries. CDC: Fruit and Vegetable of the Month. Available at http://www.fruitsandveggiesmatter.gov/month/berries.html.


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)795-3752.
**Tropical Blueberry Smoothie**

1 cup frozen pineapple chunks or 1 can (8 oz.) crushed pineapple, drained
1 large banana
1 cup frozen blueberries
1 cup milk

Combine all ingredients in a blender. Cover and blend until thick and smooth. Serve immediately.

Yield: 2 servings

_HINT: your smoothie will be more thick and creamy if all of your fruit is frozen prior to blending._

---

**Did you know?**

Blueberries are an antioxidant powerhouse!

Blueberries are loaded with vitamin C, an antioxidant needed to stop free radicals from promoting aging and disease. Blueberries have 38% more free radical fighters than red wine.

They also contain vitamin E, another powerful antioxidant that also helps us have healthy skin and proper vision.

Did we mention fiber? One cup of blueberries has 4 grams of fiber, which is almost 20% of the fiber we need in a day!

---

**Berry Fruit Salad**

1 cup fresh blueberries
1 small apple, cored and diced
1 banana, sliced
1 cup grapes
8 ounces lowfat vanilla yogurt

Combine all ingredients in medium bowl. Stir gently until fruit is evenly covered with yogurt. Serve immediately.

Yield: 4-6 servings

_HINT: You can use any combination of fruit in this recipe. Try adding pineapple, mangoes, melons, apples or pears for a different taste and fun twist._

---

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/](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.
Blueberries
- cheapest and best tasting from May through October.
Select berries that are firm, dry, plump and smooth skinned, with no blemishes.
They should be dry and move freely within the package. There should no juice stains indicating crushed, soft, moldy fruit.
Dehydrated, wrinkled fruit means that the blueberries have been stored too long.

Tuna and Berry Salad Wrap
1 (6 ounce) can tuna, drained
¼ cup plain fat free yogurt
2 cups chopped fresh spinach
1 large carrot, shredded
1 apple, cored and diced
½ cup shredded mozzarella cheese
1 cup fresh blueberries
4 (10 inch) whole wheat flour tortillas or pita bread

Combine tuna and yogurt in a small bowl, mixing thoroughly. Combine spinach, carrot, apple, cheese, and blueberries in a medium bowl and gently fold in tuna mixture. Stir softly to avoid crushing the berries. Scoop ¼ of the mixture into the center of each tortilla, fold up the bottom and wrap to serve.
Yield: 4 servings

Ripe blueberries should be stored in a covered container in the refrigerator where they will keep for about a week.

Blueberry and Walnut Chicken Salad
1 (10 oz.) package salad greens
2 cups cooked, cubed chicken
2 cups fresh blueberries
1 cup diced apples
¼ cup diced green onions
¼ cup chopped walnuts
½ cup prepared raspberry vinegrette
¼ cup feta cheese, crumbled

Combine all ingredients except feta in a large salad bowl. Toss lightly and sprinkle with feta. Serve immediately.
Yield: 4 servings

Did you know?
Early settlers of America first used blueberries to make grey paint for their houses by boiling them in milk. They began eating blueberries when their food supplies became scarce.