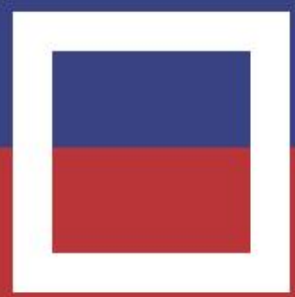




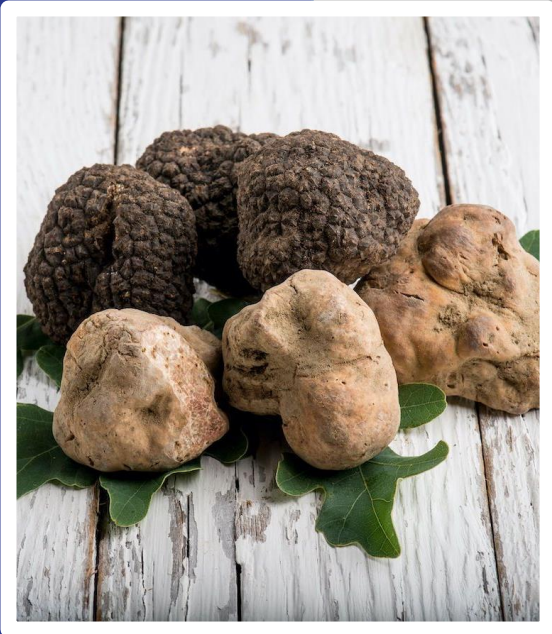
INGREDIENT OF THE MONTH



American Culinary Federation
Education Foundation

ALL ABOUT TRUFFLES

Truffles are one of the most coveted and luxurious ingredients in the world of culinary cuisine. Known for their distinctive, earthy and pungent flavor, gourmands have prized truffles for centuries. The history of truffles can be traced back to ancient civilizations, with the Sumerians, residing in present-day Iraq around 4500–1900 BCE, credited as the trailblazers who first savored truffles as a food source.



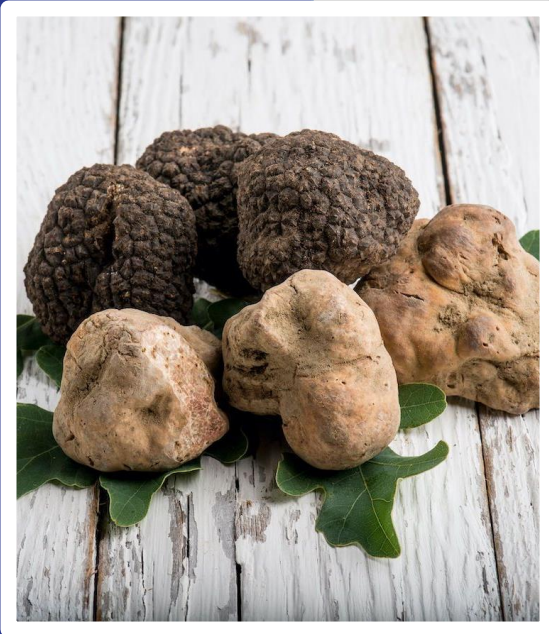
Entering the mid-1800s, the production of fresh truffles reached unprecedented levels, with over 2,000 tons appearing on the plates of European diners. This era of abundance and prosperity, unfortunately, did not last long. The aftermath of World War I witnessed the destruction of many rural lands, leading to a sharp decline in truffle cultivation. By the 1960s, production had plummeted to less than 400 tons. Despite the downturn, this period laid the groundwork for a wealth of knowledge that has since been harnessed to develop innovative inoculation methods, yielding positive and transformative results.

While truffles have maintained their popularity, cultivation has remained a challenge for centuries. The breakthrough came in the early 19th century when French agronomist Joseph Talon achieved a milestone by establishing the first truffle plantation in the Périgord region. His insight discovered a relationship between truffles and the presence of certain trees and allowed him to develop a method of inoculating the roots of young trees with truffle spores. This discovery later gave rise to the creation of truffle orchards, or truffières, that provided a means for controlled and more consistent truffle production.

Truffle hunting has long been considered a timeless tradition, preserving its essence through the ages with minimal evolution. In bygone eras, truffle hunters enlisted assistance from the keen sense of smell found in pigs to unearth the elusive fungi. However, it was quickly found that pigs are ravenously drawn to the scent and taste of truffles and often devoured the delicacy soon after discovery. Today, a more refined approach to truffle hunting employs specially trained dogs, known as truffle hounds, as the primary companion in the quest for truffles. This adaptation enhanced not only the manageability of the hunting process but also mitigated the risk posed to the truffles themselves.

HEALTHY INGREDIENT CONTRIBUTION

Distinguishable from its sweet counterpart in the world of chocolate, savory truffles from the fungus family are highly aromatic, wholesome, and naturally occurring in the French and Italian countryside as well as parts of the US. Beyond being celebrated for their culinary aromas and flavors, truffles extend outside mere gastronomic preferences to present potential health benefits.



While truffles come in various types, each with its unique flavor and appearance, what ties them together is their impressive nutritional content and numerous health benefits. Truffles, although consumed in small quantities that have limited impact, have tested very strongly to have potential in lowering cholesterol, controlling blood sugar, protecting from liver damage and reducing inflammation.

Copper: A mineral required of the body for energy production, construction of connective tissue and blood vessels, and maintaining the nervous and immune systems.

Manganese: Manganese is a trace mineral that helps the body to form connective tissue, bones, blood clotting factors, and sex hormones. It also plays a role in fat and carbohydrate metabolism, calcium absorption, and blood sugar regulation.

Selenium: Used by the body for reproduction, thyroid gland function, DNA production, and protecting the body from infection damage, truffles are a great source of selenium.

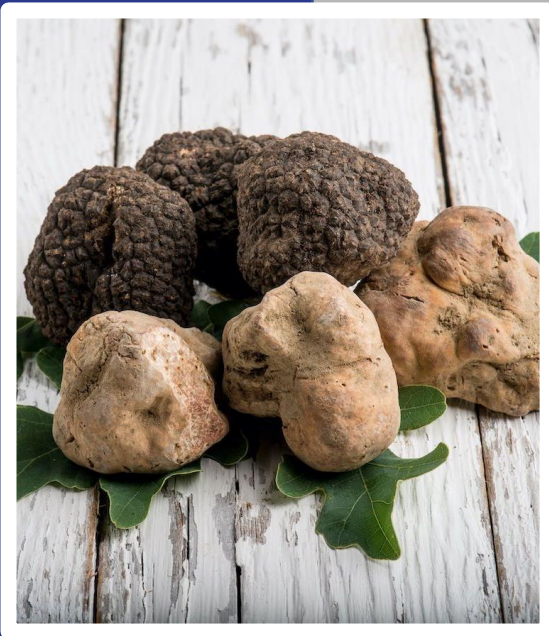
Zinc: Essential for normal growth and development, immune function, and protein synthesis.

Antibacterial Properties: Truffles are high in antibacterial properties that minimize and sometimes eradicate the growth of certain bacteria. They have been proven to be especially effective against *Staphylococcus Aureus* and *Pseudomonas Aeruginosa*.

Nutritional Information/Values from [USDA FoodData Central](#)

TYPES AND VARIETIES

Truffles, the delicate fruits of mycorrhizal fungi, predominantly belong to the Tuber genus. With a staggering diversity of over 140 species, only a select few command significant monetary value and have widespread commercial availability. Beyond the widely consumed varieties, most wild truffles present a challenge for foragers due to their unreliable and comparatively inferior supply, rendering them of limited value in the world of truffle enthusiasts.

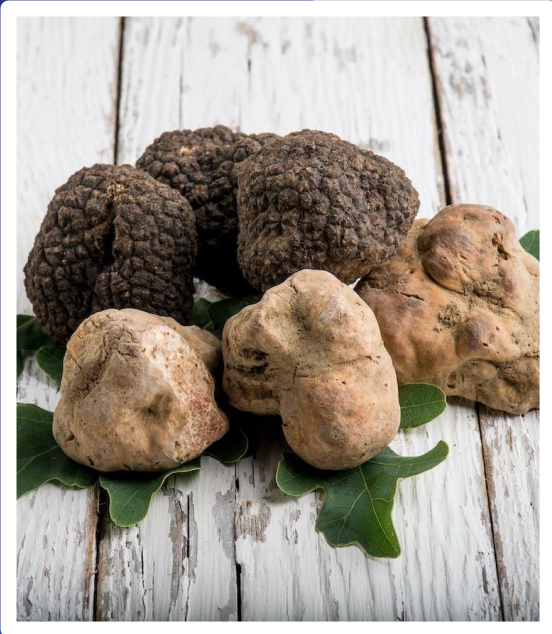


- **Black Perigord Truffle (*Tuber Melanosporum*)**
 - **Origin:** Native to the Perigord region of France but also cultivated in Spain and Italy
 - **Aroma:** Rich, robust and slightly sweet
 - **Appearance:** Dark, almost black with a rough, warty surface
- **White Truffle (*Tuber Magnatum Pico*)**
 - **Origin:** Predominantly in the Piedmont region of Italy
 - **Aroma:** Intensely complex and earthy
 - **Appearance:** Smooth, pale, and light-colored, ranging from beige to white
- **Summer Truffle (*Tuber Uncinatum*)**
 - **Origin:** Found in Europe, including France, Italy, and Spain
 - **Aroma:** Subtle and less intense compared to winter truffles.
 - **Appearance:** Lighter in color, from light brown to black
- **Winter Truffle (*Tuber Brumale*)**
 - **Origin:** Found in both Europe and the US
 - **Aroma:** More intense and robust
 - **Appearance:** Colors vary but often darker than summer truffles
- **Burgundy Truffle (*Tuber Aestivum*)**
 - **Origin:** Found in various European countries including France and Italy
 - **Aroma:** Earthy and musky
 - **Appearance:** Black to brown in color with a smoother surface
- **Oregon Truffle**
 - **Origin:** Native to the Pacific Northwest region of the United States
 - **Aroma:** Sweet, nutty, or chocolate-like
 - **Appearance:** Can be black, brown, or white depending on species
- **Bianchetto Truffle (*Tuber Borchii*)**
 - **Origin:** Primarily found in Italy
 - **Aroma:** Similar but less intense than white truffles
 - **Appearance:** Light colored with a smooth surface
- **Chinese Truffle (*Tuber Indicum*)**
 - **Origin:** Various regions of China
 - **Aroma:** Less intense and milder than European truffles
 - **Appearance:** Deep brown to black exterior

SELECTING AND STORING

Selecting Truffles:

- **Visual Inspection:** Truffles should be firm but not hard and have relatively few blemishes. Avoid any truffles that show signs of cracking, holes, or overly soft spots. Shape and size do not necessarily play a big part in selection as it is flavor/aroma that is most important.
- **Aroma:** Truffles should have a strong, distinct aroma. The scent is a crucial indicator of freshness and flavor so be sure to give truffles a sniff before purchasing.
- **Variety:** Considering each truffle variety has a mix of unique aromas and flavor profiles, truffles should be chosen based on culinary preferences and the dish being prepared.
- **Season:** Be aware of truffle season. Different varieties are best during certain times of the year. Truffle availability in the off season often reduces quality, aroma, and flavor.
- **Ammonia:** The presence of ammonia in a truffle is an indicator that it is beyond maturity and beginning to decay.

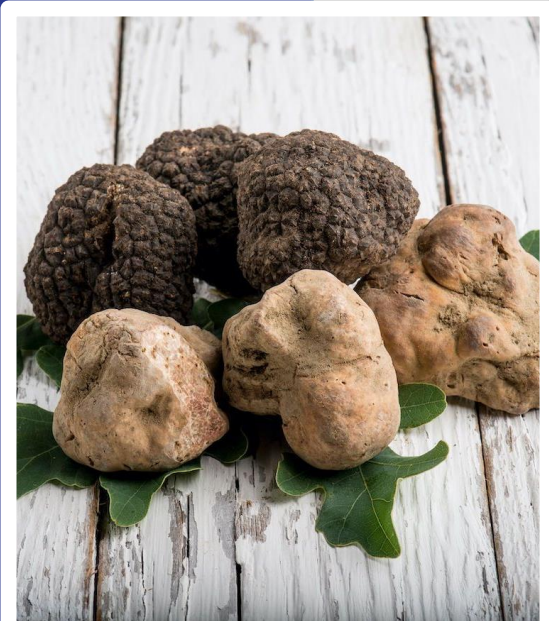


Storing Truffles:

- **Cleaning:** Never wash or fully submerge truffles in water. Truffles should be gently brushed on the exterior before use.
- **Airtight Containers:** Truffles should be stored in lined, airtight containers to prevent the loss of aroma and moisture.
- **Refrigeration:** Truffles are best stored in a dedicated truffle container in the refrigerator. Truffles store best at temperatures between 35° and 38° F.
- **Moisture:** Moisture can lead to mold growth so ensure both the truffle and the container is dry before storing.
- **Storing in Rice:** Some suggest storing fresh truffles in rice, however, this can tend to dry out truffles and reduce their aroma and flavor if left in rice for too long. If using this method, only store for 1-2 days.
- **Strong Smelling Foods:** Truffles can easily absorb odors of strong-smelling foods so they should be stored away from highly fragrant foods or stored in a container on their own.
- **Freezing:** Although not ideal, truffles can be grated or sliced and then frozen for up to 6 months for later use. Freezing truffles is known to alter the texture.

CULINARY USES

Truffles, the highly prized fungi, boast a distinctive aroma and flavor that lend a touch of luxury to diverse dishes throughout the culinary landscape. With a range of truffle varieties, each with its own unique flavor profile, chefs are given the opportunity to select varieties that infuse specific nuances into their dishes. It is worth mentioning that truffles, a pricey investment, reveal their finest flavors when handled properly and used sparingly to enhance the harmony of other ingredients in each dish.



Popular Ways to Incorporate Truffles:

- Black truffles pair especially well with beef dishes
- Truffles are known to distinctly compliment fatty foods
- White truffles are best served uncooked
- Grate truffles over fresh pasta, risotto, or potato dishes
- Add chopped or grated truffles into scrambled eggs or other egg dishes
- Make truffled cream or truffle butter
- Infuse truffles into neutral spirits such as vodka or gin for cocktail making
- Combine grated truffle with salt to add a subtle truffle taste into various dishes
- Create truffle infused oils and vinegars

Unconventional Flavor Partners:

- Bacon
- Banana
- Beer
- Cauliflower
- Miso
- Onion
- Vanilla
- Wine

FUN FACTS

Ancient Greeks once believed truffles were formed when lightning strikes moist soil. They were considered a delicacy, aphrodisiac, and medicine.

Truffle hunters are known as “trufficulturists” and keep their hunting grounds a closely guarded secret.

Once discovered, hunters are likely to find truffles again and again in the same location. Some well-kept truffle hunting grounds have been passed down from generation to generation for over 2000 years.

Truffles go by many nicknames including culinary diamond, fairy apple, black queen, gem of poor lands, fragrant lump, and black pearl.

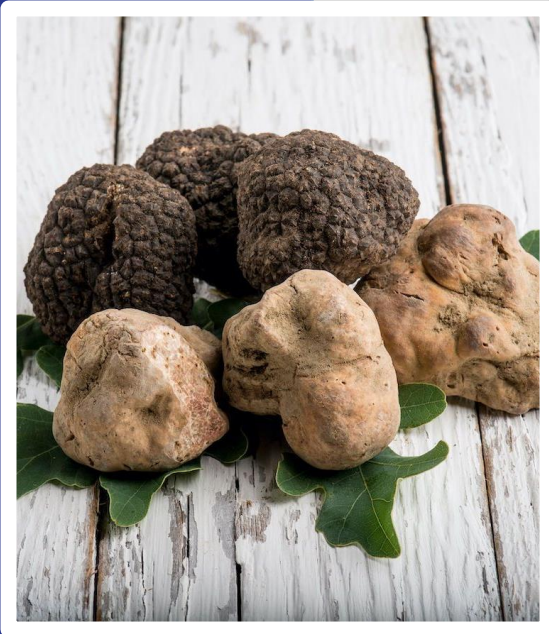
France is the largest producer of black truffles, harvesting around 30 tons per year.

Because they grow below ground, truffles cannot reproduce through wind and rain like fungi that grow above ground. Truffles rely on the consumption and digestive system of animals eating them to spread spores necessary for reproduction.

In 2014, the world’s largest truffle, a tuber magnatum pico (white truffle) weighing 4.16 pounds, was found by Sabatino Truffles in Italy.

White truffles, dubbed the “king of truffles”, are more prized than black truffles and depending on supply, can cost thousands of dollars per pound.

If you have eaten truffle fries made with truffle oil, odds are there were 0% real truffles used in the production of the truffle oil.



RECIPE

Tagliatelle with Taleggio & Black Truffle

Yield: 6 Servings

Ingredients:

Water, For Boiling Pasta

14 oz Tagliatelle Pasta

10 oz Taleggio Cheese, Diced

6 oz Light Cream

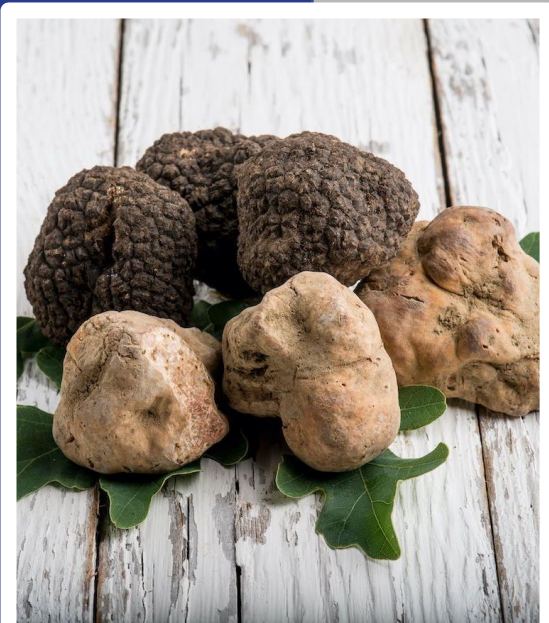
1 Knob (\approx 2 T) Butter

Kosher Salt, To Taste + Pasta Water

Black Pepper, Ground, To Taste

1 Small Black Truffle, Whole

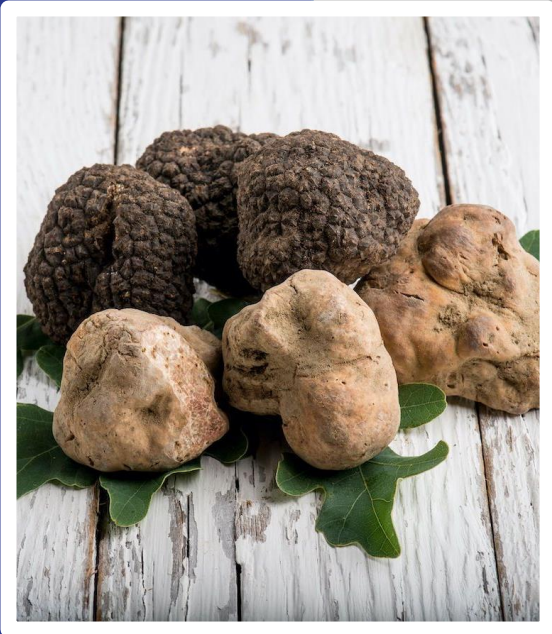
2 oz Parmesan Cheese, Grated



Directions:

1. Place a large pot water over high heat and bring to a boil. Once boiling, add salt to taste, and bring back to a boil.
2. Place a large skillet over medium-low heat. Add the taleggio cheese, light cream, and butter. Melt over medium-low heat until creamy, stirring continuously.
3. Once the sauce has reached a creamy consistency, season to taste with kosher salt and black pepper.
4. Once the salted water is back up to a boil, add the tagliatelle. Boil until al dente, or firm to the tooth, about 7 minutes for dried or 1-2 minutes for freshly made pasta.
5. Drain the pasta, reserving about 1-2 cups of the pasta water.
6. Add the cooked pasta to the skillet with the taleggio cream sauce. Toss to combine. If needed, add small amounts of pasta water to thin out consistency.
7. Top with thinly shaved black truffle and grated parmesan. Serve immediately.

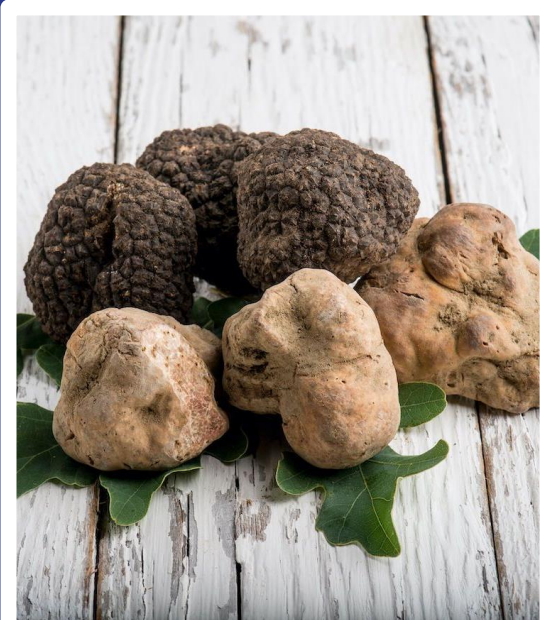
QUIZ



After you read through this month's Ingredient of the Month, take this quiz to test your knowledge. In order to earn continuing education hours (CEHs) from the American Culinary Federation (ACF), the test must be completed through the ACF's Online Learning Center. Seventy-five percent accuracy is required to earn one hour of continuing education credits toward professional certification.

QUIZ

Question #1



Which ancient civilization is credited with first savoring truffles as a food source?

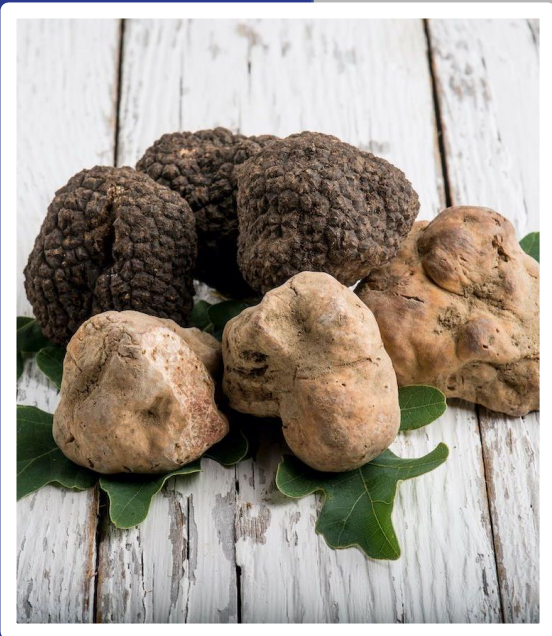
- A. Romans
- B. Greeks
- C. Egyptians
- D. Sumerians

QUIZ

Question #2

What breakthrough in truffle cultivation occurred in the early 19th century?

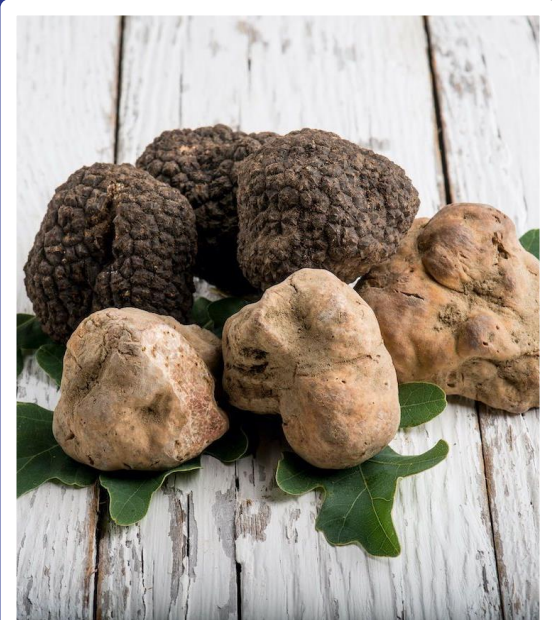
- A. Introduced truffle hunting dogs
- B. Discovered link between truffles and certain trees
- C. Developed truffle seasoning techniques
- D. Established the first truffle restaurant



QUIZ

Question #3

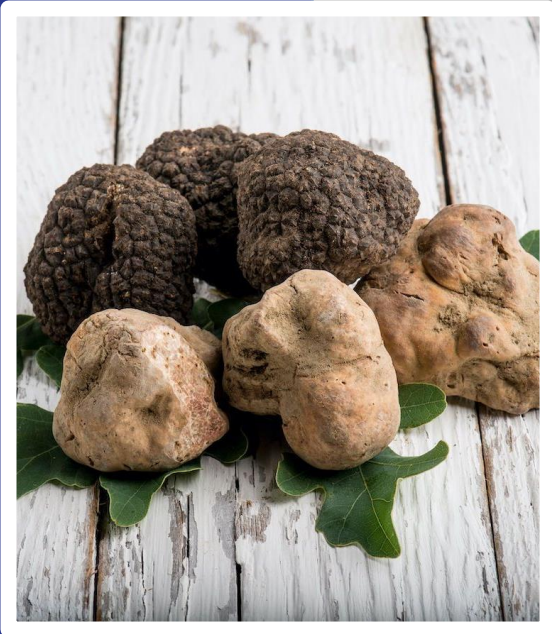
Which bacteria are truffles said to be highly effective in fighting against?



- A. Streptococcus & Pseudomonas Aeruginosa
- B. E. Coli & Pseudomonas Aeruginosa
- C. Staphylococcus Aureus & Pseudomonas Aeruginosa
- D. Bacillus & Staphylococcus Aureus

QUIZ

Question #4

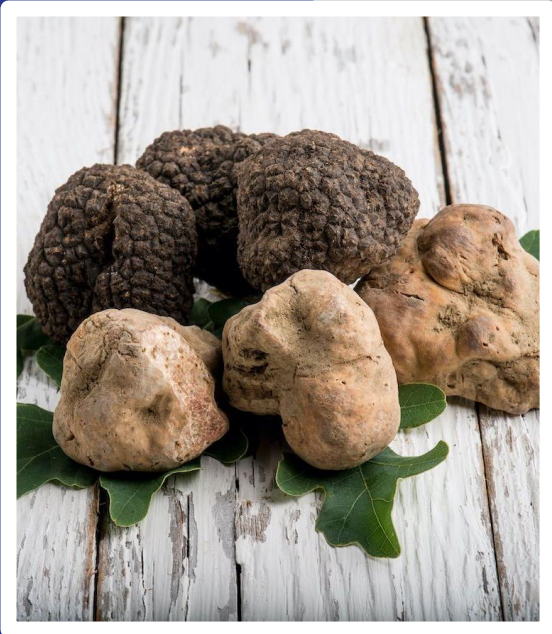


Which of the following most accurately describes the appearance of the Bianchetto truffle?

- A. Smooth, pale, and light-colored
- B. Dark, almost black with a rough, warty surface
- C. Can be black, brown, or white depending on species
- D. Light colored with a smooth surface

QUIZ

Question #5

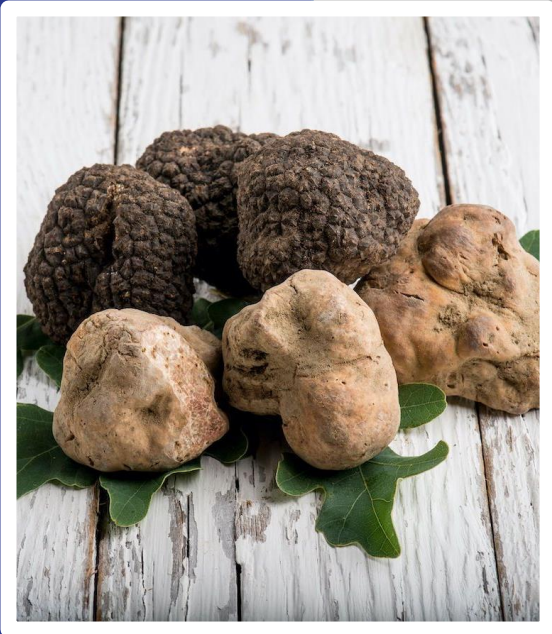


How would you describe the aroma of the white truffle scientifically known as tuber magnatum pico?

- A. Sweet, nutty, or chocolate-like
- B. Subtle and less intense
- C. Intensely complex and earthy
- D. Earthy and musky

QUIZ

Question #6

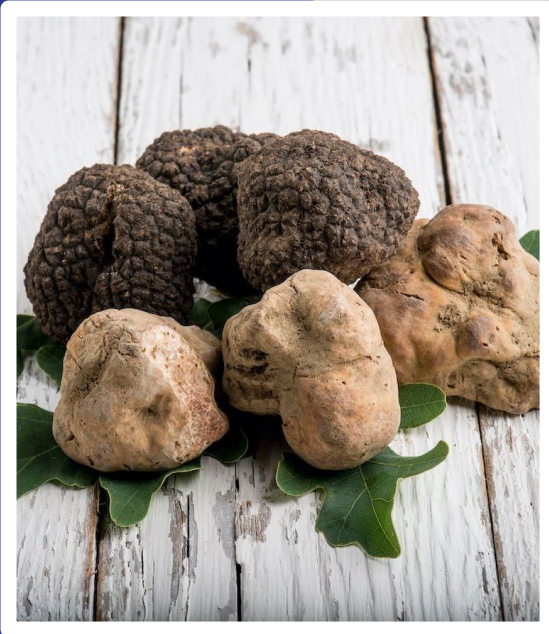


When purchasing fresh truffles, they should be selected based on shape and size rather than flavor/aroma.

- A. True
- B. False

QUIZ

Question #7



What is the recommended temperature range for storing fresh truffles in the refrigerator?

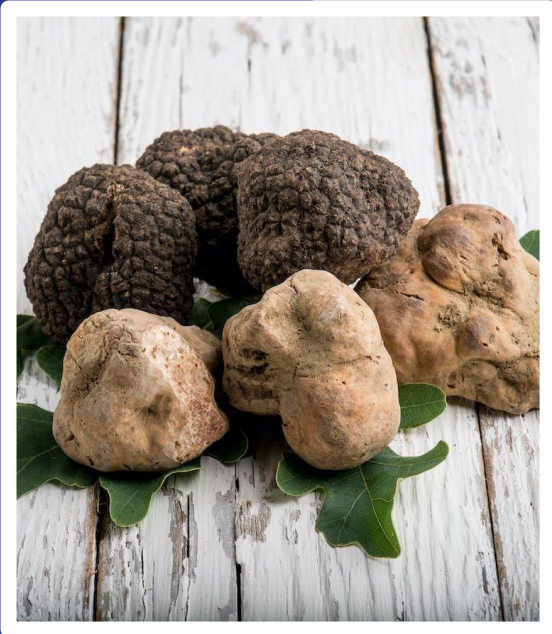
- A. 35° - 38°F
- B. 40° - 43°F
- C. 44° - 47°F
- D. 48° - 51°F

QUIZ

Question #8

Black truffle varieties pair distinctly well with seafood dishes.

- A. True
- B. False

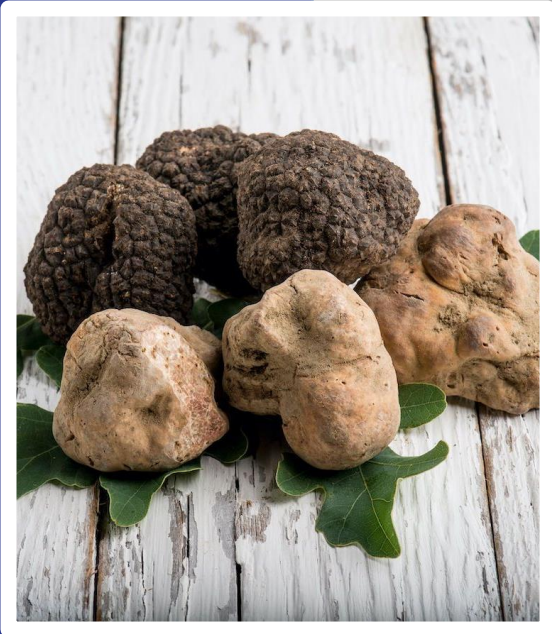


QUIZ

Question #9

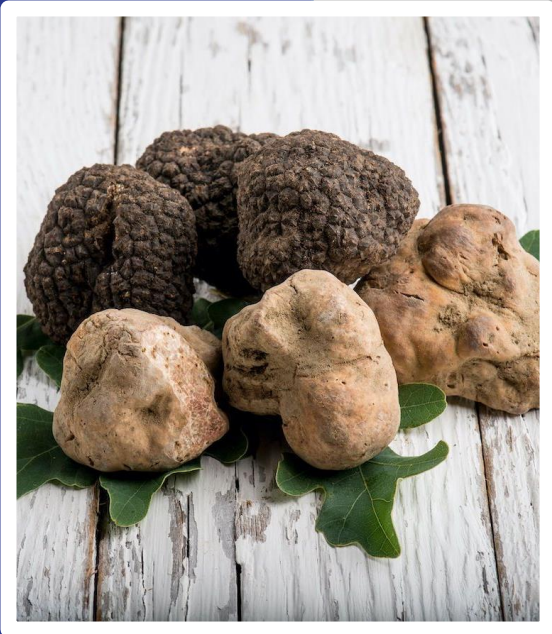
What are truffle hunters commonly referred to as?

- A. Truffleologists
- B. Truffleanados
- C. Trufficulturists
- D. Truffieres



QUIZ

Question #10



The recipe for Tagliatelle with Taleggio and Black Truffle calls for a “knob” of butter. What is the approximate quantity of butter found in a knob?

- A. Approximately 1 tablespoon
- B. Approximately 2 tablespoons
- C. Approximately 3 tablespoons
- D. Approximately 4 tablespoons

JOIN US NEXT MONTH!

Stay tuned for the next ACF Ingredient of the Month! Be sure to visit the Online Learning Center (OLC) to download a copy of each month's ingredient presentation. Don't forget to take the official IOTM quiz through the OLC to earn one hour of continuing education credits toward professional certification.

For more information:

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