### IJFANS INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES ISSN PRINT 2319 1775 Online 2320 7876 Research Paper © 2012 IJFANS. All Rights Reserved, UGC CARE Listed ( Group -I) Journal Volume 13, Iss 4, 2024

# BLACK APPLE: AN INSPECT OF ITS NUTRITIONAL AND MEDICINAL HEALTH BENEFITS Jesindha beyatricks k<sup>1</sup>,Ciya sabu<sup>2</sup>, Lokeshwaran sekar<sup>3</sup>, Devi sowndarya<sup>4</sup>, Sisira sasidharan<sup>5</sup>

### **ABSTRACT:**

Due to their dark meat and skin, black apples (Malus domestica) are a rare and lesser-known kind of apple. Black apples are quite uncommon, yet research has shown that they offer remarkable nutritional and therapeutic qualities. The purpose of this study is to provide an overview of the most recent research on the bioactive ingredients, antioxidant activity, and possible health advantages of black apples.

Black apples have a substantially greater antioxidant and polyphenol content than regular apples, which makes them a fruit that shows promise in lowering the risk of chronic illnesses including cancer, cardiovascular disease, and neurological problems. Black apples have also long been utilized in folk medicine due to their antidiabetic, antibacterial, and anti-inflammatory qualities.

This abstract emphasizes how beneficial black apples may be as a dietary supplement and medical tool, indicating the need for more study and investigation into these uses.

Keywords: Antidiabetic, Antibacterial, Anti-Inflammatory Qualities, Vitamins, Black apple.

### **INTRODUCTION:**

Black Diamond apples are grown in Nyingchi, Tibet as a rare variety of Hua Niu apples (Chinese Red Delicious). Although they're called black, the skin of these apples is actually a dark hue of purple because they receive lots of ultraviolet light during the day and the temperature changes dramatically at night. On the inside, the pulp is bright and white just like most other apples. Due to the fact that the production is limited, the apples are quite pricey and belong to the high-end segment of the market. The flavour of Black Diamond apples is said to be much sweeter than the flavour of other apples as they're full of glucose. And hurry up while you can still find them – many farmers are refusing to grow them any longer because these apple trees require 8 years to reach maturity. because (the growing season is short only about 2 months) The method of growing black diamond apples takes time. Compared to conventional apples, which mature in about two to three years, these require roughly eight years. The steep mountain slopes provide difficulties for the farmers and make large-scale apple cultivation difficult. Even during the two-month harvest season, which occurs in or around October, not all apples are of a high enough grade. Roughly thirty percent of the picked apples make it to market after passing inspection.





Nutritional Value:

Calories	110	Sodium	70 mg
Total Fat	0 g	Potassium	260 mg
Saturated	0 g	Total Carbs	27 g
Polyunsaturated	0 g	Dietary Fiber	0 g
Monounsaturated	0 g	Sugars	22 g
Trans	0 g	Protein	0 g
Cholesterol	0 g		
Vitamin A	40%	Calcium	2%
Vitamin C	100%	Iron	2%

Uses of Black Diamond Apple:

Black apples can be used for a lot more than just a pleasant snack. The fruit can be utilised to create natural colours for crafts or clothing. To help with digestion, the leaves can be cooked and drunk as tea. Last but not least, the fruit's bark possesses antibacterial qualities that make it a natural treatment for skin ailments. Most uses for this fruit are fresh. It can be eaten fresh, chopped up in the side, or baked into pies or cobblers. Additionally, the fruit can be dried and used later to make juice, vinegar, and cider. Additionally, they are preserved as apple butter, which keeps for months after harvest.



### **Health Benefits:**

Despite the fact that black apples are delicious and crunchy, they are reportedly inferior to red apples in terms of nutrients due to their quicker production. It includes the flavonoid Apetakin, which lowers blood pressure, boosts good cholesterol, and makes you hungrier while also providing fibre. It also helps you put on weight by increasing your hunger.

We eat a variety of foods to strengthen our immune systems. Black apple consumption can also be highly beneficial for boosting immunity at the same time. Black apples contain vitamin C, which has antioxidant properties. By bolstering the immune system's cells, antioxidant action also improves our bodies' resistance to disease.

The black apple is also regarded as being excellent for preserving vision. Black apples are high in vitamin A, according to the United States Department of Agriculture. Vitamin A helps to prevent numerous eye illnesses in addition to improving our eyes' capacity to see. Therefore, a black apple can be consumed if you want to have good vision.

Reason for Black Apples in 'Black'

Experts claim that the location and climate in Nyingchi, a small city in the Himalayas of Tibet, where they are grown, are responsible for their distinctive colour. The area has nighttime temperature swings and intense ultraviolet light during the day, which have an impact on the apple's skin and give it a rich, dark colour. While the skin darkens, the apple's interior is as brilliant and white as any other apple.

sounds healthy

Black apples are crunchy and tasty, but they are not even near to the nutritious worth of conventional apples. Having said that, they are a great source of dietary fiber, vitamins, minerals, and antioxidants. The fruit is an excellent weight loss snack because it is low in calories and fat. Additionally, it contains plenty of essential fatty acids, which are crucial for cardiovascular health.

### Are they easily accessible?

The answer is no. According to research, only approximately 70% of the yearly Black Diamond harvest makes it to market, making them difficult to find on the market. Additionally, because it takes five to eight years to produce the fruit, which only lasts for two months, many farmers choose not to grow this kind.

Taste Of Black Diamond Apple

A Black Diamond apple has only been tasted by a select few people. Everyone agrees that this apple has a distinct, sweet, and robust flavour from all other apples.



How to store the Black Diamond Apples:

The fruit will ripen most effectively if it is kept in cold storage. A little more juicy and softening occurs to the meat. As such, the fruit doesn't continue to ripen. Fruits that are ready to be picked look black or dark red on the outside and feel hard to the touch. When pressed, the flesh should remain solid and not sink in.

Possible Health Advantages and Dietary Profile

These apples' nutritional composition is explained below.

Richness of nutrients in Black Diamond Apples:

• Vitamins And Minerals - Like other apples, black diamond apples are packed with important vitamins and minerals. Among them are the following.

- Vitamin C: Promotes general wellbeing and immune system health.
- Vitamin A: Essential for healthy immune system function, vision, and reproduction.
- Vitamin B: Helps food be converted into energy and supports healthy nerve function.
- Potassium: Preserves heart health and blood pressure
- Antioxidants

The key antioxidants in black diamond apples are anthocyanins. These generate a dark purple color. These chemicals attack free radicals in our bodies. This safeguards our cells from injury and minimizes the chance of chronic disorders.

Potential Health Benefits of Black Diamond Apples:

### 1. Robust immune system:

The vitamin C in black diamond apples helps to build a strong immune system, which may help us fight off infections, colds, and other illnesses

## 2. Heart health:

Black diamond apples contain antioxidants called polyphenols and soluble fiber, which may help to keep our hearts healthy by preventing harmful artery build-ups and promoting healthy blood flow to the heart.

## 3. Improving digestion

Black diamond apples are believed to assist with digestion since they are high in dietary fiber, mostly pectin. They are said to promote regular bowel motions and good gut flora

4. Assisting in weight management

These apples' high water and fiber content may help sate hunger. This is said to help with weight control as it decreases the urge for eating.



### 5. Improving the health of skin and hair

Black diamond apples are high in antioxidants, particularly vitamin C, which is believed to improve blood flow. As a result, it could be able to prevent bacteria-causing acne, resulting in better skin. It's also said that the vitamin A content promotes healthy hair development. Additional research is required to validate these advantages.

## Smell and Uses in Cooking

The taste of the black diamond apple is just as highly valued as its distinctive appearance. It is something that should never be disregarded. What flavor are Black Diamond Apples?

• Wording

The luscious, crisp flesh of black diamond apples is what makes them so highly prized. These apples are a happy sensory feast to bite on. There's no other apple kind with the same crunch. • Taste

Black diamond apples have a powerful and sweet flavor. There is a faint undertone of berry flavors in them. They are distinct from other apple varieties in that they have a higher sugar content by nature.

Easy Black Diamond Apple Recipes:

### • Black Apple with Banana Custard

Mix the familiar banana smoothness with the unique black diamond apple to create a delicious custard dish. The components required and the procedures for preparation are outlined below.

- Ingredients:
- $\triangleright$  3 cups whole milk,
- > 1 medium-sized Black Diamond apple,
- ➤ 1 ripe banana,
- ➢ 5 tablespoons brown sugar,

➤ 3 tablespoons of custard powder, a tablespoon of chia seeds, and a few pomegranate arils for garnish

• Method:

1. Heat milk in a saucepan with a thick bottom.

2. In a dish, separate some warm milk and combine it with custard powder. The goal is a lump-free, smooth paste.



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Add the sugar and well stir after the remaining milk reaches a boiling point.
Gradually stir the custard mixture into the heated milk. Stir continuously to prevent clumping.

5. Cook over low heat for approximately five minutes, or until the mixture begins to thicken gradually.

6. Chop the banana and apple while the custard cools.7. Add the chopped fruit to the custard that has cooled and thoroughly whisk.8. Garnish the custard with chia seeds and pomegranate arils.

Additional uses for black diamond apples in your diet

Black diamond apples are a terrific addition to a variety of cuisine products due to their distinct taste and appealing appearance. Consider adding these apples to your favorite recipes to give them a cold, refreshing touch. Here are some ideas.

• To add extra sweetness and crunch to a fruit or green salad, slice some black diamond apples.

• Use juiced black diamond apples to make refreshing summer drinks or homemade cider.

• Add chopped apples to muffin or pancake mixes to make a delightfully fruity breakfast.

• For a sophisticated appetizer, thinly slice black diamond apples and serve them with cheese, crackers, or charcuterie.

Availability and Distribution

Because black diamond apples are so exclusive and unusual, they could be harder to come by than other apple varieties. But finding this fruit might be easier if you know where to look. Where Can I Purchase Apples with Black Diamonds?

• Regional markets

It could be difficult to get black diamond apples at your neighborhood grocery store. Try looking for farmers' markets or vendors of unique vegetables in your neighborhood, though. They frequently contain unusual and exotic fruits, like as black diamond apples. • Internet retailers

Purchasing black diamond apples can also be done through internet retailers who focus on selling uncommon and exotic fruits. Purchasing these apples from reliable internet suppliers guarantees their authenticity and high quality, even if they may cost more.

## Conclusion

Fruit enthusiasts all throughout the world are in awe of the black diamond apple because of its remarkable appearance, distinct flavor, and possible health advantages. For those looking for decadent fruit luxury, searching for these fruit gems may be a delicious and healthful quest, despite their rarity and high cost.



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1. Literary or Cultural Studies: Examine literary pieces for instances in which the phrase "black apple" is utilized symbolically or figuratively. This might be works of poetry, novels, articles that go into great detail about the black apple picture. or 2. Botany and Agriculture: Studies on unusual or uncommon apple types, such the Black Diamond Apple, which is distinguished by its deep colouring and its rarity, are typically found in horticultural and pomological research. These studies often focus on the genetic traits, cultivation practices, market potential, and consumer preferences of such unique apple varieties. Researchers examine factors like the apple's pigment composition, flavour profile, and the challenges associated with their cultivation nutritional content, and commercialization. Additionally, studies may explore the cultural and symbolic significance of these apples, particularly in regions where they are grown or consumed. Research on apple genetics, agriculture, or consumer preferences may fall under this category.

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