

Edmond Albius

Edmond Albius (c. 1829 – 9 August 1880)^[1] was a horticulturalist from Réunion. Born into slavery, Albius became an important figure in the cultivation of vanilla.^[2] At the age of 12, he invented a technique for pollinating vanilla orchids quickly and profitably. Albius's technique revolutionized the cultivation of vanilla and made it possible to profitably grow *Vanilla planifolia* away from its native habitat (Mexico to Brazil^[3]).

Early life

Albius was born in St. Suzanne, Réunion. His mother, an enslaved woman, died during his birth. The colonist keeping Edmond in slavery was Féréol Bellier Beaumont.^[2]

Vanilla pollination

French colonists brought vanilla beans to Réunion and nearby Mauritius in the 1820s with the hope of starting production there. However, the vines were sterile because no insect would pollinate them. In 1837, Charles Morren, a professor of botany at the University of Liège in Belgium, published a method of hand-pollination, but his technique was slow and required too much effort to make cultivating vanilla a moneymaking proposition.^{[4][5]}

Albius's enslaver, Mr. Beaumont, taught him the basics of botany, including how to fertilize flowers.^[6] In 1841, Albius invented a method to quickly pollinate the vanilla orchid using a thin stick or blade of grass and a simple thumb gesture. Using the stick or grass blade, field hands lift the rostellum, the flap that separates the male anther from the female stigma, and then, with their thumbs, smear the sticky pollen from the anther over the stigma.

Albius's manual pollination method is still used today, as nearly all vanilla is pollinated by hand. After Albius's discovery, Réunion became for a time the world's largest supplier of vanilla. French colonists used Albius's technique in Madagascar to cultivate vanilla, and Madagascar remains the world's chief vanilla producer.^[7]

Noted French botanist and plant collector Jean Michel Claude Richard falsely claimed to have discovered the technique three or four years earlier.^[8]

Later life

In gratitude for – and in recognition of – his discovery, locals on Réunion attempted (unsuccessfully) to obtain a reward or a government stipend for Albius.^{[9][10]}

Edmond Albius

c. 1863 portrait of Albius

Born	c. 1829 <u>Sainte-Suzanne, Réunion</u>
Died	9 August 1880 (aged 50–51) Sainte-Suzanne, Réunion

Occupation Horticulturist

Known for Inventing vanilla pollination technique

In 1848, France outlawed slavery in its colonies, and Albius left the plantation for St. Denis, where he worked as a kitchen servant. He adopted *Albius* as his new surname from *alba* "white" in reference to the vanilla orchid's colour.^[11]

He was convicted of stealing jewelry and sentenced to ten years in prison, but the sentence was commuted after five years when the governor granted him clemency in light of his enormous contribution to vanilla production in Réunion.

Albius died in poverty in St. Suzanne in 1880.^[12]

In the media

Albius' story is explored in "The Enslaved Teen Who Cracked Vanilla's Secret", an episode of *Ideas* on CBC Radio.^[13] Also in 2023, the French-Réunionese novelist Gaëlle Bélem published an award-winning historical novel *Le fruit le plus rare: ou la vie d'Edmond Albius* based on Albius's life.^[14] The story is also told on the BBC 'World's Table' in January 2024.^[15]

References

1. "Edmond Albius, the Slave who launched the Vanilla Industry" (<https://afrolegends.com/2013/11/14/edmond-albius-the-slave-who-launched-the-vanilla-industry/>). *African Heritage*. 15 November 2013. Retrieved 29 December 2019.
2. "The Little Boy Who Should've Vanished, but Didn't" (<https://www.nationalgeographic.com/science/article/the-little-boy-who-shouldve-vanished-but-didnt>). *Science*. 16 June 2015. Retrieved 29 December 2019.
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4. Morren, C. (1837). "Note sur la première fructification du Vanillier en Europe" (<http://bibliotheque-numerique.hortalia.org/items/viewer/216#page/n681/mode/1up>) [Note on the first fruiting of vanilla in Europe]. *Annales de la Société Royale d'Horticulture de Paris* (in French). **20**: 331–334. Morren describes the process of artificially pollinating vanilla on p. 333: "*En effet, aucun fruit n'a été produit que sur les cinquante-quatre fleurs auxquelles j'avais artificiellement communiqué le pollen. On enlève le tablier ou on le soulève, et on met en contact avec le stigmate une mass pollinique entière, ou seulement une partie de cette masse, car une seule de celles-ci, coupée en huit ou dix pièces, peut féconder autant de fleurs.*" (In effect, fruit has been produced only on fifty-four flowers to which I artificially communicated pollen. One removes the labellum or one raises it, and one places in contact with the stigma a complete mass of pollen [i.e., pollinium], or just a part of that mass, for just one of these, cut into eight or ten pieces, can fertilize as many flowers.) "*Annales de la Société royale d'horticulture de Paris, et journal spécial de l'état et des progrès du jardinage. Année 1837*" (<https://web.archive.org/web/20160825231127/http://www.hortalia.org/viewer/show/216>). Archived from the original on 25 August 2016. Retrieved 21 July 2021.
5. Hazen J (1995) *Vanilla*. Chronicle Books. San Francisco, CA.

6. Volcy Focard, Eugène (1862). "Introduction et la fecondation de la vanille" (<https://gallica.bnf.fr/ark:/12148/bpt6k5406041r/f240.item>) [Introduction and fertilization of vanilla]. *Bulletin de la Société des Sciences et des Arts de l'île de la Réunion* (in French): 223–235. From p. 233: "Elevé dans la maison de M. Féréol Beaumont Bellier, ... de l'annoncer par la voie de la presse locale." (Raised in the house of Mr. Féréol Beaumont Bellier, living beside this learned man, and assiduous witness to his studies [that were] directed towards the natural sciences, Edmond became enamoured with botany, and his abilities — although they couldn't obtain, due to the complete absence of instruction, the development that they deserved — soon however drew the attention of Mr. Bellier. He took a liking to this little black boy who had tastes [that were] so similar to his own, and [he] initiated [Edmond] into the secrets of the lives of plants. The slave became so interested in the lessons of him who thus became in two senses his master [i.e., as owner and teacher] that at the age of hardly twelve, he had already become almost a naturalist; and to add even more to this phenomenon, Mr. Bellier taught Edmond the scientific names of the trees and flower that he possessed on his plantation, *Bellevue*; so that the African botanist who spoke only Creole patois, who didn't even know the worth of the letters of our alphabet, named plants only in the scholarly language of Lineus and Jussieu. Indeed, this was not the least original and the least surprising aspect of the aptitude of this singular disciple of Flora. Edmond had seen his master practice fertilization among certain flowers; his constant and shrewd observations led him to try the same operations on vanilla. His attempts were crowned with complete success; and when he made them known to Mr. Bellier, the latter, [who was] very pleased with such an important discovery, hastened to announce it by way of the local press.)
7. Rain P (1986) *The Vanilla Cookbook*. Celestial Arts. Berkeley, CA.
8. Krulwich, Robert (16 June 2015). "The Little Boy Who Should've Vanished, but Didn't" (<https://www.nationalgeographic.com/science/article/the-little-boy-who-shouldve-vanished-but-didnt>). *National Geographic*. Retrieved 6 September 2024.
9. (Volcy Focard, 1862), p. 234. From p. 234: "Un de nos confrères ... la suite favorable promise à cette requête." (One of our colleagues, an esteemed naturalist whom death took away last year, Mr. Mézières Lépervanche, while he was justice of the peace of Ste. Suzanne, presented a request to the Commissioner General Mr. Sarda-Garriga in order to grant Edmond a public recompense. He asked that it be awarded to him on Labor Day; but the departure of Mr. Sarda for France halted the favorable result [that had been] promised by this request.)
10. Ecott, Tim (2004). *Vanilla: Travels in Search of the Ice Cream Orchid* (<https://books.google.com/books?id=ddtHSCF8cosC&pg=PA139>). New York City, New York, USA: Grove Press. pp. 137, 144–145. ISBN 9780802142016.
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15. Diego Arguedas Ortiz (18 January 2024). "How a 12-year-old boy made vanilla a global spice" (<https://www.bbc.com/travel/article/20240118-the-little-known-truth-about-vanilla>). *www.bbc.com*. Retrieved 28 November 2024.

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