



Certified Organic FENO-MYRTILLUS®:

A Sustainable, Polyphenol- and Anthocyanin-Rich Bilberry Extract
Offering Multi-Dimensional Health Benefits Crafted by the Only
Arctic Health Ingredient Manufacturer



Anthocyanins from Arctic Bilberry: Therapeutic Potential and Health Implications

Anthocyanins, a subclass of flavonoids, give many fruits and vegetables their vibrant red, blue, and purple colors. Bilberry fruit, (*Vaccinium myrtillus* L.), native to Fenno-Scandinavian forests, is especially rich in anthocyanins, including derivatives like Cyanidin, Delphinidin, Malvidin, and Petunidin, setting it apart from its relative, the blueberry (*Vaccinium* spp.). These compounds not only provide its striking hue but also offer powerful antioxidant benefits, making bilberry a central figure in phytonutrient research^{1,2}. Alongside anthocyanins, bilberry contains flavonols such as quercetin and myricetin, amplifying its health-promoting attributes.

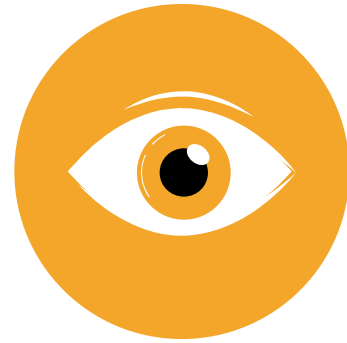
Antioxidant Potential:

Bilberries, rich in anthocyanins, have garnered significant attention for their potent antioxidant capabilities. They combat oxidative stress by neutralizing reactive oxygen species (ROS) and bolstering the body's inherent antioxidant defenses, positioning Eevia Health's Bilberry Extracts at the forefront of natural solutions to counter oxidative cellular damage^{3,4}.



Vision Health:

Vision Health: The eyes, vulnerable to oxidative stress from light exposure and high metabolic activity, can benefit from bilberries' abundant anthocyanins concentration. These compounds have shown promise in shielding the eyes from oxidative damage, potentially offering protection against conditions like diabetic retinopathy and aiding in visual acuity, as evidenced by historical anecdotes and modern human studies^{5, 6, 7, 8}.



Cellular Integrity:

Cellular Integrity: The potential of bilberries in fortifying cellular health and function stems from its ability to counteract oxidative stress, a key instigator of disease and cell aging. Clinical investigations suggest that bilberry extracts, rich in anthocyanins, might exert their benefits through modulating antioxidant defense mechanisms, vital for cellular defense against oxidative challenges⁹.



Heart Health & Lipid Balance:

The cardiovascular system, vital for delivering nutrients and removing waste, faces challenges like atherosclerosis and lipid imbalances, leading causes of global health issues. Bilberry extracts, particularly high potent ones in anthocyanins like the ones produced by Eevia Health, have been clinically demonstrated to potentially help in regulating blood vessel function, protecting against oxidative damage, influencing fat profiles in the body, and reducing inflammation, all crucial for heart health¹⁰⁻¹⁶.



Metabolic Health:

Given the pivotal role of blood sugar regulation in health, enriched anthocyanin bilberry extracts, are postulated through clinical studies to enhance insulin sensitivity and modulate glucose metabolism, showcasing potential benefits for those facing type 2 diabetes risks¹⁷⁻²².



Anti-Inflammatory Actions:

Bilberries, abundant in anthocyanins, are increasingly recognized for their profound anti-inflammatory properties. They modulate inflammation through inhibiting pro-inflammatory cytokines, downregulating enzymes like COX-2, and counteracting the activation of key transcription factors such as NF- κ B²³⁻²⁵. Eevia Health's bilberry extracts, underlined by scientific investigations, position as a natural solution against chronic inflammation, emphasizing the synergy between nature and wellness.



Adopting Eevia Health's Bilberry Extracts in daily health routines means more than just seizing a health benefit; it's about embracing a comprehensive wellness strategy. These extracts, with their multifaceted properties and supported by extensive clinical research, emerge as protective barriers against chronic ailments and promoters of overall health. Their complete potential remains an exciting area for future research, emphasizing the synergy between nature's offerings and human well-being. For a complete and comprehensive review of the human clinical studies conducted on bilberry and their extracts, we invite you to consult our Whitepaper titled: *Clinical Insights into the Therapeutic Potential of Bilberry and its Extracts - A review of the literature*²⁶.



Fenno-Scandinavian Origin and Quality: Environmental and Sociocultural Determinants of Bilberry Phytonutrients

The anthocyanin-rich profile of bilberries is not an isolated biochemical manifestation. Rather, it emerges from its native environmental conditions and has significant connotations within Nordic sociocultural contexts.

The Pristine Context: Fenno-Scandinavian Forests as Biochemical Reservoirs

Bilberries thrive in the untouched expanses of Fenno-Scandinavian forests, areas largely devoid of industrial contaminants and distant from human population centers. These intact habitats, characterized by their uncontaminated soil and air quality, serve as some of the final refuges of environmental purity. Within this setting, bilberries remain undisturbed, maximizing their phytochemical potential.

Climatic Stresses and Phytochemical Potency: The Arctic's Role in Anthocyanin Accumulation

Fenno-Scandinavian biomes provide an added dimension to bilberry phytochemical properties: the extreme climatic conditions. The severe cold, paired with extended photoperiods during summers, fosters a unique biotic pressure. This climatic rigor stimulates the Arctic bilberry to accumulate pronounced levels of anthocyanins and antioxidants, a representation of nature's mechanism to enhance plant resilience and phytochemical concentration simultaneously.

Sociocultural Implications: Bilberries in Nordic Traditions and Practices

The significance of bilberries transcends their biochemical composition, finding roots in Nordic historical and cultural practices. Over time, the native communities have esteemed the bilberry, embedding it within their culinary and traditional medicinal practices. This intergenerational respect, grounded in both empirical observations and transmitted wisdom, constructs a narrative, emphasizing the bilberry's longstanding role in supporting regional health and vitality.

Eevia Health: An Epitome of Bilberry Purity, Efficacy, and Organic Integrity

Positioned in Finland's dense woodlands, Eevia Health exemplifies excellence in bilberry cultivation and phytochemical extraction. Utilizing the intrinsic benefits of the Fenno-Scandinavian ecosystem and adhering to rigorous quality assurance measures, Eevia Health produces bilberry extracts with unmatched purity and efficacy levels. Their unwavering dedication to organic methodologies further differentiates their products, positioning them as the pioneering producers of organically certified bilberry extracts in the industry.



Acknowledging the intricate bond between Fenno-Scandinavian ecological niches and the accumulated sociocultural wisdom, Eevia Health's bilberry extracts personify more than efficacious and essential phytochemicals. They symbolize a heritage and a terrain marked by exceptional quality. This overarching belief cohesively integrates with Eevia Health's dedication to sustainability and ethically informed sourcing, reflecting their reverence for ecological equilibrium and conservation.

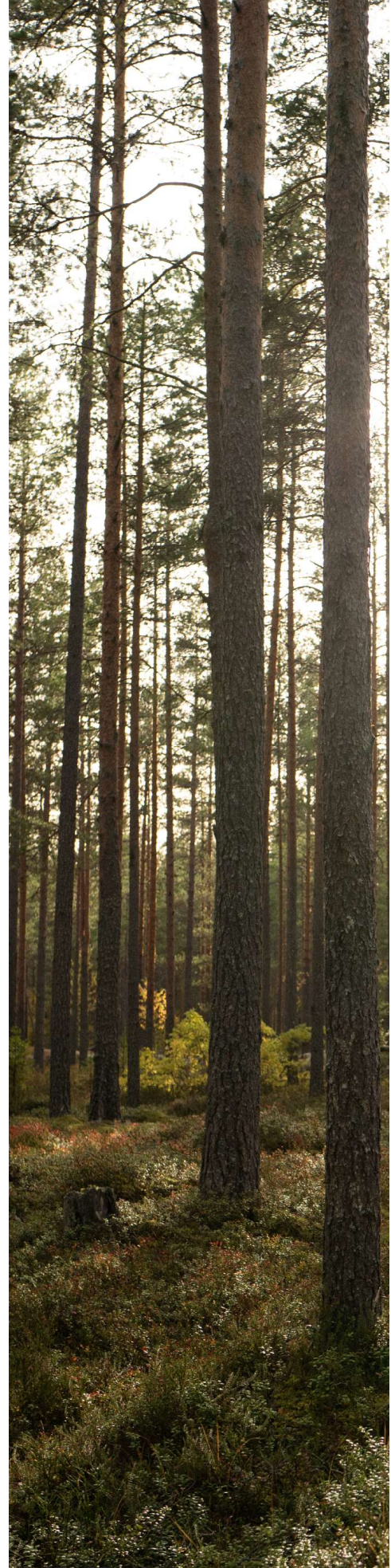
Local Roots: Eevia Health's Commitment to Sustainable and Ethical Bilberry Sourcing

Eevia Health endorses the doctrine of local sourcing. Beyond merely highlighting geographical benefits — as documented earlier — it is imperative to delineate the established rapport between the firm and local collectors and pickers affiliates. Such geographical adjacency ensures the consistent availability of bilberries and enables meticulous pre-harvest assessment. These collaborative endeavors accentuate anthocyanin concentration and bolster sustainability initiatives at the incipient stages of extraction.

From Forest to Formulation: A Finnish Tale of Quality and Care

The trajectory traversed by the bilberry, from forest substratum to Eevia Health's extraction units, is a methodical progression underscoring quality assurance and environmental integrity. Initiating with regional harvesters judiciously hand-gleaning mature bilberries, the yield is subsequently aggregated by local associates. After the assemblage, immediate cryopreservation is undertaken to conserve the inherent phytonutrient spectrum. The ensuing refinement phase encompasses rigorous segregation, differentiating bilberries from other sympatric species, including *Vaccinium vitis-idaea* (lingonberries). Post-segregation, the preserved bilberries are directed to Eevia Health's specialized processing units.

Contrastingly, juxtaposing the potential logistical implications of transporting these preserved bilberries intercontinentally for extraction elucidates a considerably escalated carbon expenditure. Eevia Health's modus operandi not only retains peak freshness but also exemplifies an ecologically responsive strategy.



Organic Excellence: Setting the Benchmark

Eevia Health's offerings are distinctive, being the sole certified organic bilberry extract in the sector. This organic accreditation transcends mere nomenclature; it epitomizes an unwavering allegiance to methodologies that venerate both the bilberry and its native ecosystem.

Ethical Sourcing: Beyond Profit, Towards People

Recent disclosures pinpointing certain expansive collectors capitalizing on transient labor pools, notably workers of Thai origin, have prompted scrutiny within the berry procurement sector²⁷. Conversely, Eevia Health's operational ethos prioritizes equitable dealings and humanitarian considerations. Their sustained affiliations with local gatherers and harvesters ensure that fiscal advantages are judiciously disseminated amongst foundational stakeholders in the bilberry procurement continuum. By endorsing equitable compensation structures and fostering humane operational conditions, Eevia Health not only augments their extract quality but also buttresses the ethical infrastructure of their enterprise.





Craftsmanship and Innovation: The Quality Edifice of Eevia Health

Upholding Standards: A Rigorous Commitment to Quality

Eevia Health's dedication to quality transcends mere compliance; it's an intrinsic value that permeates every facet of their operation. Anchored in world-class standards, their production facilities and plants are certified to ISO 22 000 — an esteemed Food Safety Management standard developed by the International Organization for Standardization. This involves a robust array of prerequisites, including the pivotal HACCP, meticulous food safety management system processes, and rigorous quality assurance mechanisms with change control. To ensure the unwavering consistency of their end products, both raw materials and finished goods undergo stringent release procedures. This commitment to excellence is further complemented by regular internal audits, underpinning a culture of relentless quality assurance.

Embracing Sustainable Excellence: A Rigorous Commitment to Quality

In a world where manufacturing often comes at an environmental cost, Eevia Health navigates a different path. Their manufacturing process leans into green methodologies, utilizing organic solvents and water, reducing the chemical footprint and preserving the intrinsic purity of their products.

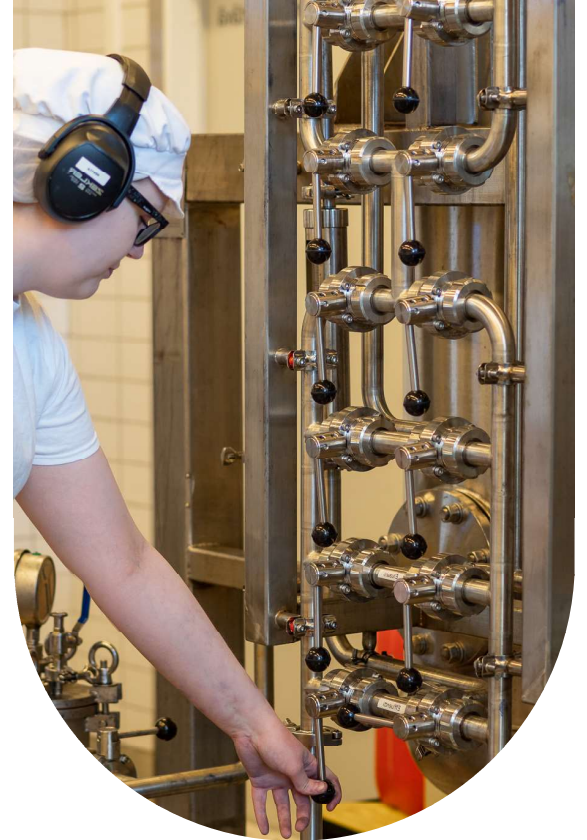
Innovation at its Core: Proprietary Chromatographic Purification

Traditional purification processes can inadvertently strip beneficial nutrients from extracts. In contrast, Eevia Health employs a sophisticated chromatographic purification system. This technique deftly targets and eliminates unwanted elements, preserving the nutritional opulence and ensuring unmatched purity. Consequently, their bilberry extracts stand out, with the industry's lowest contaminant levels. This pioneering approach further cements Eevia Health's stature as a frontrunner in delivering pure, potent products.

FENO-MYRTILLUS®

Bilberry Extracts Portfolio: Tailored for Targeted Applications with Custom Potency and Formats

In an effort to address the multifaceted health preferences of the contemporary consumer, Eevia Health has pioneered the development of the FENO-MYRTILLUS® series. This encompasses a spectrum of bilberry extracts delineated by varying anthocyanin concentrations: 36%, 25%, 5%, and 1%. Additionally, the suite includes diverse powder forms—Dried, Lyophilized (Freeze-dried), Juice-derived, and Fiber-rich powders²⁸.



Extraction Concentration and Potential Applications:

High Concentration Extracts (Feno-Myrtillus 36% & 25%):

- **Application:** Specifically formulated for integration into advanced nutraceutical formats including softgels, gummies, and tablets.
- **Implication:** Primarily aims to address niche health concerns, offering targeted therapeutic interventions.

Intermediate to Low Concentration Extracts (5% & 1%) and Assorted Powders:

- **Application:** Optimized for infusion into functional food and beverage formats, with adaptability for packaging solutions such as sachets, pouches, and tubs.
- **Implication:** Intended to bolster the nutraceutical profile of routine consumer goods, delivering health benefits via everyday consumables



Recommended Dosage:

For bilberry extracts standardized to 36% anthocyanins, dosages generally range from 120 to 750mg daily. This range is influenced by individual health conditions, body weight, and therapeutic goals. Clinical studies suggest a starting dose of 250mg daily for general health benefits, adjustable based on individual needs. Always consult healthcare professionals before determining the right dosage, particularly if used with other medications or for specific health issues.

Conclusion

In summary, *Vaccinium myrtillus*, commonly referred to as the Arctic bilberry, possesses a rich profile of anthocyanins, offering significant implications for human health and wellness. Eevia Health's systematic approach to sourcing, processing, and ensuring the quality of bilberry extracts showcases a blend of traditional practices and advanced methodologies. Situated in the pristine environment of the Fenno-Scandinavian forests, the purity and potency of these extracts are influenced by unique geographical and environmental conditions. Supported by both historical and contemporary scientific literature, the therapeutic potential of these extracts, particularly in combating oxidative stress, promoting visual acuity, and maintaining metabolic health, remains a significant area of interest. Eevia Health's dedication to sustainable and ethical practices further establishes their prominence in the field. The collaboration of traditional knowledge with contemporary scientific methodologies in Eevia Health's approach promises a path forward for further research and potential therapeutic applications in the domain of phytonutrients.

Beyond their well-documented organic Scandinavian bilberry extracts, the certified organic assortment—comprising regionally procured Lingonberry, Pine Bark, Chaga, alongside Elderberry and Tart Cherry extracts—manifests the fidelity of natural sources. For the organization, sustainability transcends conventional nomenclature; it is embedded in their operational paradigm, exemplifying an integration of organic veracity with environmentally-conscious innovation.

Join Eevia Health in their quest where past botanical wonders meet future innovations, guiding you towards enhanced health. Dive deeper into their transformative world and step onto a holistic wellness journey at www.eeviahealth.com.

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