

CRANBERRY FACTSHEET

*Cultivation, management &
opportunities in peatlands*



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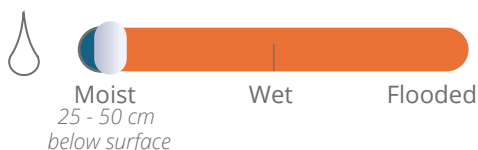
Freya Connolly The Rivers Trust

FAVOURABLE ENVIRONMENTAL CONDITIONS & STATE OF THE MARKET

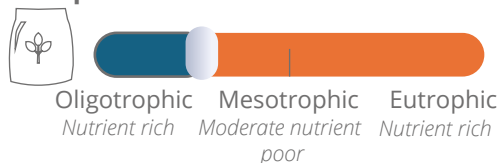


ENVIRONMENTAL CONDITIONS

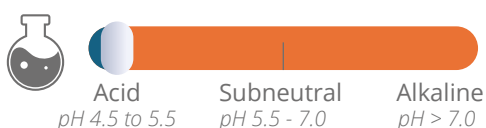
Water regime



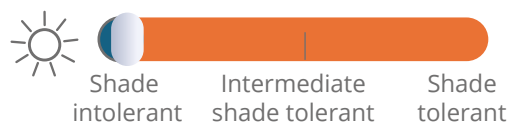
Trophic conditions



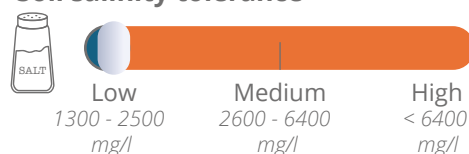
Soil pH



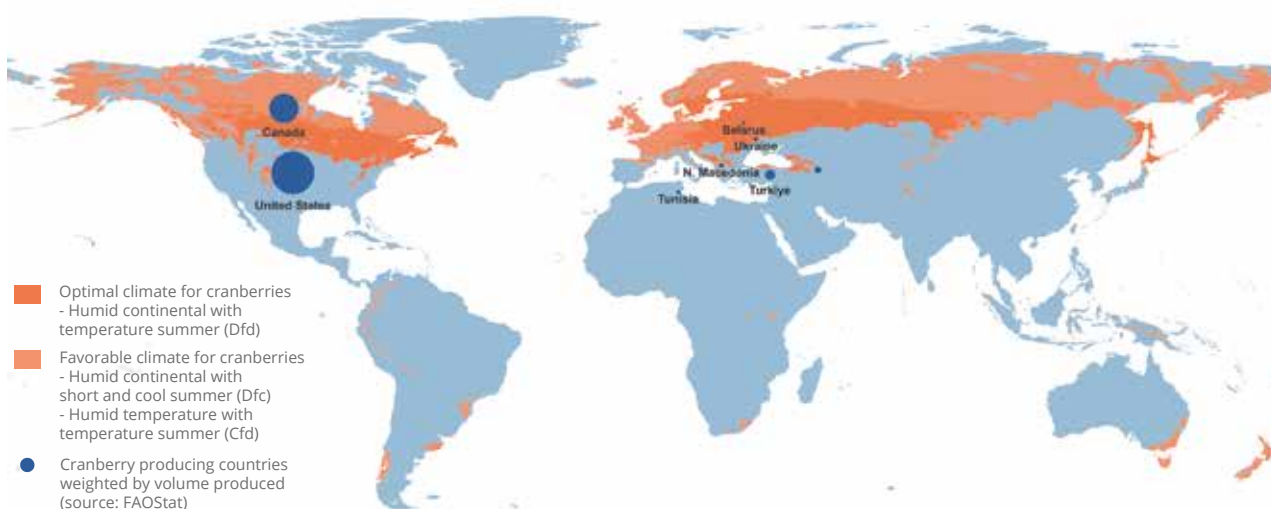
Light conditions



Soil salinity tolerance



CLIMATE COMPATIBILITY



GLOBALLY, THE MARKET IS GROWING

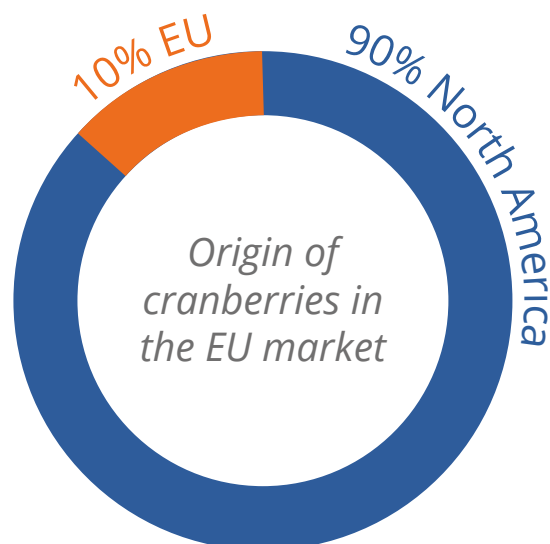
2,2 billion USD in 2023 > 3,1 billion USD projected 2030

Additionally 2,0 billion USD (2025) for dry berries

Focus on the European production

Most European cranberries are produced in Romania, Ukraine, Latvia, North Macedonia and Belarus. Concerning North-Western Europe, Dutch and German growers such as The Cranberry Company and Schmuck show that profitable cultivation is possible, though initial investments are high and processing capacity is lacking.

EUROPE, THE LARGEST REVENUE CREATING MARKET



IMPACT ON ENVIRONMENT & PRODUCTIVITY



IMPACT ON ENVIRONMENT

Conventional North American cranberry cultivation involves major **water-table fluctuations**, leading to **high peat oxidation**. As the global market is dominated by imports from Canada and the United States, there is increasing interest in more sustainable, local production in Northwest Europe.

Pioneers have demonstrated alternative methods that support peatland **restoration and sustainable management**. Compared to drained systems, cranberry cultivation on rewetted peatlands can improve the environmental footprint of agriculture with:

-  **Higher water levels** that reduce peat oxidation, carbon emissions, and soil subsidence, while increasing water storage for climate adaptation
-  **Reduced chemical inputs**, improving water and soil quality
-  Coexistence with **marsh or moor vegetation**, enhancing biodiversity and crop resilience

PRODUCTIVITY

Wet harvesting is common in North America, but lowers berry quality by damaging the natural protective coating. Dry harvesting in the Netherlands **preserves quality for fresh markets** and needs less hydraulic infrastructure, though it is less productive.

Productivity depends on:

-  **Fertilization**: modest needs; excess promotes leaf growth over berries
-  **Water level**: plants cannot tolerate drought or flooded roots during the growing season

Focus on native small bog cranberries

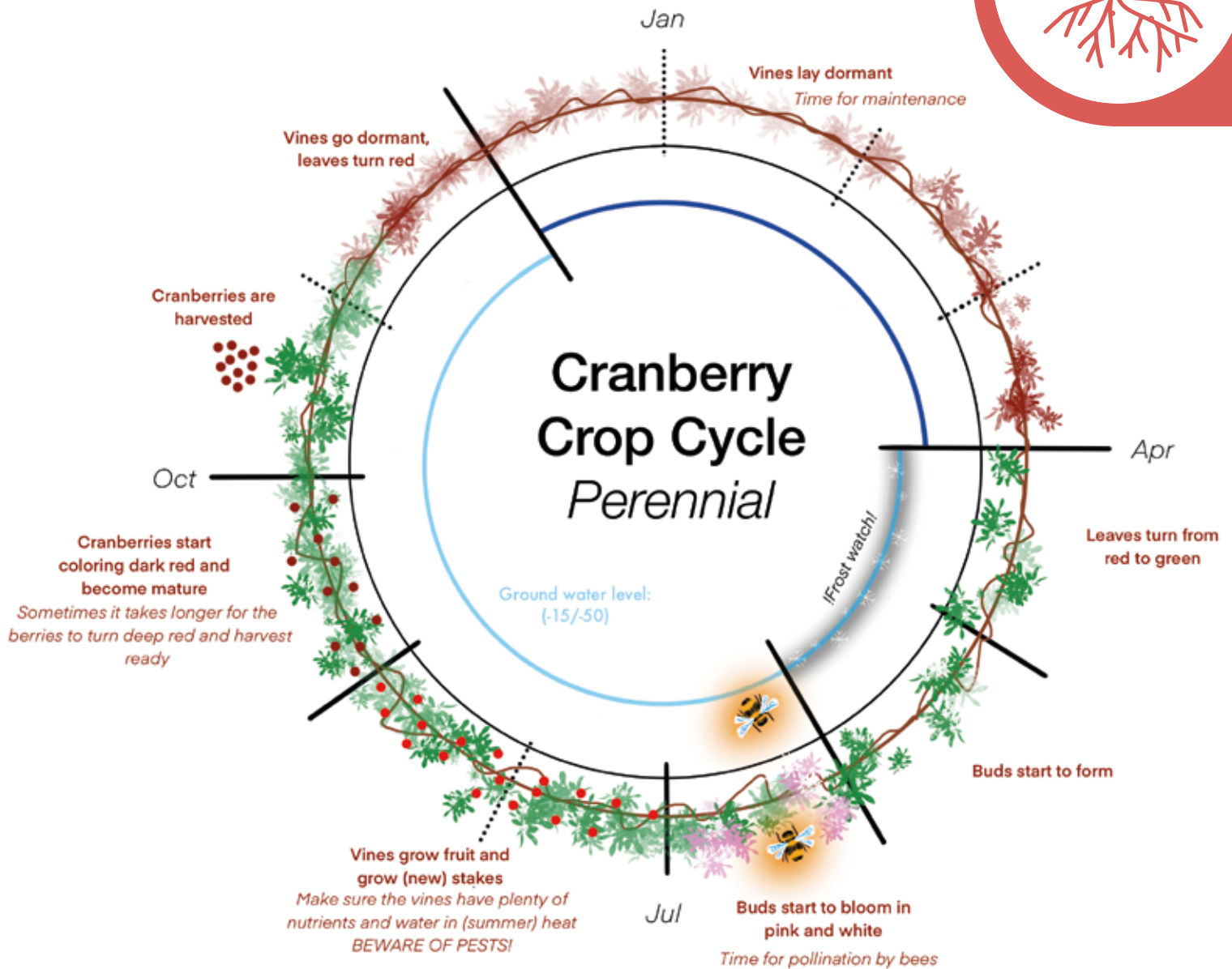
Wild bog cranberry gathering is traditional across North America, Europe, and Asia. It has been trialed as a cultivated crop in former Soviet and Baltic peatlands for conservation. Polyculture with sphagnum moss is also being tested in the UK. Yields remain much lower than large cranberries.

CROPS	SYSTEM	REFERENCE	PRODUCTIVITY
 Large American cranberry <i>Vaccinium macrocarpon</i>	Conventional cultivation	North American average (FAOStats)	21 to 29 t/ha
	Conventional cultivation in peatlands	Canada example (L. Rochefort & L. Lapointre, 2009)	21 to 22 t/ha
	Sustainable cultivation in peatlands	The Netherlands example (Cranberry company interview)	8 to 10 t/ha
 Small bog cranberry <i>Vaccinium oxycoccos</i>	Traditional wild gathering	Poland example (A. Adamczak, M. Gabka & W. Buchwald, 2009)	0.1 to 2.4 t/ha
	Cultivation for nature conservation	Estonia example (M. Noormets, K. Karp & T. Paal, 2003)	2.5 to 5.5 t/ha

CROP CYCLE & HARVESTING



CROP CYCLE



WET HARVEST (US & CANADA)

Fields are flooded so the buoyant berries float, and water reels loosen them from the vines. The berries are then corralled and pumped into trucks for processing.

Because this process damages their protective wax layer, wet-harvested cranberries are mainly used for products like juice, sauce, and dried cranberries.

Common wet-harvest equipment:

- Water reels (eggbeaters)
- Flooding pumps & water control systems
- Floating booms/corrals
- Berry pumps or suction harvesters
- Transport trucks and sorting machinery

DRY HARVEST (EUROPE)

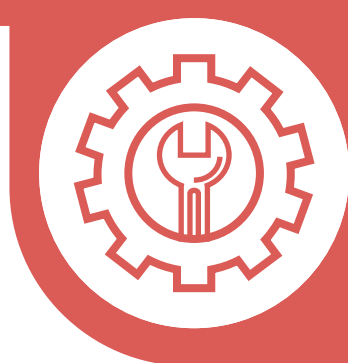
In the Netherlands and across Europe, cranberries are harvested on a small scale, mainly by dry hand-picking. This gentle method preserves the berries' natural wax coating, making them suitable for fresh sale without immediate processing.

Harvesting is done by hand or with lightweight tools to speed up collection while minimizing damage.

Common dry-harvest tools:

- Baskets or crates
- Berry rakes or hand scoops (optional)
- Small collection carts
- Manual sorting tables

TECHNICAL ITINERARY



NUTRIENTS

In American/Canadian cranberry farming, nutrients are added in July and August, when vines are fruiting and producing new shoots. In e.g. the Netherlands, no additional nutrients are added.

WATER LEVELS

From November to March, cranberry roots should stay wet. In the U.S., fields are often flooded, also protecting vines from frost; in Europe, raised groundwater suppresses competing grasses.

From April to May, ideal groundwater is -15 to -30 cm (acceptable up to -50 cm in field centers). Growers must monitor frost to protect buds and flowers.

From May to November/December, groundwater is maintained within the same range.



GROWING & PLANTING

From Seed

Cranberry seeds germinate within 6–8 weeks and must be kept consistently moist during this period. After sprouting, seedlings continue developing and growing runners e.g. vines.

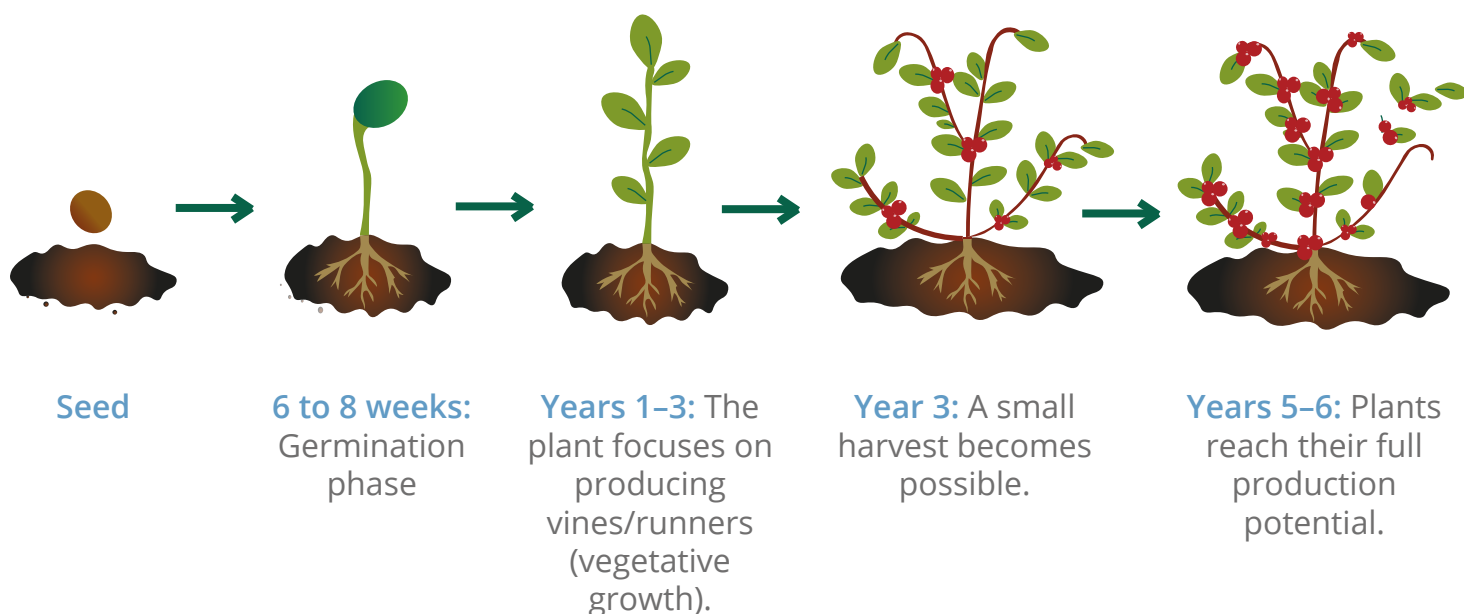
Planting

The best time to plant cranberries is in spring, when nights are cool but no longer cold. This allows roots to establish before summer heat arrives.

In warmer regions, planting in autumn is also possible, but avoid periods of extreme heat or drought.

Cranberries require at least three months of cool weather for healthy development. Spring planting ensures they have enough time to acclimate and prepare for the growing season.

DEVELOPMENT TIMELINE



POINTS OF VIGILANCE



ENVIRONMENTAL RISKS

- High humidity promotes fungal pathogens.
- Excess moisture stresses plants and lowers defenses.
- Fertilizer use should be minimal and timed with lower water levels.
- Climate change increases irregular weather patterns.

ECONOMIC CHALLENGES

- High establishment costs (beds, irrigation and water management of peatland, frost protection).
- Frost during flowering can devastate yields.
- Installation of frost protection systems as a solution can prove costly.
- Long transition to full production; limited financing.



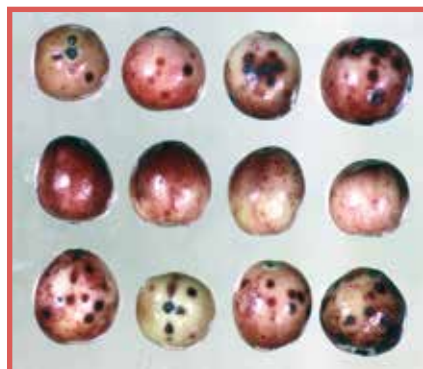
Example of frost protection
Source: Drew Swainston for Homes and Gardens.

KEY DISEASES

- Fruit Rot Complex: Symptoms: discoloration, lesions, shriveled berries.
Management: Copper-based fungicides; dry hand harvesting reduces rot risk.
- False Blossom Disease: Symptoms: deformed flowers, leaf discoloration.
Management: Remove infected plants; control leafhoppers with insecticides or flooding.



Cranberry False Blossom symptoms in flowers and berries
Source: Cranberry False Blossom Factsheet- Patricia S. McManus (2019))



Fruit Rot Complex
Source: Pacific Northwest Pest Management Handbook.

MAJOR PESTS

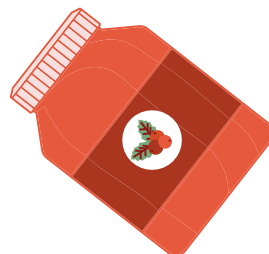
- Black-Headed Fireworm, European Crane Fly.
Management: Pheromone traps, spinosad insecticide, flooding, hand removal

PRICES AND VALORISATION

VALORISATION OPPORTUNITIES

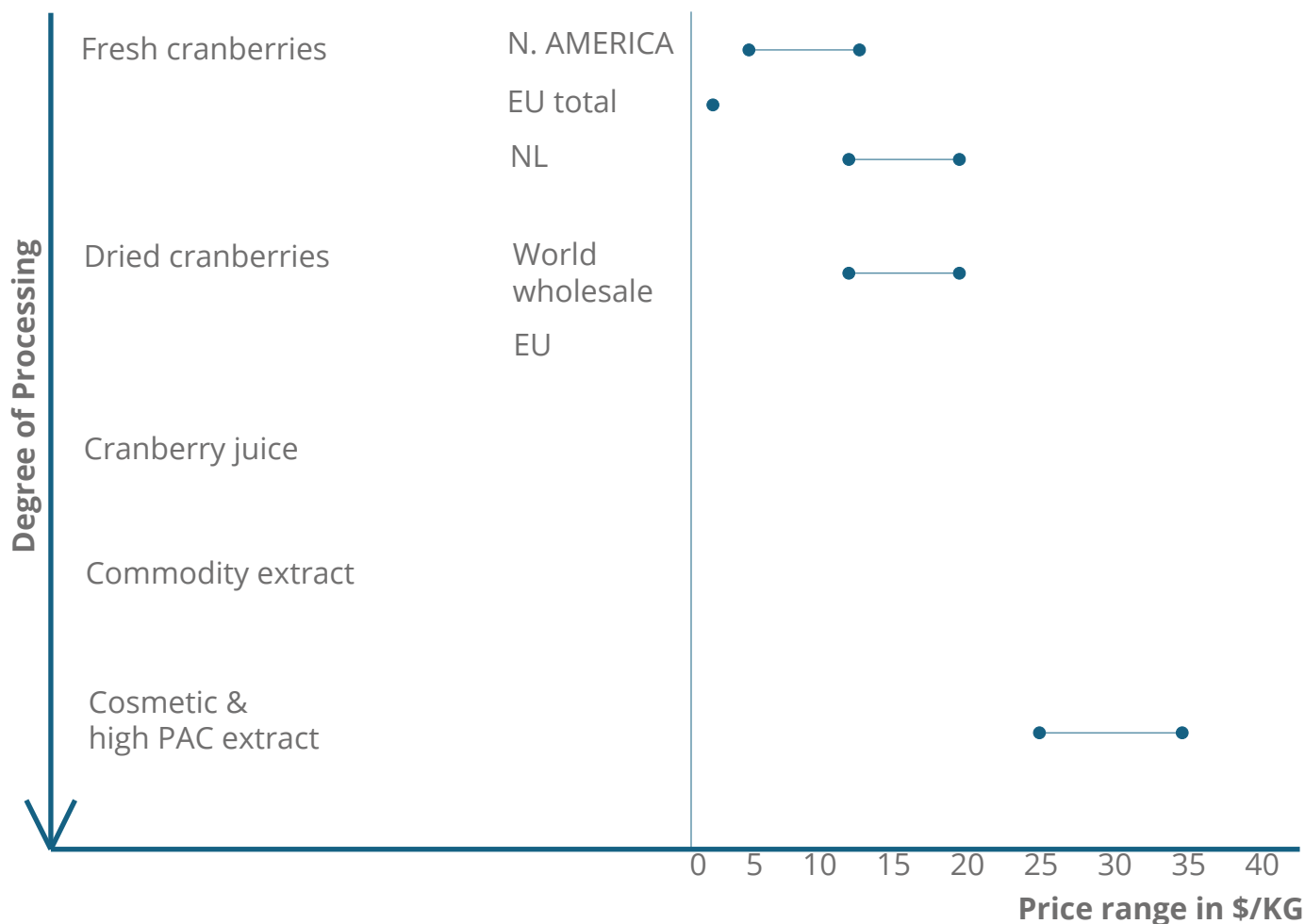
In general, there is no single crude price, there is mostly wholesale and retail indications.

Fresh berries have a short chain with a limited amount of equipment needed. Berries can also be **transformed into juice, powder, oils, supplements or extracts**. This requires additional processing, investments, time and equipment. The prices tend to be higher, but the production and processing costs are also higher.



PRICE OF THE PRODUCTS

The following price ranges have been selected based on manufacturer listings. **In the USA prices tend to be lower** due to proximity to raw cranberry production, in Europe import is mostly applicable, leading to higher costs.





COMPATIBILITY WITH POLICIES

REGULATORY REQUIREMENTS

The cultivation of cranberries on peatlands in the European Union must respect the “Good Agricultural and Environmental Condition 2” **standard of the CAP**. This means no deep ploughing, filling or depositing and no new drainage in peatlands.

Specific national or local regulations must also be considered. Wetlands could have different levels of protection regulating or banning agricultural practices. **Authorization from the relevant local authorities** (prefecture, water boards...) is often required, sometimes involving an Environmental Impact Assessment.

FINANCIAL INCENTIVES

Country	Subsidy scheme	Aid type
France	CAP coupled support for small-scale producers (<5 ha) for fruits and vegetables	1,588€/ha/year
Ireland	Horticulture Capital Investment Scheme (HCIS)	No direct mention of paludiculture, but longstanding scheme to assist with start-up and scale up
Ireland	Peatlands for Prosperity – Just Transition Fund (2024-2027)	Free hands-on support to farmers interested in paludiculture
Ireland	Basic Income Support for Sustainability (BISS)	BISS payments are capped at an effective maximum of €66,000 per farmer annually.
The Netherlands	Eco-scheme of Common-Agricultural-Policy Subsidies for ‘long-yearly’ crops	Point based system that could allow access to 3 levels of remuneration: 60€/ha (bronze), 100€/ha (silver) or 200€/ha (gold)
The Netherlands	National funds such as: - Subsidiestelsel Natuur en Landschap (SNL) - Subsidieregeling Kwaliteitsimpuls Natuur en Landschap (SKNL) - Het Groenfonds	Diverse project fundings for area planning, groundwater raising, and biodiversity-friendly management

Interreg



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