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RESILIENT ECONOMIES AND COMMUNITIES
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Guidelines for marketing of small quantities of potato seed material for local and heritage varieties

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Reshaping strategies for improving the availability of small quantities of potato seed material.

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Executive summary

This document provides guidelines for marketing small quantities of potato seed material for local and heritage varieties, focusing on Latvia, Estonia, and Finland. It presents strategies to improve the availability, accessibility, and demand for high-quality, locally bred seed potatoes among small-scale growers, including hobbyists, urban gardeners, and self-sufficient resilient households and communities.

KEY FINDINGS AND CHALLENGES

DECLINING USE OF LOCAL VARIETIES

Traditional potato varieties are being replaced by foreign alternatives, despite their better adaptability to local conditions and cultural significance.

LIMITED AWARENESS ON ACCESSIBILITY

Many growers are unfamiliar with where to purchase quality seed potatoes of local varieties.

Certified seed potatoes are not widely used, as many growers replant tubers from previous harvests or rely on informal sources.

Packaging sizes are often unsuitable for hobby growers, leading to inefficient purchasing options.

CONSUMER PREFERENCES AND MOTIVATIONS

Taste is the most important factor in choosing a potato variety, followed by yield, storability, and disease resistance.

Growers value locally bred varieties for their suitability to regional conditions, but access remains a challenge.

There is a strong preference for smaller, flexible package sizes (5–10 kg) rather than large commercial-scale packages.

PROPOSED MARKETING STRATEGIES

IMPROVED PROMOTION AND BRANDING

Stronger marketing of local varieties through digital campaigns, retail promotions, and consumer education.

Use of EU geographical indication schemes (e.g., PDO or PGI) to increase recognition.

ENHANCING DISTRIBUTION AND ACCESSIBILITY

Expanding sales channels, including online shops, garden stores, and direct-from-grower purchases.

Offering diverse packaging sizes suited to small-scale growers.

STRENGTHENING CONSUMER AWARENESS

Clear labeling with variety characteristics, disease resistance, and best culinary uses.

Educational initiatives on the benefits of certified seed potatoes for yield, quality, and disease prevention.

NEXT STEPS

TO SUCCESSFULLY increase demand and availability, collaboration is needed between breeders, policymakers, seed producers, and marketing stakeholders. This will ensure local potato varieties remain a viable option for small-scale growers, supporting regional food security and agricultural heritage.

Description

These guidelines aim to improve the availability of high-quality (healthy) seed potatoes of local varieties for small growers, including hobbyists, allotments, backyard, urban, and school gardeners.

Seed producers of local (i.e. Latvian, Estonian, Finnish) and heritage (named "conservation" when registered) varieties will gain insights into demand from growers and tailor their seed production and marketing strategies accordingly.

The initiative intends to increase the demand and supply of quality seed potatoes for small-scale growers, contributing to the project's outcomes.

The need for quality seed potato for small growers has increased, because organizations representing them have learned the importance of using healthy seed potatoes and the role of local varieties in creating short supply chains for self-sufficiency.

Introduction

The promotion and availability of local potato varieties are essential for strengthening regional food security, preserving biodiversity, and supporting small-scale growers. In Latvia, Estonia, and Finland, traditional potato varieties have long been part of the agricultural heritage, but their market presence has declined due to the rise of imported alternatives.
This document presents a comprehensive marketing and distribution strategy to raise awareness, improve access, and encourage the use of certified seed potatoes bred locally. Consumer surveys in all three countries reveal key challenges: limited recognition of local varieties, difficulties accessing certified seed, and widespread use of uncertified planting material.
To address these challenges, the strategy proposes a targeted approach that combines branding, consumer education, improved distribution channels, and pricing incentives. Clear labeling, digital marketing, and in-store promotions will help increase visibility and distinguish local varieties from imports, emphasizing their adaptability to regional growing conditions and their role in food security.
The document is structured around survey findings, which inform strategic recommendations. It outlines promotional initiatives aimed at building consumer trust and demand, followed by a distribution plan to enhance availability for small growers. Tailored pricing models and support services are included to facilitate the use of certified seed.
By implementing these actions, the availability and market presence of local varieties can be significantly improved. Success will depend on coordinated efforts among breeders, retailers, growers, and policymakers, ensuring that local varieties continue to thrive in both traditional and modern farming systems.

LOCAL VARIETIES - WORKING DEFINITION to distinguish them from other, non-local varieties in the context of these guidelines and the broader MainPotRe project

A local potato variety is bred in a specific country or region, developed to meet local agricultural conditions, consumer preferences, and traditional farming practices. These varieties are not intended for large-scale global commercialization but instead support regional seed markets, small to medium-scale growers, and conservation efforts.

Local potato varieties can be classified into two categories:

1. ***LOCAL COMMERCIAL POTATO VARIETIES***

Developed by small-scale or national breeding programs, protected under Plant Variety Protection, and actively produced as certified seed potatoes

2. ***LOCAL HERITAGE AND CONSERVATION POTATO VARIETIES*** –

These include:

- ***Registered conservation varieties*** *– Heritage varieties, historically bred varieties, or older commercial varieties officially registered under conservation variety regulations, allowing for limited seed production and certification to ensure continued availability for growers.*
- *Heritage varieties – Older landraces or historically bred varieties that are maintained in private collections or gene banks. While they hold significant cultural and genetic value, they cannot be multiplied and sold as certified seed.*

1. Preserving Heritage and Sustainability

Overview

Importance of Local Varieties: Local varieties, both from breeding programs and conservation efforts, hold significant importance for a country due to their versatile contributions to agriculture, culture, sustainability and food security.

Local potato varieties are uniquely adapted to the specific environmental, climatic, and soil conditions of their region. These varieties evolve in response to local conditions, making them more adaptable to future environmental changes compared to imported commercial varieties, and they often thrive under low-input farming systems, requiring less water, fewer chemicals, and less intensive management. This reduces the environmental footprint of potato growing and promotes sustainable practices that protect ecosystems[1].

Local potato varieties play a crucial role in ensuring **seed sovereignty**, which is the ability of countries, farmers and communities to control their own seed systems. In times of economic hardship, trade restrictions, or supply chain disruptions, access to local seed potatoes ensures uninterrupted food supply.

The growing of local potato varieties also supports regional breeding efforts and seed systems, enabling growers to access affordable, high-quality seed potatoes.

The cultivation of local varieties supports **regional food traditions** and recipes, keeping cultural heritage alive. These varieties often offer unique flavors and nutritional profiles, contributing to more **diverse and healthy diets** for small grower households[1,2]. They may have strong local markets due to their distinct characteristics, e.g. suitability for preparing regionally specific dishes, such an example is 'Lemi särä', an ancient dish from South Karelia of Finland, consisting of meat, potatoes and vegetables, and slowly-cooked in a trough in oven, promotion the recognition of places ('Lemin punanen' = The Lemi red) and strengthening the sense of belonging to communities. In Latvia - variety 'Agrie Dzeltenie' (Early yellow in Eng.) is most often known under the name 'Priekuļi Agrie' or 'Priekuļi Dzeltenie'. In Estonia the variety 'Jõgeva kollane' (kollane - yellow in Eng.) after more than 80 years is still the best known Estonian variety and binds the town Jõgeva with breeding for most Estonians.

Support for Food Security

Small-scale growing of potato decentralizes food production, spreading it across numerous growers and reducing reliance on industrial farms and centralized supply chains. This diversification creates a robust safety net for communities, ensuring access to nutritious food especially during economic, geopolitical, or pandemic-related crises. By producing food locally, growers mitigate dependence on fluctuating market prices and external supplies, enhancing community resilience. While all potatoes contribute to food security, **diverse local varieties have a specific role to ensure genetic diversity and adaptability to local environmental (biotic and abiotic) conditions and for special needs and lifestyle.**

Local potato varieties play a crucial role in conserving biodiversity, which is essential for food security. This genetic diversity acts as a buffer against crop failures caused by pests, diseases, or climate change while serving as a resource for future breeding programs aimed at addressing emerging agricultural challenges[2].

Seed potatoes from local varieties form the foundation of resilient food systems. Supporting and protecting these seeds strengthens food sovereignty, reduces reliance on imports, and ensures a consistent supply of high-quality planting material, even amid global supply chain disruptions. By prioritizing local varieties, countries can build sustainable food systems that are both adaptive and deeply rooted in their agricultural heritage.

[1] https://doi.org/10.3390/su10082834
[2] https://doi.org/10.1038/s41598-024-61428-1

Collaboration between small growers, local institutions, and researchers is essential for strengthening the preservation and promotion of local varieties. This partnership facilitates the exchange of knowledge, resources, and techniques, ensuring the continued cultivation and adaptation of these varieties. Local institutions and researchers play a critical role in supporting growers through training, providing healthy seed material, and breeding efforts, while growers provide valuable insights from their hands-on experience.

Gardeners and small growers growing local varieties often engage in seed-saving practices and knowledge-sharing within their communities, fostering self-sufficiency and collective responsibility.

Latvia

In Latvia, particularly in Vidzeme, there are long-standing (as much as one can say about potatoes in Europe) and strong traditions of potato growing, research, and the development of new varieties.

The widespread cultivation and use of potatoes in Latvia began in the mid-18th century, in Vidzeme, when various promotion measures were undertaken to encourage their cultivation as a way to reduce hunger during years of poor grain harvests. However, potatoes truly began to be growing in Latvia only in the late 18th and early 19th centuries, when the best growers in Vidzeme started receiving awards. As early as the early 19th century, various potato varieties were introduced into the region. In 1839, Priekuļi became the site of comparison of 119 potato varieties, with the results published in an official report for first time in Latvia's history.

Since then the area dedicated to potato cultivation increased significantly, with the most popular varieties originating from the United States and Western Europe being grown—some of which are still maintained today as "traditional" varieties or landraces under local names. Breeding of potato varieties in Latvia began in 1913, led by private breeder Pēteris Knape. Potato breeding on a scientific basis started in 1931 at the Priekuļi Breeding and Experimentation Station. Alongside this, there were some private breeding initiatives in Latvia (Alberts Saulīte), and variety development was occasionally undertaken at other breeding stations (Carnikava, Stende). In total, more than 60 potato varieties have been developed in Latvia, 47 of which were bred at Priekuļi, where breeding work continues to this day. Read more about development of potato varieties in Latvia[3].

Globally, potato cultivation areas are increasing; however, in Europe, there is a slight decline (Faostat). In Latvia, the reduction in potato cultivation areas has been dramatic in recent years. According to data from the Central Statistical Bureau[4], in 2023, the area was only 14 000 hectares in comparison to more than 50 000 ha in early 2000s.

Nearly half (6 000 hectares) out of the current 14 000 ha are in plots of 1 hectare or less, leading to the assumption that potatoes grown in these areas are intended for self consumption.

Statistical data reflect economically active farms, but information on how many potatoes are grown in home gardens and other forms of gardening is not available.

Data on the specific potato varieties grown by hobby gardeners is not collected. This information is also incomplete for commercial fields, as current legislation does not require farmers to declare the varieties they grow. An approximate overview of the potato varieties available in the Latvian market can be obtained from data on seed potato farms compiled by the State Plant Protection Service (VAAD)[5]. However, in the context of our strategy, these statistics can only be used to understand the position of local commercial varieties among those propagated in Latvia. This data does not reflect the actual distribution of varieties, especially in small gardens, where certified seed material is rarely used.

In Latvia, seed potatoes are produced for a remarkably large number of varieties. The range of varieties available as seed material varies from year to year. The most consistent supply over the years has been

[3] https://doi.org/10.2478/prolas-2013-0052

[4] National Statistical System of Latvia. https://data.stat.gov.lv/pxweb/lv/OSP_PUB/START__NOZ__LA__LAG/LAG020

[5] Data catalogue. https://data.gov.lv/dati/lv/organization/vaad

for varieties developed in Latvia. The Institute of Agricultural resources and economics (AREI), as the breeder of local contemporary varieties, is also the only seed producer in Latvia that conducts the full seed production cycle, starting from pre-basic tissue culture. Representatives of foreign companies primarily import elite seeds (and less frequently, super-elite seeds) and multiply them to grades A or B of certified seed categories (EU seed potato grades)[6].

According to VAAD data, in 2023, seed material for 70 varieties was produced in Latvia, covering a total area of 435 hectares. Of these, 12 were varieties developed in Latvia, with seed material grown on 19 hectares, accounting for 4.4% of the total seed potato area. The market share of seed production areas for Latvian-developed varieties has almost halved compared to 2016, when it stood at 8.6%. In 2008, when 11% of the potato seed production area was planted with Latvian-developed varieties, only seven local varieties were grown. Of these, seed production is still ongoing for five varieties. For two varieties that were already registered in 2008, seed production began later, while five varieties are the result of recent breeding efforts. Such heavy reliance on imported seed potatoes makes the country more vulnerable and diminishes our seed sovereignty.

The aforementioned shows that varieties developed in Latvia in recent years have been rapidly losing market share. This trend is partly due to a growing focus on processing varieties in the industry, whereas potato breeding in Latvia has traditionally prioritized ware potatoes. However, this focus on ware potatoes is also a strength, as they align with the needs of our primary target groups —small-scale growers and hobby gardeners, who remain a vital part of the market.

Two other significant reasons are 1) **Ineffective promotion** – as a result, fewer people in Latvia are aware that seed material for local varieties is still available 2) **Inflexible sales system** – packaging sizes for seed material are often too large for some customers, sales are concentrated in a single location (the seed storage facility for potatoes), and are limited to regular working hours. Additionally, there is a lack of attractive informational materials about the available varieties.

Despite these challenges, some varieties enjoy strong recognition (though information on seed material availability is still lacking). For instance, ‘Agrie Dzeltenie’ is often considered the "ideal Latvian potato" due to its organoleptic properties—yellow-fleshed and highly mealy. Furthermore, the variety's name is commonly paired with “Priekuļi” by the public (e.g., ‘Priekuļu Dzeltenie’, ‘Priekuļu Agrie’, ‘Priekuļu Agrie Dzeltenie’, etc.). This recognition, tied to the geographical name and the variety’s exceptional and unique taste qualities, provides potential for applying for the European Union's Geographical Indications and Quality Schemes under the Protected Designation of Origin (PDO) or Protected Geographical Indication (PGI).

No conservation (heritage) varieties have been registered in Latvia so far. However, during the development of the strategy, information obtained from target groups—through direct communication (including mentions of varieties, samples submitted for maintenance, and comments on thematic posts in social media)—revealed that some heritage varieties hold significant value as family heirloom varieties. These are cherished for their unique flavor profiles and the sentimental attachment to growing traditions. Several varieties have potential to be registered as conservation varieties soon. This would enable certified seed material to be offered for these varieties.

[6] Republic of Latvia Cabinet Regulation No. 12, 2016. https://likumi.lv/ta/id/279044-kartupelu-seklaudzesanas-un-seklas-kartupelu-tirdzniecibas-noteikumi

Estonia

The history of potato cultivation in Estonia evolved from a rare crop in manor gardens to a staple food and key agricultural product. This chapter explores its introduction, expansion, breeding advancements, and the role of pioneers like Dr. Julius Aamisepp. It also highlights efforts to preserve local varieties amid changing agricultural trends.

Dr. Julius Aamisepp (1883-1950), the founder of Estonian potato breeding, divided Estonian potato cultivation into stages. According to him, potatoes reached Estonia around 1740–1760, and in the 18th century they were only found in manors. Until 1840, potatoes were grown mainly in manor gardens, but to a lesser extent already in farm gardens and even in fields. By the last quarter of the 19th century, it expanded to fields, and in the period 1870–1880 large-scale potato cultivation began, especially in Northern Estonia [7].

Johan Georg Eisen (1717-1779), pastor of Torma, published a manual on drying vegetables and herbs in 1772 to encourage the people to grow crops other than cabbage and turnips and to eat healthily[8]. He described the method of drying potatoes there, but the descriptions of growing potatoes at that time are scarce.

In 1808, the first Estonian-language potato cultivation guide for farmers was published, the purpose of which was to teach the cultivation, preservation and use of a new culture for food. Among other things, the guide emphasized that potato cultivation can bring the same benefits as rye.

Since the second half of the 18th century, potato cultivation was promoted in Russia to alleviate hunger and crop failure. To this end, potato campaigns were organized in the mid-1760s and 1840s. While the governorate governments of Estonia and Livonia were rather inactive in the potato campaign of the 18th century, in the 19th century, interest on the ground arose and the necessity of potato cultivation began to be clarified. Mainly state estates had to allocate land for the cultivation of potatoes. When potatoes began to gain popularity in manors and suburban gardens, more explanatory work had to be done to the peasantry. An important issue became the supply of seed potatoes to the farmers.

The cultivation of potatoes was promoted by bonuses and in 1841, a competition was announced for exemplary potato growers. Increasing attention was paid to the processing of potatoes and the preparation of starch. After the end of the state campaign, the Estonian governorate continued with its reward system.

By the mid-1840s, potatoes were already a fairly well-known food product among the Estonian peasantry, and it became a staple food product in the second half of the century. It spread particularly widely in Northern Estonia, driven by the expansion of the spirit industry, as well as market opportunities for exporting potatoes to St. Petersburg, Finland and Sweden[9]. Potato cultivation progressed the most around Tallinn, Rakvere and Tartu, as potato growing in the vicinity of major cities provided a significant income. In the 1880s, more than 10% of the cultivated land was under potatoes in Estonia[10].

By the end of the 19th century, potato cultivation spread all over Estonia. It was seen as both a valuable food product and a valuable animal feed, as well as raw materials for the spirit industry. The yield and variety- specific characteristics began to receive more attention. By the mid-1880s the cultivation of different varieties led to the need to compare their specific characteristics and conduct varietal comparison experiments. It became more important at the beginning of the 20th century, when spirit prices fell and growers wanted to maintain profitability. The popularity of culture and the need to expand its culinary use is also told by the recipe book of 125 potato dishes, published in Rakvere in 1893.

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[7] Aamisepp, J. 1939. Mõnda meie kartulikasvatuse ajaloost. Kartulikasvatus I. Toim. V. Roots, O. Vabamets. Tallinn, 7–11.

[8] Eisen, J.G. 1772. Die Kunst, alle Küchenkräuter und Wurzeln zu trocknen und in Kartuse zu verpacken; um dadurch ein neues Nahrungsmittel anzuzeigen mitgetheilet, von Johann Georg Eisen, Pastor zu Torma, Liefland. Oberpahlen.

[9] Viileberg, K. 1966. Kartulikasvatus. Tallinn, 208.

[10] Seppel, M. 2014. Vene keskvalitsuse kartulikampaania Eesti- ja Liivimaal 1840. aastatel. - Õpetatud Eesti Seltsi aastaraamat, Volume 2013, Tartu, 121-166.

Data on the varieties bred in the 19th century are scarce, the names rather expressed the characteristics and field of use of tubers. According to the earliest reports, in the 1850s, pale red Bentenhof potatoes (’Bentenhofse) were grown for distilleries and one small white (’Kleine Weisse Speisekartoffel’) for food [11]. In 1883, the Livonian General Utility and Economic Societeet started conducting agricultural surveys. Thus, according to the report, 22 different varieties were bred in 1884, the most common of which was ’Grösse rote Brennkartoffel’, but ‘Weisse Kartoffel’, ‘Blaue Kartoffel’, ‘Champion’ and others were also quite popular. Certainly, the varieties may have been known under several different names[12]. This is also confirmed by people's memories. For example, it has been collected from the former Northern Tartu County that the older potato variety was York potatoes - long, yellow and bitter; pink potatoes for distilleries and pink oak ones, came later, and in the 1870s better varieties began to be brought from the manor[13]. It is recalled that in the 1920s-1930s, large white and large early pinks were known from potato varieties – they must have been of American origin, in the early 1940s came ‘Odenwälder Blaue’, small blue ones were also grown[14]. An important place to learn about new varieties were agricultural exhibitions. At that time, potato varieties were divided into four types in terms of use: food potatoes, potatoes for the spirit industry, potatoes for starch factories and feed potatoes for animals.

Systematic potato cultivation and breeding began at the Jõgeva Plant Breeding Station, founded in 1920 (the predecessor of today's METK). J. Aamisepp had already started testing the varieties earlier, now Dr. A. Eisenschmidt's inheritance, his father's farm and Jõgeva manor collected a total of 11 varieties and started comparative experiments. An integral part of the variety comparison test was also the determination of cooking and taste characteristics, since different varieties are suitable for different dishes. In addition, potatoes with different cooking properties were needed in catering and in the home kitchen. However, the conclusion was obvious: the taste characteristics of any variety depend on the place of growth and the soil, and no variety can be considered ideal. His monograph "Comparative Studies with Potato Varieties in Estonia" was considered one of the strongest scientific studies in this field in the world of his time. In addition, he had one of the largest collections of potatoes in the world, in total about 1500 varieties[15].

The first official variety of Estonia ‘Kalev’ by J. Aamisepp was registered in 1934. His best-known variety is ‘Jõgeva kollane’ (1942), which is loved and cultivated to this day. A total of 47 Estonian varieties have been registered, many of which have been preserved in the collections of the Centre of Estonian Rural Research and Knowledge (METK).

J. Aamisepp hoped in 1939 that by 1943 the vast majority of old foreign varieties would have been replaced by equivalent ones of their own breeds, since varieties bred on each land must suit better with local conditions and economic requirements than foreign ones. At the same time, he conceded that if a foreign variety still gives better results, it should be preferred, since the goal is the maximum yield in terms of both quantity and quality[16].

The main goals of breeding have been disease resistance, better compatibility with local conditions and high yields. However, the specific objectives have changed significantly over the years. In the early days of Estonian potato cultivation, high yields, higher tubers and high starch content, later disease resistance and the shape of tubers were mainly considered desirable. In the modern breeding program, the goal is more early varieties with high disease resistance.

The area under potatoes grew steadily in the 1930s, reaching 74,022 ha in 1936. Recent data show that in 2024, potatoes were grown on 3176 ha in Estonia, which is the lowest area ever. This is a fraction of

[11] von Hunnius, A., A., E., K. 1908. Vortrag über Kartoffelsorten. - Baltische Wochenschrift, No. 23.
[12] Võsaste, E. 1991. Kartulisordid läbi aegade. Tallinn, 190.
[13] Maavere, I. 1948. Etnograafilisi teatmeid Põhja-Tartumaalt Maarja-Magdaleena, Äksi ja Torma kihelkonnast. Eesti Rahva Muuseum, Etnograafiline arhiiv, EA 46.
[14] Jõulu, K. 2010. Räägime kartulist. Eesti Rahva Muuseum, Korrespondentide vastused, KV 1177.
[15] Kiik, H. 1959. Dr. Julius Aamisepa teaduslikust pärandist. Tallinn, 240.
[16] Aamisepp, J. 1939. Võrdlevaid uurimusi kartulisortidega Eestis. - Sordiaretuse- ja katseinstituudi "Jõgeva sordikasvandus" toimetised nr 95. Tartu, 319.

the 72,300 ha in 1980, but even compared to 2014 (6350 ha), it has almost halved[17]. The maximum area for growing potatoes remained in the 1950s, reaching even a little more than 100,000 ha in 1953[18].

Since 2005, the consumed potatoes are divided into food, animal feed and seed potatoes, potatoes are no longer used in factories. Over time, the growing area as well as potato production per capita has decreased, being 62 kg in 2023, but on the contrary, the import and export numbers will increase. In 2023, 21% fewer potatoes remained in Estonia compared to 2013. In 2023, 56 958 tonnes were imported in addition to their own yield, 84 860 tonnes and 12 335 tonnes were exported. At the same time, the consumption of potatoes per capita has remained fairly stable, reaching 85 kg in 2023[19]. Thus, it is obvious that the potatoes grown in Estonia do not cover its own consumption.

History of production of seed potatoes

After World War I, Estonia shifted its focus from ware potato exports to developing a seed potato market. J. Aamisepp and agricultural organizations expanded seed production, made efforts on improving variety selection, and establishing export markets.

After World War I, exports of ware potatoes here decreased, since the main market had been Russia. J. Aamisepp began to look for new opportunities, i.e. the seed potato market. In 1929, Latvia bought the first large quantity of seed potatoes. In the 1930s, the direction was taken to the Mediterranean countries, the situation was also favored by the economic crisis[20].

A wide selection of seeds was offered to home growers by the Estonian Seed Association, which also shared recommendations in its catalogues on the suitability of the varieties in relation to the soil and in which part of Estonia a better harvest could be given.

The rather producer-oriented Estonian Potato Growers' Association was founded in 1929 with the aim of spreading better varieties, developing seed production and looking for export opportunities for seed potatoes produced in Estonia. In 1936, the export of seed potatoes increased significantly. 1513 ha of seed-growing fields were recognized by the association, with 52% of the growers operating in Virumaa (801 ha). Harju and Järva counties followed. Of the recognized varieties, the export variety ‘Majestic’ was the most grown (86%), followed by early yellow, ‘Deodara’, ‘Erdgold’, ’Duke of York’, ‘Bintje’ and others. It was stressed that an important criterion for the export of seed potatoes is the purity of the tubers here from dangerous plant diseases and pests[21].

By 1939, the association had 1431 members, and seed potatoes produced by local farmers were exported in the 1930s to Italy, Portugal, Spain, Palestine, Argentina, Morocco, Chile, Uruguay, Switzerland, France, Egypt, Brazil and Yugoslavia, Latvia, Lithuania, the Netherlands and Finland. On the initiative of the association, professional publications were issued for the cultivation of seed potatoes, as well as the varieties and their use for food[22]. During the Second World War, exports stopped abruptly, and seed potato production suffered from a decline due to a lack of production and control activities.

After the Second World War, when the Estonian SSR was formed, major reorganisations in potato growing were also carried out. In 1945, a decree was issued requiring all farms to switch over to growing potatoes of pure varieties and high quality by 1949 at the latest. In 1945, a seed cultivation scheme was introduced in Estonia, which had already been in use in other republics of the former Soviet Union. Unfortunately, it was not possible to prevent the spread of viral diseases in the seed fields, and in 1958 the Estonian Institute for Scientific Research in Cultivation began to test a new methodology, which allowed many farms to establish small initial seed fields. In these fields, plants were inspected visually and serologically, diseased plants were removed, and isolation from the fields of potatoes for industrial use was required for at least 1 km. With the new methodology, the number of varieties in seed potato production reached

[17] Riigi statistika: Eesti põllumajandus 1921-1922, 1936; Statistikaamet https://andmed.stat.ee/et
[18] Viileberg, K. 1966. Kartulikasvatus. Tallinn, 208.
[19] Statistics Estonia; https://www.stat.ee/en
[20] Kiik, H. 1959. Dr. Julius Aamisepa teaduslikust pärandist. Tallinn, 240.
[21] Riigi statistika: Eesti põllumajandus 1936.
[22] Roots, V. 1939. Ülevaade Eesti Kartulikasvatajate Ühingu senisest tegevusest. - Kartulikasvatus, Tallinn.

26 in the 1950s. A new system, which included a potato remediation laboratory to eliminate viral disease, was established in the beginning of the 1980s and used until 1994.

Modern-day potato production and conservation varieties

At the beginning of the 1990s the growing area for potatoes was still around 40 000 ha, and the majority of seed potatoes were from local varieties. The situation has drastically changed over 30 years and while in 2014 potatoes were still grown on about 6200 ha the current cultivation area is only about 3200 ha and the majority are foreign varieties.

In total, seed potatoes were produced on more than 300 hectares, and only about 6% of it was devoted to local varieties, which indicates low awareness of the value of local varieties. Of the total seed used for sowing, 20.7% was certified seed in 2023[23], which also indicates a clear potential for development.

The Estonian Centre of Rural Research and Knowledge, is currently the only producer of the initial seed material of Estonian varieties, starting from the *in vitro* material which is propagated in the potato genebank. There are currently only 5 Estonian varieties registered for seed production, these are all more recent varieties. However, a system for registering conservation varieties has been established to conserve the old varieties and landraces as they are an important genetic resource and also appreciated by the local communities. These varieties can be registered and seed potato production carried out on simplified terms compared to commercial varieties. The production limits are quite high, meaning the conservation varieties can be produced in relatively large quantities. Currently there are four conservation varieties registered in Estonia. Two are registered landraces 'Väike verev' and 'Endla' and two are former commercial varieties 'Ando' and 'Jõgeva kollane', the latter being one of the most widely used local varieties of all times, in Estonia.

Considering the current state of potato production, which doesn't reach self-sufficiency, it is important to raise awareness about the abundance of local varieties that we still have and consider their better suitability to the local environment compared to foreign varieties. While the conservation varieties system enables the production of better-known old varieties and landraces in larger quantities, the genebank is working towards making a wider range of old varieties available for hobby growers.

Finland

Potato cultivation has its roots in Finland down to the 1720s, when the first attempts of potato tuber growing were made. In the middle of the 19th century, potato cultivation was strongly increased, and it became one of the most important crops to maintain national food security in Finland.

In the 1730s, there were only a few seed potatoes available for needs of manor house kitchen gardening and cooking. In the early years of the 1740s, much of the Swedish Empire (including the area of present Finland) suffered a severe crop failure, and a succession of bad harvests followed. This was the point when potato production began to receive more attention also by the Swedish Government[24]. In February 1747, the Parliamentary Economy and Commerce Committee of Sweden had a report read aloud on the benefits of potatoes, especially in relation to crop failure, and in 1748 the government departments recommended to acquire 100 barrels of foreign seed potatoes. As late as in 1750, there were enough multiplied potatoes to be transported also to the Finnish side of the country. However, it was not until the Finnish soldiers, who were returned from the Pomeranian War in 1763, when finally, the Finnish peasants got interested in cultivating potatoes in the Southern part of the country. The Finnish priests, such as Axel Laurell and Anders (Antti Simonpoika) Lizelius were also making their own enlightenment works by speaking loud in their sermons to promote potato cultivation[25]. In the beginning of the 1770s, Finland was approached by

[23] Statistics Estonia; https://www.stat.ee/en

[24] https://doi.org/10.1080/03468755.2020.1752301

[25] Varis, E. 2001. The potato in Finland from the past to the present. In: Veteläinen, M (Eds.) Pohjolan perunat (Potatis i Norden). Pohjoismaisen geenipankin kuvaus vanhoista perunoista (En beskrivning av gamla potatissorter bevarande hos Nordiska Genbanken). Nordiska Genbanken, Alnarp. 44-45.

severe famines, and as a result, potato cultivation was considered even more valuable for guaranteeing food security, and to prevent malnutrition (protein-energy deficiencies).

By the year 1800, potatoes were cultivated in Sweden in a total area of only 5,000 ha[26]. After the annexation of Finland by the Russian Empire in 1809, potato cultivation was, however, strongly increased during the autonomous time in the Grand Duchy of Finland. In the 1810s, the Finnish Economic Society started to provide seed potatoes freely for peasants, and twenty years later potatoes reached the northern sites of Finland[27,28]. The first epidemic attack of late blight occurred in the 1840s and another attack 20 years later. In the middle of the 19th Century, guiding for potato cultivation in Finland was focused on how to prevent yield losses caused by the late blight disease, and how to store tubers over the winters in cellars. 'The Great Hunger Years' (the Famine of 1866–1868), when the total death toll was even 270,000 inhabitants of the whole population, was the final encouragement for increasing potato growing in Finland. The value of potatoes for national food security was subsequently realized since frosts had occasionally destroyed local grain crop cultivations, but potato fields partly survived.

At the beginning of the 20th Century, potato was cultivated in Finland by a total area of 75,000 ha[28], almost four times more than the present cultivation area of potatoes. During the World War II period, potatoes were grown on an area covering 3.5% of the whole arable land in Finland[29]. Potatoes were not only used for human nutrition and animal feeding but also for medicinal purposes. The preparation of home-made potato starch became a tradition in the depression time (1930s) followed by the Second World War and the 1950s rationing period. In 1960–1970s, Finland experienced an exceptionally rapid structural change from agricultural society, which was accompanied by urbanization, industrialization, and increased education. Currently, only a few percent of the Finnish population are working for agriculture. Urbanization has caused changes in Finnish cuisine traditions, and thereby traditional use of potatoes is slowly decreased. Instead, new recipes and meals and cooking methods, more suitable for modern tastes were designed, and potato processing technology and marketing systems developed. As a result, tuber qualities were highly increased in the end of the 20th Century. Those investments have guaranteed the special place of potatoes in the present Finnish diet.

In Finland, the first attempts to breed new potato varieties were carried out by the Hankkija Plant Breeding Institute in Tammisto village, close to Helsinki in 1920. Six years later, the State Institute for Agricultural Research started its own potato breeding program in Tikkurila village[25], followed by the move of all state's plant breeding activities to Jokioinen, South-western part of the country in 1928. The first Finnish potato cultivar released to the market was 'Upto' (Tammiston Up to Date), which was introduced in 1927 as a selected clone from Estonian potato materials delivered for testing in Finland[29]. This variety was most probably a mutant from a Scottish potato cultivar 'Up to Date', but it produced higher tuber yields than the originally bred variety [29,30]. The first product of the active potato breeding program was cv. Tammiston Aikainen (Up to Date x Prof. Edler) in 1930 by J.O. Sauli, Director of the Hankkija Plant Breeding Institute. 'Tammiston Aikainen' (Tammisto Early) was bred as an early-maturing potato, and it yielded a high number of small tubers with low starch content. This variety still has a special interest for small-scale cultivation among hobby growers around Lohja region, the Southern part of Finland. Among the potatoes bred in Finland during the 1950s-60s, cv. Pito (Golden Wonder x Ella) was the most significant one released in 1964. Pito became a very popular table potato variety, since its tuber flesh texture was mealy with yellow color, and its flavor was well suited to the taste of the Finns. Today, there are seven local varieties bred/with origin from Finland: 'Hankkijan Tanu', 'Hankkijan Timo', 'Jussi', 'Osku', 'Pito', 'Puikula' and 'Tomppa'. This is according to The Finnish Plant Variety Journal, which contains information on Plant Breeders' Rights and variety listing in Finland. The official list of Finnish plant varieties is published

[26] Erjefält, L. 2001. The history of the potato in Sweden. In: Veteläinen M., Bennvid I-B (eds) Karto er i Norden. En beskrivelse af gamle kartoffelsorter i Nordisk Genbank (The Nordic potato book). CALförlaget AB, Halmstad, 65–66.
[27] Potatis i Norden: en beskrivning av gamla potatissorter bevarade hos Nordiska Genbanken, 2001.
[28] Reader, J. 2008. Propitious esculent: The potato in world history. Random House.
[29] Sauli, J.O. 1942. Tärkeimät peltokasvijalosteemme. Pellervaux-seura.
[30] Ulvinen, O. 2005. Peruna 1927–1997. Suomalaisten viljelykasvien kuvauksia 5. Helsinki, 54.

in this Journal with information about Plant Breeder's Right of the variety either in Finland (FI) or at the European Community (CPVO)[31].

Seed production

The Finnish Seed Potato Centre Ltd (SPK) was established in Tyrnävä in 1976 to ensure the production of healthy seed potatoes. The reason for setting up the SPK was the poor quality of potatoes and the rapid spread of potato pests. The areas of Tyrnävä, Liminka and the former Temmes were combined into a protective zone with the objective of ensuring the production of healthy high-quality seed potatoes, to prevent the introduction of pests into the protective zone, and to control any plant pests in the zone and prevent them from spreading. The establishment of the seed potato centre and systematic efforts to produce clean propagating material rapidly produced good results. Following Finland's accession to the EU in 1995, the protective zone was transformed into a High Grade Region, a high-quality seed potato production region. Specific requirements apply to the region with regard to potato marketing and cultivation. The Commission Decision 2004/3/EC authorising, in respect of the marketing of seed potatoes in all or part of the territory of certain Member States, more stringent measures against certain diseases than are provided for in Annexes I and II to Council Directive 2002/56/EC, has been amended by Commission Implementing Decision 2014/105/EU as regards the applicable Union grades. Based on this, Finland issued the act on a high-quality seed potato production region (744/2016) and, based on the Act, the Ministry of Agriculture and Forestry decree on the marketing of seed potatoes and potato production in the high-quality seed potato production region (13/16).

The purpose of the legislation on the High Grade Region is to safeguard the operating conditions of the high-quality seed potato production region and the production of seed potatoes for the needs of the whole country, and to promote potato production. Operators must comply with best practices in potato cultivation, ensuring hygiene in cultivation and production, the cleaning of means of transport, and the safe handling and disposal of potato waste at the production site.

Today, the High Grade Region comprises the municipalities of Tyrnävä and Liminka in Finland. There are also two other seed potato companies than The Finnish Seed Potato Centre (SPK) in Tyrnävä: HZPC Kantaperuna Oy, and Finpom Oy. HZPC Kantaperuna Oy is the Finnish branch of HZPC, which is a global leader in seed potato trading, breeding, and concept development. Finpom Oy was established in 2007, and it is a subsidiary of German Europlant Pflanzenzucht GmbH. It produces seeds from Europlant potato varieties including first open field generations to certified seed including over twenty different potato varieties for different purposes. In addition to Finnish markets and its own production chain, the company produces pre-basic seed classes for multiplication for Europlant Group and certified seed for export.

Annually, potatoes in the High Grade Region are cultivated in an area of approximately 1 200 hectares. Seed potatoes are produced on about 700 hectares and ware potatoes on about 500 hectares. There are 28 seed potato farms and 21 food potato farms in the area. These municipalities account for about 70-75% of Finnish seed potato production. Of the total production of around 17 to 18 million kilograms of seed potatoes, 3 to 4 million kilos are exported each year[32].

Seed potato inspections ensure that seed potatoes on the market meet the requirements set out in legislation, including varietal authenticity and certain plant diseases and defects that reduce the quality of seed potatoes. Crop rotation and the production of other than seed potatoes are also restricted. Inspectors authorised by the Finnish Food Authority carry out a cultivation inspection of each seed potato field and ensure that the quality requirements are met. The laboratory examines soil samples taken by official samplers for potato nematodes. Tuber samples are examined for light and dark ring rot. These dangerous plant pests must not be present at all. In addition, the highest seed classes are tested for viral diseases. When the seed potatoes have met the quality requirements of all the different inspection stages, the Finnish Food Authority officially approves or certifies the seed potatoes. A guarantee certificate indicates that the seed potatoes have been officially approved.

[31] Finnish Plant Variety Journal 2024:1, 27.6.2024

[32] https://www.spk.fi/files/dokumentit/siemenperuna-alan_strategia_2019-2023.pdf

SPK significantly contributes to Finland's food security by ensuring a stable supply of high-quality seed potatoes and preserving essential genetic diversity for future agricultural needs. The Finnish Plant Variety Journal contains information on Plant Breeders' Rights and variety listing in Finland. The official list of Finnish plant varieties is published in this Journal with information about Plant Breeder's Right of the variety either in Finland (FI) or at the European Community (CPVO). (Finnish Plant Variety Journal 2024:1, 27.6.2024).

Availability of genetic resources (heritage potatoes, underutilized potato varieties)

The joint collection of genetic resources (including potato landraces and old varieties) of each Nordic country, including Finland is located in Alnarp, Sweden at the facilities of NordGen (The Nordic Genetic Resources Centre. The task of NordGen Plants is to safeguard and facilitate the sustainable use of plant genetic resources that are important for agriculture in the Nordic countries. NordGen is responsible for the long-term conservation of the Nordic potato collection, which includes 95 different varieties of potatoes including the Faroe Islands. Of those 95 potatoes, 17 genotypes have their origin in Finland[33]. The back-up collection of all Nordic potatoes was relocated into the EU High Grade Region to SPK (The Finnish Seed Potato Centre Ltd) in 2021 [34].

NordGen produces minitubers from their *in vitro* cloned local and heritage potato materials, which are of origin from Nordic countries. Those can be ordered from Sweden by plant breeders, researchers, museums and other professional users once a year through online sale services. A Standard Material Transfer Agreement (SMTA) has to be accepted and confirmed by the requester before materials are delivered from NordGen. However, the public interest in heritage potatoes has recently increased, and therefore all potatoes available through online sale services are purchased within a few days[35].

So far, no conservation varieties of any potatoes with Finnish-origin have been registered, but like in Latvia, certain target groups also in Finland have shown interest in the registration process for certain local heritage potatoes to guarantee the availability of certified seeds from these specific potato clones.

Today Finland's approach to potato food security is based on **quality seed production, climate-resilient varieties, research, and strict pest control**. The **potato remains a key staple** in Finnish food security planning due to its **reliability, high yield, and importance in national cuisine**. Certain local varieties like **Puikula** (a Protected Designation of Origin variety) are also well-suited to Finland's climate. Potatoes are considered by the Finnish Government a **reliable food source in times of crisis** due to their **long storage life and high yields**. Finland has **strict regulations** to prevent the spread of pests and diseases, such as **potato wart and nematodes**, and controlled growing areas (like in Tyrnävä) help maintain high phytosanitary standards for potato cultivation. The Finnish Food Authority (Ruokavirasto) inspects and supervises the quality of seed used in Finland. It also examines their quality through laboratory tests. These activities are performed under the Seed Act and the subsequent Decrees by the Ministry of Agriculture and Forestry.

In 2022, the potato harvest was 562 000 tons in Finland. That is 1.22 percent of the EU's total potato harvest, amounting to 45.8 million tons. Potato cultivation has been concentrated in the western coastal areas of Finland in recent decades. Two-thirds of table potatoes are cultivated in Ostrobothnia (West coast). Of the potatoes used for food processing, 60% are cultivated in Ostrobothnia, just over a fifth in Åland and 11% in Satakunta. In 2022, 46% of the starch potatoes were cultivated in South Ostrobothnia and 39% in Satakunta, where local starch factories are also located. Three-quarters of early potatoes were produced in Southwest Finland. North Ostrobothnia produces even 70% of the certified seed potatoes in Finland[36].

[33] Sipilä, A., Rokka, V. M. 2022. Pohjoismaisen perunakokoelman varmuusvarasto säilytettäväksi Suomeen.

[34] Backup of the Nordic Potato Collection Moves to Finland. 2021. Nordic Genetic Resource Center. https://www.nordgen.org/news/backup-of-the-nordic-potato-collection-moves-to-finland/

[35] Nordic Genetic Resource Center. https://shop.nordgen.org/collections/potatis

[36]https://www.mtk.fi/-/muu-kasvituotanto-1

2. Findings from the User Survey

Overview

The survey aimed to gather insights into potato growing and consumption habits among hobby growers in Latvia, Estonia, and Finland. It focused on several key aspects, including the prevalence of self-grown potatoes, recognition of potato varieties, factors influencing variety selection, sources of seed potatoes, and the awareness on the importance of certified seed. Additionally, the survey explored awareness and interest in locally bred and heritage potato varieties, motivations for choosing them, and the challenges in accessing quality seed material. The findings help assess the current state of potato cultivation among small-scale growers and identify opportunities to promote local varieties and growing practices.

The survey was developed collaboratively by project partners in Latvia, Estonia, and Finland. It included both common questions applicable to all three countries and country-specific questions tailored to national contexts. In Latvia and Finland, the survey was primarily distributed electronically via websites, social media, and during thematic seminars. In Estonia, in addition to the online survey, respondents were also interviewed in person, and their answers were later entered into the electronic system.

The number of respondents in each country was as follows:

- **Latvia**: 314 respondents;
- **Estonia**: 199 respondents;
- **Finland**: 435 respondents.

In Latvia, 99% of the population consumes potatoes regularly, with a significant portion growing their own. Locally bred varieties such as ‘Agrie Dzeltenie’ remain well recognized, but foreign varieties dominate. Many growers rely on tubers from previous harvests or acquaintances, indicating a need for better awareness and accessibility of quality seed potatoes.

In Estonia, respondents demonstrated high awareness of potato varieties, naming an average of six per person, but actual cultivation was limited to fewer varieties, particularly foreign ones like ‘Laura.’ Although many respondents expressed interest in growing local varieties, access remains a challenge. Hobby growers prioritize taste and culinary properties when selecting a variety, and demand exists for different packaging sizes to accommodate diverse growing habits. The results indicate a need for better marketing and availability of local seed potatoes.

In Finland, potato hobbyists also show strong variety awareness, with many familiar with multiple varieties. The Dutch variety ‘Annabelle’ is the most cultivated, reflecting its dominance in commercial production as well. Certified seed potatoes are widely available through garden shops, but variety selection remains limited. Taste and disease resistance are key factors in variety selection, and there is notable interest in heritage and local varieties if they were more accessible. Many growers rely on certified seed, but a significant number still use tubers from previous harvests.

Across all three countries, the surveys reveal a strong preference for locally adapted varieties and an interest in maintaining heritage potatoes. However, accessibility remains a challenge, with a lack of awareness of where to buy quality seed potatoes for local varieties. The findings suggest that improved marketing, increased availability of certified seed potatoes for local varieties, and clearer labeling of potato characteristics could enhance local potato cultivation and strengthen food security.

Latvia

A third of the population in Latvia obtains food from their own or a relative's garden or farm, with the majority (76%) having access to potatoes, according to an AREI study conducted by research centre SKDS[37] in 2023. This means that 23% of the country's total population has access to self-grown potatoes that are available without transaction costs.

Nearly all Latvians (99%) consume potatoes, with 17% eating them daily and more than half consuming them 2-3 times per week. These figures highlight the significance of potatoes as a dietary staple. Increasing the availability and share of locally bred potato varieties is essential for enhancing food security and sustainability in the country.

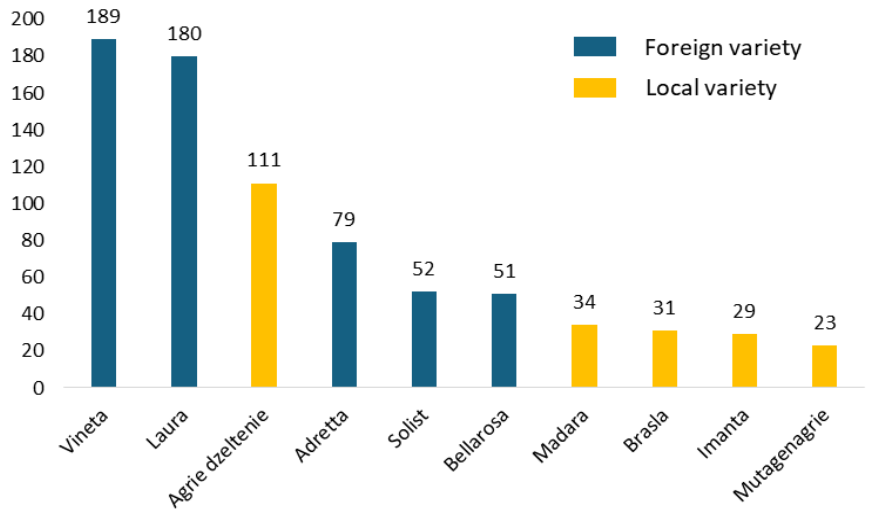
As part of the MainPotRe project, **a survey on growing potatoes for self-consumption was conducted between December 2023 and June 2024.** A total of 314 responses were collected. The survey revealed that 81% of respondents currently grow potatoes for self-consumption. Meanwhile, 11% had grown potatoes in the past but have stopped it, and 8% indicated they do not grow potatoes at all.

Recognition of potato varieties. A notable 64% of respondents know the name of the potato variety they grow. On average, respondents are familiar with the names of four potato varieties. Across the survey, 202 different potato varieties were identified. The most well-known varieties in Latvia are German varieties 'Vineta' and 'Laura' recognized by over half of the respondents. Latvian variety 'Agrie Dzeltenie' ranks as the third most recognized, followed by German variety 'Adretta' (Fig. LV1).

In the survey, the name "Priekuļi" was associated with several potato varieties, including 'Priekuļi agrie', 'Priekuļi dzeltenie', 'Priekuļi agrie dzeltenie' and 'Priekuļi visagrie'. These varieties were mentioned 71 times, accounting for 22% of the respondents. This indicates that there is a common association between potatoes, Priekuli and also a specific potato variety, thus creating the potential for PGI (Protected geographical indication) registration.

Throughout the survey, a question listing the names of 10 potato varieties was included. These included contemporary Latvian varieties (currently having seed production) such as 'Monta', 'Agrie Dzeltenie', 'Rigonda', 'Madara', and 'Lenora'. It also featured heritage varieties (no longer in the plant variety catalog) like 'Agra', 'Laimdota' and 'Priekuļi Visagrie' as well as so called landraces (heirloom, heritage varieties) such as 'Grāpīši' and 'Agrie Rožu'.

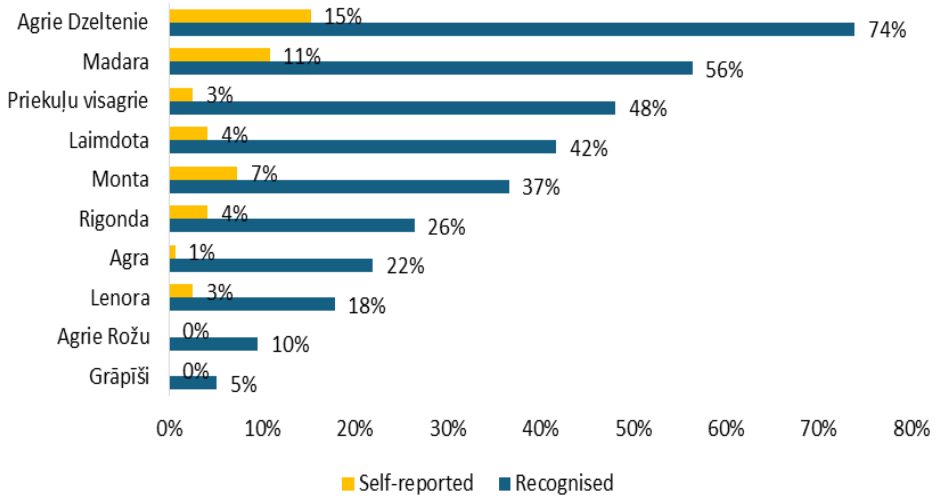
Figure LV1. The most frequently mentioned potato varieties by respondents and number of times mentioned s in the final document will be replaced by higher quality figures



[37] Marketing and Public Opinion Research Centre SKDS, Latvia

Among these, the most recognized variety was ‘Agrie Dzeltenie’ identified by 74% of respondents (Fig. LV2). This was followed by ‘Madara’ recognized by 56% of respondents, and ‘Priekuļu Visagrie’ recognized by 48%. The least recognized varieties were ‘Agrie Rožu’ and ‘Grāpīši’ acknowledged by 10% and 5% of respondents, respectively. Although the survey does not reflect this, communication on social media and personal interactions during and before the project indicate that in Latvia, ‘Agrie Rožu’ and ‘Grāpīši’ are still cultivated in various backyard farms. This suggests that these varieties remain popular and are preserved within certain segments of society. To date, 11 samples of the genotype 'Agrie Rožu,' known under different names, have been collected in Latvia and incorporated into the genetic resources field collection at AREI. Before the project, one sample of 'Grāpīši' had been included in the collection. During the project, an additional sample was received, and further communication was initiated regarding the acquisition of another. The owner of this sample has expressed interest in registering 'Grāpīši' as a conservation variety. Based on the evidence gathered, it can be concluded that ‘Agrie Rožu’ and ‘Grāpīši’ demonstrate strong potential to be registered as conservation varieties.

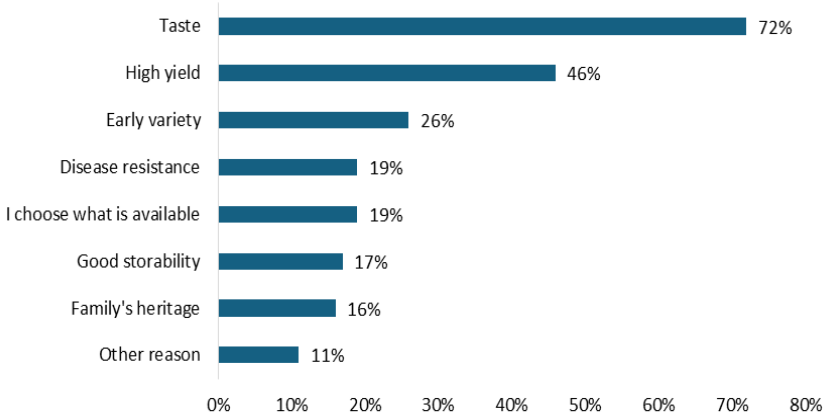
Figure LV2. Recognition of potato varieties and the most frequently mentioned varieties by survey respondents of the various potato varieties



Despite their lower recognition in the survey, their continued cultivation in backyard farms, the collection of multiple samples for the genetic resources field collection, and the expressed interest from growers in registering these varieties highlight their cultural and agricultural significance. This indicates that these varieties are still valued and preserved by certain parts of society, making them viable candidates for conservation variety registration. Compared to the previous question, where respondents named the best-known potato varieties, ‘Agrie Dzeltenie’ and ‘Madara’ remained among the most frequently mentioned. However, while ‘Priekuļi Visagrie’ is highly recognized (48%), it was less frequently mentioned in the free-choice responses (3%). This discrepancy might be attributed to the prominence of the ‘Priekuļi’ brand name, and also one variety’s mention may overshadow others under the same brand. 'Monta' was the 14th most recognizable variety, more mentioned than 'Laimdota', however 'Laimdota' was the more recognizable name. Similarly, ‘Agra’ and ‘Lenora’, where ‘Lenora’ was self-reported more, while ‘Agra’ was more recognised.

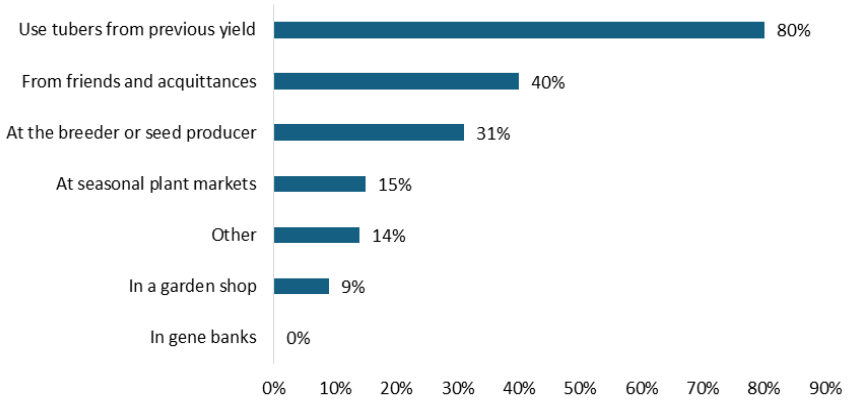
Variety choice. Taste emerged as the most important factor in choosing a potato variety, noted by 72% of respondents (Fig. LV3). Nearly half of the growers (47%) choose their variety for its yield. Other considerations include the earliness (26%), planting material availability (19%), and disease resistance (19%). Additionally, 16-17% of respondents value good storability of the potatoes or mention the significance of the variety as part of their family heritage.

Figure LV3. Responses to "Why do you currently are growing this particular variety?", % of respondents



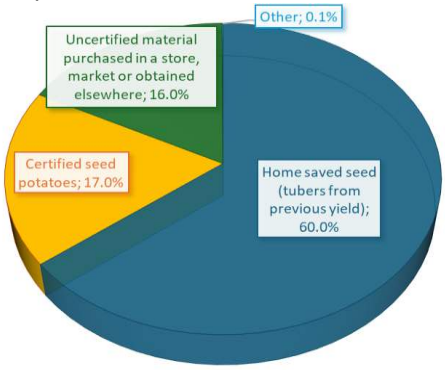
Seed potato sources. Regarding seed potato sourcing, 80% of growers usually plant tubers from the previous year's harvest (Fig. LV4). Forty percent get tubers for planting from friends or acquaintances. Additionally, one-third of respondents source their seed potatoes directly from breeders or representatives of breeding companies (seed producers). Other methods include purchasing from garden markets (seasonal plant fairs) (15%) and garden shops (9%).

Figure LV4. Responses to "Where do you usually get potato planting material?", % of respondents



The planting material for the latest grown potato variety primarily originated from tubers selected from the previous year's harvest, accounting for 60% of the total (Fig. LV5). Certified seed, which is quality-checked and supported by a plant passport, constituted 17%, while 16% of planting material came from other sources without official certification.

Figure LV5. Responses to "What was the origin of the planting material of your last grown variety? Please choose one answer", % of respondents

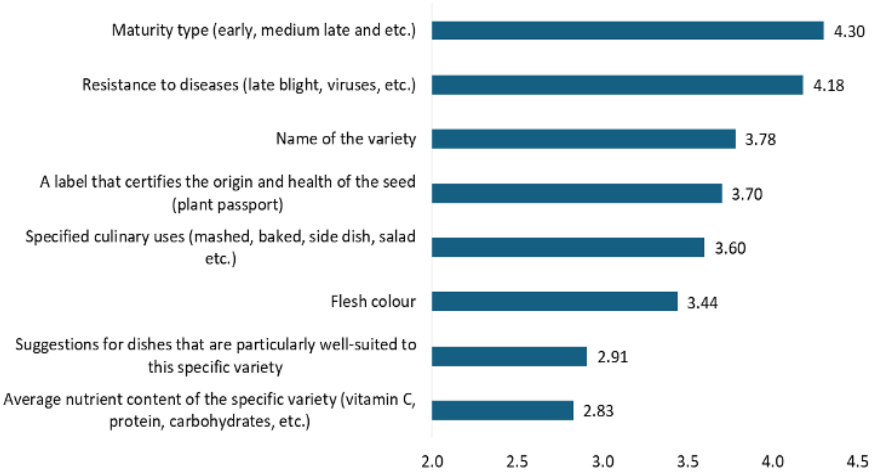


Seed potato info desired. When purchasing potato planting material, respondents prioritize obtaining information about the variety's maturity type (e.g., early, medium-late), which received an average

importance rating of 4.3 out of 5. The second most desired information, with an average rating of 4.2, is resistance to diseases such as leaf blight and viruses. Additionally, respondents expect the planting material to include the variety's name and a label certifying its origin and health status. This raises an interesting point: why would respondents prioritize specific characteristics over the variety name when the name itself acts as a gateway to comprehensive data? Some buyers may not fully realize the importance of the variety name as a key to broader information. Instead, they rely on what is presented at the point of sale, focusing on traits explicitly highlighted. Customers might not fully understand the implications of the certification label (plant passport), such as its role in guaranteeing the planting material's origin, health status, and compliance with legal standards. Some buyers might view certification as more of a formal requirement than a practical aid in decision-making. Their focus may lie in information that directly impacts their growing choices, leaving certification as a secondary consideration. The theoretically correct sequence would be: the plant passport, which includes the variety name (allowing the buyer to find the necessary information). However, as we see in real life, the priorities are different. To make it easier for buyers to make a decision, the packaging with plant passport could also include details about the maturity type and disease resistance etc (Fig. LV6).

It is surprising that, although taste is the main factor in choosing a variety, information about the variety's nutrient content and cooking properties did not receive as much attention.

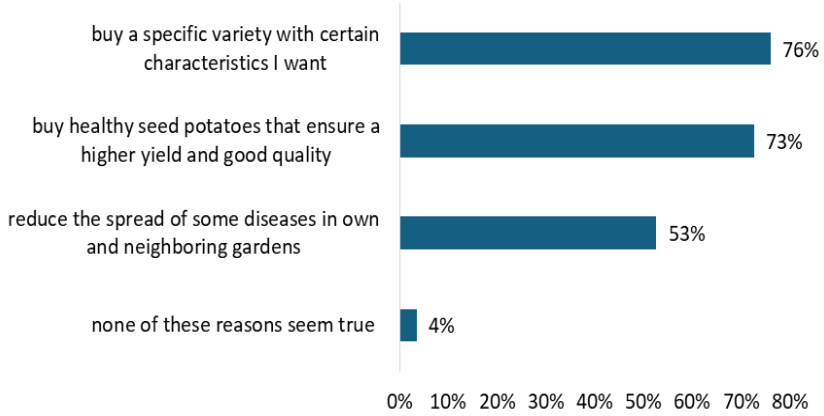
Figure LV6. Average rating of respondents to the question "Please rate how important it is to have the following information with your purchase of potato planting material" from 1 (lowest) to 5 (highest)



Perceived benefits of certified seed potatoes. When survey respondents were presented with specific statements about the benefits of purchasing certified seed potatoes, they generally understood the benefits. The majority (76%) recognize that certified seed guarantees a particular variety with desirable characteristics. Additionally, 73% understand that certified seed ensures healthy seed potatoes with higher yields and better quality. Half of the respondents (53%) acknowledge that using certified seed reduces the spread of certain diseases in their own and neighboring gardens. Only 4% stated that none of the provided reasons aligned with their view of certified seed (Fig. LV7).

The shift in understanding when specific statements about the benefits of certified seed were presented suggests that respondents may not initially associate certified seed with the plant passport on the package with tangible, practical advantages. Many farmers or gardeners might already prioritize traits like yield, quality, and disease resistance but fail to connect these outcomes to certified seed. The initial lack of recognition might reflect limited access to clear, concise information about certified seed. Once the benefits are spelled out, respondents are more likely to acknowledge their importance.

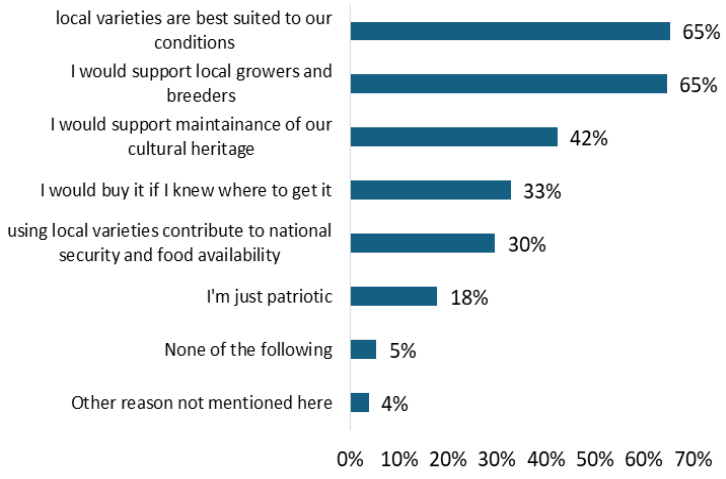
Figure LV7. Responses to the statement “I would buy certified seed because then I…”, selecting all the statements that seem true and relevant, % of respondents



Motivations for choosing locally bred potato varieties. If respondents choose to purchase quality local variety seed potato that has been bred in Latvia or historically inherited, it would primarily be because local varieties are best suited for the country's conditions and that it would help to support local growers and breeders (both 65%). Additionally, 40% of respondents indicated that such a choice helps maintain cultural heritage. However, a third of respondents noted that they do not know where to buy quality seeds of local varieties, and another third would make the purchase to support national security and food availability. Finally, 18% of respondents expressed that their decision to buy local potato varieties stems from patriotism toward Latvia (Fig. LV8).

The primary reasons for choosing locally bred potato varieties are their suitability for local conditions and support for local growers and breeders. Cultural heritage, national security, and patriotism also play significant roles, though a lack of knowledge about where to purchase quality seeds remains a challenge

Figure LV8. Responses to the statement "I would buy quality seed of local varieties (Latvian bred or historically inherited) because...", % of respondents



Preferred packaging size and purchasing channels for certified seed potato. When asked about the most convenient package sizes for certified seed potatoes for small-scale growers, respondents rated five options from 1 (least preferred) to 5 (most preferred). The 10 kg package was the most favored, followed by strong interest in 15 kg and 5 kg packages. The 25 kg size was less preferred, while the least popular was a 6-tuber (approximately 1 kg) package. Additional comments suggested interest in 2–3 kg and 20 kg sizes, highlighting flexibility based on family size and needs. Some respondents noted that manageable weight and the ability to combine multiple packages to suit specific requirements are important.

Regarding purchasing preferences for smaller packages, nearly half (49%) would prefer buying directly from the seed producer to inspect the seed in person. Over a third would consider purchasing from garden shops (42%), seed growers offering delivery (39%), or online shops (36%). A small percentage (5%) mentioned other options, while 4% were uncertain.

Suggestions by respondents. Many respondents provided detailed suggestions on what additional information they would like to receive when purchasing seed potatoes. Key insights include:

Growing tips:

- Basics of potato growing, soil preparation, and crop rotation impacts.
- Suitable varieties for specific regions or soil types.
- Detailed advice on planting, harvesting, and storage practices.
- Yield estimation per area and tips for identifying and addressing growing issues (diseases etc.).

Seed information:

- Certification specifics, including the generation of the seed tubers and their characteristics over multiple generations.
- How many generations can this seed potato can be replanted without losing its quality and essential characteristics

Quality and characteristics:

- Comprehensive details on tuber quality, such as texture, starch content, skin and flesh color, and culinary use.
- Information on disease resistance, most common diseases, and organic growing practices without chemicals.
- Suggestions for cooking, including 1–2 recipes to highlight the variety's cooking properties.

Accessibility:

- Clear information on where to buy seed potatoes at a reasonable price and whether the particular varieties are available also as ware potatoes if self-cultivation is not feasible.
- Emphasis on ensuring access to quality potatoes for all, potentially as part of a national food security program.

Consultation and education:

- Request for contact options for tailored advice (e.g., a hotline).
- More educational resources on social media about the latest trends and techniques in potato growing.

Appreciation and feedback:

- Positive remarks from respondents about the work of AREI, with suggestions to continue providing updated information through various channels.

Summary of Latvian situation

A significant portion (23%) of Latvia's population has access to self-grown potatoes (own or grown by relatives and friends) and 99% consumes potatoes regularly, underscoring their role as a dietary staple.

A survey conducted as part of the MainPotRe project revealed that 81% of respondents grow potatoes for self-consumption, with taste being the primary factor influencing variety choice.

When purchasing potato seed, the primary considerations are its earliness and disease resistance.

However, recognition of variety names varies, with Latvian varieties such as 'Agrie Dzeltenie' and heritage varieties like 'Agrie Rožu' demonstrating cultural and agricultural significance.

Locally bred varieties are favoured for their suitability to Latvia's conditions and the support they offer to local growers and breeders, although a lack of awareness about where to purchase quality seeds remains a challenge.

As a result, interest in purchasing certified potato seed may be limited. Certified seed potatoes are valued for ensuring healthy crops, better yields, and disease control, yet clear communication about their benefits, because most of respondents plant tubers from the previous year or tubers from neighbours and friends, indicating that seed health is still not a major concern.

In terms of packaging, the most preferred size is 10 kg, followed by 15 kg and 5 kg options, highlighting the importance of flexibility. Purchasing preferences show that nearly half prefer direct purchases from growers, with others considering garden shops, delivery services, and online stores. These insights emphasize the need for targeted education and clear labeling to support informed decisions and sustainable potato cultivation in Latvia.

Suggestions for further marketing:

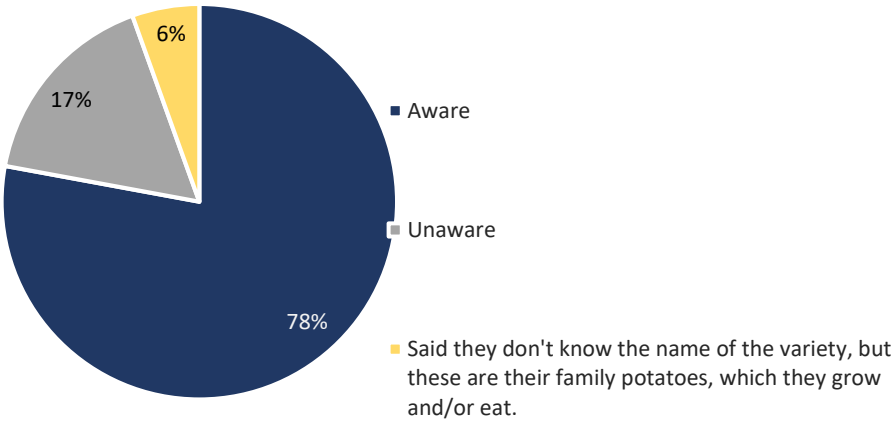
- More information is needed to inform where it is possible to purchase certified, healthy locally bred seed potatoes.
- Greater flexibility in packaging sizes is highly desirable.
- Emphasize taste and cooking characteristics in the information provided about potato varieties, as taste is a key selection criterion.

Estonia

As a part of the MainPotRe project a survey was conducted in Estonia in 2024 (spring-autumn) to learn more about the potato growing habits, heirloom varieties and hobby growers interests. The survey was available as a webform and disseminated at events and social media, but the majority of answers were collected on paper forms that were filled out at various events organised by METK in the framework of the MainPotRe project but also for other events that were dedicated to or related with potato cultivation. In total 199 answers were collected over the period. The form was anonymous so no background information on the respondents was collected.

Awareness. The majority of respondents knew the name of the potato variety that they or their family grow and/or eat and also consider it an important information.

Figure EE1. The awareness about varieties that respondents grow and/or eat.



The awareness of potato varieties was high among the respondents, we collected in total 1327 answers to the question about which varieties people know or have heard about, meaning that the 199 respondents could name more than 6 varieties on average. In total people named 155 unique varieties, the clear synonyms which might differ slightly were counted as one (e.g. 'Väike verev', 'Väike verrev').

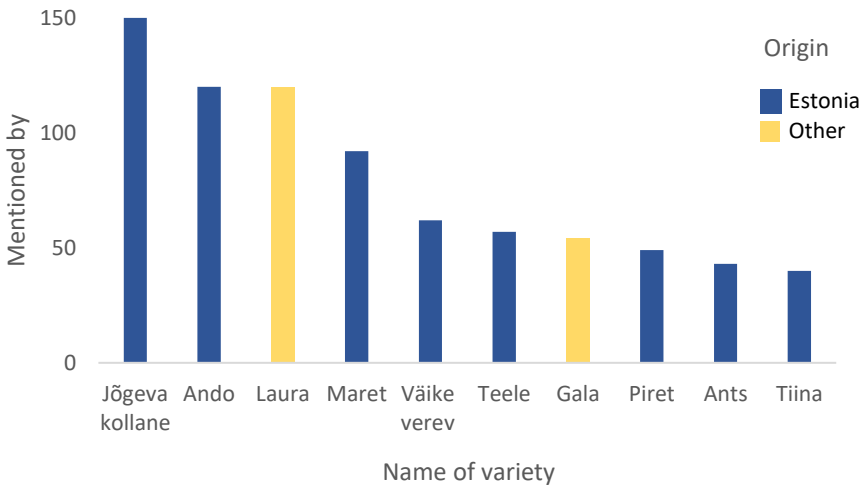
Out of the 155 unique names, 89 occurred only once and 23 variety names were named on 10 or more occasions, making up around 80% of the total 1327.

By far the best known was 'Jõgeval kollane' a much loved local variety, bred by Dr J.Aamisepp and registered in 1942. This variety was mentioned by nearly 75% of the respondents.

The best-known foreign variety was 'Laura', which has been established as one of the favourite varieties for consumers.

It is interesting to note that from the top 10 (Fig. EE2) only two are foreign varieties, so even if the local varieties are not grown as much currently, they are still relatively well-known among the respondents.

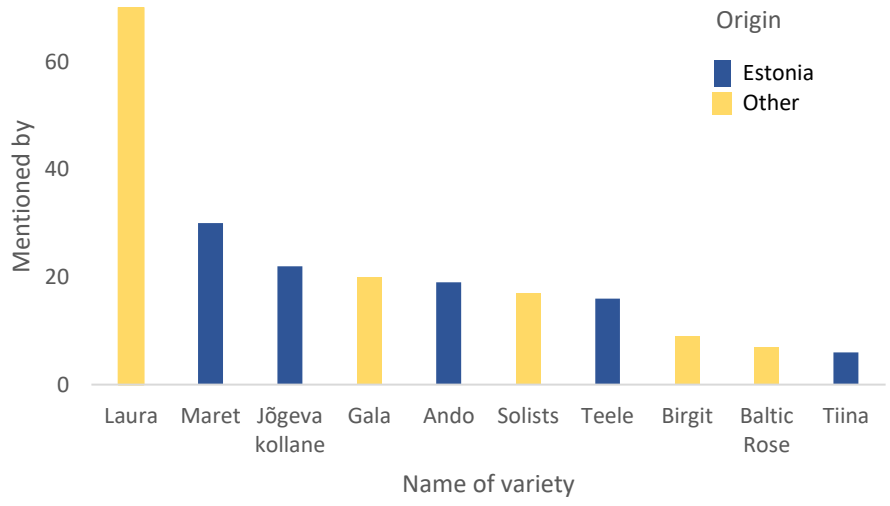
Figure EE2. Top 10 varieties named by respondents.



Growing habits. More than three-quarters of the respondents were active growers (78%). While their awareness of local varieties and willingness to buy local seed potatoes was high, the situation was vastly different when examining the currently grown varieties. There is much less diversity, and the variety 'Laura' exceeds all others by a long margin with 72 mentions. The local variety 'Maret' is second with 30 growers followed by an old favourite among Estonians: 'Jõgeva kollane' with 22 growers.

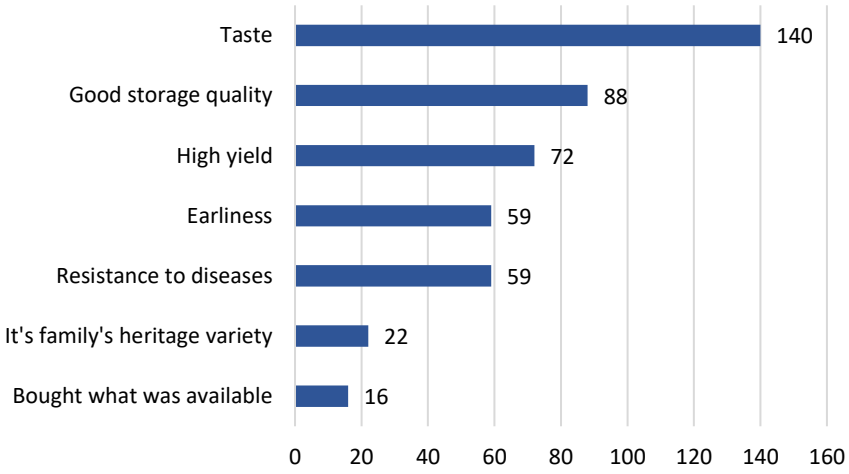
The overall diversity of varieties that people grow is much lower than the varieties they know about, which is well illustrated by the 57 varieties and landraces people grow as opposed to the 155 they know about (Fig. EE3). Among the varieties grown, more than 62% are foreign and the diversity of foreign varieties also exceeds that of local ones. People grow 39 different foreign varieties and only 10 Estonian.

Figure EE3. The top 10 varieties that respondents grow in their gardens. Light blue stands for local varieties and dark blue for foreign varieties.



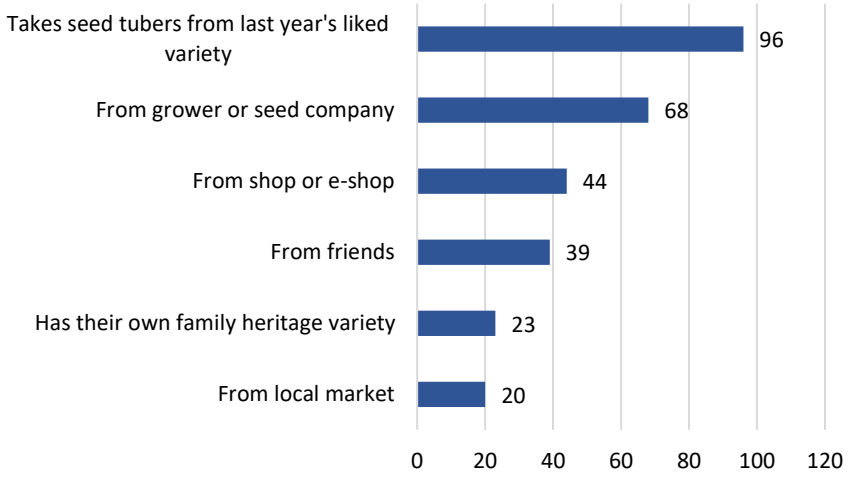
Criteria for choosing a variety to grow. The most important criterion among the survey respondents for choosing a variety to grow was taste (Fig. EE4). Hobby growers in Estonia are also interested in good storage quality and high yield, but these are much less important criteria. It was also interesting to see that 22 respondents are growing an heirloom variety. Earliness and resistance to disease were also mentioned on 59 occasions (out of 173 growers), meaning that they are not regarded as important by hobby growers as they are by producers.

Figure EE4. Main reason for choosing a specific variety (n=173)



Healthy seed potatoes. While all growers considered healthy seed material important, their sources varied (Fig. EE5). Many growers are used to selecting tubers from the previous year's harvest (approx. 55%), while others buy directly from seed growers, or companies or from e-commerce. A considerable number get their seeds from friends or grow a family heirloom potato.

Figure EE5. Sources of seed potatoes (n=173)



Regarding the labelling of seed potatoes, growers considered various types of information to be equally important on average (data not shown). Key information that they'd like to see the labels include:

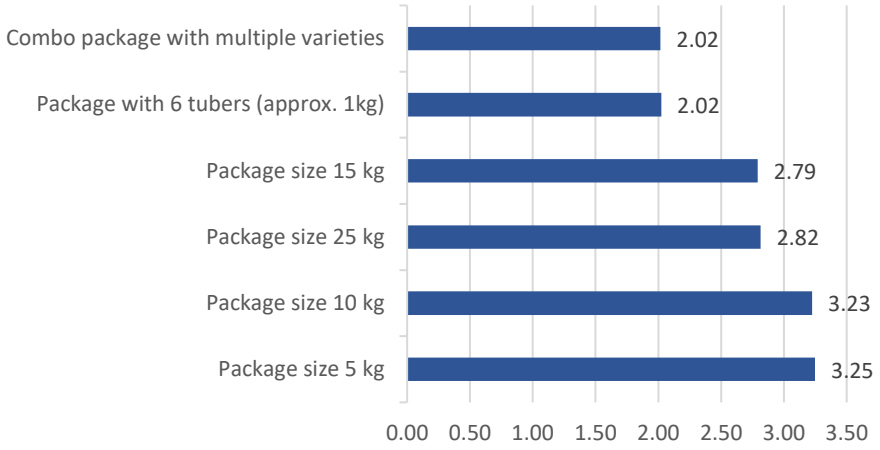
- Information about the variety name;
- Certification;
- Cooking type;
- Resistance to disease;
- Tuber colour.

The maturity type was not one of the main options, however, it was also not mentioned in other important information sections, while yellow tuber flesh was mentioned several times, showing that hobby growers in Estonia are not highly interested in the maturity type per se.

The preferred package sizes among growers were very different. While the 5 kg packages received on average the highest grade (almost 40% of growers marked these as the most suitable packages), 12% of growers were mostly interested in the very small packages (approx. 0.5 kg) and 29% in the larger 25 kg

packages. This most probably refers to the size differences of hobby growers' plots and intentions for growing potatoes. Some grow in larger quantities for family consumption and some others like to experiment with different varieties. It also shows the need for flexibility in the packaging sizes to be able to accommodate for the different needs.

Figure EE6. The average score given to different sizes of seed potato packages. The score from 1-5 with 5 being the most desirable and 1 the least desirable size



In conclusion the survey respondents were well informed about varieties and could name at least 6 varieties. In addition they considered it important to know which variety they eat or grow. Many of them (173 of the 199 respondents) are also active growers, however, the varieties they grow reflect a situation where the seed potatoes of local varieties are not readily available. Many growers have opted for foreign varieties and one variety 'Laura' dominates over all others, even though the vast majority indicate that they would be interested in buying seed potatoes of local varieties. This clearly indicates a need for better availability and marketing of local seed potatoes.

The hobby growers are interested in as much information as possible about the variety they grow, with taste and culinary type being the most important criteria for them. Regarding the package sizes for seed potatoes it is evident that the hobby growers are not a uniform group, while some strongly prefer larger 25 kg packs, there is more than 10% who would like to have smaller seed packages or combo packages. The most desirable package sizes are 5 kg or 10kg packages. So for marketing the main take-away messages would be:

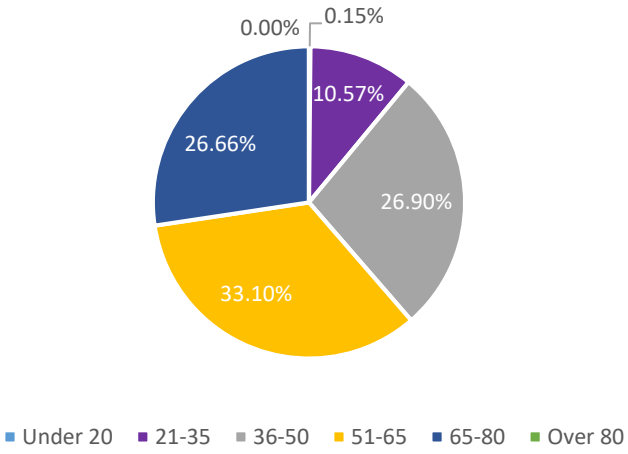
- interest for local varieties among hobby growers is high;
- there is a need for different sizes of seed potato packages;
- hobby growers would like to get a lot of information with the seed material they buy.

Finland

As part of the MainPotRe project, **an online survey on growing potatoes for self-consumption was conducted between May 2024 and September 2024.** It was conducted in Finnish and as an online survey. The link of webform was given out in the Luke website of MainPotRe project, some e-magazines and printed magazines, at several thematic groups (Facebook) and events Luke organized and participated.

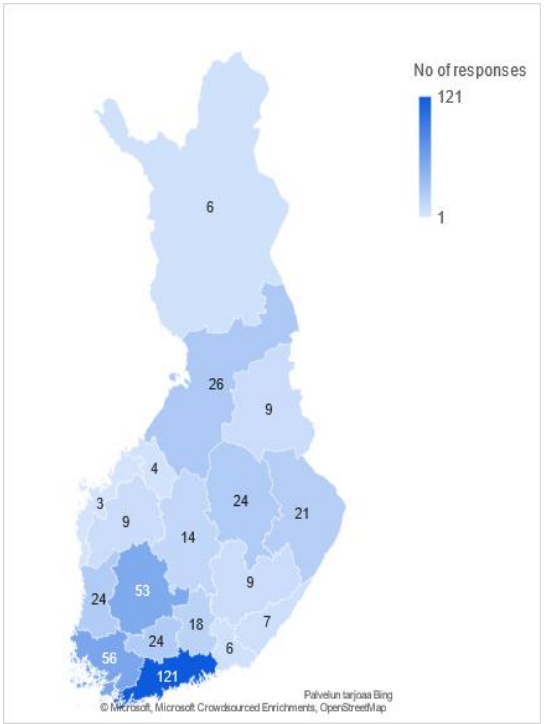
In total of 435 responses were collected. 82% of respondents were females, 14 males and 4% others (did not want to tell, nonbinary). The age groups were well presented among respondents. One third of the respondents belonged to the age group from 51 to 65 years (33%), another third to 36-50 years (27%), and another third to 65-80 years (27%). Almost 11 % belonged to the age group of 21-35 years. Two respondents were 20 years or under, and seven were over 80 years old (Fig. FI1).

Figure FI1. The age groups of respondents, %



We received responses to a survey of all provences from Åland to Lapland. Most responses were received from Southern Finland (Fig. FI2).

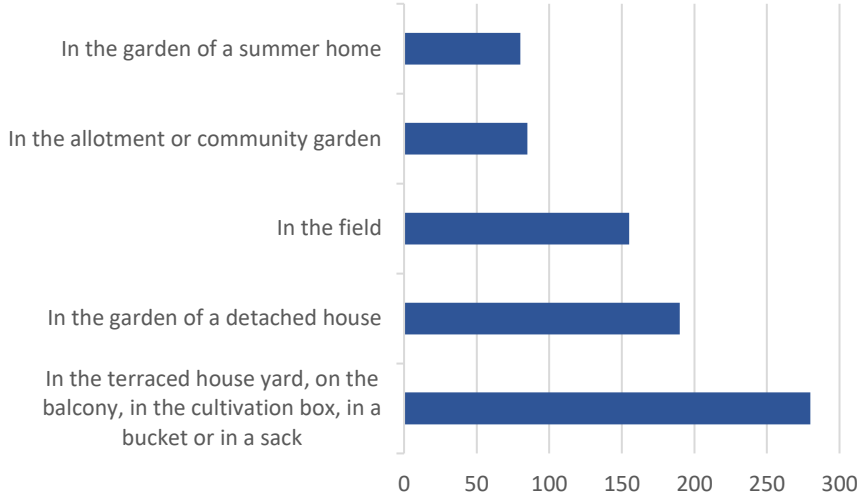
Figure FI2. Number of respondents to the survey by region



Place of growing potatoes. Typically, hobby growers in Finland grow potatoes in small sites. According to the survey 64% grow potatoes in very small quantities in the terraced house yard, on the balcony, in the

cultivation box, or even in a bucket or in a sack. Moreover, 20% grow in the allotment or community garden. 44% of respondents grow in the garden of a detached house or summer home (18%). About one third (35%) grow in the field (Fig. FI3).

Figure FI3. Place of growing potatoes, number of answers

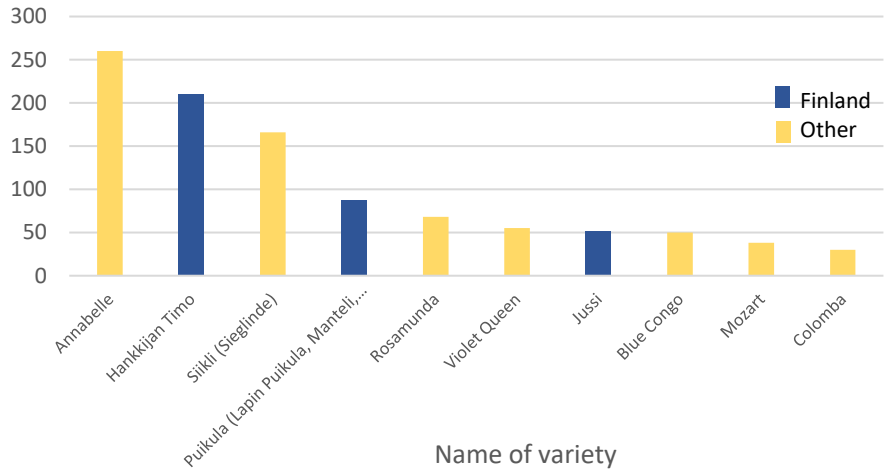


Recognition of potato varieties. Almost all, 96%, respondents know at least one potato variety by name they and their family eat or grow, typically they listed several variety names. On average, respondents are familiar with the names of four potato varieties. Several mentioned that they grow 20, 30 or even 200 or 400 varieties. Those passionate true potato enthusiasts did not understandably list varieties to webform. Across the survey, 189 different potato varieties were identified. Seven out of the top ten grown varieties were foreign origin. The most grown variety in Finland is a Dutch variety 'Annabelle' (cv 2001) mentioned by 60% of the respondents. **In 2023, cv. Annabelle was also commercially the most cultivated ware potato variety in Finland by a total area of 1215 ha**[38]. Finnish variety 'Hankkijan Timo' (cv 1975) ranks as the second most recognized (48%), followed by German variety 'Sieglinde' (cv. 1935, known in Finland as 'Siikli') with a share of 38%. 10% of respondents grow landrace variety 'Puikula' (in Sweden known as 'Mandel') originating in Lapland region. It is also commercially grown in Finland in an approximately 100-hectare area. 'Puikula' grown in the Lapland region of Finland was registered as Lapin Puikula (Lapland's Puikula in English) in the European Union under the terms of Protected Designation of Origin (PDO) in 1997 (European Commission 2019). As the PDO product, its production takes place in the region to which its name refers. The Swedish red skinned 'Rosamunda' (cv 1974) still has popularity among hobby growers, almost 17% of respondents grow it. Among top ten grown varieties is another Finnish variety 'Jussi' (cv. 2014) which is the last variety bred in Finland. 12% of respondents told they grow 'Jussi'. A special blue colored variety 'Blue Congo' (landrace, origin unknown) attracted 11% of respondents. Foreign varieties 'Violet Queen', 'Mozart' and 'Colomba' are modern varieties (Fig. FI4).

In Finland, the certified potato seeds were produced by more than 1,000 ha of land in 2023, and of the ware potato varieties the top ten on certified seed production were cvs. Annabelle (87 ha), Lady Claire (63 ha), Melody (55 ha), Innovator (47 ha), Hankkijan Timo (34 ha), Solist (33 ha), Colomba (32 ha), Jelly (32 ha), Afra (26 ha), and Soraya (25 ha).

[38] https://www.myllymaenperuna.fi/peruna-info/perunantuotanto-lajikkeittain-suomessa/

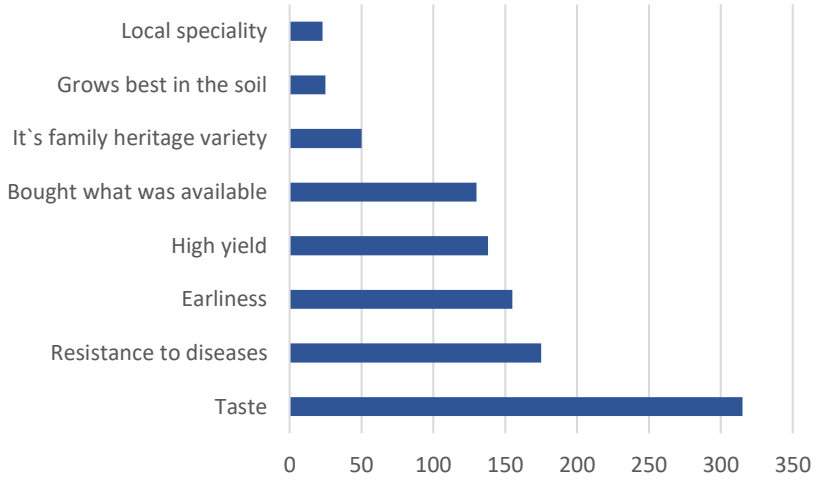
Figure FI4. Top ten grown varieties by hobby growers in Finland, number of answers



In addition to those, certified seeds were produced from starch potato varieties used mainly for industrial needs; Posmo (51 ha), Kuras (28 ha), Eurosera (21 ha), Amado (16 ha) and Kardal (13 ha). From each of the top ten varieties grown by hobby growers (Fig. FI4), there are certified seed potatoes available on the market in package sizes of 1 kg, 2.5 kg, 5 kg and 10 kg in local garden centres, supermarkets and hardware shops.

Variety choice. Taste emerged as the most important factor in choosing a potato variety, noted by 72% of respondents. Nearly half of the growers (40%) choose their variety for its resistance to diseases. Other considerations include the earliness (36%), high yield (32%) and planting material availability (30%), and suitability for the soil (6%). Additionally, 12% of respondents mentioned the significance of the variety as part of their family heritage or local speciality (5%). In addition, some mentioned that they like to experiment with different potato varieties (Fig. FI5.).

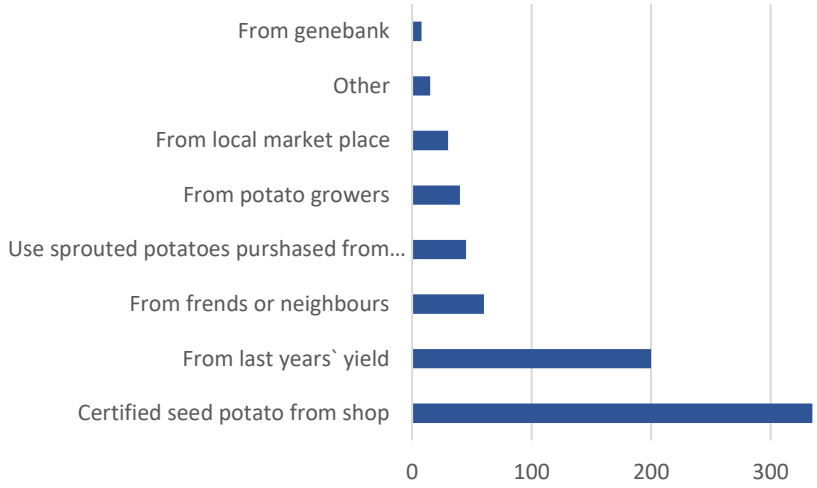
Figure FI5. Main reasons for choosing a specific variety, number of answers



Seed potato sources. Regarding seed potato sourcing, 79% of growers mentioned that they buy certified seed potatoes from garden shops. Certified seed is quality-checked and supported by a plant passport. Compared to Latvia and Lithuania, in Finland it is not possible to buy seed potatoes from breeders. 46% of respondents used their previous year's harvest as seed potatoes. Fourteen percent got tubers for planting from friends or acquaintances. Additionally, some (14%) used sprouted potatoes bought from grocery shops, as well bought from potato growers (9%) and local marketplace (7%). Furthermore, nine

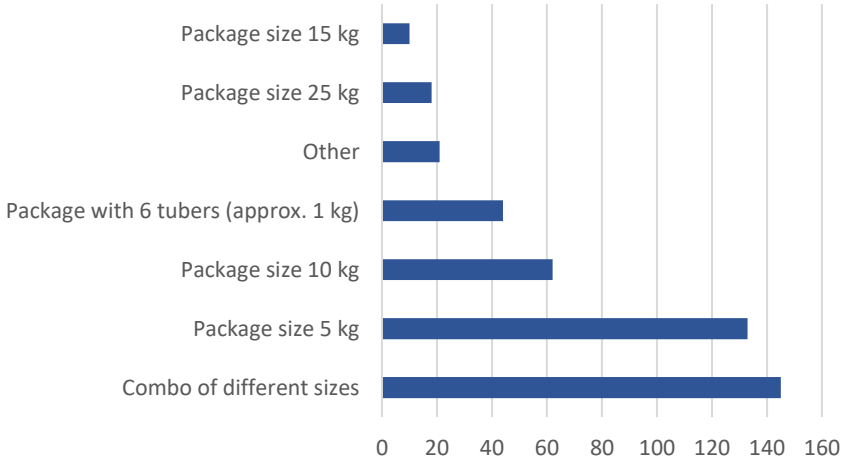
respondents had ordered heritage potatoes from NordGen genebank. Other methods include exchange of tubers between potato enthusiasts (Fig. FI6).

Figure FI6. Seed potato sources, number of answers



Preferred packaging size and purchasing channels for certified seed potato. Most convenient package size for small-scale growers was 5 kilos, as a second 10 kilos. However, one third of respondents (34%) valued several package sizes ranging typically from one kilo up to 10 kilos and in some cases even up to 15 or 25 kilos equally as important depending on the place of growing and potato variety. For experiment or specialty potato variety only, some tubers were needed while for home consumption several kilos were desired. Other needs consist of 2 kilos package size, using only their own seed potato or sprouted potatoes purchased from the grocery store. Some commented on the need for only some tubers for testing use (Fig. FI7).

Figure FI7. Desired package sizes of seed potatoes for hobby growers, number of answers

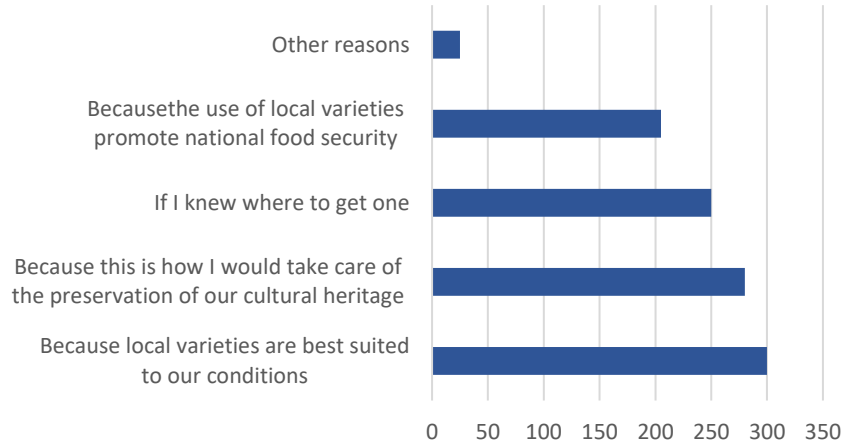


In Finland, certified seed potatoes are widely available in garden stores and in the garden departments of hardware stores. Fundamentally almost all hobby growers know where to buy certified seed potatoes. Yet, the availability of certified seeds is limited due to the narrow number of cultivars, from which tuber seeds are produced by the Finnish seed companies. For hobby growers and home gardeners, NordGen offers a limited selection of potato varieties through their webshop, which is open from March 1st to May 31st each year. This provides an opportunity to cultivate unique and underutilized Nordic potato varieties, contributing to biodiversity and the preservation of the living cultivation history. Potatoes delivered from NordGen are virus-free and produced in accordance with EU health regulations. Before the order can be made, the user needs to sign and submit an agreement (SMTA), how the material may be used. SPK,

however, produces certified seeds also from certain free underutilized varieties, which are also in the NordGen's potato collection. Those are Blue Congo, Puikula, and Rosamunda. Also certified tuber seeds from cv. Pito were in the multiplication process, but not yet for sale in 2023-2024.

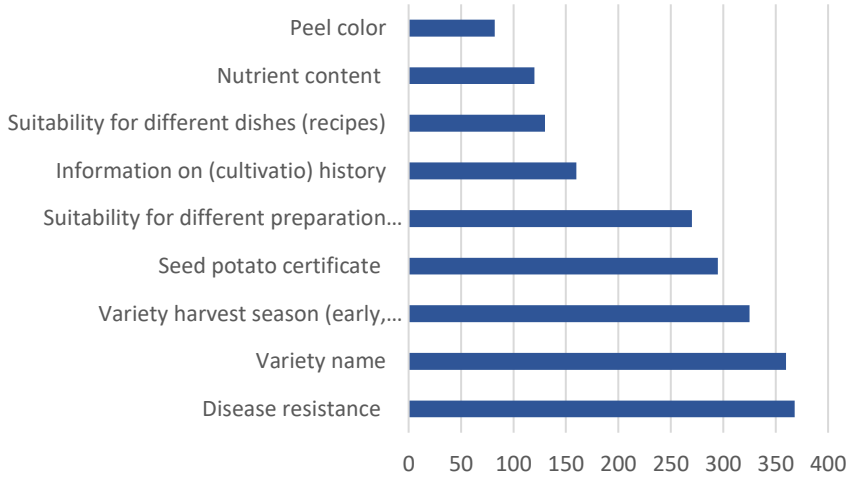
Motivations for choosing local (heritage) potato varieties. If respondents choose to purchase quality local variety seed potatoes, it would primarily be because local varieties are best suited for the country's conditions (69%) and that it would help to maintain cultural heritage (65%). However, a half (57%) of respondents noted that they do not know where to buy quality seeds of local varieties, and almost half (48%) would make the purchase to support national security and food availability. Other reasons consisted of good taste, for experiment and preserving genetic diversity. (Fig. FI8) The option of supporting local growers and breeders was not asked in Finland since the potato breeding programme does not exist anymore.

Figure FI8. Responses to the statement "I would buy quality seed of local varieties because…", number of respondents



Information needed when buying seed potatoes. For hobby growers the most important information needed when buying seed potatoes are its disease resistance (85%), variety name (83%) harvest season (i.e. early, summer, late) (75%). As a fourth very important or important piece of information, respondents to the survey considered the sign of the seed potato certification (68%). The least important information needed were suitability for different dishes (e.g. recipes) (30%), nutrient content (27%) and peel color (20%). Notably, 37% of respondents thought it was very important or important to know about the history of the variety.

Figure FI9. Very important or important information when buying seed potatoes, number of answers



The survey shows interest among hobby growers in buying local varieties and historical varieties if available.

Summary of Finnish situation

When choosing potato variety for hobby growing, the primary considerations were its taste, disease resistance and earliness. Across the survey, 189 different potato varieties were identified. Seven out of the top ten grown varieties were foreign origin.

Regarding seed potato sourcing, 79% of growers mentioned that they buy certified seed potatoes from garden shops. However almost half of growers used their previous year's harvest as seed potatoes. When buying seed potatoes, the most needed information was disease resistance, variety name, harvest season (i.e. early, summer, late). For 68% of respondents the sign of the seed potato certification was very important or important. Since typically hobby growers in Finland grow potatoes in small sites also the most preferred size was 5 kg, followed by 10 kg, however highlighting the importance of flexibility.

The survey shows interest among hobby growers in buying local varieties and historical varieties if available. If respondents choose to purchase quality local variety seed potatoes, it would primarily be because local varieties are best suited for the country's conditions and that it would help to maintain cultural heritage to support national security and food availability. However, a half of respondents noted that they don't know where to buy quality seeds of local varieties.

The Finnish Seed Potato Centre Ltd (SPK) is established to ensure the production of healthy seed potatoes and to improve national food security level. SPK significantly contributes to Finland's food security by ensuring a stable supply of high-quality seed potatoes and preserving essential genetic diversity for future agricultural needs.

According to the online survey made on growing potatoes for self-consumption, the most cultivated variety in Finland was Dutch variety 'Annabelle' (cv 2001) reported by 60% of the respondents. In 2023, cv. Annabelle was also the most commercially cultivated ware potato variety in Finland by a total area of 1,215 ha. There is also the highest volume of certified seed production in cv. Annabelle in Finland, and its healthy seed tubers are sold in small quantity packages for improving the access of small-scale farmers. From each of the top-ten grown varieties grown by the Finnish hobby gardeners, there were locally produced certified seeds on the market. However, the availability of certified seeds is limited due to only a narrow number of cultivars. The underutilized Finnish varieties maintained by NordGen have only a limited access. For hobby growers and home gardeners, NordGen offers a limited selection of potato varieties through their webshop, which is open from March 1st to May 31st each year. In addition, hobby growers and gardeners maintain and share in between tubers materials of unknown origin and with no registered/known name having no access to certified seed production chain. Those were not reported in the survey made for the Finnish growers.

3. E-Marketing Strategies for Small Seed Potato Packages: Global Insights

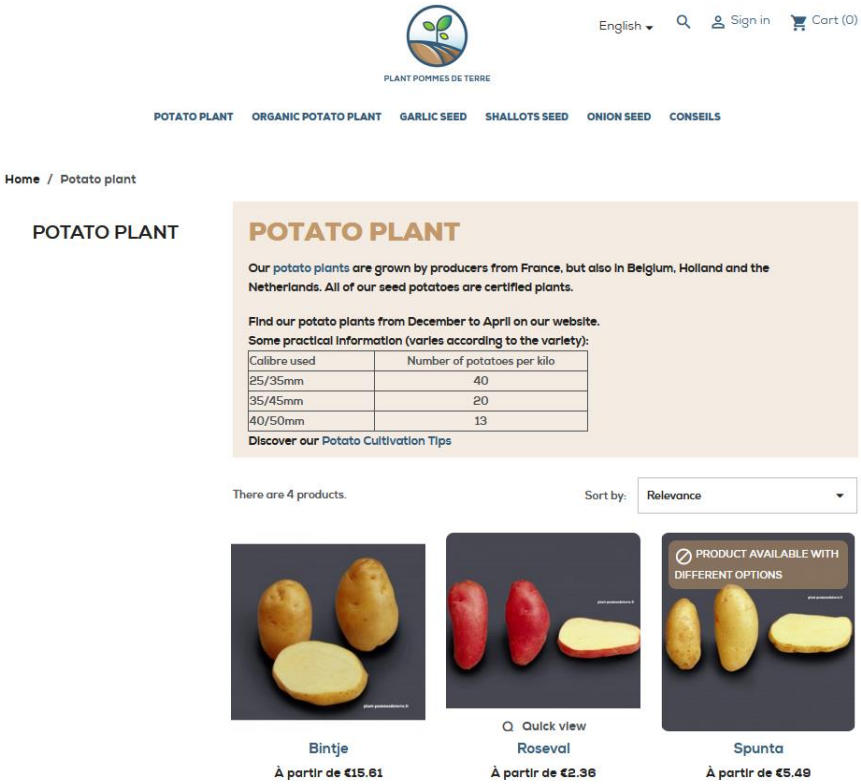
The online trade of seed potatoes in small quantities has seen significant growth, driven by the increasing popularity of home gardening and small-scale farming. E-commerce platforms worldwide now can reach a diverse audience, offering a wide range of seed potato varieties and tailored services. These websites can serve as a source of knowledge about what the small potato grower needs and what appeals to him.

Websites provide access to various seed potato types, from traditional and "traditional" varieties to modern hybrids. They cater to hobbyists, small farmers, and urban gardeners. While some platforms operate internationally, many emphasize locally adapted varieties or landraces, appealing to regional preferences and climatic needs. The shift toward online sales has made seed potatoes more accessible, with platforms offering convenient delivery options, planting guides, and seasonal promotions. In many regions, informal online platforms (e.g., small local marketplaces).

Commonalities across countries

- ***Online platforms.*** Countries commonly utilize online platforms to sell seed potatoes, catering to both small-scale gardeners and hobbyists. Examples:
  - United Kingdom - Suttons[39], SimplySeed[40], and PotatoHouse[41];
  - France - Graines Baumaux[42] and Plant-PommesDeTerre[43];
  - Portugal - Sohorta[44].

Figure EM1. Plant-PommesDeTerre.fr[43]



[39] https://www.suttons.co.uk/potatoes-onions-garlic/potatoes/salad-seed-potatoes/seed-potatoes-charlotte_MH5233
[40] https://www.simplyseed.co.uk/first-early-seed-potatoes/swift-potato-seed.html
[41] https://www.potatohouse.co.uk/
[42] https://www.graines-baumaux.fr/173699-plants-a-chair-ferme
[43] https://www.plant-pommesdeterre.fr/en/17-potato-plant
[44] https://www.sohorta.pt/categoria-produto/agricultura/horta/sementes/batata/

- ***Product variety***. Many websites offer a diverse range of seed potato varieties, from early to late-season maturity types, and even unique options like potatoes with colored flesh. Example, PotatoHouse.co.uk.[41]
- ***Educational resources.*** Several platforms provide planting guides, product descriptions, and detailed information to help customers make informed decisions. For instance, Dobies.co.uk[45] provides plantings timelines and cultivation tips.
- ***Global accessibility***. Some websites, like Territorial Seed (USA)[46] and Livingseeds (South Africa)[47], also offer delivery services tailored to local growing seasons.
- ***Additional products.*** Websites often sell complementary products like grow bags, patio packs, and gardening tools.

Differences across countries

- ***Certification Practices.*** Certification availability varies. For example, websites in the UK, Australia, and France often highlight certification for seed quality, while others do not explicitly state this.
  - Platforms such as Suttons and PotatoHouse (UK)[41] and Organic Heirloom Gardens (USA)[48] emphasize certification as a quality assurance measure.
  - Other platforms, like Sohorta.pt (Portugal)[44] and Viherkauppa.fi (Finland)[49], do not explicitly mention certifications.
- ***Specialized services***. UK platforms offer services like delayed delivery and cold storage. French and Finnish sites emphasize weather updates for agriculture.
- ***Unique offerings***.
  - Delayed delivery options (e.g., SimplySeed[40] and PotatoHouse[41]) allow customers to store seeds until planting season.
  - French platforms, such as Graines-Baumaux[50], provide weather updates alongside seed sales to assist agricultural planning.
  - Park Seed[51] and Botanical Interests[52] offers innovative produce pelleted true (botanical) potato seeds. Numerous benefits of growing the potato from true seeds are indicated, including having a sterile seed that reduces the potential for introducing disease to the garden, as well as easier storage and longer shelf life than seed potato tubers. True seeds are mentioned as suitable for containers. This seed comes as a “pellet”. “Pelleted” seeds are small seeds that have been clay-coated to make them larger and more uniform in size and shape, making them easier to handle when planting.
- ***Focus on local varieties***. Some platforms highlight local or heirloom varieties unique to the region, like New Zealand’s Māori potatoes[53].

Global Trends in Online Trade of Seed Potatoes

- ***Growth in E-Commerce.*** The online sale of seed potatoes is expanding, meeting the demands of urban gardeners and small-scale farmers worldwide. Websites are becoming increasingly user-friendly, offering tailored services like grow kits, patio packs, and guides.
- ***Regional preferences***. While global trade supports diversity, certain regions emphasize varieties suited to their climate and culinary traditions.

[45] https://www.dobies.co.uk/potatoes-garlic-onions/potatoes
[46] https://territorialseed.com/collections/types?q=POTATO
[47] https://livingseeds.co.za/mnandi-seed-potatoes-900gr.html
[48] https://organicheirloomgardens.com/potatoes/
[49]https://www.viherkauppa.fi/tuoteryhma/istuta-ja-kylva/siemenperunat/
[50] https://www.graines-baumaux.fr/173666-plants-dit-de-consommation
[51] https://www.parkseed.com/products/clancy-f1-pelleted-potato-seeds-52853-pk-p1
[52] https://www.botanicalinterests.com/products/clancy-potato-seeds?_pos=1&_psq=Clancy+Potato+Seeds&_ss=e&_v=1.0
[53] https://www.newtonseed.co.nz/collections/seed-potatoes?page=1

- ***Innovative packaging***. Companies offer tailored packaging for urban gardeners, such as potato grow bags[54] and starter kits[55].
- ***Market specialization.*** Platforms focus on niche markets, offering certified, organic, and unique seed varieties, such as fingerlings or colored potatoes (e.g., Plant-PommesDeTerre)[43].

Importance of Certified Seed Potatoes

- ***Disease control.*** Certification ensures seed potatoes are free from viruses and pests, vital for sustainable agriculture and minimizing crop loss.
- ***Yield optimization.*** Certified seeds tend to produce higher and more reliable yields, making them attractive to both commercial growers and home gardeners.
- ***Consumer confidence.*** Certification fosters trust, particularly for new gardeners and small-scale producers. Highlighting certification builds consumer trust and distinguishes platforms in competitive markets.

Potato seed prices in small quantities

When evaluating the range of e-commerce offerings for small seed potato packages, the price spectrum is quite broad, ranging from a few euros for a handful of tubers to over 30 euros. The price is determined by factors such as whether the seed potato is organically grown, whether certification is available, the variety, packaging, and, of course, delivery costs. For example:

- 'Colleen', organic, 1 kg tubers, 12.05 euro, Suttons (UK) [56];
- 'Eersteling', 500 g in paper bag, 7.99 euro, (NL)[57];
- 'Siikli' is one of the best-known varieties in Finland, 1 kg, 5.50 Euro, Viherlandia (FI) [58];
- 'Clancy F1', pelleted Potato Seeds, 25 seeds per pack 7.62 Euro, Park Seed (USA)[51];
- 'Blackberry', purple color, 10 mini tubers, 23.93 Euro, Territorial Seed Company (USA)[59];
- Mixed Fingerling seed potatoes, (certified), 0.45 kg, 17.25 Euro, Organic Heirloom Gardens (USA) [60].

Figure EM2. Potato seed packaging examples in e-commerce.

[54] https://www.dobies.co.uk/garden-equipment/all/potato-growing-bags_mh8005
[55] https://www.thompson-morgan.com/p/potatoes-bargain-patio-growing-kits-large/wkc9453TM
[56] https://www.suttons.co.uk/email-offers/potatoes-pick-mix/seed-potatoes-organic-colleen-1kg_mh-50061
[57] https://www.koopzaden.nl/product/pootaardappel-eersteling-500-gram
[58] https://www.viherkauppa.fi/tuote/siemenperuna-siikli-1-kg/
[59] https://territorialseed.com/products/potato-blackberry
[60] https://organicheirloomgardens.com/mixed-fingerling-seed-potatoes-certified-non-gmo-potato-plant-tuber-spud-seedling/

4. Proposed Marketing Strategies

Overview

The reshaped marketing strategy for local potato varieties in Latvia, Estonia, and Finland focuses on increasing consumer awareness, strengthening branding, and improving market accessibility. Clear labeling is a key element, ensuring that consumers can easily recognize locally bred varieties. Discussions during meetings highlighted that many customers do not differentiate between local and foreign potatoes, making brand differentiation a priority. In Latvia, the strategy emphasizes leveraging cultural and historical significance, with potential PGI registration for "Priekuļi Potatoes" and strong storytelling to promote heritage varieties. Estonia prioritizes direct engagement with growers, integrating research collaborations, and branding efforts such as storytelling and ambassador programs. Finland focuses on differentiation through its well-established certified seed system while strengthening awareness of heritage varieties like 'Blue Congo' and 'Puikula.' Across all three countries, digital marketing, influencer collaborations, educational campaigns, and direct consumer engagement play key roles in increasing recognition and demand for local potato varieties. The strategy is designed to ensure long-term sustainability and market presence while fostering a stronger connection between consumers and their local agricultural heritage.

4.1. Promotion

The marketing strategy for promoting local potato varieties in Latvia, Estonia, and Finland focuses on increasing consumer awareness, strengthening brand identity, and improving accessibility.

Local potato varieties should be clearly labeled to help customers recognize that they were bred in Latvia, Estonia, or Finland. Discussions during various meetings revealed that many consumers do not distinguish between local and foreign varieties, which can impact their purchasing choices. Clear labeling would enhance awareness, support local breeding efforts, and encourage the cultivation of varieties best suited to regional conditions. **Brand differentiation:** Introducing the idea to customers - Latvian (Estonian, Finnish) potato versus Latvian (Estonian, Finnish) variety - on the package or next to the loose potato.

In **Latvia**, the strategy emphasizes **positioning and branding** by leveraging the cultural and historical significance of local varieties, particularly through the potential of **PDO** or **PGI registration of "Priekuļi Potatoes" (Priekuļu kartupeļi).** Messaging will highlight their sustainability, adaptability, and role in national food security. **Educational campaigns** will promote the benefits of certified seed, proper cultivation techniques, and the culinary potential of different varieties. **Community engagement** includes workshops, partnerships with schools and NGOs, and collaborations with restaurants to feature local varieties. **Digital marketing** will rely on social media, influencer partnerships, and interactive content, such as "Grow and Cook" series and seasonal promotions. Traditional marketing materials, including **recipe cards, brochures, event banners, and packaging labels**, will reinforce key messages at points of sale and public events.

In **Estonia**, the focus is on **direct engagement with potato growers** to increase demand and promote local varieties. This includes **personal meetings with large growers, cooperative collaborations, and integrating scientific research into trials.** Branding efforts involve **video content, storytelling about variety names, potato-themed calendars, and brand ambassadors** to strengthen recognition. Awareness campaigns will emphasize **health benefits, storage methods, and growing tips**, with active participation from nutritionists and influencers. At retail points, **QR codes, mini-package trials, and in-store displays** will enhance visibility and consumer understanding of Estonian varieties.

In **Finland**, where certified seed potatoes are widely available, the strategy will focus on **differentiation and heritage branding.** SPK will continue supplying a range of varieties, including old and traditional ones such as 'Blue Congo' and 'Puikula.' Marketing efforts will emphasize **educating consumers on certified seed benefits, maintaining a diverse selection, and enhancing recognition of Finnish-bred varieties.**

Packaging solutions will cater to various grower needs, ensuring accessibility for both small-scale and larger growers.

Across all three countries, the marketing approach is built on **storytelling, education, branding, and accessibility**, ensuring that local potato varieties gain recognition and preference in the market.

Latvia

Positioning and Branding

- **Cultural and historical value:** Highlight the unique history and cultural significance of Latvian potato varieties through storytelling, connecting them to traditions, cuisine, and regional pride.
- **Regional Identity and PDO or PGI:** Develop a regional brand centered on "Priekuļi Potatoes", potentially pursuing **Protected Designation of Origini (PDO)** or **Protected Geographical Indication (PGI)** status. This could focus on the well-known **'Agrie Dzeltenie'**, making "Priekuļu Agrie Dzeltenie" a strong branding option, or alternatively, branding all varieties developed by AREI under "Priekuļu Potatoes".
- **Sustainability positioning:** Promote Latvian varieties as well-adapted to local conditions, requiring fewer inputs and supporting biodiversity. Connect this to broader environmental themes.
- **Food security narrative:** Frame the use of local varieties as an essential step toward **Latvia's food security**, reducing dependency on imports and strengthening supply chains.
- **Brand differentiation:** Introducing the idea to customers - Latvian (Estonian, Finnish) potato versus Latvian (Estonian, Finnish) variety - on the package or next to the loose potato.

Educational Campaigns

- **Certified seed awareness:** Educate growers on the benefits of certified seed potatoes, emphasizing increased yield, disease resistance, and long-term sustainability.
- **Practical growing advice:** Provide user-friendly guides, videos, and infographics on soil preparation, planting techniques, and disease management, particularly for organic and small-scale farming.
- **Culinary focus:** Promote the **culinary value of different varieties** with detailed taste descriptions and traditional and modern recipes.

Community Engagement

- **Workshops and events:** Organize hands-on events at **farmers' markets, community centers, and online platforms** covering potato growing techniques, heirloom variety preservation, and cooking masterclasses.
- **School and NGO partnerships:** Collaborate with schools, NGOs, and local organizations to highlight the importance of **local potatoes in food security and cultural heritage.**
- **Testimonials and reviews:** Encourage **growers and consumers** to share their experiences with local varieties, using these testimonials in marketing materials.
- **Restaurant collaboration:** Partner with **local restaurants** to feature dishes made with Latvian varieties, and promote their content on social media.

Digital Marketing

- **Social media engagement:** Develop accounts such as **'Priekuļu Kartupeļi'** on Facebook and Instagram to promote local varieties, sharing success stories, behind-the-scenes farming insights, and cooking demonstrations.
- **Influencer collaborations:** Work with **chefs and gardening influencers** to position Latvian potatoes as premium ingredients and attract hobbyists and small-scale growers.
- **Campaigns:** Launch initiatives like the **"Grow and Cook" series** (following potatoes from planting to cooking) and **"Potato of the Month" spotlights** featuring different varieties.
- **Seasonal promotions:** Align marketing efforts with planting and harvesting seasons, offering **discounts, giveaways, and seasonal content.**

Printed and Visual Marketing Materials

- **Posters and recipe cards:** Display materials at **markets, retail stores, and events** categorizing varieties based on **best culinary applications.**
- **Brochures and flyers:** Provide detailed variety information, growing tips, and facts on certified seed benefits. Distribute them at relevant events and community hubs.
- **Packaging labels:** Ensure **clear labeling** with **planting instructions, variety descriptions, and QR codes** linking to additional resources.
- **Event banners and stands:** Use these at trade fairs, farmers' markets, and other events to promote local varieties effectively.

Estonia

Communication and cooperation with potato growers

- **Engagement with large scale gowers:** Hold personal meetings with **large growers and cooperatives** to share information and explore cooperation opportunities.
- **Marketing plan development:** Educate potato growers on **how strategic branding can increase demand** for Estonian varieties.
- **Scientific collaboration:** Work with **researchers and growers** to solve common challenges and **conduct variety trials** in farmers' fields.

Positioning and branding

- **Video content:** Produce engaging videos showcasing **varieties, their origins, and recommended culinary uses.**
- **Use-specific recommendations:** Categorize varieties based on their **best applications (boiling, baking, etc.)** and integrate this information into marketing.
- **Storytelling approach:** Promote the **stories behind variety names** and integrate them into branding efforts.
- **Influencer and ambassador programs:** Identify **brand ambassadors** who will promote local varieties through various platforms.
- **Potato variety calendar:** Feature **a different variety each month** with recipes and growing tips.
- **Slogan development:** Create catchy slogans to **enhance variety recognition.**

Awareness and education

- **Social media campaigns:** Share **food recipes, growing tips, and myth-busting content** about potatoes.
- **Nutritionist collaboration:** Highlight the **health benefits** of potatoes through expert-backed messaging.
- **Home storage and growing tips:** Educate consumers on **best storage methods and innovative home-growing techniques.**

Retail and sales enhancements

- **QR codes on packaging:** Provide instant access to **variety names, characteristics, and origin information.**
- **Mini-pack trials:** Introduce **small trial packs** to help consumers discover new varieties.
- **Retail display improvements:** Install **information boards in stores** to highlight the features and uses of Estonian varieties.
- **Brand differentiation:** Introducing the idea to customers - Estonian potato versus Estonian variety - on the package or next to the loose potato.

Finland

Market positioning and availability

- **Certified seed accessibility:** Finland has an established certified seed system, with **small and large-scale seed potato packages (1 kg to 10 kg)** widely available in **garden stores and hardware retailers.**
- **Key supplier: The Finnish Seed Potato Centre Ltd. (SPK)** plays a major role in ensuring the supply of locally produced certified seed potatoes.
- **Heritage variety promotion:** Strengthen the recognition of traditional varieties like **'Blue Congo', 'Puikula' and 'Rosamunda'** by increasing awareness and availability.
- **Differentiation:** Position **Finnish-bred potatoes as premium-quality choices** while maintaining consumer trust in certified seed.

Consumer Awareness and Education

- **Information on certified seed:** Educate growers about the **importance of certified seed for disease resistance, yield, and quality.**
- **Availability transparency:** Ensure clear communication on **where and how to buy Finnish-bred certified seed potatoes.**
- **Diverse packaging options:** Continue offering flexible package sizes **to cater to different grower needs.**

Retail and Digital Presence

- **Retail integration:** Maintain strong **garden and hardware store distribution networks**, ensuring a consistent supply of certified seed potatoes.
- **Online promotion:** Utilize SPK's online presence to **educate consumers, share resources, and promote heritage varieties.**

4.2. Distribution strategy

Overview

The distribution strategy for seed potatoes in Latvia and Estonia focuses on making local varieties more accessible through diverse packaging options, informative labeling, and a strong market presence. To meet the needs of different growers, a range of package sizes is available, including 1 kg, 5 kg, 10 kg, and 15 kg, with smaller starter packs of 1–2 kg designed to attract first-time buyers to further encourage the adoption of certified seed potatoes. Sustainability is a key consideration, with eco-friendly packaging materials being used to appeal to environmentally conscious consumers.

Labels play an essential role in ensuring transparency and consumer trust. Each certified seed potato package includes a plant passport along with supplementary labels providing details such as the variety name, maturity type, disease resistance, and culinary properties. QR codes are incorporated to offer digital access to additional variety descriptions, growing recommendations, and cooking tips. Where possible, recipe cards are included to highlight the best ways to prepare each variety.

Sales channels are diversified to ensure broad availability. Certified seed potatoes are distributed through garden shops, agricultural suppliers, seasonal markets, and cooperatives. Direct-to-consumer sales are encouraged through pre-order options, cold storage solutions, and flexible pickup points. E-commerce platforms offer an online purchasing alternative, allowing customers to filter varieties based on characteristics and place pre-orders for high-demand varieties. Community-based bulk purchasing programs are also promoted to encourage collaboration among gardening clubs and local groups.

Retail and market presence is strengthened through partnerships with local markets, agricultural fairs, and farmers' markets, ensuring that local seed potatoes are highly visible to consumers. Promotional materials such as posters, variety descriptions, and tasting sessions help educate buyers and encourage sales. Additionally, retailers and representatives receive training to effectively communicate the benefits of certified seed potatoes.

Efficient logistics and quality control measures are in place to guarantee the timely delivery of seed potatoes, particularly for pre-orders and bulk shipments. Regular monitoring ensures the quality of seed potatoes throughout the sales process, especially as many are not stored in cold facilities. By combining these elements, the distribution strategy enhances accessibility, encourages consumer engagement, and supports the long-term viability of local seed potato production. In Finland, these principles will be taken into account, but the project partners did not develop a specific distribution strategy, as they are not seed producers themselves.

Latvia

Latvia's distribution strategy focuses on increasing the availability of certified seed potatoes through flexible packaging, clear labeling, and diverse sales channels. By strengthening direct-to-consumer sales, collaborating with retailers, and expanding online accessibility, the strategy ensures that local varieties are more accessible to both small growers and larger markets.

Packaging and labelling

- Offer **5 kg, 10 kg, and 15 kg** packages suitable for small growers, with **starter packs (1–2 kg)** for first-time buyers.
- Labels should prominently display the **variety name, maturity type, disease resistance, and culinary properties**.
- Use **QR codes** for additional digital resources and provide **recipe cards** where possible.
- **Eco-friendly packaging** to support sustainability efforts.

Sales channels

- Strengthen **certified seed availability** through **garden shops, seasonal markets, and online platforms**.
- Support **direct-to-consumer sales** with **pre-orders, cold storage, and flexible pickup points**.
- Introduce a **loyalty scheme** for repeat customers, offering **discounts and exclusive access to new varieties**.
- Ensure a strong **presence at farmers' markets, agricultural fairs, and local events**, with a dedicated stand showcasing both contemporary and heritage varieties.
- Offer **tasting sessions** at events to highlight the culinary appeal of different varieties.

Collaboration with retailers

- Partner with **local gardening stores, agricultural suppliers, and cooperatives** to ensure widespread availability.
- Place **promotional materials in stores**, including **posters, variety descriptions, and cooking recommendations**.

Online store development

- Build an **e-commerce platform** featuring:
  - **Easy variety filtering** (early/late, culinary use, disease resistance, etc.).
  - **Pre-order options** for popular varieties.
  - **Delivery and pickup choices** to ensure broad geographic access.

Estonia

A successful distribution strategy for seed potatoes in Estonia requires attention to packaging, labelling, and effective collaboration with cooperation partners.

Packaging and labelling

- Offer **1 kg, 5 kg, 10 kg, and 15 kg** packages to accommodate different customer needs.
- Ensure each certified seed potato package carries the **required certificate**.
- Integrate **QR codes** on packaging to provide variety-specific **growing, storage, and cooking recommendations**.

Collaboration with retailers and representatives

- Build long-term relationships with **garden centers, agricultural suppliers, and cooperatives** to increase market presence.
- Provide **training and marketing support** for retailers to improve consumer knowledge.
- Develop **custom-labeled packages** for specific sales points to enhance visibility.

Logistics and distribution

- Ensure **timely delivery** of seed potatoes based on customer agreements.
- Monitor **quality control throughout the sales process**, especially since **cold storage is not commonly used** for seed potatoes.

4.3. Customized pricing and tailored services

Price differentiation by packaging size

Implementing price differentiation based on packaging size allows greater flexibility, appeals to different market segments, and optimizes sales by catering to diverse customer needs. Small-scale growers and home gardeners may prefer smaller, more manageable packages, even at a slightly higher price per kilogram, particularly at seasonal garden markets where customers prioritize convenience over bulk pricing. In contrast, larger-scale growers benefit from bulk packaging, where a lower price per kilogram creates a perception of better value, encouraging higher-volume purchases.

Support for growers

Establishing an online platform—initially through a Facebook group—is highly recommended to foster community engagement and provide customer support. Keeping the group open to all while offering additional benefits, such as WhatsApp support, for those growing local varieties will enhance customer satisfaction and strengthen direct engagement. This approach not only supports growers with real-time assistance but also encourages the adoption of local potato varieties through word-of-mouth recommendations and peer-to-peer learning.

Monitoring and feedback

To continuously improve distribution and customer experience, a structured feedback mechanism should be in place. Short questionnaires conducted at events and via social media will help assess consumer preferences, challenges, and potential areas for improvement. Offering seed potato packages as incentives for participation, when seasonally feasible, will encourage engagement and provide valuable insights into buyer behaviour and satisfaction.

Summary of strategies

The promotion and distribution of local potato varieties in Latvia, Estonia, and Finland require a targeted approach to increase awareness, improve accessibility, and strengthen market demand. Survey findings reveal that while many growers recognize and value local varieties, challenges such as **limited availability, unclear labelling, and reliance on uncertified seed** hinder their widespread adoption. Addressing these barriers through **strategic marketing, enhanced distribution, and tailored pricing models** is essential for ensuring the long-term viability of locally bred seed potatoes.

The **marketing strategy** focuses on **clear branding, digital engagement, and educational initiatives** to differentiate local varieties from foreign alternatives. **Retail partnerships, direct-to-consumer sales, and online platforms** will expand distribution channels, making certified seed potatoes more accessible. Pricing flexibility, particularly through **packaging size differentiation and loyalty incentives**, ensures that both small-scale growers and larger buyers find suitable purchasing options. Additionally, **community engagement and feedback mechanisms** will support continuous improvement and foster long-term consumer trust.

By implementing these strategies, local potato varieties can regain market share, contributing to **food security, biodiversity, and the economic resilience of small-scale growers**. The next steps involve **strengthening collaboration with retailers, leveraging digital marketing, and expanding certified seed availability**, ensuring that locally bred potato varieties remain a competitive and sustainable choice for growers and consumers alike.

Conclusion

The promotion and availability of local and heritage potato seed varieties play a crucial role in strengthening regional food security, preserving biodiversity, and supporting small-scale growers. In Latvia, Estonia, and Finland, traditional potato varieties have long been an integral part of agricultural heritage, yet their presence in the market has declined due to the increasing dominance of imported varieties. This document outlines a comprehensive marketing and distribution strategy aimed at increasing awareness, improving accessibility, and encouraging the adoption of locally bred certified seed potatoes.

Findings from consumer surveys conducted across the three countries reveal key challenges, including limited consumer recognition of local varieties, difficulties in accessing certified seed, and a reliance on uncertified planting material. Addressing these issues requires a targeted approach that combines branding, education, distribution improvements, and pricing strategies. By enhancing product visibility through clear labeling, digital engagement, and in-store promotions, the strategy seeks to differentiate local varieties from foreign alternatives and highlight their suitability for regional growing conditions.

The document presents a structured approach, beginning with an analysis of survey findings that inform the strategic recommendations. It then details promotional initiatives designed to build consumer trust and demand, followed by a distribution strategy to ensure that seed potatoes are more accessible to both small growers and larger-scale producers. Additionally, customized pricing models and tailored services are proposed to encourage adoption, particularly among those transitioning to certified seed.

By implementing these strategies, the availability and market presence of local potato varieties can be significantly improved, fostering a more resilient and sustainable seed potato sector. The combined efforts of breeders, retailers, growers, and policymakers will be essential in ensuring that these varieties remain a valuable part of the agricultural landscape, securing their role in both traditional and modern cultivation systems.

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