

Alien Trees and Shrubs with the Complements *Saksamaa* (Germany) and *Saksa* (German) in Early Written Language and Folklore

Jüri Viikberg

*PhD, Senior lexicographer, Institute of the Estonian Language, Tallinn, Estonia.
jyri.viikberg@eki.ee*

Heldur Sander

*MPhil, dendrologist, Botanical Garden, Tallinn, Estonia.
heldsander@gmail.com*

Raivo Kalle

*PhD, head of the project, Estonian Literary Museum, Tartu, Estonia.
raivo.kalle@kirmus.ee, raivo.kalle@mail.ee Corresponding author*

Abstract: The study of alien species has become more and more relevant today. In particular, the influence of alien species on the local nature is studied, but more and more studies have also begun to appear on how alien species affect the local language and culture. In this article, we took a look at non-native trees and shrubs that have been called “Saksamaa” and “Saksa” [German]. Germany was synonymous with foreign countries in early literature. We investigated the motives behind the names given to these species, how long they were in circulation and how these names were later replaced.

For this purpose, we studied lexicons, archival texts and historical literature. „German“ complemented plant names are most common in Estonian and Finnish – with fir, beech, larch, elder, Persian walnut tree, poplar, Swedish whitebeam and false spiraea coinciding. The prevalence of plant names can be divided into three: a) names found only in the early written word, which are absent in the oral tradition; b) vernacular plant names with the suffix “German” which were entered into dictionaries and supported by official terminology; c) individual folk names with the suffix “German” collected from the people. Alien species that were planted as fruit trees, ornamental trees, medicinal plants and forest trees were called by these names, but imported pharmaceutical drugs, fruits and wood were also called “German”. Mainly, non-native species were named after a local tree, to which “German” was added in front of the name. Later, those names were either replaced by adaptations of German plant names or new Estonian plant names were created. Several trees could be called by one name. For example, larches, firs and alien spruce species, which differed from the local spruce by the silvery colour of their needles, have been called the “German spruce”. In the 17th and 18th centuries, all foreign trees that were frost-resistant could be called “German trees.” Back in the 20th century, people spontaneously called foreign trees that were different from domestic trees by the names of “German”.

Keywords: plant names in dialect, plant names, foreign species, dictionaries, natural culture, cultural history

Introduction

Humans are the largest distributor of alien species. Alien species have become one of the biggest threats to the local ecosystem, and therefore, researching them is becoming more and more relevant today. It has been observed that floristic homogenisation is greatest between regions with the same administrative relationships, as trade and transport are the most intense between them (Yang et al. 2021). Homogenisation not only threatens local nature, but also local cultures and languages. For example, in Canada, foreign cultures have supplanted many of the indigenous plant foods, herbal medicines, and plant materials that had been fundamental elements of Indigenous peoples’ languages and cultures for millennia (Turner 2023). Examples can be found in Europe as well: the proportion of exotic trees and shrubs in the Baroque art of the Eastern Adriatic coast was very high, 71% of the 23 species identified in all paintings. It turned out that most of the exotic species originated from areas that were not

fully explored by Europeans at the time, such as the Palaearctic or the Americas. The native flora species were relegated to the background within art (Jasprica et al. 2023). An example from Slovenia describes how out of the 93 plant species mentioned in 19th century folk songs, only 42% were natural flora species, the rest being cultivated and exotic species. This indicates that alien species also had a great influence on the content of early folk songs (Fišer 2022).

In Estonia, alien plant species are considered to be those that have been introduced to our flora since the middle of the 18th century (Õöpik et al. 2008). We can say that the first cultivated species in our areas were crops with, for example, cereals domesticated in the Middle East being cultivated in Estonia for millennia. Most foreign species that have become invasive in our nature have arrived here from Europe, which as a region is culturally and climatically close to us (Õöpik et al. 2008). The first non-native trees were fruit trees and landscaping or ornamental trees imported in the Middle Ages, followed by forest trees in the second half of the 18th century. Moreover, fruit trees were used for landscaping and the fruit of ornamental trees for food. Trees and potted trees grown in greenhouses that are moved outside for the growing season (summer) are a wholly separate topic. Commercial trees, for example elder as a medicinal plant, willows for utilitarian purposes such as feeding bees¹, harvesting withes and bark, fixing shifting sands, were the least introduced (more on willow Kalle, Sander 2020).

With developing trade came production of exotic plant products that did not grow locally, such as citrus fruits (which were, however, grown in greenhouses here starting in the second half of the 19th century) and nuts, pharmacological drugs for medicines or hardwood for making furniture and household goods.

While the history of the introduction of alien tree species has been thoroughly studied by one of the authors of this article (Sander et al. 2008; Sander et al. 2006, Sander et al. 2008) as well as how fruit and ornamental trees began to be planted in farmyards (Viires 1974), and the history of fruit cultivation in general has been discussed (Jaama 1985), there have been fewer studies of how alien tree species have influenced our language and culture. One of the authors of this article has studied the use of alien species in early manuscript texts on medicinal herbs, collected until 1944 (Kalle 2010). Cultural geographer Vello Paatsi has observed the development of Estonian nature-related vocabulary until 1850 (Paatsi 1993). Botanist Gustav Vilbaste has compiled the manuscript “Võörkeelsete taimenimedede register” (“Index of Foreign Language Plant Names”)

(Vilbaste 1953), which contains the chapter “Taimenimede register kultuur- ja välismaistest taimedest” (“Index of Cultivated and Foreign Plant Names”) (pp. 622–710), although it is only a list and does not include references to original sources. Unfortunately, Vilbaste modernised the names (for example *saksamaa* (Germany) pro *saxa mah* (Germany)). One of the authors of this article has studied the introduction of names with the complements *saksamaa* (Germany) and *saksa* (German) into Estonian natural vocabulary (Viikberg 2023).

The article seeks to answer three general research questions:

- which tree names complemented with *saksamaa* and *saksa* spread in literature and folklore and how long did they circulate for;
- how were alien tree species with the *saksamaa* and *saksa* complements (at the time of their introduction), as well as exotic fruits and pharmacological drugs, introduced to our language and how and why were such names later changed;
- what were the motifs for giving trees names with the *saksamaa* and *saksa* complements and were they also common in neighbouring nations and related languages?

We reviewed previous lexicons and botanical manuals and searched for more information from earlier periodicals and manuscript sources in order to answer these questions. For starters, we can say that the first foreign trees were fruit trees, written evidence of which can be found in Estonian from as early as the 17th century. As these species were new and unknown here, they were first introduced using native vocabulary. For example, in Heinrich Stahl’s German–Estonian dictionary of Estonian grammar, the Estonian equivalent of the German *Birn* (pear) is *Marri* (berry), and *Marja puh* (berry tree) is used for *Birnbaum* (pear tree) (Stahl 1637: 42).

Another way to name alien species was to associate them with their country of origin. A well-known example of this is *apelsin* (orange (fruit)), a word that appeared in European languages with the meaning ‘apple from China’ (cf. Dutch *sinaasappel* or French *pomme de Sine*). Heinrich Göseken, the pastor of Kullamaa, began using this option in Estonian. Since most of the new southern species arrived in Estonia through Germany², the dictionary section of his Grammar includes *Saxa marri Oun* or “Saksa marjaõun” (German berry-apple) for pear and *Saxa maria ouna puh* or “Saksa marjaõuna puu” (German berry apple tree) for the pear tree (Göseken 1660). The lemon is called the *Saxa mah oun* “Saksamaa õun” (German apple) as well as the *Hollandi mah Oun* “Hol-

landimaa õun” (Dutch apple) (Göseken 1660: 281, 153). In the 17th century, Göseken has the highest number of *Saksamaa* complemented animal and plant names, though he was followed by later authors. For clarification, it must be said that the first *Saksamaa* complement was given to the novelty creature *karpun* (turkey), with its original meaning being a bird from India (cf. Russian *индюк* (turkey)). Heinrich Stahl (1637: 69) called it *Saxamah kuck* (German rooster) (“Kalckunschhan”) and Johannes Gutsclaff (1648: 220) *Saxemah Kanna* (German chicken) (“Kalckaun”), for Göseken (1660: 224, 244, 251), however, *Saxa mah kuck* (German rooster) (“Kalekutischer Hahn”) meant the male bird and *Saxa mah kanna* (German chicken) (“Kalekutisch-Huhn”) meant the female.³ Since Heinrich Göseken, *saksa* or *saksamaa* complements were given to trees and shrubs as well, such as *Saxa Sahrne Puh* (German ash tree) (pöök (beech); büchen Holtz), *Saxa Mah Sara Puh* (German ash tree) (saar; Esche (ash) – probably intended as *Fraxinus ornus*, which does not grow in Estonia) or *saxamah wachter puh* (German maple tree) (valgepöök (hornbeam), Hayn Büche) (Göseken 1660: 150, 180, 231).⁴

A third possibility rose from the word creation of that era, i.e. borrowing from foreign languages, initially primarily from Low German. *Luun* “ploom”; “Pflaum” (plum) and *Luun puh* “ploomipuu”; “Pflaum” (Baum) (plum tree) (Göseken 1660: 322) found their way into Estonian, borrowed from Low German *plüme* ‘Pflaum’ (plum). Initially, *käspere* (borrowed from Low German *kersebere*) (cherry) was used for cherry: for example, Stahl (1637: 78) had *Karsberi marri* (cherry berry) (kirss; “kirsch” (cherry)), Göseken (1660: 257) *Karsbeer marri* (cherry berry) and Anton Thor Helle (1732: 104, 299) had *käsperi-marri* (cherry berry) as well as *käspere pu* (cherry tree). Thus, not only were they acquainted with the fruits of the fruit trees but also the trees themselves.

In the case of loan words, it should be noted that several might have been borrowed over time. For example, the elderberry (which grows mainly as a bush, rarely as a tree) first appears in Hupel’s dictionary (1780: 40) as *wledri pu* (elder tree) (borrowed from the Low German *vlêder* (elder)), though the German *Hollunderbaum* received as many as three Estonian equivalents in the dictionary: *wledri pu*, *hollundri pu* (elder tree) and *wilder ois pu* (elder flower tree).⁵ The word in the form of leedripuu (elder tree) (*lêder* (elderberry), *lêd’ri-pû* (elder tree)) found its way into Wiedemann’s dictionary (1869: 542) and remained in use as such. One of the reasons for the multiple borrowings lies, among other things, in the division of language into Tallinn and Tartu dialects

(= North Estonian and South Estonian literary languages). For example, the pastor of Kadrina, Stahl (1637: 87), had the fruit of the cherry as *Karsberi Marri* (cherry berry) (< Low German *kersebere* (cherry)) while the pastor of Urvaste, Gutsclaff (1648: 221), had it as *Wissila Marri* (< Russian *вишня* (cherry)), until *Kirsimarri* (cherry berry) (< German *Kirsche* (cherry)) appeared in the dictionary of the pastor of Pärnu, Vestring (1720–30: 81). A little later, in 1780, Hupel's dictionary (1780: 409) featured both the North Estonian *käsperi pu* and *kirsi pu* (cherry tree) next to the South Estonian *wisna pu* (cherry tree) as the translation for the German *Kirschbaum* (cherry tree).

Early writing includes names that are not present in the oral tradition

Common plum (*Prunus domestica*) originally comes from East Asia, and as of today more than 2000 varieties have been bred. Plum trees are distinguished by a number of major cultivars, which can interbreed. We have been growing plums for centuries, but a cold winter significantly damages the harvest (Jänes, Õunmaa 1998). Historian Wilhelm Christian Friebe had written as early as the late 18th century that plum varieties are common in our gardens, but yellow and reddish plums are among the most esteemed (Friebe 1794: 197). Pastor August Wilhelm Hupel was the first to associate “Pflaumenbäume” (plum tree) with Latin (*Prunus domestica*⁶), adding that they are damaged by winters and specifying that “Zwetschgen” (prune plum) are not healthy here (Hupel 1777: 523). However, in the case of the German language space the difference between the round plum (*Pflaume*), which ripens in August, and the elongated plum (*Zwetsche*), which ripens in September, is not taken into account everywhere and sometimes the name *Zwetsche* is used for both varieties (Paul 1956: 780). Pastor Heinrich Göseken has noted in his German–Estonian grammar dictionary that this subspecies of plum (German *Zwetschen*, Latin *damascenū*) is known as *saxa mah marri* (German berry) in Estonian (Göseken 1660: 420). According to the botanist Johannes Christoph Klinge, this “Zwetschenbaum” (prune plum tree) variety could still be found in Estonia in the late 19th century, though he records its name as the *plumi puu* (plum tree) (Klinge 1883: 223–224). However, this variety was known here as the *Damaskuse ploom* (Damascus plum) and that its fruit was best suited for drying, as was described

in a newspaper (Anonymous 1898: 235). This name plum can be found in the database of Estonian plant names (ETA), its Latin name being *Prunus domestica* subspecies *insititia* variety *damasecna*. Thus, Göseken might not have had in mind the tree growing here but rather the imported dried fruit.

In Estonian, the names ploom (plum) and ploomipuu (plum tree) originated from Low German (*plūme* (plum), *plūm-bōm* (plum tree)), as is apparent from written sources. Heinrich Göseken's dictionary includes *luun* "Pflaume" (plum) and *luun puh* "Pflaum Baum" (plum tree) as well as *plumit* "zwetschena damascena" (Göseken 1660: 322, 494). The Latvian *plūme* (plum) and Livonian *plūm* (plum) were borrowed from Low German, but the Finnish word *luumu* (plum) was borrowed from Swedish (*plomon* (plum)) (Viikberg 2024, subsection ploom). In written Finnish (1637 *plumut*), plum is still known as *luumu*, *luumupuu* (plum, plum tree) (SSA 2: 115). However, in the 18th century, ploom appears next to pluum (Vestring 1720–1730: 182; Hupel 1780: 243), as the *au* diphthong (for example in the word Pflaume (plum)) of High German, which replaced Low German, sounded as an *oo* in the Baltic German pronunciation (Uibo 2010: 923). The *plaum* (plum), derived from German (*Pflaume* (plum)), indicates repeated borrowing as well (Wiedemann 1893: 837). Estonian dialect data shows that the *l*-initial German loanwords occur as *loom*, *loem* (in translation: animal) on the islands and in western Estonia, and as *lyym* in the Mulgi region (EMS VII: 596). Also notable in academician Wiedemann's dictionary (1869: 997) is the *mar'ja-pū* (berry tree) (D) "Pflaumenbaum" (plum tree) registered in Hiiumaa as several other fruit trees were also known by that name.

Common pear (*Pyrus communis* originates in Europe and has been bred in many varieties (PWO). The European wild pear (*Pyrus pyraster*) (ETLA) rarely found in western Estonia is no longer a separate species, but a subspecies (*Pyrus communis* subspecies *communis*) (PWO). In his book of plant names (1993: 517), Gustav Vilbaste has only provided the popular names for the common pear tree. People certainly distinguished natural trees in Estonia, although these names have not been collected or written down and so the literature-influenced *metspirnipuu* (wild pear tree) is most commonly known among the people today.

In his dictionary, Göseken provides *Saxa maria ouna puh* (German berry apple tree) as the Estonian equivalent to the German tree "birnbaum" (pear tree) and *Saxa marri Oun* (German berry apple) for the fruit "birn" (pear) (Göseken 1660: 140). As can be seen, Göseken, who worked in Kullamaa, derived these

names through the North Estonian name for *õunapu* (apple tree) (*Malus* species)⁷ *õun* (apple), as a familiar domestic fruit, while the “saksa” (German) *õun* (apple) denoted a foreign fruit. Anton Thor Helle, a pastor from Jüri and a developer of written Estonian, added “saksamaa” (Germany) in front of the fruit (“die Birne” (the pear)) as a clarification with *saksa-ma marri* (German berry) (1732: 173) and did not specify a separate “puu” (tree). The pastor of Põltsamaa, August Wilhelm Hupel (1780: 263; 1818: 215) followed the same naming form, using *saksa ma marri* (German berry) (“die Birne” (pear)). While the word was present only in the Tallinn (revalsche) dialect (r.) in the first edition of the grammar, by 1818 it had spread to the Tartu (dörptsche) dialect (d.), i.e. across the country.

Hupel, however, does not limit himself to “saksamaa mari” (German berry) or to the Tallinn dialect *marja pu*⁸ (berry tree) “Birnenbaum” (pear tree), he also presents in the Tallinn dialect (r.) *pirnid* (pears) “Birnen” borrowed from German (Hupel 1780: 214, 243) as well as in the Tartu dialect (d.) *pombre*⁹ *marja* (pear berry) borrowed from Baltic German “Birnen” (Hupel 1780: 246). George Gottfried Marpurge, a school writer, has an interesting example sentence in his school book: *Ubbina pu kannap ubbinid. Se pombre pu kannap pombre. See plumi pu kannap plumi marju. Se wisla pu kannap wisla pu marju.* (The apple tree bears apples. This pear tree bears pears. This plum tree carries bears’ berries. This cherry tree bears cherry berries.) (Marpurge 1805: 24–25). According to this categorisation of edible fruits, Marpurge only considered drupes as *marjad* (berries), although, as language data reveals, pomes were called *marjad* (berries) as well. Klinge (1883: 159) says of the *pumbri puu* (pear tree) that it is rarely seen growing in the wild in deciduous forests, in the shrubs or fields in the Baltic Sea provinces, although many varieties are grown in “pseudo-gardens” (“Gryten der Scheinfrucht wegen” (gardens for the sake of false fruit)). Could *pomber* (pear) denote a natural wild pear tree rather than the cultivated garden pear tree?

The botanist Johann Gottlieb Fleischer only mentions *Pirni pu* (pear tree) and *Marja pu* (berry tree) as the names for *Pyrus communis* on the list of Estonian names for plants in our region, noting that these names are common in both North and South Estonian (Fleischer 1830: 67). He did not separately emphasise “saksamaa” (Germany). Ivan Lunin’s Estonian–Russian dictionary, compiled on the basis of Hupel’s dictionaries, still has the old form of the name *saksa ma marri* (German berry) (“зруша (pear), дуля (small pear – grow natu-

rally, not cultivated)”) (Lunin 1853: 166). For clarification, today the “dulja” is the name for a variety of summer pears bred in southern Russia (perhaps also in Ukraine), which was not grown in our climate. Could this exoticism be the reason why Lunin emphasised “Saksamaa” (Germany) because he does not present it with other names: *pirn* (pear) (r, d.) “груша” (ibid.: 142); *pombre marri* (pear berry) (d.) and *pumberi pu* (pear tree) “грушевое дерево” (pear tree) (ibid.: 146).

All variants of the names that were in circulation at the time are listed in Wiedemann’s comprehensive Estonian–German dictionary. He mentions *pumbri-pū* (pear tree) “Birnbaum” (Wiedemann 1869: 998), *pombar* (pear), *pomber* (pear) and *pombre-mari* (pear berry) “Birne” (ibid.: 932), presents *saksa-mari-õun* (German berry apple) “Birne” (ibid.: 818) taken from Göseken’s dictionary, cites *saksa-mā-marjad* (German berries) (“Birnen”) (ibid.: 633) and the later loanword *pir´n* (pear) “Birne” (ibid.: 910). Although Wiedemann does use Latin for plants growing in Estonia in his dictionary, he does not highlight it in these cases.

As stated by the pomologist Jaan Spuhl-Rotalia (1912: 12), expensive pears with sophisticated flavours could not be grown in our climate at the time because of their aversion to cold. He specifies that southern varieties can only be grown as pot plants, while only low-value cooking pears could be grown outside. This might also explain why the dictionaries used “saksamaa” (Germany) specifically in relation to fruits that could have been imported for eating, and when “puu” (tree) was used, “saksamaa” was no longer mentioned, as this name could have denoted the natural wild pear tree. Moreover, in North Estonian, where the *saksamaa* name spread, the tree did not bear sweet fruit at the time, as suggested by the name of the southern variety “dulja” in the Estonian–Russian dictionary. Although the *saksamaa* name remained in dictionaries until the middle of the 19th century, it was more out of inertia after being transferred from earlier lexicons. By the time oral tradition collection began (from the end of the 19th century onwards), the pear was no longer known by its *saksamaa* name. It is possible that people never even called it that.

Developing from Low German, the Baltic German *Bumbeere* “Birnen” (pear) gave Estonian *pomber* ~ *pumber*, Latvian *bumbieris* and Livonian *bumbier* (Viikberg 2024, subspecies *pomber*) until *pirn*, from High German, became dominant by the end of the 19th century (although it was not borrowed into Latvian or Livonian).

Quince (*Cydonia oblonga*) comes from the Caucasus and from the area around the Persian Gulf. Only one mention is found – *saksa-õunapuu* (German apple tree) – in Gustav Vilbaste’s unpublished index of foreign plant names (Vilbaste 1953: 689). The authors have not found confirmation of this name in other written sources. It has been impossible subsequently to determine whether Vilbaste had collected it during fieldwork for his book of plant names in the first half of the 20th century (he completed the manuscript in 1944) or found it somewhere in a written source. Spuhl-Rotalia (1912: 184) points out that the quince can be propagated like currant (*Ribes* species) bushes, but does not mention its Estonian name.

Quince always freezes above the snow, so it must be carefully covered. Both species, common and Japanese, were bred (*Cydonia japonica*) (Klinge 1883: 158).

Citrus fruits (*Citrus* species). Göseken’s dictionary lists *Saxah mah oun* (German apple) first as the name for the lemon tree (*Citrus × limon*) and secondly as the name for the fruit of bitter orange (*Citrus × aurantium*) (Göseken 1660: 281 and 325). It seems that the name originated from Göseken himself, as did the *Hollandi mah Oun* (Dutch apple) “Citron” (Göseken 1660: 153) as they cannot be found in other sources. As is apparent, Göseken derived these names from the fruit of the *õunapuu* (apple tree) (*Malus* species) and in a form of a word known in North Estonian. The lemon and orange are both bred hybrids and grow in subtropical regions, here they can only grow in greenhouses. There are other examples of Göseken’s own creations where he paraphrases the foreign and new through something familiar, for example naming cotton “Baumwolle”¹⁰ with the help of sheep’s wool and adding “saksamaa” (Germany) to the front: *Saxa mah lamba willat* (German sheep’s wool) (ibid.: 125).

The Estonian *sidrun* (lemon) is a loan word from German (< de *Zitrone*) that first appears in the written word in Johann Lithander’s Estonian translation of a cookbook by the famous Swedish chef Christina (Cajsa) Warg (1781)¹¹. In it, they recommend adding *Sitroni wilud* (lemon slices) to poultry soups (Lithander 1781: 18), grate *Sitroni koort* (lemon peel), make *Sitroni Moos* (lemon jam) *munadest* (with eggs) (“Zitronmoos von Eyer” (lemon jam with eggs)), cook up a *Sitroni pudder* (lemon porridge) (Zitronbrey) (ibid.: 564, 579), etc. However, in the same cookbook, the German loanword *lemon* (< de *Lemon*) appears next to *sidrun* in the same sense: *lemoni wilokad ~ wilokessed* (lemon slices) are suitable for meat dishes (ibid.: 12, 75, 125, 207), desserts (ibid.: 500,

505), but you can also simply *Lemonid sisse tehha* (preserve lemons) (“*Lemonen einzumachen*”) (ibid.: 447). Other citrus fruit mentioned in the cookbook are *pomerants* (bitter orange) and *orans* “*apelsin*” (orange). The author recommends adding *katki leigatud Pomerantsi koort* (chopped bitter orange peel) to cream or beer soup (ibid.: 42) and gives instructions on how to distil *Oransi* (orange) water from *apelsini* (orange) tree flowers (“*Orangewasser zu distilliren*”) (ibid.: 683), in particular, this could be added to colostrum cake (ibid.: 531) and cream (ibid.: 561).

Lemons and oranges were imported from France at the end of the 18th century, but more progressive manors grew them in greenhouses here as well (Plath 2010). The cultivation of lemon trees was taught by the later Mayor of Riga Samuel Holst, the Estonian translation of whose writing¹² for gardeners details what needs to be done in January. *Mes Kaswamisse-hone sissen, kun Citroni nink muu saksa maa Puid nink Lomad ehk Lillid, mes talwitsel ajal Külma kätte ei woi jätta, hoietas ja üllespeetas, tullep tähhele pannema* (You need to pay attention to what happens inside the greenhouse where the lemon and other German trees, animals or flowers that cannot be left in the cold for the winter, are stored and maintained) (Lenz 1796: 6). The following is noted as March tasks: *Saksa ma-pu ehk Oransi honen nink lilli üllespidamisse Kambrin. Citroni nink Oransi puiele woip nüüd, kui se tarwis am, wastset mulda anda, nink neid ümberistutada* (A greenhouse is needed to grow and maintain the German tree or Oransi. If necessary lemon and orange trees can now be given fresh soil and then transplanted) (ibid.: 14–15). As can be seen Lenz categorises foreign trees that are sensitive to frost and can only be grown in a greenhouse as “*saksamaa puud*” (German trees).

Pomerants (bitter orange) (*Pomeranze*) “orange-like sour fruit of the bitter orange tree” is also a German loanword, registered in Estonian lexicons since Wiedemann’s Estonian–German dictionary (1869: 941): **põmerants* ‘Pommeranze’¹³. The posthumously published¹⁴ German–Estonian dictionary by Georg Tuksam, mainly known for his work in the theatre, translates the German *Pomeranze* as “*pomerants*”, “*apelsin*” (bitter orange, orange) (Tuksam 1939: 763), despite these being two different fruits. In Warg’s cookbook, they are called by the German loanword *Pomerants* and *Orans* (bitter orange, orange) (< *de Orange*), but by the 19th century, *orans* had been replaced by a newer German loan *apelsin* (< *Apfelsine*): *Sealt* (Sitsiiliast) *tullewad Sitronid, Appelsinid, wigid, mandlid, rosinaid ja kallid plumid* (Lemons, oranges, figs, almonds, raisins and

expensive plums come from Sicily) (Masing 1823: 228). Curiously, the earlier names of sidrun and apelsin (lemon, orange) did not disappear too quickly, as Wiedemann's second edition (1893: 500, 713) still contains **limõn* 'Limonè' and **oranji* ~ *orang* 'Orange', and Lauri Kettus' Estonian–Finnish dictionary (1917) still has *limon* 'sitruuna'.

Sweet chestnut (*Castanea sativa*) is originally from the Bapans and the eastern Mediterranean area. It has been grown in Europe since antiquity as an ornamental tree and a food plant. The tree is sensitive to cold, which is why we still only have it in a few arboretums today. In his dictionary, Göseken provides *Sazamah pechklet* (German nut) as an equivalent to "Castanien"¹⁵ (Göseken 1660: 153), which probably originates from the author himself again. The name *Saxamah pechklet*¹⁶ (German nut) does not refer to trees, but to fruit that could have been brought for food from warmer areas. Warg's cookbook does say *Tuwitud pruunkapsta sisse sünnib Kastanid ehk sinnised Rossinad panna* (You can put chestnuts or blue raisins into stewed (brown) cabbage) (Lithander 1781: 375), but you can also *kastanid pradida* (fry chestnuts) ("Castanien zu braten") (ibid.: 398). Leaves of the *Folia Castanea* tree were sold in pharmacies as medicine as early as the 20th century under the name of *kastanilehed* (chestnut leaves) or as *Päris ehk Saksa kastanipuu lehed* (real or German chestnut tree leaves) (Vallner 1920: 22).

The German loanword *kastan* (chestnut) (< de *Kastanie*) is first mentioned in the *Marahwa Näddala-Leht* (Countryfop's Weekly Paper) (1823), where Masing introduces Europe's oldest and largest trees. One of them was a chestnut tree that could fit 30 horses in its cavity: "There is a *Kastani pu* [chestnut tree] (*Castagniaro di cento cavalli* – a tree of a hundred horses, as the people there call it) in Europe on the island of Sicily, which is considered the largest of them all: it stands on the fiery mountain of Etna, halfway up the hill" (Masing 1823: 255–256)¹⁷. However, the word *kastan* (chestnut) had been used in the much earlier unpublished Estonian Bible translation manuscripts (see Eesti piiblitõlge 2020): "And Jacob took sticks of *Pappellipuhst, Sarrapuhst, ninck Kastonnepuhst* [raw poplar wood, ash wood and chestnut wood]" (Gutslaff 1648–1656); "But Jacob took stick(s) of verdant *Popli-Puust, Sara-Puust, nink Kastania-Puust* [poplar wood, ash wood and chestnut wood]" (Virginius 1687–1690).

Common hornbeam (*Carpinus betulus*) is of European origin and was once widespread in our area in times of warmer climate (around 8000–6500 BP)

(Kukk et al 2000: 99). Currently sporadically cultivated, the closest natural sites are in southern Lithuania (Kukk 1999: 162). Our common hornbeam is considered to be at the northernmost boundary of its habitation; the tree, which is sensitive to cold, has also attracted attention in scientific literature. It can be found growing naturally and even in stands in Rucava (Rutzau) on the southern tip of Courland. It tolerates pruning well and in Germany is often used for hedges, arbours, etc. It is a suitable hedge plant especially because it preserves most of its dried foliage until spring (Klinge 1883: 131–132). This is why attempts were made to grow it here as well and why the common hornbeam has been found in rural parks and urban landscaping. According to forester Eduard Viirok, the trees could be found in many places around Estonia in the 1920s and 1930s. In Tallinn, they even grew in several groups and as hedges in two places similarly to elsewhere in Europe (Kanger, Sander 2004: 25). Even recently there were 49 trees in ten habitats in Tallinn, the oldest being at least 70 years old (Sander 1998: 36–37).

In Vilbaste's unpublished index of foreign plant names, it is called *saksamaa saar* (German ash) (Vilbaste 1953: 689)¹⁸, although it has been impossible to determine subsequently which sources he relied on. At the same time, Göseken's dictionary provides the Estonian equivalent to the German "Hayn büche" (common hornbeam) as *saxamah wachter puh* (German maple tree) (Göseken 1660: 231), which is also mentioned by Wiedemann's dictionary with a reference to Göseken: *saksa-mā-waher* ("Hainbuche") (Wiedemann 1869: 1424). These names with the *saksamaa* (Germany) complement have not been passed down in literature, and no such names for the common hornbeam have been recorded in oral tradition either.

Pine trees (*Pinus* species) is a large genus, although only the Baltic pine (*Pinus sylvestris*) is native to Estonia. Wiedemann's dictionary (1869: 648) names the German equivalents of *saksa-mā-mänd* (German pine) as both "Weymouthskiefer" (Weymouth pine) and "Lärche" (larch)¹⁹. In the German linguistic area, Weymouths-Kiefer is known as white pine (*Pinus strobus*), which hails from North America but is now grown in Europe as well. Vilbaste's manuscript calls the stone pine (*Pinus cembra*) the *saksamaa mänd* (German pine) (Vilbaste 1953: 670). We have not found any additional sources of the "German" complement for either of the pine species. Evidently, people did not distinguish between foreign pines, nor differentiate them by name.

Of all pines, both the white and stone pine received greater attention. It was said of the former that this majestic tree formed large forests in North America and is an ornamental tree common (“verbreiteter” (common, widespread, prevalent)) in our gardens, parks and churchyards that can withstand the harshest of winters. Stone pine was said to have often been planted in our parks and gardens (“häufig angepflanzt” (often planted)) (Klinge 1883: 15).

Fir (*Abies* species) has no species native to Estonia. Volume III of the *Eesti õigekeelsuse-sõnaraamat* (‘Estonian Spelling Dictionary’) provides the keyword *saksamaa kuusk* with the equivalent botanical species as fir²⁰, fir tree and the German definition of “Abies, Edel-, Weiss- oder Silbertanne” (fir, silver fir) (EÕS 1937: 1242). As can be seen, this was used to name the whole *Abies* genus, not individual species. The best known fir species in Estonia is the European silver fir (*Abies alba*), known as *Edeltanne*, *Weisstanne* ja *Silbertanne*²¹ in Germany, as its needles are silvery. Even if there were attempts made to grow the European silver fir in Estonia, it was sensitive to cold here and thus was often lost to frost. The first mention of this is late, from 1865 (Kukk 1999: 86), nevertheless the species should have been given an Estonian name by then. Yet, the German–Estonian dictionary published in the 1930s provides several translations for *Edeltanne*: “hõbekuusk, nulg, nulupuu, saksamaa kuusk” (silver fir, fir, fir tree, German spruce) (Tuksam 1939: 220). The confusion presumably stemmed from the fact that, for example, the part I of List of Estonian plants called the *Abies* as *kuused* (spruces) in Estonian (KT 1918: 59). In Finnish, the European silver fir was called *Saksan kuusi*, *Saksankuusi* (German spruce) (Suhonen 1936: 18) by as early as the end of the 19th century.

Saksamaa kuusk (German spruce) has been documented in spoken fop language, as shown in this linguistic example from Juuru (1948): *saksamaa kuusk on ja saksamaa määnd* (the German spruce is and the German pine) *on - - nad on nagu allikad* (are ... they are like greyish) (“hallikad” (greyish)), *ikke okkad külgis* (still with needles attached) (Viikberg 2023: 18). In addition to the fir genus, the *hõbekuusk* or *ilukuusk* (blue spruce) (*Picea pungens*) also has greyish needles. However, this decorative spruce was not grown here until the end of the 19th century. The following excerpt shows a use for its resin: “Spruce resin for wounds. It was boiled with onion and lard. It was made quite often, children were sent to gather it. They were called German spruces and had very soft branches. With shiny dark green needles, the bottom of which were

matte – this one’s resin we gathered.” EFA II 26, 107 (11) < Helme khk. – Mall Hiiemäe < Aita Vähi (1998).

Another foreign conifer, the Douglas fir²² (*Pseudotsuga menziesii* synonym *Abies menziesii*) was introduced to Estonia in the last quarter of the 19th century. One note on this tree comes from Tallinn, where city government official Ernst Gerhard Stauden experimented with acclimatising a large number of Douglas firs in 1880, although the attempt failed completely (Klinge 1883: 11). Today Douglas firs are common in Estonia and Estonian culture (Kukk 1999: 87). Following Germany’s example, they were first planted in manor parks and forests. Forester Harry Paal said at the end of the 19th century: “Therefore, it was natural that the boom of experimenting with and growing foreign trees quickly reached Estonia from Germany. Introduced larch, fir and Douglas fir became popularly known as ‘German spruce’ among people” (Paal 1989: 80). The authors have not found any indication that the species was known by this name and suspect that Harry Paal made it up.

Confusion with the common ash. This confusion was caused by Göseken, who presented *Saxa Mah Sara Puh* as the Estonian equivalent of the German Esche and the Latin *Fraxinus* (Göseken 1660: 180). It is questionable whether the common ash (*Fraxinus excelsior*) was so rare here at the time that it would have been named by its originating country, as alien trees were. Presumably, though, he meant South European flowering ash (*Fraxinus ornus*)²³, which grows naturally in southern Europe and has seen attempts at cultivation here as well. No later dictionary or botanical literature confirms *saksamaa sarapuu* (German ash) as the name for the common ash. On the contrary, the name refers to beech (*Fagus sylvatica*), as can be seen from our early written texts: *Saxa Sahrne Puh* “büchen Holz” (German ash tree) (Göseken 1660: 150), *saksa ma saar* and *saksa sarra pu* “die Büche, Buche r. d.” (Hupel 1780: 263), *saksa ma saar* “Büche, Buche r. d.” ja *saksa sarra* od. *sarra pu* “Büche, Buche r. d.” (Hupel 1818: 215), *Saksasarra-pu* (Анненков 1878: 143).

Even in the early 20th century, this name was used to denote beech. This is also stated in the Spelling Dictionary of Estonian: *saksamaa saar* (German ash) = *pöökpui* (beech tree) (EÖS 1937: 1242). Several examples can be found in the press of the time. In the newspaper *Sakala*, someone called K. describes the German experience in their article “How to make commercial trees resilient”: “(they) had the big *saksamaa sarapuu* (Buche) [German ash tree (Buche)] chopped down when it had the most juice (moisture content)

and immediately cut down into rectangular logs” (K 1923: 4). An ad from the commercial section of a newspaper from 1906 reads: ”Updated German horse engine and threshing machines. 10 foot long, *Saksamaa sarapuu* [German ash] frames on ball bearings, which makes the machines much stronger, have made it here and are being sold at lowest possible prices by Chr. Sander’s machine shop, next to the big market in Viljandi” (Anonymous 1906: 6). A newspaper from the 1930s describes the work of model makers and mentions in addition to domestic tree species: “In model making, cedar, „*saksamaa sarapuu*” [“German ash”] and other extremely strong wood species are used to a lesser extent” (Anonymous 1938: 2). Some reports have been transcribed from oral tradition, for example Kiheponna parish records from 1942 show that: “suured laigud [laual] sees, nee on saksama sarabud” (big patches [on the table], these are German ash wood) (Viikberg 2023: 18).

The Estonian name for the beech tar drug *Oleum Fagi empyreumaticum*, sold in the pharmacies of the time, was *Saksamaa saare tõrv* (German ash tar) (Vallner 1920: 33; 1929: 124), which people and the pharmacists simply called *saaretõrv*²⁴ (ash tar) (Vallner 1929: 124). This might also have been the reason why in Estonia, people started to heat ash trees for (medicinal) tar in domestic conditions (more in Sõukand, Kalle 2008).

Common plant names with the *saksamaa* complement that were listed in dictionaries and supported by official terminology

Larch (*Larix* species) species have been introduced to Estonia from Europe and Asia, though mainly from the European part of Russia. It has been cultivated for a long time and is widespread here. We know of 230-year-old and even older larches. Because the European larch (*Larix decidua*) and the Siberian larch (*Larix sibirica*) are similar, they were for a long time, even in the 19th century, considered to be the same species *Pinus larix* according to Carl von Linné in 1753, which is why their common names coincide in both literature and among the people. Despite its early introduction, this genus was first mentioned only in Wiedemann’s dictionary: *saksa-mā-män’ d* (German pine) “Lärche, Weymouthskiefer” (larch, Weymouth pine) (Wiedemann 1869: 648) and *saksa-mā-kūs’ k* (German spruce) “Lärche” (*Larix*) (ibid.: 468). However,

Wiedemann, also known as a botanist, has caused confusion as the tree known as Weymouthskiefer is actually the white pine (*Pinus strobus*, Ger. Weymouths-Kiefer), which was introduced to Estonia almost at the same time as the larch. Teacher Juhan Kunder only presents the European larch: “Se jaost [kuuse ja männi] on ka weel saksamaa pedakas ehk lärjepuu soome keeles lehtikuusi (*Larix europaea*). See okaspuu ajab talweks omad „kübemed” ehk okad maha. Kaswab aias aga ka metsas” (Among [spruce and pine] is the German larch, lehtikuusi in Finnish. This conifer sheds its ‘particles’ or needles for the winter. Grows in both gardens and forests) (Kunder 1881: 83). The “lärjepuu” that Kunder mentions is borrowed from German (< de Lärche “larch”) and was in use in the 20th century as well: *lärjepuu* “lehtmänd” (leafy pine) (EÕS 1925: 443), *lärjepuu* (old for “lehis”) (ÕS 1980: 392) (Viikberg 2024, subsection lärjepuu). Larch has also been planted in forests in the last quarter of the 18th century in Livonia and in the early decades of the 19th century in Estonia. Only the European larch, referred to as *Lehtkuusk* (leafy spruce), *Saksamaa pädakas*, *Saksamaa mänd*, *Saksamaa kuusk* (German larch, pine, spruce) and *Lärjepuu* (larch tree) was referenced in part I of Local list of flowering plants (Niclasen, Aidas 1907: 4). Larch turpentine (“Terebinthina laricina”), known as *Saksamaa kuuse vaik* (German spruce resin) by the people, was sold in pharmacies in the 1920s (Vallner 1929: 124).

Lehtkuusk (leafy spruce) is probably borrowed from Finnish (see: *lehtikuusi* (*Larix*) Mägiste 1931: 256). Only isolated reports from the mid-19th century in the forms of *Saksannäre* (young German spruce) and *Saksankuusi* (German spruce) are known from Finland (Suhonen 1936: 194). Student Dmitri Tsvetkov has noted *saksā kūsi* (German spruce) in Votian in the 1920s (Vilbaste 1957: 177), cf. *saksaa kuusi* “lehis (larch) (Saksamaa kuusk (German spruce))” (VKS 2013: 1105). The Ingrian as well as Ingrian Finnish for larch is *saksankuusi* (German spruce) “lehtikuusi” (leafy spruce) (IMS 1971: 501), which was identified by Vilbaste as *Larix sibirica* (Vilbaste TN3: 580). *Saksäküzõ* (German spruce) “lehis; lapegle (*Larix*)” (larch) has been noted in Livonian (LELS 2012: 279). Latvian has also called larch the German spruce – *Vāczemes egle* “Lärche” (VLV 1944: 325), while today it is *lapegle: Eiropas lapegle* (European larch) and *Sibīrijas lapegle* (Siberian larch) (ELS 2015: 419).

Larch has been commonly known as the *saksamaa kuusk* in North Estonian and as the *saksamaa kuus* in South Estonian (Vilbaste 1993: 387), additionally in areas of western Estonia as *saksamaa-mänd* (German pine) and *saksamaa*

kuusk and in Setomaa as *säksakuus*²⁵, *säksamaa-kuus*, *säksamaa-petäi* (German spruce, spruce, pine) (ibid.). *Lehis* (larch) as a name was created by foresters in the 1920s and later supplanted *saksamaa kuusk* in use. This shows that the very commonly grown larch was often used to create boulevards (of mixed European and Siberian larch) did not keep their German loanword name *lärjepuu* (< Lärche (larch)), but rather an Estonian name was created to replace it (via the tree names of spruce and pine).

Shadbush (*Amelanchier* species) has far more than 20 species that hail from Europe, Asia and North America, but as they are quite similar in appearance and their systematisation is complicated and confusing, they are not commonly distinguished based on species. They are grown as a decorative and fruit tree (Arus 2022). Although Klinge mentions that they tried to grow shadbushes here as early as the 19th century (Klinge 1883: 186), botanical literature provides their first cultivation period as the 1930s (Kukk 1999: 214). The thicket shadbush (*Amelanchier spicata* (Lam.) K. Koch) was originally from America and is now on occasion widely naturalised, even in forests. The natural distribution area of the snowy mespilus (*A. ovalis* Medik.) is Central, Western and Southern Europe. It too naturalises easily here. The *saksamaa* complement was first used in the reprint of List of Estonian plants (KT 1918: 18) as *Saksamaa toompihlakas* (German shadbush). The name *toompihlakas* (shadbush) came from following the example of the Finnish *tuomipihlaja* (Vilbaste 1993: 149), previously it did not have an Estonian name. The name of the tree took different forms in the colloquial language, becoming *saksamaa toomingas*, *saksamaa tuum* (German hackberry) (Vilbaste 1953: 648, 699, 702); *saksa tüym* “toom” has been noted in Hargla in 1947 (Viikberg 2023: 18). Specialised literature has and still helps spread the name among people, as one of the parallel names for the shadbush is *Saksamaa toomingas* (German hackberry (see Arus 2022)).

Elder (*Sambucus* species) genus has two species we are more familiar with. Black elderberry²⁶ (*Sambucus nigra*) is a natural shrub that grows all over Europe, though it is sensitive to cold in Estonia and can only be found naturally in western Estonia. It has long been a well-known food and medicinal plant in Europe. Archaeological excavations show that elders were already cultivated near Pirita Monastery (1407–1577) (Reppo et al. 2021: 233). Red elderberry (*Sambucus racemosa*)²⁷ originates from Eurasia and today is widely naturalised. Both species of elderwood have also been grown here as ornamental trees.

Botanist Otto Friedrich Pistohips was the first to present the Estonian names of elder in his index of trees and shrubs growing in Livonia, including the saksamaa complemented Saksama lodja pu (German guelder rose tree) (Pistohips 1797: 180) and Koera öispu (guelder rose tree) (ibid.) as a second name variant. Both names denote the native guelder rose (*Viburnum opulus*), its common name koer(a)öispuu (guelder rose tree) being more common in North Estonian and lodjapuu (guelder rose tree) (~ lodjap, loidapu, loedapuu) in South Estonian (Vilbaste 1993: 657; EMS III: 391, 393; V: 319). Names provided by Pistohips are also passed on unchanged by Friebe, for example Koera öis pu (guelder rose tree) and Saksama lodja pu (German guelder rose tree) (Friebe 1805: 55). He says that this tree is natural on Saaremaa and other small islands, while it is sensitive to cold on the mainland and does not bear fruit. It is grown in gardens as a medicinal plant (ibid.)²⁸. Doctor Wilhelm Johann Engelbrecht Zoeckell forwards this information in his index of medicinal plants growing naturally and in gardens, except that he makes a mistake when copying names: Saksama ladja (pro lodja) pu (German guelder rose tree) (Zoeckell 1828: 389). Botanist Johann Gottlieb Fleischer then summarises the previously published Estonian names, presenting the typing error ladja pu next to Saksama lodja pu. While he notes that Saksama lodja pu is of the North Estonian (revalsche) dialect, he does not mark the Saksama ladja pu with its erroneous a (Fleischer 1830: 47). Klinge no longer provides the erroneous name, but just the saksama lodja puu (German guelder rose tree) (Klinge 1883: 31)²⁹. Eduard Philipp Körber, a clergyman in Võnnu, notes the saksa (German) in the name with an x: Saxa ma lodja pu (see Vilbaste 1993: 565). The importance of the black elderberry as a medicinal plant is demonstrated by it being mentioned in the first Estonian-language book on medicinal herbs³⁰:

Wleedri pu, ehk Saksa ma lodja pu (Elder tree or the German guelder rose tree). Shrub-like, most common in herb gardens. White flowers in loose wide bunches, strong stench, dried in the shade and given for sweating when someone has a cold, or bone aches, or neck aches or cough. Then take a spoonful of dried flowers, pour into a cup [1 kortel – here is roughly 300 ml] of boiling water, cover to prevent the medicine from evaporating and let sit for a long while. Then strain liquid and drink this water warm, lay down in bed and cover up warmly] (Jannau 1857: 50–51)

The name for the guelder rose common in North Estonian, *õispuu* (flower tree), is first associated with the *saksamaa* complement in Wiedemann's dictionary: *saksa-mā-õiz'-pū* (German flower tree) "Flieder (elder) (*Sambucus nigra*)" (Wiedemann 1869: 810), included as well is the *saksamā-lod'ja-pū* (German guelder rose tree) "schwarzer Flieder (black elderberry) (*Sambucus nigra*)" (ibid.: 569), which was mentioned in literature earlier. After that, Kunder presents the two names in his natural science textbook *Saksamaa õispuu* and *Saksamaa lodjapuu*, except he uses both of them for the entire genus of *Sambucus* (Kunder 1881: 49). Distinction was not previously made between elder species in Finland either, and the whole genus was called *Saksanheisipuu* (German guelder rose tree) and *Saksanheisi* (German guelder rose) (Suhonen 1936: 337). *Heisi* in Estonian is guelder rose.

Saksamaa õispuu (German flower tree) and *saksamaa lodjapuu* (German guelder rose tree) were last mentioned among the other common names for black elder in Jaan Spuhl-Rotalia's pomology book (1912: 392). He says that this tree mainly grows in cities, at manors and by churches because it has been imported here, and recommends that it should be grown more as a medicinal, ornamental as well as a food plant (ibid.). However, neither of the black elder names with the *saksamaa* complement appear in materials recorded at the time of the collection of oral tradition. This means that these names were no longer in use by the end of the 19th century. However, names for the *Flores sambuci* ("leeripuu õied" (elder tree flowers)) such as *Saksamaa lodjapuu õied* (German guelder rose tree flowers), *Saksamaa õispuu õied* (German flower tree flowers) and *Saksamaa õitsepuu* (German flowering tree) lived on in the vernacular of the pharmacists (Vallner 1929: 124).

The *leeder* (elder) in use today was borrowed from the Low German (< mlg *vlêder*) and was registered in the work translated by August Wilhelm Hupel for "Lühhike õppetus" (a short teaching) (Hupel 1766: 63): *Se pu mis saksad Holundri ehk Wlidri puuks nimmetawad, on keigeparrematte ja kallimatte pude seltsist* (This tree, which the masters call the Holunder or Wilder tree, is among the best and most expensive trees). Hupel's dictionary (1780: 400) lists the loan word as *wledri pu* (elder tree), listing it as spread in both Tallinn (r.) and Tartu (d.) dialects. The Baltic Germans called this tree *Flieder* (elder) "statt Holunder (*Sambucus nigra*)" (Hupel 1795: 66) (see also Pistohpors 1797: 180). In Germany, *Flieder* has primarily denoted the elder tree ("Holunder"),

but as of 16th century, the name *Flieder* also transferred to the lilac (“Syringe”; *syringa vulgaris*) (Kluge 2002).

Persian walnut (*Juglans regia*) is originally native to the eastern Mediterranean and the Persian Gulf areas, although today the trees are grown widely around Europe for their edible seeds. Here it is rarely grown as a fruit tree; there is a report from Viljandi in the 1930s that taps about using walnut trees for boulevards (Anonymous 1932a). A larger walnut tree, the seeds of which could germinate, grew in Mõntu, Saaremaa, until the end of World War II (Laas 1987: 656; Kukk 1999: 184).

Several large trees grow on Saaremaa today, for example in Kaali village: “two nearly six-metre-tall *Kreeka pähklipuud* [Persian walnut] trees, one of which yielded a good potato-basket-full of harvest this year” (Rand 2007).

The word *pähklipuu* (nut tree) appeared in Estonian in the 18th century, when Helle’s Estonian grammar (1732: 299) mentions *saksama pähkle pu*³¹ (German nut tree) (‘Wall-nussbaum’) among other tree names. The name *saksa ma pähkla pu* (German nut tree) (‘Wallnussbaum’) can also be found in Hupel’s dictionary (1780: 263) and is a word from Tallinn (revalsche), though in the second print of the book Hupel only mentions the name of the fruit *saksa ma pähklad* (German nuts) (Hupel 1818: 215). These nuts were recommended as an addition to different dishes, for example the *Uus Kögi- ja Kokka ramat* (‘New Kitchen and Cook Book’) suggests adding (if at hand) *sampinjongid* (button mushrooms), *saksama pähklaid* (German nuts) and *kapprid* (capers) to *lõhhe-* (salmon) *ja wärske leste-kalla soosti* (and fresh flounder cold sauce) (Henning 1825: 15).

Even later sources mention only the fruit (nuts) but not the tree, such as *saksa-mā-pähkel* (German nut), *sūr’-pähkel* (large nut) (‘Wallnuss’ (walnut)) in Wiedemann’s dictionary (1869: 862) or *saksa-maa-pähkel* (‘грецкий орѣхъ, волоский орѣхъ’) in Salem’s Estonian–Russian dictionary (1890: 266). Thus, they meant imported seeds, not the trees themselves, which is also confirmed by the name of the fruit spreading into fop tradition: *saksama pähken*, *saksama(a) pähknä*, *saksama pähkid* (German nut(s)) and the explanation of the Martna language guide (1945): *saksamaa pähklid* (German nuts) (are) *õuna suurdused, toodi võeralt maalt* (the size of an apple, brought from foreign lands) (Viikberg 2023: 18).

The tree is mentioned again in the first edition of List of Estonian plants when the species had to be named and became *Saksamaa pähklipuu* (German nut tree) (KT 1917: 56). However, a year later, the reprint read *Türgi pähklipuu*

(Turkish nut tree) (KT 1918: 45). Both names were used during the following transition period. For example, the official name of the drug *Folia Juglandis* sold in pharmacies was *Türgi pähkclipuu lehed* (Turkish nut tree leaves), though *Saksamaa pähkclipuu lehed* (German nut tree leaves) was still used as a parallel name (Vallner 1920: 22; 1929: 124). Although nature-related vocabulary started to favour the name *Türgi pähkclipuu* (Turkish nut tree), the use of both *türgi pähkclipuu* (Turkish nut tree) as well as *saksamaa pähkclipuu* (German nut tree) was considered correct in written language until the end of the 1930s (EÕS 1937: 1242). At the same time, the Finnish–Estonian dictionary does not mention Turkey at all and the Estonian equivalents are given: the fruit name *saksanpähkinä* is *saksamaa pähkel* (German nut) and *saksamaa pähkclipuu* is used for the species name *saksanpähkinäpuu* (German nut tree) (Mägiste 1931: 484). The third name – *kreeka pähkclipuu* (Greek nut tree) – spread among the people in the 1930s (Anonymous 1932), becoming the tree name to this day. The “*saksanpähkinä*”, still used in Finnish, was first mentioned in the 17th century: *Saxan pähkinnepuu* (German nut tree) ja *Saxan pähkinnä* (German nut). Later literature also included the dialectal forms *Saksanpähkinä-puu*, *Saksanpähkinäpuu*, *Saxan-pähkinä*, *Saxan pähkinä*, *varsinainen saksanpähkinä* (Suhonen 1936: 186).

Estonian journalist, linguist and writer Juhan Peegel has observed that in runic verse, the word “*neiu*” (maiden) has been used synonymously with *saksa õun* (German apple) on Kihnu island and in Kärđla, *saksa mari* (German berry) in Jõhvi and Paide, *Saksa pähkel* (German nut) in Kose (Peegel 1975: 99). It is likely that the name did not refer to specific species of fruit in these cases, but the *saksa* complement has been used to give the young woman an aristocratic, i.e. a fancier or more sophisticated dimension³².

Common beech (*Fagus sylvatica*)³³ originates naturally in Europe. During the warmer climate period in the early Neolithic period (6500–5000 BP), broad-leaf forests were common throughout the Estonian area and beech was one of the most important trees (Kukk et al. 2000: 101). When the climate cooled, it disappeared. Beech was one of the earliest cultivated tree species here (Hupel 1777: 493) due to its fame and sparse spread in Europe. We know of large old trees, though they are somewhat sensitive to cold (Kukk 1999: 179).

Anton Thor Helle’s dictionary translates “*Buchbaum*” as *saksamaa saar* (German ash) (Helle 1732: 299). In his book describing the nature of Livonia, naturalist Jakob Benjamin Fisher also mentions the Estonian tree name *Sak-*

samaa Saar (German ash) (Fischer 1778: 299) and specifies that the attempt to grow them from seed failed as the cold killed them all at once in the first winter. However, he adds that beech could be found quite often on the banks of the river Daugava (de Düna) near the town of Lielvārde (de Lennewarden) in today's Latvia (ibid.: 138). Hupel's dictionary from the same period (1780: 263) lists two names, *saksa ma saar* (German ash) and *saksa sarra pu* (German ash tree), which are in use both in North and South Estonian; additionally, the second edition of the dictionary also lists *saksa sarre pu* (German ash tree) (Hupel 1818: 215).

Repeating Fischer's account of tree spread, Friebe mentions (1805: 18) that beech can supposedly be found in Courland in the so-called Oberland (highlands), sometimes naturalised, but specifies that if the Latvian and Estonian names really represent that tree, its presence could be assumed. However, he had not found them growing naturally anywhere inland (ibid.). Friebe repeats Fischer's Estonian name *Saksamaa saar* (German ash) ("saar" uncapitalised), praises its good wood and recommends growing it. Later, Wiedemann claims in a book describing the vegetation of our region (Wiedemann, Weber 1852: 578–579), that Fischer's data on the natural presence of Beech are erroneous as the climate is too cold for it. He specifies that even if a few old trees had once been found (in Livonia), they were most likely planted and not naturally occurring trees. He provides *saksa-mā-sār'* (German ash) as the Estonian equivalent for "Buche" (beech) in his Estonian–German dictionary (Wiedemann 1869: 1120). In an earlier Estonian–Russian dictionary, compiled according to Hupel, the same *saksa ma saar* (German ash) was translated as "буковое дерево" (beech tree) (Lunin 1853: 166). Hupel's dictionary provides *saksa ma saar* (German ash) and *saksa sarra pu* (German ash tree) as the translations for beech (Hupel 1780: 263). While the first name did transfer into other lexicons, the second appeared in only a few cases, for example Nikolai Annenkov's botanical dictionary: *Saksamaa saar*, *Saksamasaar*, *Saksasarra-pu* (German ash, ash, ash tree) (Анненков 1878: 143). Clearly, "sarra pu" is not sarapuu (hazelnut tree) (*Corylus avellana*) but "sarapuu" is rather derived from the erroneous transcription of "saarepuu" (ash tree).

Hupel provided *walge raag* (white branch) d(örptsch) as the Estonian translation for the German *Weissbüchen* (common hornbeam) (Hupel 1780: 466). And the 1818 edition he lists *raag* (branch) d. "weisser Weidenbaum"; "Buche" (white willow, beech) and *walge raag* (white branch) d. "Weissbüchen"

(common hornbeam) (Hupel 1818: 197). It can therefore be assumed that in the early written word the Estonian name did not so much mean a species of tree growing here, but rather beechwood imported for joinery. Thus Göseken only provides beechwood (“büchen Holtz”) in his dictionary and provides *Saxa Sahrne Puh* (German ash tree) as its equivalent (Göseken 1660: 231)³⁴. Kunder also emphasises the importance of wood: “*saksamaa saar*, (*fagus sylvatica*) [German ash (*fagus sylvatica*)] which grows in Southern Europe and is used to [make] cigar boxes and herring vats” (Kunder 1881: 70). Only the names *Saksan saarni*, *Saxan saarni*, *Saksantammi*, *Saxan tammi* (German ash, oak) have been registered from the Finnish dialects in the middle of the 19th century (Suhonen 1936: 152). As you can see, the hardwood beech was named after domestic trees ash and oak, with similar hardwood properties.

When in the early 20th century, for example in the 9th edition of Jannau’s German–Estonian dictionary (1906), the name *saksamaa saar* (German ash) was still present, but later began to disappear from written language. In the first edition of List of Estonian plants the tree was called *pukspuu* (*Saksamaa saar*) (boxwood (German ash)) as a parallel name to beech (KT 1917: 39), however, in the following edition, boxwood had become *pöökpuu* (*Saksamaa saar*) (beech tree (German ash)) (KT 1918: 44). It remained in circulation as a parallel name until the end of the 1930s, when the *Estonian Spelling Dictionary* gave *pöökpuu* (beech tree) as the equivalent to *saksamaa saar* (German ash) (EÖS 1937: 1242). *Saksamaa saar* is recorded in five parishes from the collection of oral dialect (Viikberg 2023: 18), which is not much.

The source for the Estonian word *pöök* (beech) is usually presented as the Low German *böke* and/or the Swedish *bök* (EEW 1882: 2335; Raun 1882: 136; EES 2012: 406), though it seems to correspond only on the phonetic side. The explanation is questionable due to its very late occurrence in written Estonian, as Low German loans present it early on and *pöök* (beech) is quite unknown in dialect. The word has also been considered a loan in Livonian (*bǜg-bòum* “Buche, Buchenbaum” < nds *bök* “Buchecker” Kettunen 1938: 33), presently *bukspū* “pöök” (LELS 2012: 50), which also shows the *pukspuu* (boxwood) name (< de *Buchsbaum* < lad *buxus*). Finnish *pyökki* (*fagus sylvatica*) is an ancient loan from Swedish³⁵. In the case of the Estonian *pöök*, preference should be given to the Swedish origin over the Low German, although borrowing from Finnish cannot be excluded either (Viikberg 2016, subsection *pöök*).

Filbert (*Corylus maxima* Mill.) is naturally found only in Greece, Turkey and the Caucasus region, elsewhere, including here, it is grown as a cultivated plant. Its seeds are called hazelnuts. The great poet Friedrich Reinhold Kreutzwald notes in the second issue of *Ma-ilm ja mõnda* ('The World and Then Some') (1848) when describing American nature:

“In the lands of Pennsylvania, Tennessee and Virginia, their (passenger pigeons’) travelling flock shocks people, and even so these travelling packs are small compared to the millions, that towards the evening, found in the American forests on the banks of the great Ohio river in the counties of Kentucky and Indiana, where their dearest food *Saksamaa-sarrapu pähklid* (German hazelnut nuts) grow in large quantities.” (Kreutzwald 1848: 45).

The fruit of what species of tree he meant by *Saksamaa-sarrapu pähklid* (German hazelnut nut) in this text is unknown, but it is doubtful whether filbert was grown at all in America at the time. However, it could not have spread in the woods, so it must have been a native American species. This name is only associated with this species by Wiedemann 20 years later, when he provides the German “Lambertsnußbaum” as the Estonian equivalent of *saksa-mā-sara-pū* (German ash tree) (Wiedeman 1869: 1111). A description of the tree found in Vändra can be found in Estonian dialect materials (1932): *saksama sarapu on põesa moodu puu, a tal kasvavad teist moodu pähkled* (German ash is a shrub-like tree, except it grows a different kind of nut) (Viikberg 2023: 18). As you can see, there are only solitary reports of this name in literature and tradition.

White willow (*Salix alba*) is one of our most popular ornamental trees, found naturally in South Estonian and as a cultivated tree elsewhere in Estonia. From Pistohepsors’ index of trees and shrubs growing in Livonia onwards the Estonian name for the tree is *saksa pao* (German willow) (Pistohepsors 1797: 179), which suggests either the foreign origin of the tree or that “saksad” (lords) first planted it as an ornamental tree at their residences. Earlier, the branches of the white willow were important in the tradition of Palm Sunday in Western Europe (Kalle, Sander 2020). Fischer adds “puu” (tree) to the name *Saksa pao – Saksa pao-pu* (German willow tree) (Fischer 1805: 29–30) and provides the tree with a long recommendation for its use and cultivation. Hupel’s dictionary provides *saksa pao, saksa paio* (German willow) as the Estonian equivalent to the Ger-

man “weisse weide” respectively “Satzweide” (Hupel 1818: 215). The following author, Luce, only presents the name *saksa paio* in his nature book (Luce 1823: 332). Wiedemann and Weber present the name *saksa paju pü* (German willow tree) with the emphasis on the “tree” (Wiedemann, Weber 1852: 593) and note the areas of Livonia where these trees grow or were planted. The only thing they can say about Saaremaa is that Luce mentioned the tree was present there.

Later dictionaries have used both the shorter *saksa* (German), as well as the longer *saksamaa* (Germany) complement: *saksa-mā-paju* “Silberweide” (Wiedemann 1869: 831) and *saksa-paju* “Silberweide” (*Salix alba*) (ibid.: 1103), “*saksa-maa-pahju* (верба бѣлая, ветла)” (pahju = obvious typing error, pro paju) (Salem 1890: 258) and “*saksa-paju* (верба бѣлая, ветла)” (ibid.: 344). A short description in Kunder’s schoolbook says that the tree is similar to *remmelgas* (i.e. it looks like a tree, not like a shrub): “*Saksamaa paju* (*salix alba*) [German willow (*salix alba*)] grows to 80 foot in height. Similarly to the [tree trunk] willow, underneath of leaves is covered in soft, siplike hairs” (Kunder 1881: 72). Newspapers at the end of the 19th century and beginning of the 20th often used both names together: – *saksamaa paju ehk remmelgas* [German willow or [tree trunk] willow] (see chapter on willow below).. The *saksa-* (german-) complement has also been observed in this species in the Votic language as *saksā paju* (Vilbaste 1957: 177). In Votic dictionary also specifies the place of growth with the entry for *saksaa paju* (German willow): “*saksaa paju kasvop kuza ni-buit liivõzikkos*” (German willow grow in some sandy areas) (VKS 2013: 1105). In Estonian tradition there is also a weather prediction from Rõuge connected to this species: “If the leaves of the *saksamaa paio* [German willow] are very shiny in the afternoon in dry weather, it will rain the next day.” E 17093 (25) < Rõuge - Märt Siipen (1895).

Poplar (*Populus* species)³⁶ species are quite similar to each other, which is why people rarely distinguish between them and call them by the same name. We know that by the beginning of the 19th century (Germann 1807: 107), poplars were already grown quite commonly due to its rapid growth and good adaptation to our climate³⁷. There were even poplar boulevards on some roads. Poplar species are distinguished in literature and are accompanied by their common names. Previously, the name *saksamaa-haab* ~ *haav* (German aspen) was used for the widely known North American import balsam poplar (*Populus balsamifera*) (Vilbaste 1993: 491). *Saksa-aas* from Käina and *saksamaa-oab* from Kuusalu were registered as dialectal names (ibid.). Balsam poplar was

registered in Finland in the middle of the 19th century under the name *Saksan-haapa* (German aspen) (Suhonen 1936: 288).

Anton Thor Helle provides “Pappelbaum” as the equivalent for *kunnä päe pu* (European white elm) and *saksa ma aaw* (German aspen) (Helle 1732: 299), while Hupel uses *saksa ma aaw* for “Pappelbaum” (Hupel 1780: 263; 1818: 215). In the authors’ opinion, this might have been black poplar (*Populus nigra*), which Hupel also mentions in the list plant names from his region as a local species with the same names (Hupel 1777: 507). This was transposed into Estonian–Russian dictionaries, where *saksa ma aaw* (Lunini 1853: 166) and *saksa-maa-haab* (Salem 1890: 1) became the Estonian equivalents to “тополь”. However, both “Pappelbaum” and “тополь” refer to the genus *Populus*, not to a particular species. The first to describe the use of the tree was Hupel in the 17th chapter of the journal *Lühhike õppetus*³⁸: “*Kunnä päepu ehk saksama aaw* (German aspen) does not give any other medicine than ointment, that is made similarly to the birch one, tree growth and mip butter cream” (Hupel 1766: 63). “*Saksamaa haab*” (German aspen) has also moved to medical use in oral tradition: “*Saksamua huab (saksamaa haab), pappel [Populus candicans]* [German aspen, poplar]. Some use its young tarry leaves against heartache (heart disease) by chewing them and swallowing the saliva.” Vilbaste, TN 1, 424/6 (204) < Torma parish, Avinurme area – Mihkel Sild (1930); “*Saksama huab ~ paabõljoni puu ~ paplipao* [German aspen, Babel tree, poplar tree]. Buds as tea and in vodka for stomach ulcers, mayhap for bladder illnesses”. Vilbaste, TN 1, 969 (27) < Kihnu parish – Theodor Saar (1937).

Trees are presented precisely by species in early botanical writing. But since the authors were not native speakers, they made spelling mistakes in the names. For example, Fischer (1778) calls a tree occurring naturally in Livonia³⁹ the black poplar and uses the Estonian name *Künäpä* (fluttering elm) and *Saksama amo* (German?) (ibid.: 373), which in reprint have been corrected to *Küna päpu* (fluttering elm) and *Saksama aaw* (German aspen) (Fischer 1791: 642). Pistohpors (1797) also records *Künnäpäe pu* (fluttering elm) and *Saksamaa aaw* (German aspen) as naturally occurring here (ibid.: 177). Friebe gives the same names to these two species, adding recommendations for use and cultivation (Friebe 1805: 33). Wiedemann’s dictionary also mentions black poplar, using the name *saksa-maa-hāb* (German aspen) (1869: 65), while the balsam poplar is called *lehkaw saksamā-hāb* (reeking German aspen) or *palsami-saksamā-hāb* (balsam German aspen) (ibid.). In oral tradition, *saksamaa aab* (German aspen)

has only been found as a common name in Vigala parish (Vilbaste 1993: 492), though one of the authors of this article heard the common name *saksamaa haab* (German aspen) for this species even in this century in Saaremaa (Kalle 2015).

The Eurasian “saksamaa” (Germany) name for silver poplar (*Populus alba*) is first mentioned by Kunder in his book Natural science: “A relative to our aspen is the *saksamaa haab* (*populus alba*) [German aspen (*populus alba*)] with its whiteish grey leaves” (Kunder 1881: 71).

Sycamore (*Acer pseudoplatanus*) is a natural species in Europe. It was noted in our region (at the beginning of the 19th century, Grindel 1803: 300) that the tree is used in gardens, parks, urban landscaping and cemeteries, although for some reason the author describes the tree species with a question mark. Culturally and cultivation-wise, this species is considered common (Kukk 1999: 88) as it can be found quite often and becomes naturalised frequently, in addition to which there are occasional large trees from various generations. The name *Saksamaa vaher* (German maple) was created for it in the reprint of List of Estonian plants (KT 1918: 11) and it remained in the written language until the end of the 1930s (EÕS 1937: 1242), after which it was changed to *mägivaher* (sycamore). The following text from Jämaja parish can be found in dialect compilations (1957): *mis teineteis(s)e külge koutu kasuvad, tee ääri koutu, (on) saksamaa vahtrid; saksamaa vahtrid on punaste lehtedega* (which grow onto one another along the road (are the) German maples, German maples have red leaves) (Viikberg 2023: 18). However, the species cannot be identified on the basis of this description, as there could be several maple cultivars and varieties with red leaves (for example the red-leaved Norwegian maple variety Swedler). It could even refer to the Amur maple from East Asia, which grows here as well and has been known since 1865.

Spontaneously created and randomly crowd-sourced plant names with the *saksamaa* complement

White currant (*Ribes rubrum* Album Group) is only mentioned by the name *saksamaa-marjapuu* (German berry tree) in one record from Paistu (Vilbaste 1993: 535). The name probably dates from the 1920s–1940s. The formation or origin of the name has not been explained. According to Spuhl-Rotalia (1912: 189), all varieties of white currant at the beginning of the 20th century came

from either Germany, the Netherlands or France. There were no native varieties, so it could have been a common name for a variety brought from Germany.

Red elderberry (*Sambucus racemosa*) has been called *saksamaa pihlakas* (German rowan) only in Kuusalu parish in Kaberneeme, as collected by Vilbaste (1993: 566), with the naming possibly resulting from the fruit being similar to the ripe red berries of the (common) rowan (*Sorbus aucuparia*). A similar case is known in Finland, where the trees are called *Saksanpihlaja* (German rowan) (Suhonen 1936: 337), as well as *Saksanheisi* (German guelder rose) (ibid.) after *heisi* or guelder rose (*Viburnum opulus*) (see more in the black elderberry section).

The local history correspondent Marta Mäesalu sent a text to the Estonian Folklore Archives in 1971 that shows how natural vocabulary can be created. If a somewhat different tree grows in a particular culture, regardless of the fact that it is rowan (*Sorbus*) it can immediately be categorised as a “saksamaa” species:

”The black crow is a German crow, it cannot bear the cold and flies to Germany in the winter, thus the name. Additionally, the Germany name is added to trees and shrubs: poplar is the German aspen, larch is the German pine and the ornamental rowan bush is a German rowan. It was so only recently.” RKM II 333, 209 (12) < Häädemeeste – Marta Mäesalu (1971)

Horse chestnut (*Aesculus hippocastanum*) from the Eastern Mediterranean is an ornamental tree that has been cultivated here since the 17th century. In the 19th century, Klinge (1883: 99) presents the Estonian name *kastani puu* (chestnut tree) (*Rosskastanie* (chestnut) in German). Gustav Vilbaste writes that some older people on Kihnu island used the name *saksamaa sarabuu* (German ash) for the horse chestnut, though the general name on the whole island is *kastan* (chestnut) (Vilbaste 1993: 131). The text *saksa soar, see oo sur kastaani puu* (German ash, that is a big chestnut tree) was preserved on Muhu in 1986 (Viikberg 2023: 18), proving yet again how randomly and spontaneously plant names can be created. There are also many similar “German” plant names in folk songs. But in this case, we think they don’t mean specific plant species. These plant names are spontaneously created to make a better song rhyme (see e.g. “Saksamaa sine sarapuu” (H II 56, 162/3 (10)); “Saksamaa sirge sarapuu” (E 8677/80 (3)); Saksamaa sarapuu kirja” (ERA I 6, 42/3 (5)); “Saksamaa sarapuu

pääl” (H II 5, 108/9 (5)) – see more “German” tree names in this database <https://www.folklore.ee/regilaul/andmebaas>

Spindle (*Euonymus europaeus*) mainly grows in parks and gardens as an imported ornamental tree, but can also become naturalised. It can be found naturally only on the Latvian border, and on the Sõrve peninsula from where, in Jämaja parish, the only relevant record comes, noted by dendrologist Eduard Viirok:

“...hough some circumstances still speak for naturalisation, specifically only younger shrubs can be found and the locals know not how to name it (even those do not, that are greatly interested in plants, shrubs and trees, that otherwise know plants and shrubs by name), calling it the „*saksamaa lepaks*“ (“German alder”), although we have many foreign trees that are known as German trees ((*saksamaa kuusk*, *saksamaa mänd*, *saksamaa pihlakas*) [German spruce, pine, rowan])” (Viirok 1932: 122)⁴⁰

Why *lepp* (alder)? Probably due to its red fruit, because *lepäne* (alder-like) in western Saaremaa and *lepäne* ~ *lepälene* (alder-like) in Martna mean bloody or bloodied (more in Sander, Kalle 2015; EMS V: 106, 114) and *lepp* (alder) means blood in the coastal dialects of Hiiumaa and Saaremaa (EMS V: 111).

Tatarian honeysuckle (*Lonicera tatarica*) comes from Central Asia and has been reported here in Vigala as *saksamaa kukepuu* (German honeysuckle) and in Halliste as *saksamaa kohlap* (German honeysuckle) (Vilbaste 1993: 406). Both *kukepuu* and *kohlap* are names for the local harilik kuslapuu (fly honeysuckle) (*Lonicera xylosteum*), thus the alien species has been named on the basis of similarity using a *saksamaa* compliment. The European common honeysuckle (*Lonicera periclymenum*) has been recorded as *Saksan kuusama* (German honeysuckle) in Finland (Suhonen 1936: 208).

Redstem dogwood (*Cornus sericea*) comes from North America and the shrub grown as an ornamental tree has been recorded as *Saksamaa kukerpuu* (German honeysuckle) in Vigala and as *Saksamaa kõiv* (German birch) in Setomaa (Vilbaste 1993: 609). The name *kukerpuu* possibly stems from the local fly honeysuckle (*Lonicera xylosteum*); today the name *kukerpuu* denotes the common barberry (*Berberis vulgaris*). *Kõiv* (‘kask’) (birch) stems from the white berries of this dogwood species.

Willows (*Salix* species). Otto Wilhelm Masing's *Marahwa Näddala-Leht* ('Countryfop's Weekly Paper') sets Germany as an example of better preservation and use of forests and trees, and describes which commercial trees are grown there:

“Peasants in Germany harvest various trees, but most often *rämmelgat*, *ehk saksama-hawa puud* [(trunk tree) willow trees or the German aspen], or other similar trees that grows vigorously. People hold willow trees, which some on our lands call the German willow, in great esteem in the foreign lands and plant it a lot as it is quick to grow and great to burn” (Masing 1825: 236).

However, he does not mention the German willow or aspen when writing about not making good use of forests and trees in his homeland: *Lõhmust, paju ja rämmelgat ei tahha meie nimmetatagi, et neid kül ennam raisatakse, kui tarwis olleks tehha* (We do not even want to mention lindens, willows and willow trees, that they are wasted more than they should be) (Masing 1825: 231).

Which area did O. W. Masing have in mind when he wrote *mõnnes kõhhas* (in some area)? It could be the region of Avinurme and Torma, where the brittle willow (*Salix × fragilis*) has been called *saksamaa paju* (German willow) (Vilbaste 1993: 558). The name suggests that the tree was grown as an imported ornamental tree due to its durability:

“Among other trees, the tree-like trunk tree willows (*Saksamaa paju, remmelga, etc.*)⁴¹ (German willow, (trunk tree) willow tree, etc.) take priority. They grow on every type of ground, are satisfied with the worst positions, can take the roughest handling and all sorts of injuries: do not grow roots too long or too wide.” (Kask 1903: 295)

Basket willow (*Salix viminalis*) is also known as the *saksamaa paju* (German willow) in the woodworking centre Avinurme (Vilbaste 1993: 563) and was used for withe weaving. The data from dialect compilation does not allow us to determine the species as the descriptions are too similar, for example as in this text from Karksi: *punatse pajose olli saksamaa pajose* (red willow was German willow); Martna: *sii taga parkis kasovad neoksed punased paiod, nee ütasse saksa paiod* (here in the back park grow such red willows, they are said to be German willows); Lüganuse: *punerdavad pajod onvad, lehed on ka tõist*

muodi, saksama pajod (blushing willows are, leaves are different too, German willows) (Viikberg 2023: 18).

We have several species of cultivated willows with red bark that have been grown both as an ornamental and commercial trees (Kalle, Sander 2020), so this description can be of either purple willow (*Salix purpurea*), Siberian violet-willow (*Salix acutifolia*) or European violet willow (*Salix daphnoides*).

Swedish whitebeam (*Scandosorbus intermedia*) as a Baltic endemic grows here on the eastern border of its area (Kukk 1999: 224), its natural area being in western Estonia and on the islands. *Saksamaa pihelgas* (German rowan) has been recorded in Mihkli and *saksamaa pihlakas* (German rowan) in Kuusalu and Tallinn (Vilbaste 1993: 599). As this is the border of the natural range of the tree species, it might have to do with ornamental trees from a tree nursery, not the naturally occurring ones. The tree has already had the name of *Saxan pihlawa* (German rowan) in Finland since the 17th century and *Saksan pihlaja* as well as *Saxan pihlaja* were recorded in the 19th century (Suhonen 1936: 356).

Previously, the whitebeam belonged to the rowan (*Sorbus*) genus (now it is synonymous with *Sorbus suecica*). Several species previously belonging to the rowan genus have “Saksamaa” (Germany) names in Finland: Finnish whitebeam (*Hedlundia hybrida* synonym with *Sorbus fennica*) *Saksan pihlaja*, *Saxan pihlava* (German rowan) (Suhonen 1936: 355, 356) and common whitebeam (*Aria edulis* synonym with *Sorbus aria*) *Saksanpihlaja*, *Saksan pihlaja*, *Saxanpihlava*, *Saxanpihkava* (German rowan) (ibid.: 355). Though, they have called the woodland hawthorn (*Crataegus laevigata*) *Saksanpihlaja* as well (ibid.: 122). It can be assumed that these Finnish names were given due to their similarity to rowan berries.

False spiraea (*Sorbaria sorbifolia*) originally comes from Asia and is a common ornamental shrub today; the plant naturalises easily. It was commonly known as *saksamaa pihlakas* (German rowan) in the first half of the 20th century. Including the dialect variants *saksamaa kanarik*, *saksamaa-pihlak*, *saksamaa-pihelgas*, *saksamaa-pihlakas*, *saksamaa-pihl* (Vilbaste 1993: 597). The names were given because its leaves are similar to those of the rowan (*Sorbus aucuparia*). In Estonia it has been known as a cultivated shrub since the beginning of the 19th century (Friebe, 1805: 337; Kukk 1999: 223), although it only got its written name, which has stayed with it to this day, *pihlenelas*, in the second edition

of List of Estonian plants (KT 1918). There is a single record of the plant in Finland as *Saksanpihlaja* (German rowan) (Suhonen 1936: 355).

Siberian peashrub (*Caragana arborescens*) is also native to Asia and was grown here early as an ornamental shrub (Hupel 1777: 524; Kukk 1999: 171). The plant can rarely be found naturalised. Kreutzwald's unpublished manuscript mentions *Saksamaa ernepuu* (German pea tree), in Kuusalus however it was known as *saksamaa pihlakas* (German rowan) (Vilbaste 1993: 224). *Ernepuu* (pea tree) is a common name for this tree because the fruit pods resemble pea pods. It is also called *saksamaa pihlakas* (German rowan) because its leaves are reminiscent of those of the rowan (*Sorbus aucuparia*).

(Wild) rose (*Rosa* species) is commonly known in Kuusalu as *lurdipuu* (rose hip tree) (Vilbaste 1993: 537; EMS V: 519), although Kuusalu dialect materials also contain *saksamaa lurdipuu* (German rose hip tree), which seems to imply a cultivated variety or species. This species could be the burnet rose (*Rosa pimpinellifolia*) (Viikberg 2023: 17), or more specifically it can be the variety "Plena" (Kukk 1999: 222), which was known here early on (Fischer 1778: 119; Kukk 1999: 222).

Conclusion

Saksamaa (Germany) and *saksa* (German) complemented plant names are most common in Estonian and Finnish, with fir, beech, larch, elder, Persian walnut tree, poplar, Swedish whitebeam and false spiraea present in both languages. Among other related languages Estonian has larch and silver willow tree in common with Vortian, and larch in common with Ingrian, Livonian and Ingrian Finnish

As has been shown above, names with *saksamaa* and *saksa* complements can be divided into three categories: a) names only found in early writings that are not present in oral tradition; b) common *saksamaa* complemented words that were listed in dictionaries and supported by official terminology; c) individual *saksamaa* complemented common names collected from the people.

Alien species using the *saksamaa* or *saksa* complements were found among fruit tree, ornamental trees, medicinal plants as well as forest trees. Older literature also has examples of these names being used not only for alien trees but also for their fruits (for example citrus, plums, chestnuts); for their wood

(for example beech) as used in joinery; or for medicines (for example beech tar) as used by pharmacies. In one case, due to the similar names, the name of an alien tree, beech, (*saksamaa saar* (German ash)) has transferred to a local tree species, saarepuu (common ash) through the drug (*saaretõrv* (ash tar)) produced from it. As can be seen, the hardwood beech was named after domestic trees ash and oak, which have similar hardwood properties. Obviously, the beech *saksamaa sarapuu* has nothing to do with the sarapuu (hazel), rather, “sarapuu” is probably the erroneous transcription of “saarepuu” and has been passed on through literature.

There are also cases where the *saksamaa* complement is used for several alien species. For example, larches, firs and alien spruce species – which differed from the local spruce by the silvery colour of their needles – have been called “German spruce”. Species of plants within the genus were not always distinguished, which is why all poplar species became “German aspen”. Names for alien trees had to be created in Estonian from an early time when the nature of Southern Europe and North America had to be described.

As it turns out, species sensitive to cold, which had to be grown in greenhouses during cold periods or as potted plants, were categorised as “German trees” in the 18th century (the first reports are from the 17th century). Thus these *saksamaa* names could have spread by Estonians taking care of plants in greenhouses. Alien species were named after their similarities to local species by adding “Saksamaa” in front of spruce, rowan, willow, etc. Later, these *Saksamaa* names were often replaced by calques of German plant names. In individual cases, the name of an alien tree species could have been borrowed from another Finno-Ugric language (for example *nulg* (fir) from Mari, *toompihlakas* (shadbush) from Finnish), or an original name was created (for example *lehis* (larch)). People could spontaneously add “saksamaa” to a tree that resembled a local one (for example rowan *Sorbus*) to create new tree names even in the 20th century.

We can observe when at the latest alien species arrived in Estonia based on language data, as well as the form in which new linguistic forms reached North and South Estonian. There were differences in many tree and shrub names in North and South Estonian dialects due to the two written forms that had arisen from the two former provinces. This is very noticeable, for example, in the case of pear, elder and willows.

However in fop songs, a *saksa* complement could denote something lordly, i.e. flamboyant, better or nobler (for example *saksa õun* (German apple) or *saksa mari* (German berry) for a young girl), but not for alien species literally.

Notes

¹ However, it has been suggested that other foreign “German” tree species such as *saksamaa vahert* (German maple) (Anonymous 1930: 4) and the *Saksamaa haab* (German aspen) (Bergmann 1903: 284) should be planted to enrich bee collection areas.

² The place name *Saksamaa* (Deutschland, Germany) appears in Estonian at the latest from Stahl’s grammar (1637: 48) onwards as *Saxamah* and meant both Germany and abroad in general; see for example Wiedemann’s dictionary *saksa-mā* (German land) ‘Deutschland; Ausland’ (Germany; foreign land) (1869: 1103). In general, Germany was the synonym for a foreign land (especially Europe).

³ Among the archived documents of Jüri Kivimäe, there is a report stating that the residents of Tartu saw camels and turkeys in their city as early as 1534 (Kivimäe 1985: 53–55). The turkey (*Capunysch thier* (animal from Calicut)) had been brought by a good friend of the bishop of Tartu from Germany along with a “murjan” (Moor) (*Moriann*) (ibid.: 53).

⁴ Göseken did not base his dictionary on biological interests but on vocabulary. When foreign plants, animals and fruits did not yet have an Estonian name, he formed them as paraphrases. Thus, for example, *Saxa mah keggi* (Saksamaa kagu (German cuckoo)) “turteltuvi” (turtle dove) or *Saxa mah tango* (Saksamaa tangud (German groats)) “riis”, “hirss” (rice, millet) were born. As pointed out in Kai Tafenau’s study (2011: 425–439), Göseken did not work on his own, but used as an example for vocabulary John Amos Comenius’ *Janua linguarum reserata* (“The Door of Languages Unlocked”) (1631), and in German *Die Neue Sprachenthür* (“The New Language Door”) (1633). Among the names relating to the country of origin, we can highlight the turkey, *die Indianische* (the Indian) (*die calekutische*) (the Calicutian) *hüner* (chicken), presented in Chapter 14 of animals and birds, while chapter 11 of trees and fruits does not contain any names relating to country of origin (Comenius 1633).

⁵ The *wilder* complement refers to the naturalisation of the elderberry in Estonia, although whether it referred to the black or red elder is unclear.

⁶ Toomas Kukk mentions *Prunus domestica* subspecies *domestica* in his book (Kukk 1999: 220).

⁷ In south Estonia, the previous general name for the *Malus* species was *uipuu*, *uibu*, *uibupu* or simply *ubinapu* (apple tree) (Vilbaste 1993: 418).

⁸ See the final sentence of the plum tree section.

⁹ Pomber is, in literal translation, puumari (tree berry) (cf. nds Boom-Bier, Baltic German Bumbleere).

¹⁰ Cotton is the product of the cotton shrub (*Gossypium* species) obtained by drying the cellulose-containing fibres that covers its seeds. Cotton bushes are grown in the tropics and subtropics. Until the 19th century, cotton was a luxury commodity in Europe, brought from India <http://entsyklopeedia.ee/artikkel/puuvillap%C3%B5%C3%B5sas>.

¹¹ Obviously, the primary purpose of the translation was to teach Estonian chefs working in German households, but through this many foods and food terms that were later well known began to spread (see Viies 1985).

¹² Samuel von Holst's German manuscript was first published as the Latvian translation "Dahrsa-Kallenders" (Garden Calendar) (1796) and was then translated from Latvian into Tartu dialect by Friedrich David Lenz, the first lecturer of Estonian at the University of Tartu.

¹³ The asterisk in front of the keyword indicates that this is still a new word.

¹⁴ Georg Alexander Tuksam's (1883–1936) manuscript of the dictionary was completed and edited by linguist Elmar Muuk. The dictionary was published in a total of five editions, both in shorter and complete formats, with the latest version published in Geislingen, Germany (1947).

¹⁵ Old German spelling, the tree is now known as *Edepastanie*, *Esskastanie*, *Echte Kastanie*.

¹⁶ In English, the fruit is called a nut: sweet chestnut, Spanish chestnut, chestnut. In German, the edible seed is called a nut ("Nuss"). It is likely that Göseken translated this name from German.

¹⁷ See also https://it.wikipedia.org/wiki/Castagno_dei_Cento_Cavalli.

¹⁸ See the section of the common beech (*Fagus sylvatica*).

¹⁹ See the section on the larch (*Larix* species) family.

²⁰ The word 'nulg' (fir) originates from the Mari language (< *nulyo*) (EES 2012: 321) and was borrowed into Estonian in the 1920s. The old explanation went like this: "The word nulg was taken from the Cheremish language where it can be found with the same meaning. The same stem, though modified, exists in other Finnic people living by the Volga River as well" (Kiiusek 1926: 266).

²¹ The red fir (*Abies procera*) from America is also known by the same names in Germany and is a valued Christmas tree, although it was relatively rare here at the beginning of the 20th century.

²² This species was introduced to Europe from America only in the first half of the 19th century (Paal 1989: 79). The Fraser River Douglas fir (*Pseudotsuga menziesii* variety *caesia*) has been cultivated here as a forest tree since the beginning of the 20th century.

²³ See chapter for common beech.

²⁴ Pharmacist Rudol Vallner specifies: *öieti peaks saaretõrva nime all Saksamaa saare ehk pöökpõu tõrv tarvitusel olema, selle nime all on aga teised ülesloetud ained tarvitusel, eriti kadakatõrv (Oleum Juniperi empyreumaticum) ja põdrasarve õli (Oleum Cornu Cervi) (German ash or beech tar should be used by the name of ash tar, but other substances listed are in use instead, especially juniper tar and ep horn oil); (üalpool loetletust) kadakatõrva ja tõkatit (Oleum Rusci) tarvitatakse ka sissevõtmiseks, põdrasarve õli ainult pealt määrimiseks (juniper tar and tar are used internally as well, ep horn oil only externally) (Vallner 1929: 123).*

²⁵ It was once noted that *säksa* (German) is currently written as *s'aksa* (ä being the signal that the *s* is refined).

²⁶ Vilbaste considered that the earlier names of this species belongs to the red elderberry, which is more widespread in Estonia (Vilbaste 1993: 565).

²⁷ See more in the red elderberry section below.

²⁸ Hupel already has exactly the same info, but he provided Latvian names instead of Estonian ones (Hupel 1777: 496).

²⁹ Klinge mentions that 15 varieties are grown in gardens and also notes the Estonian names: *leedri puu*, *koera öis puu*, *lodja öis puu*, *hollandri puu* (elder tree, guelder rose tree) (Klinge 1883: 31/2).

³⁰ The same use and the same common names are also provided in the most popular medicinal herb book of the 1980s (see Tammeorg et al. 1985: 73).

³¹ This species has been called *saksan pähkinä* (German nut) in Finland since the 17th century (Suhonen 1936: 186).

³² See also Estonian phrases: *Kena nagu saksa õun* (Lovely like a German apple); *Tüdruk nagu saksa õun* (Girl like a German apple). <https://www.folklore.ee/justkui/sonastik/>.

³³ See also the sections on the common ash and the common hornbeam, above.

³⁴ Vilbaste mistakenly marked it as the common ash (*Fraxinus excelsior* L.) in his book (Vilbaste 1993: 324).

³⁵ In Finland, the name *böki* has been mentioned as early as in 1580 (SSA 2: 454), but *Saksan saarni* (German ash) and *Saksan tammi* (German oak) only in the year 1826 (Suhonen 1936: 152).

³⁶ The equivalent for the German *Pappel* has been registered in Latvian as *Vācijas apse* (“saksamaa haab” (German aspen)) (VLV 1944: 388), which was later replaced by the loan word *papele* “pappel” (poplar) (ELS 2015: 607).

³⁷ A few of these trees planted in the 18th century managed to become landmarks in the 20th century due to their impressive appearance, while “Saksamaa haab” (German aspen) remained as the name for the species in, for example, the Rāpina “Kõstrimäe uhkus” (‘pride of Churchwarden’s Hill’), a 150-year-old tree (Anonymous 1934: 6), and in the Mustjala “Mustjala puudekuningas” (‘Mustjala tree king’), a 150–180-year-old example (Anonymous 1932b: 3). Poplar saplings were taken to Saaremaa island across the sea from Sweden (ibid.). These trees later became navigation marks on Saaremaa (Kalle 2015).

³⁸ Peter Ernst Wilde’s journal *Landarzt* (1865), published in the then Mitau, was translated into Estonian by the Põltsamaa pastor August Wilhelm Hupel. The common name for the tree comes from the translator.

³⁹ In early Livonian descriptive botanical literature, the misinformation that black poplar is natural in the region is repeatedly mentioned. However, this tree is not considered natural in Estonia or Latvia today. The first natural sites are as far away as southern Lithuania.

⁴⁰ Vilbaste also put it in his book (Vilbaste 1993: 310).

⁴¹ They might have had the reddish hybrid brittle willow (*Salix × rubens* Schrank) in mind here, which became known relatively late (Klinge 1883: 68), but is often found in our cultures (Kukk 1999: 229). Or the brittle willow (*Salix rubens*), which can be found naturally more in southern Estonia.

Acknowledgements.

Raivo Kalle’s research writing was supported by ETAG research grant no. STP37.

The original article was published in Estonian: Viikberg, Jüri; Sander, Heldur; Kalle, Raivo (2024). Saksamaa- ja saksa-täiendiga võõrpuud ja -põõsad varases kirjakeeles ja rahvasuus. *Akadeemia*, 3, 471–517.

SOURCES

Archive sources

Estonian Folklore Archives

E = Matthias Johann Eisen's folklore collection.

RKM = Fr. R. Kreutzwald State Literary Museum, current Estonian Literary Museum Folklore department.

Vilbaste TN = Gustav Vilbaste Folklore collection.

EFA = Estonian Folklore Archives collection.

References

- Annenkov, N. 1878. *Botanicheskiy slovar'* [Botanical dictionary]. Sankt-Peterburg: tipografiya Imperatorskoy Akademiy Nauk
- Anonymous 1896. Puu- ja aiavilja kuivatamine. Sahwti ja wiina tegemine puuwiljast ja marjadest. R. Zabeli järele [Drying of fruit and garden produce. Making juice and vodka from fruit and berries. On the teaching of R. Zabel]. In: *Põllumees*, 15: 228–237.
- Anonymous 1906. Uuendatud Saksamaa göplid ja rehepeksu masinaid [New german horse engines and threshing machines]. In: *Kodumaa: politiline, kirjandusline ja majandusline ajaleht*, 13 juuli 1906, p. 6
- Anonymous 1930. Aednikud ja mesinikud oma päevaküsimusi arutamas [Gardeners and beekeepers discussing their daily issues]. In: *Päewaleht*, nr. 238, p. 4.
- Anonymous 1932a. Saksamaa pähkled Wiljandi puiestikkudes [German nuts on the boulevards of Viljandi]. In: *Postimees*, nr 174, p. 3.
- Anonymous 1932b. Torm murdis Mustjala „puudekuninga“ [The storm broke the “tree king” of Mustjala parish]. In: *Meie Maa*, nr 21, p. 3.
- Anonymous 1934. Räpina „Köstrimäe uhkus“ häwineb [The “Pride of Köstrimäe” of Räpina parish will be destroyed]. In: *Waba Maa*, nr 296, p. 6.
- Anonymous 1938. Mudelist oleneb kõik! [It all depends on the model!] In: *Esmaspäev: piltidega nädalleht*, nr 49, p. 2.
- Arus, Liina (comp.) 2022. *Väike toompihlakaraamat* [A little Shadbush book]. Polli: Eesti Maaülikooli Polli aiandusuringute keskus.
- Bergmann, J. 1903. Mesilaste karjamaa ja selle parandamine [Bee pasture and making it better]. In: *Põllumees*, 17: 283–284.
- Eesti piiblitõlge 2020 = *Eesti piiblitõlge. Ajalooline konkordants* [Historical concordance of Estonian Bible Translation]. Veebiväljaanne. Tallinn: Eesti Keele Instituut. <https://www.eki.ee/piibel/>

- EES 2012 = *Eesti etümoloogiasõnaraamat* [Estonian etymology dictionary], Metsmägi, Iris (ed. In-chief). Eesti Keele Instituut. Tallinn: Eesti Keele Sihtasutus.
- ELS 2015 = *Eesti-läti sõnaraamat* [Estonian-Latvian dictionary]. Ernštreits, Valts (ed. In-chief) 2015. Riga and Tallinn. Eesti Keele Instituut.
- Erhardt, Walter; Götz, Erich; Bödeker, Nils; Seybold, Siegmund Zander 2002. *Handwörterbuch der Pflanzennamen, Dictionary of plant names, Dictionnaire des noms des plantes*. 17. Auflage. Stuttgart: Verlag Eugen Ulmer.
- EMS 1994-2024 = *Eesti murrete sõnaraamat* [Dictionary of Estonian dialects], I–VIII (a – rambima). 1994–2024. Tallinn: Eesti Keele Instituut, Veebis: <https://www.eki.ee/dict/ems/>
- ETA = *Eestikeelsete taimenimedede andmebaas. Index of Estonian Plant Names* [<https://taimenimed.ut.ee/> (accessed 30.07.2023)].
- ETLA 2023 = Viikberg, Jüri ; Sander, Heldur and Kalle, Raivo 2023. *Eesti taimede uue levikuatlase tööversioon* [. <https://otlluuk.github.io/atlas/> (vt 04.08.2023)].
- EWD 2005 = Pfeifer, Wolfgang 2005. *Etymologisches Wörterbuch des Deutschen*. München: Deutscher Taschenbuch Verlag. <https://www.dwds.de/wb/etymwb/Zwetschge>
- Friebe, Wilhelm Christian 1794. *Physisch: ökonomisch, und statistische Bemerkungen von Lief- und Ehistland: oder von den beiden Statthalterschaften Riga und Reval*. Riga: J. F. Hartknoch.
- Fischer, Jakob Benjamin 1778. *Versuch einer Naturgeschichte von Livland*. Leipzig: J. G. I. Breitkopf.
- Fischer, Jakob Benjamin. 1791. *Versuch einer Naturgeschichte von Livland*. Zweite vermehrte und verbesserte Auflage. Königsberg: F. Nicolovius.
- Fišer, Ž. 2022. 'I Climbed a Fig Tree, on an Apple Bashing Spree, Only Pears Fell Free.' In: Economic, Symbolic and Intrinsic Values of Plants Occurring in Slovenian Folk Songs Collected by K. Štrekelj (1895–1912). In: *Plants*, 11(3), 458.
- Germann, Gottfried Albrecht 1807. *Verzeichniss der Pflanzen des botanischen Gartens der kaiserlichen Universität zu Dorpat, im Jahr 1807*. Dorpat: M. Grenzius.
- Grindel, David Hieronymos 1803. *Botanisches Taschenbuch für Liv-, Cur- und Ehistland*. Riga: C. J. G. Hartmann.
- Gutslaff, Johannes 1998 [1648]. *Gutslaff Johannes. Observationes grammaticae circa linguam Esthonicam. Grammatilisi vaatlusi eesti keelest*. Lepajõe, Marju (comp). (Tartu Ülikooli eesti keele õppetooli toimetised 10). Tartu : Tartu Ülikool.
- Göseken 1876 [1660] = *Manuductio ad Linguam Oesthonicam*. Einführung zur Öhstnischen Sprache. In: *Die estnischen Grammatiken des 17. Jahrhunderts II*. Fenno-Ugrica 3. Unveränderter Nachdruck. Herausgegeben und mit einer Einleitung versehen von A.–L. Värri Haarmann. Hamburg: Helmut Buske Verlag,

- Helle 2006 [1732] = Anthon Thor Helle 1732. *Lühike sissejuhatus eesti keelde* [A short introduction to the Estonian language]. Annika Kilgi; Kristiina Ross (Translation from German and introduction). Tallinn: Eesti Keele Sihtasutus.
- Henning 1824 = Henning, Carl Matthias 1824. Uus Kögi- ja Kokka Ramat Uus Kögi- ja Kokka Ramat [New Kitchen and Cook Book]. Tallinn: Paul Carl Gottfried Dullo.
- Hupel 1976 [1766] = Hupel, August Wilhelm 1766. *Lühhike õppetus, mis sees monned head rohhud täeda antakse* [A short tutorial with some good herbs inside]. Faksiimiletrükk. Tallinn: Valgus.
- Hupel, August Wilhelm 1777. *Topographische Nachrichten von Lief- und Ehistland*. Zweyter Band. Riga: Johann Friedrich Hartknoch.
- Hupel, August Wilhelm 1780. *Ehstnische Sprachlehre für beide Hauptdialekte, den revalschen und den dörptschen*. Riga-Leipzig: Johann Friedrich Hartknoch.
- Hupel, August Wilhelm 1795. *Idiotikon der deutschen Sprache in Lief- und Ehistland*. Riga: Johann Friedrich Hartknoch.
- Hupel, August Wilhelm 1818. *Ehstnische Sprachlehre für die beyden Hauptdialekte, den revalschen und den dörptschen, nebst einem vollständigen ehstnischen Wörterbuche*. Zweyte durchgängig verbesserte und vermehrte Auflage. Mitau: J. F. Steffenhagen und Sohn.
- IMS 1971 = *Inkeroisurteiden sanakirja* [Dictionary of Inger dialects]. R. E. Nirvi ed.). Lexica Societatis Fenno-Ugricae XVIII. Helsinki.
- Jannau, Otto August von 1857. *Ma-rahwa Koddo-Arst ehk lühhikenne juhataja, kuidas iggaüks mõistlik innimenne ommas maias ja perres, kui kegi haigeks saab, agga arsti ep olle sada, wõib aidada* [Home treatment of rural people, or a short guide on how every understanding person can help in their own house and family if someone gets sick, but there is no doctor available.] Tartu: H. Laakmann.
- Jannau, Otto August von 1906. *Kõnelemised õppimiseks Eesti rahwale, kes Saksa keelt ja Saksa rahwale, kes Eesti keelt tahawad õppida = Unterredungen zur Uebung für Esten, welche die deutsche Sprache und für Deutsche, welche die estnische Sprache erlernen wollen : Saksa-eesti ja eesti-saksa keele sõnastikuga*. 9. trükk. Jurjev: H. Laakmann.
- Jasprica, N., Lupis, V. B., & Dolina, K. 2023. Botanical Analysis of the Baroque Art on the Eastern Adriatic Coast, South Croatia. In: *Plants*, 12(11): 2080.
- Jänes, Heljo and Õunmaa, Andres 1998. Ploomipuuliigid sordiaretuses [Plum tree species in varietal breeding]. In: *Agraarteadus*, 4: 258–263.
- K. 1923. Kuidas tarbepuid wastupidawaks teha [How to make utility wood durable.] In: *Sakala*, 22, 23. veebruar, p. 4.
- Kalle, Raivo 2010. Eesti võõrliikide kajastus taimravipärimuses kuni 1944. aastani [Reflection of foreign species in traditional herbal medicine until 1944.] In: *Akadeemia*, 1: 83–104.

- Kalle, Raivo 2015. Põlispuudest meremärgid: Mändjala ja Kaberneeme näitel [Nautical signs made of veteran trees: examples of Mändjala and Kaberneeme]. In: *Eesti Mets*, 1: 22–25.
- Kalle, Raivo; Sander, Heldur 2020. Kirikupaju, urvapaju: Kahe pajuliigi keeruline teekond pühadepuudeks [Church willow, pussy willow: The complicated journey of two willow species for holiday trees.] In: *Akadeemia*, 7: 1216–1237.
- Kask, H. 1903. Puude kasvatamine kõlbmata maadel ja teede ääres [Cultivation of trees on waste lands and roadsides.] In: *Põllumees*, 18: 294–296.
- Kiisvek, L. 1926. Maatulunduslikud oskussõnad. III. Aianduse oskussõnad [Agricultural Vocabulary. III. Vocabulary for gardening.] In: *Agronomia*, 6: 265–275.
- Kingisepp, Valve-Liivi 2020. Otto Wilhelm Masingu „Marahwa Näddala-Lehhe“ sõnastik [Otto Wilhelm Masing's "Rural people's weekly newspaper": dictionary.] Külli Habicht and Külli Prillop (eds.). Tartu: Tartu Ülikool.
- Kivimäe, Jüri 1985. Kaamel ja kapun Tartus aastal 1534 [Camel and turkey in Tartu in 1534.] In: *Eesti Loodus*, 1: 53–55.
- Klinge, Johannes 1883. *Die Holzgewächse von Ehst-, Liv- und Curland*. Dorpat: C. Matthesen. URL: <https://dspace.ut.ee/handle/10062/33745> (accessed 30.07.2023)
- Komenský, Jan Ámos 1633. *Die Neue Sprachenthür. Mit einer Vorrede, darinnen berichtet wird, worzu diese Dolmetschung dienstlich ist und wie sie mag gebrauchet werden*. Danzig: durch Georg Rhete gedruckt und verlegt.
- Kreutzwald, Friedrich Reinhold (ed.) 1849. *Ma-ilm ja mõnda, mis seal sees leida on : tulosaks ja õppetlikuks aawiteks Ma-rahwale* [The world around us and what to find in it: for useful and educational pastime for rural people.] Teine and. II. Tartu: H. Laakmann.
- Kukk, Toomas 1999. *Eesti taimestik* [List of Estonian plants.] Eesti Põllumajandusülikooli Zooloogia ja Botaanika Instituut. Eesti Keskkonnaministeerium ÜRO Keskkonnaprogramm. Tartu & Tallinn: Teaduste Akadeemia Kirjastus.
- KT 1917 = *Kodumaa taimed* [Plants in homeland.] Tartu: Eesti Kirjanduse Selts.
- KT 1918 = *Kodumaa taimed*. 1. jagu. Õistaimed [List of Estonian plants. Section I. Flowering plants.] Tartu: Eesti Kirjanduse Selts.
- Kukk, Toomas; Lõugas, Lembi and Veski, Siim 2000. Eesti elustiku mitmekesisuse muutustest pärast jääaega [Changes in the biodiversity of Estonian after the Ice Age.] In: *Kaasaegse ökoloogia probleemid : loodusteaduslikud ülevaated Eesti Maa päeval. Eesti VIII ökoloogiakonverentsi lühiartiklid* [Short articles of the VIII Estonian Ecology Conference.] Tartu, 26.–27. aprill 2000, pp. 90–109.
- Kunder, Juhan 1881. Looduse õpetus. Koolmeistritele ja koolidele. Teine raamat: Taimede riik [The teaching of nature. For schoolmasters and schools. Second book: Plants.] Tartu: Schnakenburgi trükk ja kulu.
- Laas, Endel 1987. *Dendroloogia* [Dendrology]. 2. ed. Tallinn: Valgus.

- LELS 2012 = Viitso, Tiit-Rein & Ernštreit, Valts 2012. *Liivi-eesti-läti sõnaraamat* [Livonian-Estonian-Latvian dictionary.] Tartu & Rīga. Tartu Ülikool, Latviešu valodas aģentūra.
- Lenz 1796 = Holst, Samuel. *Aija-Kalender, kummast kik Kärnerit woiwa öppida mis tö egga kuu ajal sünnip tehha. Kige Maa Kärneride hääs Letti keelest maakeele sisse ümbre kirjotetu nink trükkimesses wälja antu Tarto-Lina saksa Kirriku Issndast F. D. Lenz.* [A garden calendar from which all gardeners can learn what jobs to do in the garden each month. Translated from Latvian into Estonian by F. D. Lenz.] Tartu: Grenzius.
- Lithander 1781 = Warg, Christina. *Köki ja Kokka Ramat, mis Rootsi Kelest Eesti-ma Kele ülespandud on* [A kitchen and cook book translated from Swedish to Estonian.] Johann Lithander (transl.). Tallinn: A. H. Lindfors.
- Luce, Johann Wilhelm Ludwig von 1823. *Topographische Nachrichten von den Insel Oesel, in medicinischer und ökonomischer Hinsicht.* Riga: W. F. Häcker.
- Lunin, Ivan 1853. *Estonisko-Russkii slovar'* [Estonian-Russian dictionary]. Derpt: Schönmann ja Mattiesen.
- Marpurg, Georg Gottfried 1805. *Weikenne oppetusse nink luggemisse Ramat Tarto marahwa kooli laste tarbis* [A small tutorial and reading book for school children of the rural people of Tartu] Tartu: M. G. Grentsius.
- Masing, Otto Wilhelm 1823. *Marahwa Näddala-Leht* [Countryfolk's Weekly Paper], 34, 25. August.
- Masing, Otto Wilhelm 1825. *Marahwa Näddala-Leht* [Countryfolk's Weekly Paper], nr 29, 22.07; nr. 30, 29.07.
- Mägiste 1931 = Mägiste, Julius. *Soome-eesti sõnaraamat* [Finnish-Estonian dictionary]. Tartu: Akadeemiline Emakeele Selts.
- Niclasen, Karl Eugen & Aidas, Juhan 1907. *Kodumaa õiskaswud.* [Estonian flowering plants.] I. Tallinn: M. Schiffer.
- Paal, H. 1989. Ebatsuuga introduktsioon ja aklimatiseerumine Eestis [Douglas fir introduction and acclimatization in Estonia]. In: *Eesti Loodusuurijate Seltsi Aastaraamat* 71: 79–87.
- Paatsi, Vello 1993. *Eestlase geograafiline silmaring ja geograafiaõpetuse algus (kuni 1850. aastani).* Estonians' knowledge of geography and the beginning of geography education (up to until 1850). MA thesis. The manuscript is in the library of the University of Tartu and the Archive Library of the Literary Museum. '
- Paul, Hermann 1956. *Deutsches Wörterbuch* I–II. Fünfte Auflage. Bearbeitet von Alfred Schirmer. Halle (Saale): VEB Max Niemeyer Verlag. Peegel, Juhan 1975. Liitsõnalised poeetilised sünonüümid sõnale neuu eesti regivärssides [Compound poetic synonyms for the word *girl* in Estonian runo songs. In: *Sõnasõel*. Tartu: Tartu Ülikooli Kirjastus, pp. 93–102.

- PWO = *Plants of the World Online*. <https://powo.science.kew.org/> (accessed 04.08.2023).
- Pistohlkors, Otto Friedrich von 1797. Botanisches Namensverzeichnis der in Liefland einheimischen Holzarten, mit ihren verschiedenen Benennungen. In: *Neue nordische Miscellaneen* 17: 172–182.
- Plath, Ulrike 2009. Liivimaa spargel: kadunud mälestused Balti puu- ja köögivilja- kasvatusest 18. ja 19. sajandil [Livonian asparagus: lost memories of Baltic fruit and vegetable growing in the 18th and 19th centuries.] In: *Õpetatud Eesti Seltsi aastaraamat*, 2009. Tartu: Õpetatud Eesti Selts, pp. 72–101.
- Rand, Oliver 2007. Saaremaa soe kliima annab Kreeka pähklipuudele elujõudu [Saaremaa's warm climate gives Persian walnut trees vitality.]. In: *Õhtuleht*, 14. detsember 2007.
- Reppo, Monika; Lõugas, Lembe and Hiie, Sirje 2022. A post-medieval farm by the Pirita River – excavations at Kloostri 16, Tallinn. In: *Archeological Fieldwork in Estonia*, pp. 225–234. URL: https://www.arheoloogia.ee/ave2021/AVE2021_17_Rep-pojt_Pirita.pdf (accessed 01.08.2023).
- Salem, M. 1890. *Eesti-vene sõnaraamat = Эстонско-русский словарь* [Estonian-Russian dictionary]. J. Kunder and T. Kuusik (eds.). Tallinn: Th. Jakobson.
- Sander, Heldur 1998. Tallinna silmapaistavamad puud ja nende kaitse [Outstanding trees in Tallinn and their protection.] In: *Eesti dendrofloora uuringud* III. Tallinn: Infotrükk, pp. 1–82.
- Sander, Heldur (ed.) 2004. *Ülevaade arboretumite ja parkide puittaimedest = Overview of woody plants in arboreta and parks*. Tallinn: Infotrükk, pp. 1–82.
- Sander, Heldur 2008. Alien woody plants in the Baltic provinces (in Estonia) at the end of the 18 century. In: *Publicationes Instituti Geographici Universitatis Tartuensis* 105.) Tartu: Tartu Ülikooli Kirjastus, pp. 108–132.
- Sander, Heldur 2009. Võõrokaaspuud 19. sajandi Eestis [Alien conifers in 19th century Estonia.] In: *Park on paradisis kunstis ja looduses [Park is a paradise in art and nature.]* Külvik, Mart; Maiste Juhan (eds.). Tartu: Eesti Maaülikooli põllumajandus- ja keskkonnainstituut, pp. 198–215.
- Sander, Heldur; Elliku, Jüri and Roht, Urmas 2006. Levinumate võõrokaaspuude introduksioon ja metsistumine Eestis [Introduction of the most common alien conifers and their naturalization in Estonia.]. In: *ELUS-i aastaraamat*, 84: 159–184.
- Sander, Heldur; Elliku, Jüri and Roht, Urmas 2008. Eesti parkide ja kollektsioonide levinumate võõrlehtpuude ja -põõsaste introduksioonist ja metsistumisest [About the introduction and naturalization of the most common non-native deciduous trees and non-native shrubs in Estonian parks and collections]. In: *ELUS-i aastaraamat*, 85: 78–102.
- Sander, Heldur and Kalle, Raivo 2015. Kuidas kikkapuu nime sai? [How did the spindle get its name?] In: *Eesti Loodus*, 5: 20–23.

- Sõukand, Renata; Kalle, Raivo. 2008. HERBA: Historistlik Eesti Rahvameditsiini Botaaniline Andmebaas [HERBA: Historical Botanical of Estonian Folk Medicine Database]. Tartu: EKM Teaduskirjastus. <http://herba.folklore.ee> accessed 03.08.2023.
- Spuhl-Rotalia, Jaan 1912. Berries of Estonia. 2nd ed. Haapsalu: M. Tamverk.
- SSA = *Suomen sanojen alkuperä 1–3. Etymologinen sanakirja* [Origin of Finnish words 1–3. Etymological Dictionary]. Itkonen, Erkki and Kulonen, Ulla-Maija (chief eds.). (Suomalaisen Kirjallisuuden Seuran toimituksia 556. Kotimaisten kielten tutkimuskeskuksen julkaisuja 62.) Helsinki: SKS.
- Stahl, Heinrich 1976 [1637]. *Anführung zu der Ehstnischen Sprach*. (Die estnischen Grammatiken des 17. Jahrhunderts 1. Fenno-Ugrica 2.) Unveränderter Nachdruck. Kommentiert und hrsg. von Harald Haarmann. Hamburg: Helmut Buske Verlag.
- Suhonen, P. 1936. *Suomalaiset kasvinnimet. Suomalaisen eläin- ja kasvitieteellisen seuran Vanamon kasvitieteellisiä julkaisuja* [Finnish plant names. Finnish zoological and botanical Society's]. Vanamo Botanical Publications, Vol. 7 (1). Helsinki: Vanamo.
- Tafenau, Kai 2011. Heinrich Gösekeni sõnaraamatu seni märkamata eeskuju [A so far unnoticed example of Heinrich Göseken's dictionary.] In: *Keel ja Kirjandus*, 6: 425–448.
- Tammeorg, Johannes; Kook, Oskar and Vilbaste, Gustav 1985. *Eesti NSV ravimtaimed* [Medicinal plants of the Estonian SSR] 5th, ed. Tallinn: Valgus.
- Tuksam, Georg 1939. *Saksa-eesti sõnaraamat* [German-Estonian Dictionary]. Elmar Muuk (ed.). Tartu: Kirjastus „Kool“.
- Turner, N. J. 2023. New Plants, New Resources, New Knowledge: Early Introductions of Exotic Plants to Indigenous Territories in Northwestern North America. In: *Plants*, 12(17), 3087.
- Vallner, Rudolf 1920. *Arstirohtude ladina-eesti keelne sõnastik* [Latin-Estonian dictionary of medical drugs]. Tartu: Eesti Kirjanduse Selts
- Vallner, Rudolf 1929. *Eesti rahvarohtude sõnastik: käsiraamat apteekritele ja arstidele* [Dictionary of Estonian folk remedies: a handbook for pharmacists and doctors]. Tallinn: R. Vallner.
- Vestring 1720–1730 = Vestring, Salomo Heinrich 1998 [1720–1730]. *Lexicon Esthónico Germanicum*. Kaldjärv, Ellen (ed.). Tartu: Eesti Kirjandusmuuseum.
- Viikberg, Jüri 2016. *Alamsaksa laensõnad eesti keeles* [Low German loanwords in Estonian.] Online dictionary. Veebisõnastik. Tallinn: Eesti Keele Instituut <https://www.eki.ee/dict/asl/> – accessed 03.08.2023.
- Viikberg, Jüri 2023. Etno- ja toponüüme murdekeelest: saksa ja saksamaa eesti loodussõnavaras [Ethno- and toponyms from the dialect: Germany and German in the Estonian natural vocabulary]. In: Jüri Viikberg. *Sõna sekka. Valik kirjutisi*

- 1997–2023 [Selected Papers 1997–2023.] Kendla, Mari (ed.). Eesti TA Emakeele Seltsi toimetised 81. Tallinn: Eesti Keele Instituut, pp. 16–26.
- Viikberg, Jüri 2024. *Ülemsaksa laensõnad eesti keeles* [High German loanwords in Estonian]. Online dictionary. Tallinn: Eesti Keele Instituut. [https:// www.eki.ee/dict/ysl/](https://www.eki.ee/dict/ysl/) - accessed 03.08.2023.
- Viirik, Eduard 1932. Märkmeid mõnede puistaimede levimisest Eestis [Notes on the distribution of some woody plants in Estonia.] In: *Eesti metsanduse aastaraamat* 6: 120–126.
- Viires, Ants 1974. Kuidas vilja- ja ilupuud Eestisse tulid [How fruit trees and ornamental trees came to Estonia.] . In: *Eesti Loodus*, 10: 600–605.
- Viires, Ants 1985. Kokaraamatud kultuuriloo kajastajatena [Cookbooks as reflectors of cultural history.]. In: *Keel ja Kirjandus*, 3: 158–166.
- Vilbaste, Gustav 1953. *Võõrkeelsete taimenimedede register* [Index of plant names in foreign languages] Manuscripts in the Estonian Folklore Archive, in a volume in the Gustav Vilbaste archive. T. 1–3.
- Vilbaste, Gustav 1957. Vadja taimenimesid [Plant names of Vods]. In: *Emakeele Seltsi aastaraamat* III. Tallinn: Eesti Riiklik Kirjastus, pp. 173–179.
- Vilbaste, Gustav 1993. *Eesti taimenimetused* [Estonian plant names.]. Ahven, Eeva; Ahven, Heino; Parmasto, Erast; Ross, Eevi (eds.). Eesti TA Emakeele Seltsi toimetised 20 (67). Tallinn. Emakeele Selts.
- Vilberg, Gustav 1933. Eestikeelsetest taimenimedest ja nende tekkimisvõimalusist. In: *Eesti Kirjandus* XXVII, pp. 339–347.
- VKS 2013 = Grünberg, Silja (ed.) 2013. *Vadja keele sõnaraamat* [Vadja language dictionary.] 2nd ed. Tallinn: Eesti Keele Sihtasutus.
- VLV 1944 = Dravnieks, J. 1944. *Vāciski latviska vārdnīca* [German-Latvian dictionary.]. Sixth edition. Riga: Technisko un praktisko rakstu apgāds.
- Wiedemann, Ferdinand Johann; Weber, E. 1852. *Beschreibung der phanerogamischen Gewächse Esth-, Liv-und Curlands: mit möglichst genauer Angabe der Fundorte und der geographischen Verbreitung; nebst Andeutung über den Gebrauch in medicinischer, technischer und öconomischer Beziehung*. Reval: Verlag von Franz Kluge.
- Wiedemann, Ferdinand Johann 1869. *Ehstnisch-deutsches Wörterbuch. Eesti-saksa sõnaraamat*. St.-Petersburg: Buchdruckerei der Kaiserlichen Akademie der Wissenschaften. Wiedemann 1973 [1893] = Ferdinand Johann Wiedemann. *Ehstnisch-deutsches Wörterbuch. Eesti-saksa sõnaraamat*. 4th edition, after Jakob Hurt ed. Tallinn: Valgus.
- Zöckell, Wilhelm Johann Engelbrecht von 1858. *Anleitung zur Erkenntniss und Behandlung der gewöhnlichsten unter den Bewohnern der Ostseeprovinzen Russland vorkommenden Krankheiten*. Riga & Moskau: J. Deubner.

ang, Q., Weigelt, P., Fristoe, T. S., Zhang, Z., Kreft, H., Stein, A. *et al.* 2021. The global loss of floristic uniqueness. In *Nature Communications*, 12(1): 7290.

Jüri Viikberg, PhD is an Estonian philologist, linguist and lexicographer. He has upgraded himself professionally at universities in Finland and Germany. Worked at the Estonian Language Institute (since 1981) and Tallinn University (since 1997). He has published research in Russian, German, English and Estonian. He has thoroughly researched Estonian dialects and published a monograph on this topic (“Eesti murrete grammatika.” 2020) and edited dialect online dictionaries (<https://www.eki.ee/dict/kihnu/index.cgi>). In addition, he has thoroughly researched the speakers of the Estonian diaspora and the historical borrowings of the Low German language in the Estonian language (“Low German loanwords in the time of their arrival” 2014) and has also prepared relevant online dictionaries (e.g. <https://www.eki.ee/dict/asl/>).

ORCID 0009-0008-7756-0678

Heldur Sander, MsC is an Estonian natural geographer, dendrologist, science historian. He has worked at the Tallinn Botanical Garden (1975–1997), the Estonian University of Life Sciences (1998–2010), and since 2011 he is a freelance researcher. He has published research in German, English and Estonian, including hundreds of articles on the history of the introduction of alien tree species, the history of forestry, biographies of Estonian and Baltic German botanists, the history of Estonian manor and city parks, and dendrological reviews. He has also compiled and edited professional collections of articles and made dendrological inventories.

ORCID 0000-0002-7299-3801

Raivo Kalle, PhD is an Estonian ethnobiologist, botanist, science historian, food culture researcher. He has worked at the Estonian Literary Museum (2006-2017 and from 2023 to the present) and furthered his education at the University of Gastronomic Sciences in Italy (2019–2021). His research on Estonian natural food plants, plants used in Estonian folk medicine, plant names and the use of plants in rituals has received wide attention. He has published his research in

Jüri Viikberg, Heldur Sander, Raivo Kalle

dozens of internationally recognized journals and with dozens of co-authors. He has done ethnobiological fieldwork in Estonia, Latvia and Belarus. Together with Renata Sõkand, he has published a monograph in Estonian, “Eesti looduslikud toidutaimed” (2013 and reprint 2022) and “Changes in the use of wild food plants in Estonia” (2016) in English. He has also compiled and edited a collection of food culture “Estonian Ark of Taste” (in Estonian) (2021).

ORCID 0000-0002-2175-8617