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Abstract

This study examines the wine revenues of the Rákóczi family and the exchange rates of wines stored in their cellars destined for foreign markets, based on surviving sources from the period between 1660 and 1709. The Rákóczi family, of Transylvanian princely descent, was among the largest landowners in the Kingdom of Hungary. Their private estates, spanning approximately two million acres, were most profitable in the Tokaj wine-growing region. Revenue generated from wine trade and sales played a crucial role in sustaining an opulent court, maintaining a private military force, and supporting cultural and educational endeavors. The profit derived from a single barrel of wine, depending on its quality, could range from three to ten times the initial investment cost.

JEL Codes: N13, Q13, N73

Keywords: Viticulture, wine prices, wine trade

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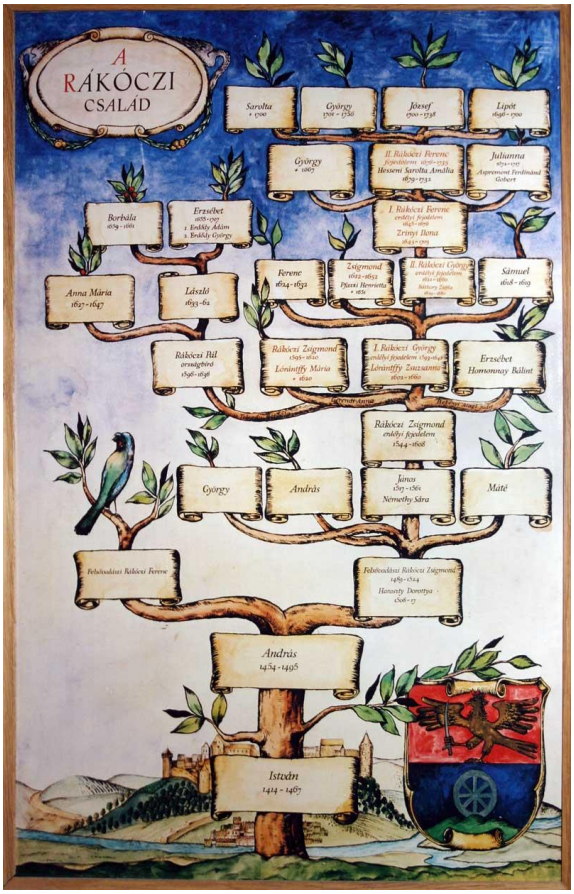
1, Introduction

The most influential landowners of the 17th century, shaping the political structure and character of the region, were the Rákóczi family. As estate owners in the Tokaj-Hegyalja region, the Rákóczis first emerged in the 16th century. The family's significant rise can be traced to Zsigmond Rákóczi, the first great estate builder, whose influence was felt in economic, political, and social spheres alike. Not only did he have access to considerable cash reserves, but through his marriages—particularly his union with Anna Alaghy—he became the guardian and later the owner of vast estates. His first major land acquisition in Tokaj-Hegyalja region was the purchase of the town of Tarcal in 1599 (TRÓCSÁNYI, 1978.; SZABÓ, 1986.).

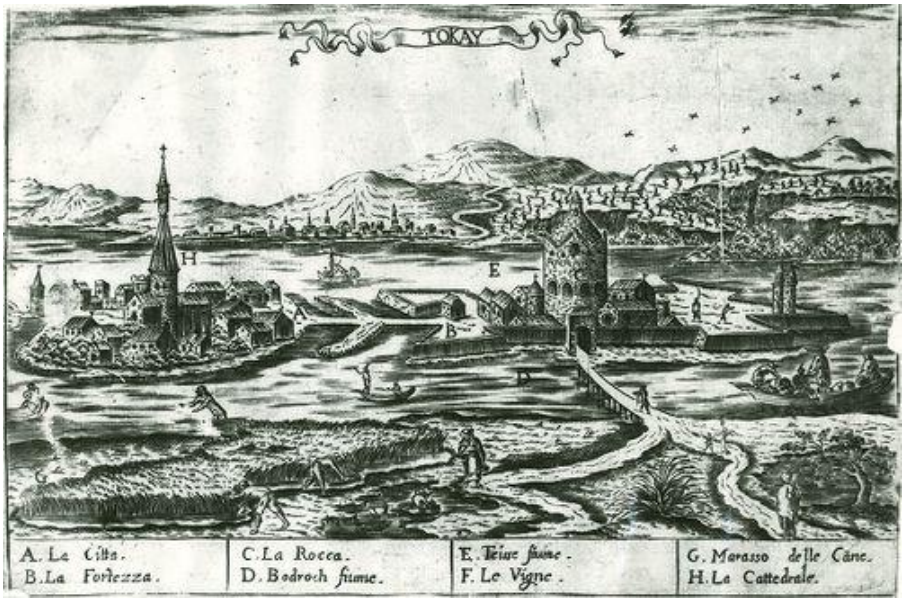
The family tree of the Rákóczi family[1]



[1] https://polc.ttk.pte.hu/tamop-4.1.2.b.2-13/1-2013-0014/7/kuruczrozsa-csalad/421_a_rkczi_fejedelmek_csaldfja.html (2024.04.14.)

Zsigmond Rákóczi was the first member of the family to become Prince of Transylvania. After his death, it was his son, George, who played the most prominent role in acquiring estates. Through his marriage to Zsuzsanna Lórántffy, he came into possession of the Sárospatak estate, and following the death of Prince Gábor Bethlen, he ascended to the throne of Transylvania. Later, he also acquired the estates of Tokaj, Regéc, and Szerencs, effectively becoming the most influential landowner in the entire Tokaj wine-producing region.

Tojaj city and the fortress (with vineyards in the background)[2]

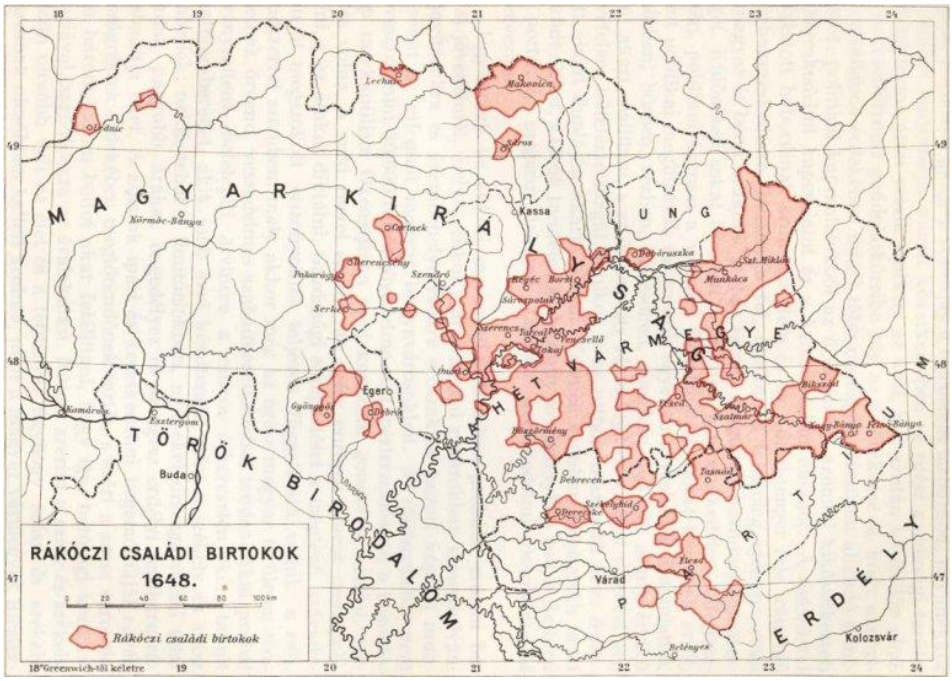


The Rákóczi family played an enduring role in viticulture and the wine trade. Subsequent members of the family—such as Prince György II Rákóczi and Prince Ferenc II Rákóczi—also gave special attention to the affairs of Tokaji wine, treating it as their most profitable enterprise. As aristocratic merchants, they paid close attention to the condition of their vineyards and oversaw their wine business with great care.

In the following sections, we present an overview of the Rákóczi family's wine revenues, the cultivation costs of their vineyards, and their wine trade operations, along with the market prices of their wines based on available historical sources. (KOMORÓCZY, 1944.; THALY 1900.; BUR, 1978.; KÖPECZI 1978.)

[2] https://maps.hungaricana.hu/hu/HTITerkeptar/36157/?list=eyJxdWVyeSI6ICJ0b2thaiJ9 (2025.04.14.)

Private Domains of the Rákóczi Family in the year 1648[3]



It is well established that a significant portion of the Rákóczi family's wealth originated from viticulture and the wine trade, alongside their involvement in cattle trading. However, due to the widespread destruction of archival materials—particularly during the wars of the 18th century—our knowledge of the scale, organization, and economic significance of their wine commerce remains limited. Despite these challenges, surviving records from the year 1686 offer valuable insight into the extent of the family's vineyard holdings and the volume of their wine production in Tokaj-Hegyalja.

According to contemporary sources, in 1686 the Rákóczi family possessed extensive vineyard estates distributed across multiple settlements in the Tokaj-Hegyalja region. These included:

- Tokaj – 13 vineyards (yielding 289 barrels[4])
- Tarcal – 14 vineyards (263 barrels)
- Keresztúr – 5 vineyards (55 barrels)
- Zombor – 3 vineyards (89 barrels)
- Szerencs – 4 vineyards (40 barrels)
- Tállya – 8 vineyards (250 barrels)

[3] https://dka.oszk.hu/html/kepoldal/index.phtml?id=020643 (2025.04.10.)
[4] In the Tokaj region, the 136-liter Gönci barrel was generally used for transporting wine at that time.

- Szántó – 4 vineyards (72 barrels)
- Fóny and Horváti – 4 vineyards (53 barrels)
- Patak – 2 vineyards (100 barrels)
- Erdőbénye – 8 vineyards (365 barrels)
- Újhely – 7 vineyards (180 barrels)
- Nagybári – 4 vineyards (26 barrels)
- Nagytoronya – 4 vineyards (48 units)
- Helmec – 9 vineyards (88 units) (KOMORÓCZY 1944, THALY 1900, BUR 1978, KÖPECZY 1978, p. 329)

The total number of surveyed vineyards (89), their yield (1,918 barrels), and their value (450,154 florin) indicate a vast wine trade, even despite the scarcity of surviving records. Moreover, a significant portion of these estates produced wines of exceptional quality.[5]

Among the Rákóczi family's extensive vineyard holdings, several parcels gained particular acclaim for the exceptional quality of their wines. These included: Szarvas in Tarcal, Hétszőlő, Német, and Barát in Tokaj, Lajos in Zombor, Tatai in Tállya, Peres and Bátori in Erdőbénye, Somlyód in Patak and Oremus in Újhely.

These vineyards not only yielded excellent wines but also produced outstanding Tokaji aszú wines.[6] Notable vineyard yields and values:

- Szarvas Vineyard: 200 *kapás* (a traditional unit of land measurement, indicating hoeing plots) [7], yielding 160–180 barrels, valued at 122,000 florins
- Hétszőlő Vineyard: 150 *kapás*, yielding 50–60 barrels, valued at 30,800 florins
- Barát Vineyard: Yielding 50 barrels, valued at 12,400 florins
- Német Vineyard: 60 *kapás*, yielding 40–60 barrels, valued at 30,000 florins
- Lajos Vineyard (Zombor): Yielding 80 barrels, valued at 50,000 florins
- Tatai Vineyard (Tállya): Yielding 100–120 barrels, valued at 30,000 florins
- Peres Vineyard (Erdőbénye): Yielding up to 200 barrels, valued at 15,000 florins

These figures not only testify to the extensive wine production on the Rákóczi estates but also illustrate the remarkable market value and prestige attached to their wines during the late 17th century.

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[5] *MNL (Hungarian National Archive) E 156.a. U. et C.* Fasc. 70. No. 22, 1686. The general wine production is indicated in parentheses.

[6] *MNL E 156.a. U. et C.* Fasc.154. No. 7, 1685; Fasc. 154. No. 8, 1686; Fasc. 154. No. 9, 1686; Fasc. 116 No. 40, 1686; Fasc. 154. No. 11, 1686; Fasc. 154. No. 13, 1686; Fasc. 70. No. 50, 1703

[7] The term of *kapa* measured approximately 94 square fathoms and was also used as a unit of area. In the case of the Szarvas vineyard in Tarcal, 200 *kapas* meant that 200 people could hoe the area in one day.

Tarcal: vineyard Szarvas[8]

2, The Rákóczi Family's Wine Production, Vineyard Management, and Wine Trade at the End of the 17th Century

The Rákóczi family placed considerable emphasis on the production of *Tokaji aszú*, [9] the renowned sweet wine that had by the late 17th century become one of Hungary's most prized exports. Archival records indicate that between 1695 and 1697, annual production reached 16 *féldécsi* (half barrels), equivalent to 8 full barrels of *aszú* wine (Bogdán, 1991, pp. 155–156). Earlier references underscore the prestige and commercial value of the wine: for instance, in 1683, the Kassa (present-day Košice) cellar of Thököly's Szepes Chamber stored 25 half barrels of *aszú*.

[8] https://maps.hungaricana.hu/hu/MOLTervtar/482/?list=eyJxdWVyeSI6ICJzemFydmFzIHN6XHUwMTUxbFx1MDE1MSJ9 (2025.04.08)

[9] An old Hungarian traditional volume measure, approximately 56–60 liters. In the Tokaj region, this is approximately 76.14 liters, which is the equivalent of half a barrel. From now on, we will refer to it as a half barrel.

A particularly detailed inventory from 1705, recorded in the cellars of Prince Ferenc II Rákóczi, lists 32 half barrels of one-year-old *aszú*, alongside 4 half barrels of *eszencia*,[10] the highly concentrated form of Tokaji wine. Additionally, the inventory noted 53 half barrels of *aszú* from the 1703 vintage and 12 half barrels of *eszencia*, amounting to a total of 101 half barrels of high-value wine. [11]

By the time Ferenc II Rákóczi assumed direct control of the family's estates, viticulture had become increasingly dependent on contracted and wage labor. Corvée labor (robot)—the obligatory labor owed by serfs—was employed only during peak periods such as the grape harvest, the transportation of manure, and the movement of wine barrels. However, even in these cases, the tasks often exceeded what could be accomplished solely by corvée laborers. More specialized agricultural activities—such as pruning, hoeing, and winter covering of vines—were routinely carried out by contracted laborers. Meanwhile, less skilled tasks, including soil and manure transport, vineyard staking, and *homolítás* (a specific local viticultural practice), were performed by day laborers.

The most specialized forms of labor, which fell under the category of "special cultivation," included the construction of stone embankments, excavation of *liktorverem* pits (wine cellars or fermentation pits), and the digging and maintenance of water drainage ditches. These tasks were almost exclusively undertaken by skilled laborers from Mecenzéf (modern-day Medzev), who were, nonetheless, paid as day laborers. Notably, records refer to only one small vineyard cultivated entirely through corvée labor—located in Tállya and worked by local serfs within their own township boundaries. [12]

Public security remained an ongoing challenge for both viticultural operations and the transportation of wine. A significant issue was the vulnerability of wine shipments en route to markets. Wagon drivers were often reported to have broken the official seals on barrels,

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[10] Aszú Eszencia is the rarest and most concentrated form of Tokaji wine, made from the free-run juice of botrytized (*aszú*) grapes that naturally oozes out without pressing. With extremely high sugar content and very low alcohol, it is not classified as wine in the traditional sense, but historically it was regarded as a luxurious product, highly prized for its rarity and exceptional quality.

[11] *MNL OL E 705.* 4. cs., 1683, *MNL G 29.* 82. cs.V.3.c./H-I.

[12] *MNL OL G 29.* 82. cs. V.3.c/G. Inventory of Vineyard Works: 1691 Erdőbénye, Tállya, 1694 Tarcal, 1703 Szántó. The records clearly indicate the use of task-based labor (*szakmány*) and wage labor in various stages of vineyard cultivation. However, there were differences, such as in Tarcal, where task-based labor was not used at all in smaller vineyards, or in cases like the 150 carts of manure transported to the Szarvas vineyard, for which payment was made. Sources confirm the important role of the people of Mecenzéf. In Erdőbénye, they were exclusively responsible for cellar digging and stone embankment construction, while in Tállya, they were tasked solely with cleaning water ditches and building stone embankments. Women also participated in vineyard work, such as tying vines in Tarcal**.**

siphoned off the high-quality contents, and replaced the missing quantities with water—an act that not only led to economic losses but also damaged the reputation of Tokaji wine. [13]

During the War of Independence (1703–1711), the majority of the Rákóczi estates' wine production in Hegyalja was first transported to the secure cellars of Patak Castle. From there, it was shipped further to fortified locations near the Polish and Galician borders—such as Munkács (Mukachevo) and Szentmiklós (Chynadiyovo). These border points served as commercial hubs, as Polish merchants, nobles, and Galician Jewish traders preferred to conduct business closer to the frontier rather than venture into the more volatile interior of Hegyalja. [14]

The available sources from the Rákóczi era offer clear evidence of what historian Imre Wellmann termed the "intensity" of vineyard cultivation. The profits generated from viticulture, including the *taksa* (a form of tax levied on wine production) and revenues from the *urbárium* tavern monopoly system (whereby manorial lords controlled local tavern operations), were reinvested into estate infrastructure and operations. Estate managers ensured a constant supply of tools, maintained regular repair schedules, and commissioned new equipment as necessary—all aimed at ensuring uninterrupted and intensive cultivation. [15]

Wellmann's concept of intensive viticulture finds clear validation in Tokaj-Hegyalja during this period. Given the high economic value of vineyards, the associated market towns and villages exhibited considerable financial strength. This was evidenced by the elevated rental rates landlords could command for vineyard leases, as well as by the substantial profits these holdings generated. (WELLMANN, 1999, p. 49)

An inventory dated January 4, 1705, recorded the value of wine stored in the Rákóczi family's cellars at 80,611 florins. A year earlier, in Patak alone, wine assets were valued at 36,807 florins and 50 denars. [16] These figures serve to underscore the enormous economic weight of Tokaji wine production within the Rákóczi estate system and the broader Hungarian economy of the early 18th century.

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[13] *MNL G 29.* 80. cs. V.3.a/C, 1703, 1706. János Petrahai, in his letter from Sztropkó Castle, complained to Kőrössy as follows: "…but indeed, half of them were missing, those whose seals had been torn off, and there were great shortages; moreover, as I noticed, some had even been adulterated with water. But I am not surprised, for there were no more than two hajdus guarding them."

[14] *MNL G 29.* 82. cs. V.3.a/G, 1710. To Munkács Castle, 216 barrels and 3 half barrel of wine were delivered, while 129 barrels and 19 half barrel were taken to Szentmiklós. The wine stored there was transported to Poland, but 112 barrels were also sold to the King of Prussia.

[15] *MNL G 29.* 82. cs. V.3.c/G, 1694. In Tarcal, the estate vineyards' vineyard steward covered the cultivation costs partly from half of the Vencsellő's village rate (32 florin 18 denars) and partly from the local tavern revenue, which contributed 152 florin 45 denars.

[16] *MNL G 29.* 82. cs. V.3.c/H-I, illetve 82.cs. V.3.c/G.

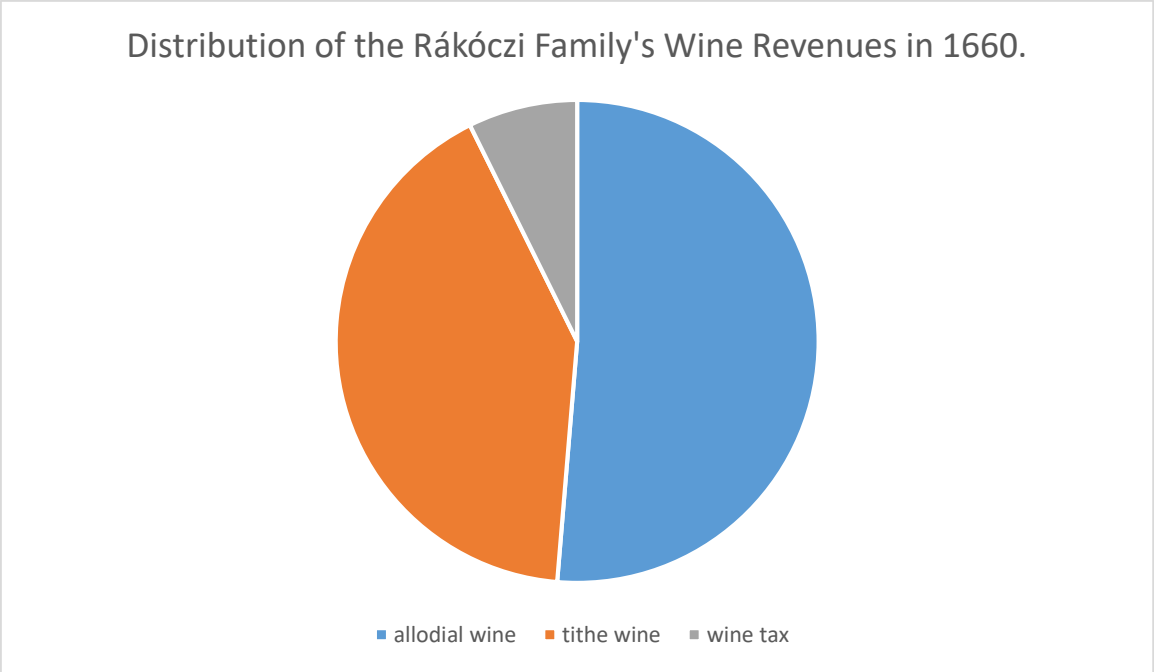
3, Wine production, vineyard management, feudal revenues and trade in the Rákóczi estates at the beginning of the 18th Century

The yield of estate-owned vineyards (*allodial production*) on the Rákóczi estates varied significantly depending on natural conditions and the broader political-military context. According to estimates by historian Csaba Petró, allodial vineyards accounted for approximately 63.30% of the total area under vine that was subject to a one-fifth feudal tax, while vineyards subject to tithe contributed 31.65% of total wine production (PETRÓ, 1986, p. 352).

Due to the fragmented and incomplete nature of historical records, the documentation of allodial production is limited. However, a rare set of figures from 1660 provides insight into the composition of wine yields on the Rákóczi family's Hegyalja estates. That year, production was distributed as follows:

- 2,136 barrels and 33 half barrels (51.52%) of wine from allodial vineyards (estate-owned and directly managed)
- 1,721 barrels and 6 half barrels (41.35%) in tithe wine collected as feudal dues from tenant vineyards
- 305 barrels and 13 half barrels (7.33%) from payments made in lieu of feudal obligations (exemption fees)

These figures not only illustrate the central role of viticulture in the economic structure of the Rákóczi estates but also reflect the complex interplay between estate management, feudal revenues, and commercial winemaking in Tokaj-Hegyalja during the late 17th and early 18th centuries.



This amounted to a total revenue of 4,162 barrels and 52 half barrels of wine. Among the surveyed estates, Tokaj alone accounted for 35.84% of total allodial production. Other major contributors included Patak with 10.87%, Regéc with 10.52%, and Szerencs (including Mád) with 17.14%.

In terms of individual yields, the Tokaj vineyard estates produced 292 barrels and 11 half barrels, while the smaller Keresztúr vineyards yielded 69 barrels and 4 half barrels. The Tarcal estate was particularly productive: the vineyards belonging to the two mansions there yielded 393 barrels and 16 half barrels of wine (MAKKAI, 1957, p. 281). [17]

A 1686 chamber survey reported that the Rákóczi vineyards produced as much as 2,618 barrels of wine that year. However, production records from the mid-1690s remain inconsistent. Surviving inventories from 1695 offer differing figures. One tithe record indicates that 279 barrels, 33 half barrels, and 71 *icce* (an old Hungarian liquid measure, approximately 0.85 liters or 0.9 U.S. quarts) were sent to Patak. Two further inventories from the archives of the Rákóczi War of Independence list:

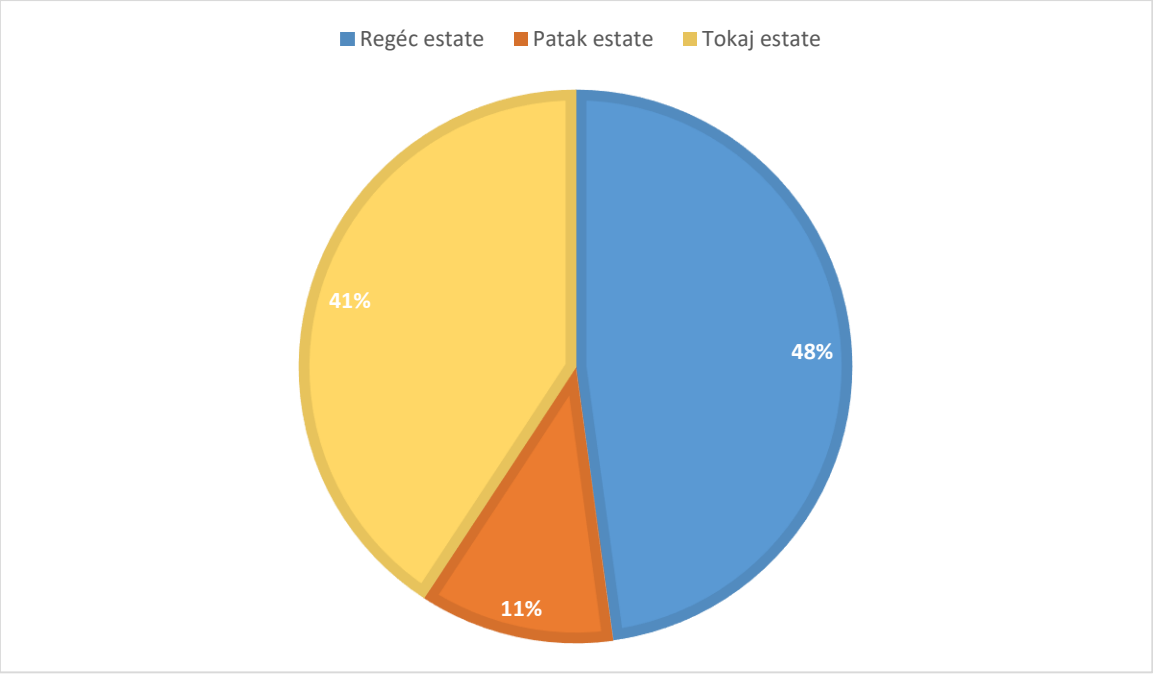
- 275 barrels, 32.5 half barrels, and 34 *icce*
- 279 barrels, 33 half barrels, and 72 *icce*

[17] *MNL E 156.a. U. et C.* 70/22, 1686. *MNL Dec. Zemplén* 1695/6. Rákóczi's wine revenue from Patak this year amounted to 403 barrels, 179 half barrels, and 56 icces of
wine, in addition to 16 half barrels of aszú and 1 half barrel of red wine. - See *MNL G 29.* 80. cs. V.3.a/C.

These discrepancies underscore the difficulties of accurately reconstructing wine production data from the late 17th century, particularly in the context of ongoing military conflict and limited administrative consistency. [18]

A more reliable record emerges from a 1704 inventory, which documented a total of 853 barrels and 104 half barrels produced by the Rákóczi estates' allodial vineyards, amounting to 72.69% of the overall yield (total production being 1,171 barrels and 148 half barrels). The Tokaj estate alone contributed 369 barrels, accounting for 40.77% of total revenue. This was closely followed by Regéc, which produced 433 barrels, or 47.84%. By contrast, the Patak estate saw a notable decline in allodial vineyard activity, yielding just 103 barrels, or 11.38% of total estate revenue from wine. [19]

Share of Wine Revenues from the Tokaj, Patak, and Regéc Estates in Prince Ferenc II Rákóczi's Manorial Income, 1704



The distribution of allodial production among individual regions was as follows:

- Tarcal – 27.51%
- Tokaj – 13.26%
- Tállya – the highest contributor, with 36.74%

[18] *MNL E 156.a. U. et C.* Fasc. 70. No. 22., 1686.
[19] *MNL G 29.* 82. cs. V3c/H-J, 1705. január 4.

The distribution of allodial wine production across the principal viticultural regions of the Rákóczi estates reveals significant regional variation. The share of production by estate was as follows:

- Tállya – 36.74% (the highest contributor)
- Tarcal – 27.51%
- Tokaj – 13.26%

In 1707, wine revenues from the Prince's Hegyalja estates amounted to 1,168 barrels, of which 859 barrels derived from allodial production, representing 75.54% of the total. In that year, the Tokaj estate yielded 331 barrels (accounting for 38.53% of allodial revenues), while Regéc produced 392 barrels (45.63%), and Patak contributed 118.5 barrels (13.79%).

As in earlier years, Tállya remained the leading center of allodial production, providing 34.22% of the total, followed by Tarcal at 23.8% and Tokaj at 14.72%. Nevertheless, Tokaj alone contributed 28.08% of the Prince's total wine revenue, underscoring its continued economic importance within the estate network.

By 1708, Tokaj's allodial vineyards yielded 246 barrels, while those in Tarcal produced a significantly higher quantity—468 barrels—highlighting Tarcal's increasing role in the estate's viticultural output during this period. [20]

4, Feudal Revenues and the Dominance of Allodial Production in the Rákóczi Era

In the early 18th century, feudal revenue structures in the Tokaj-Hegyalja region underwent a significant transformation, characterized by the increasing predominance of allodial wine production over tithe-based income (dézsma in Hungarian), even in towns with extensive viticultural zones (promontories). This shift is particularly evident during the Rákóczi era, marking a departure from earlier fiscal patterns observed in the 16th century or during the tenure of noble proprietors such as István Csáky.

Archival data illustrate this transition. In 1626, combined revenues from the one-fifth wine tax in the towns of Keresztúr, Tokaj, and Tarcal amounted to 1,124 barrels. By 1635, Tokaj's wine tithe alone still yielded 90 barrels. However, by 1701, figures from Tokaj indicate a substantial rise in allodial production, which accounted for 77.5 barrels, compared to only 6 barrels derived from tax wine and 30 barrels from the one-fifth levy. Thus, allodial production

[20] *MNL E. 156.a. U. et C.* Fasc. 58. No. 30, 1714.

represented 68.28% of the total revenue volume, surpassing both the one-fifth tax (26.43%) and tithe wine (5.28%) by a significant margin. [21] (OROSZ, 1995. p. 16-33.)

The relative decline of tithe-based income is further reflected in the proportion of tithe revenue within total estate income: 41.16% in 1660, dropping to 25.9% by 1704 and further to 24.57% in 1707. Similarly, revenues from tax wine and purchased wines remained minimal, comprising 7.43% of total income in 1660, but only 1.41% in 1704 and 1.98% in 1707.

Wine that was not sold on commercial markets or consumed directly by the estates was typically distributed through a network of seigneurial and municipal taverns. The Rákóczi estate maintained taverns in several key locations: seven in Tokaj, four in Tarcal, two in Keresztúr, and one in Tállya. These taverns played a central role in marketing wines collected via tithe and from fiscal vineyards, while also supporting the supply chains of other Rákóczi holdings.

Moreover, the wine economy of the region was sustained by a broader commercial infrastructure comprising wine cellars, manor houses, inns, and butcher shops, all of which catered to local and regional consumers, as well as foreign merchants and travelers. In Tokaj, prominent cellars included the Mihó, Tapasztó, and Várbeli Cellars. These institutions served both as storage and distribution centers, as well as points of sale.

Wine consumption was particularly high in Rákóczi's castles and major estate centers. In 1705, for example, Mihály Róth, inspector of the Hegyalja vineyards, organized the transport of wine from Tolcsva, Erdőbénye, Liszka, Keresztúr, and Mád to Makovica and various estate taverns. Notably, the entire wine tithe from Tállya was allocated for sale in the local tavern.

Quantitative records further highlight the importance of local consumption: in the first quarter of 1710, wine sales in Tarcal, Tokaj, and Tolcsva totaled 1,373 *icce* and 222 *pint*, generating 197 florins and 29 denars in profit. Prince Ferenc II Rákóczi personally oversaw tavern operations and wine pricing. In 1705, he instructed the Tokaj customs official, Sámuel Patay, to regulate sales through local taverns and to adjust pricing accordingly. [22] Like many large landowners, Rákóczi likely derived considerable profits from this channel. In that year, a barrel of wine sold in Tállya and Tokaj for between 25 and 30 florins, and the total value of wine stored in these towns' taverns amounted to 1,725 florins. [23]

[21] *MNL E. 156.a. U. et C.* Fasc. 59. No. 6, Fasc. 58. No. 22, 1701.
[22] *MNL G 29.* 89. cs. V.3.f., 1705. augusztus 4.
[23] *MNL G 29.* 82. cs. V.3.c/H-I, 1705. In Tokaj, 19 barrels of wine were stored each valued at 25 florins (with a total walue 475 florins), along with an additional 30 barrels valuad at 30 florins each (900 florins). In Tállya, 14 barrels containing wine priced at 25 florins per barrel (350 florins) were also stored. (with a total value474 florins).

Foreign vineyard owners operating in Tokaj and nearby towns were also subject to a tax known as *ferton* (ászokvám)[24], which functioned as a storage and land lease fee. Although not a major source of income, it served as a valuable supplementary revenue stream. For instance, records indicate *ferton* payments of 38 florins 97 denars in Tolcsva, 13 florins 68 denars in Keresztúr, and 21 florins 60 denars plus six barrels of tithe wine in Horváti (1696).

These developments underscore the growing importance of direct estate management and market-oriented strategies in wine production during the Rákóczi era, as well as the diversification of revenue sources through taxation, tavern sales, and leasing arrangements. The shift from tithe-based income to allodial dominance reflects broader transformations in early modern Central European agrarian economies, where noble estates increasingly emphasized profitability and direct control over production and distribution.

5, Labor Costs, Yields, and Market Prices in Early 18th-Century Viticulture in Tokaj-Hegyalja

In early 18th-century Hungary, particularly in the viticultural region of Tokaj-Hegyalja, vineyard labor costs were relatively modest compared to the market value of the wine harvest. Annual labor expenditures typically amounted to approximately 10,000 florins per estate; however, the revenue generated from wine sales substantially exceeded this figure. Despite this economic potential, most vineyards did not attain their maximum productive capacity. A representative case is the Tállya allodium, which in 1701 yielded 137 barrels of wine, though its estimated potential yield stood at 271 barrels. [25] One key factor contributing to this shortfall was the reduction in vineyard maintenance practices: rather than the customary three rounds of hoeing, many estates carried out only two, negatively impacting vine health and productivity.

A number of individual case studies further illustrate the variability in maintenance costs and yields across estates. For instance, in 1686, the Nagytoronya vineyard—managed by the vintner Ferenc Tóth—incurred maintenance costs of 246 florins and 41 denars, resulting in a harvest of 48 barrels. The Lajos vineyard recorded a higher cost of 554 florins and 76 denars, producing 80 barrels. Remarkably, the Mandulás vineyard, with minimal maintenance expenditure (60 florins and 98 denars), still produced 7 barrels of wine, effectively doubling the initial investment and demonstrating notable profitability.

[24] Ászokvám was a feudal tax or duty levied on wine production or trade, typically paid in kind (in barrels of wine) by vineyard tenants to their landlord.
[25] *MNL E 156.a. U. et C.* 116/70, 1701.

Production costs per barrel varied both temporally and geographically. In the Tállya vineyards, the average cost per barrel was recorded at 6 florins and 15 denars in 1703, rising to 9 florins and 89 denars by 1710. That same year, the fiscal vineyards in Tokaj and Tarcal reported average production costs of 7 florins and 60 denars per barrel. [26]

Market prices for wine were highly stratified by quality. A 1705 inventory from the Rákóczi cellars indicates the following price structure: first-class wine was valued at 50 florins per barrel, second-class at 45 florins, third-class at 36 florins, and fourth-class at 27 florins. Notably, the 1703 vintage from the Szarvas vineyard fetched 54 florins per barrel, underscoring its exceptional reputation.

Tokaji aszú and essencia wines commanded significantly higher prices, reflecting their unique production process and esteemed status. Prices for aszú wine per half-barrel included: 72 florins for the 1704 vintage and 90 florins for the 1703 vintage. Tokaji essencia was even more valuable, with the 1704 vintage priced at 120 florins and the 1703 vintage at 80 florins.

Export transactions occasionally diverged from domestic pricing norms. In 1702, the Bishop of Kraków purchased 50 barrels at a rate of 64 florins and 80 denars per barrel, while Prince Lubomirski acquired aszú wine at 72 florins per barrel. These figures suggest that the international market often sustained premium pricing, enhancing the economic viability of export-oriented production. [27]

Taken together, these data points illustrate the economic potential of viticulture in early modern Hungary. The gap between relatively low production costs and high market prices—especially in the case of high-quality wines—allowed for considerable profit margins. However, this potential was not always fully realized due to suboptimal vineyard maintenance and underutilization of productive capacity. The findings underscore the importance of labor input and management practices in maximizing profitability in historical wine economies.

6, Conclusion

The study indicates that both the Rákóczi family's manorial wine production and their revenues derived from feudal rights declined significantly between 1660 and 1707. This downturn was primarily the result of prolonged military instability in the Tokaj region and

[26] *MNL Dec. Zemplén* 1698/8. 1686, *MNL 156.a. U. et C.* 154/17, 1685 *MNL G 29.* 82. cs. V3c/G, 1691, 1703. To Tállya *MNL G 29.* 82. cs. V.3.c/G, 1691; or *MNL 156.a. U. et C.* 152/56, 1710.
[27] *MNL NRA* 719/21, 1696. The 50-taler wine, calculated in talers worth 180 denars each, was valued at 90 Hungarian forints! *MNL G 29*. 82. cs. V3c/H-J, 1705.

across the Kingdom of Hungary. From 1670 onward, the area was subject to continuous conflict, a situation that did not stabilize even after the 1686 liberation of the Kingdom from Ottoman rule. Armed struggles persisted, most notably during the first Hungarian War of Independence (1703–1711), led by Prince Ferenc II Rákóczi.

Due to the uncertain conditions affecting production, the family's wine-related income fell to approximately half of its previous level. However, this loss was partially mitigated by the high market value of wine. Throughout this turbulent period, exports to the Polish Kingdom and Galicia remained steady.

The Rákóczi family generated profits ranging from three to ten times the production cost per barrel, a margin largely attributable to the high market value of their wines. This elevated valuation was likely influenced by the relative rarity and prestige of Tokaji aszú and Tokaji essencia wines. These qualitative distinctions played a pivotal role in the substantial profitability of the Rákóczi wine trade.

It may therefore be concluded that the Rákóczi family's elevated income from viticulture stemmed, on the one hand, from the superior quality and distinctiveness of their wines, and on the other hand, from their above-average market value—potentially enhanced through deliberate price positioning or artificial market stimulation.

References

BOGDÁN, 1991:

Bogdán, István: Magyarországi űr-, térfogat-, súly- és darabmértékek 1874-ig. Akadémiai Kiadó, Budapest, 1991. 155-156.

BUR, 1978

Bur, Marta: A balkáni kereskedők és a magyar borkivitel a 18. században. *Történelmi Szemle 1978/2. szám (XXI. évf.),* p. 281-313.

KÖPECZI, 1978

II. Rákóczi Ferenc Emlékiratai. (A magyarországi háborúról 1703-tól annak végéig). A tanulmányt és a jegyzeteket írta Köpeczi, Béla. Archivum Rákóczianum. III. Osztály, Írók. II. Rákóczi Ferenc művei I. Budapest 1978.

KOMORÓCZY, 1944
Komoróczy, György: Borkivitelünk észak felé. Kassa 1944.

MNL OL = MAGYAR NEMZETI LEVÉLTÁR, ORSZÁGOS LEVÉLTÁR (HUNGARIAN NATIONAL ARCHIVE)
E 156 Magyar Kamara archivuma (1000-1919), Összeírások E 156 Urbaria et conscriptiones (1527-1864
G 29 G A Thököly- és a Rákóczi szabadságharcok levéltárai - G szekció (1501-1985), G Rákóczi-szabadságharc levéltára (1501-1985),0 G (25-38) Gyűjteményes rész (1501-1985)

MAKKAI, 1957
Makkai, László: Kimutatások a Rákóczi-birtokok terméseredményéről és állatállományáról (1650-1660). *Agrártörténeti Szemle* 1957/3-4. szám (I. évf.).

OROSZ, 1995
Orosz, István: A földesúri borelővételi jog Tokaj-Hegyalján a XVI-XVII. században. In: Hagyományok és megújulás (Válogatott tanulmányok a magyar mezővárosok történetéből), Sorozatszerkesztők: L. Nagy Zsuzsa és Barta János. Csokonai Kiadó, Debrecen 1995.

PETRÓ, 1986
Petró Csaba: Adalékok Hegyalja Rákóczi-szabadságharc kori gazdaság - és társadalomtörténetéhez. *Történelmi Szemle* 1986/2. szám (XXIX. évf.), 352.

SZABÓ, 1986
Szabó, András: Rákóczi Zsigmond erdélyi fejedelem életrajzához (1544-1608). *Történelmi Szemle 1986/2. szám (XXIX. évf.)*, p. 341-350.

THALY, 1900
Thaly, Kálmán: Borkivitelünk Lengyelországba 1711-1735-ig. *Magyar Gazdaságtörténeti Szemle 1900 (VII. évf.)*, p. 282-284.

TRÓCSÁNYI, 1978

Trócsányi, Zsolt: Rákóczi Zsigmond (Egy dinasztia születése). *A debreceni Déri Múzeum Évkönyve 1978*, p. 57-113.

WELLMANN, 1999

Wellmann, Imre: Mezőgazdaságtörténetünk új útjai. In: Válogatás Wellmann Imre agrár- és társadalomtörténeti tanulmányaiból (18. századi agrártörténelem). A tanulmányokat válogatta és a kötetet szerkesztette: Csiki, Tamás és Rémiás, Tibor. Officina Musei 9, Miskolc 1999.

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