

STRATEGIC DECISIONS FOR THE DEVELOPMENT OF ROMANIAN FRUIT GROWING AND VITICULTURE IN THE TWENTIETH AND EARLY TWENTY-FIRST CENTURIES

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Abstract

In the current territory of our country, the cultivation of fruit trees and vines has a very old tradition. After the unification of the Principalities (1859) and especially after the First World War, the culture of fruit trees and vines expanded as a surface, more performant varieties were introduced in terms of productivity and quality and culture technologies were upgraded.

In the years 1960-1990, the culture of fruit trees and vines has accelerated development. Many new fruit plantations were set up in the intensive and superintensive system, the assortment of varieties diversified and increased the share of valuable fruit species, in particular, apple, apricot and peach tree. New plantations with valuable varieties for red and white wines and table grapes were established in viticulture.

In the period 1990-2010, following the restitution of land to the former owners, including those areas occupied with vineyards and orchards, part of the plantations were abandoned and then deforested and the production of fruit and grapes decreased.

After the year 2010, two programmes were implemented to restore the fruit and wine heritage at the national level, first in viticulture and then also in the fruit growing. Currently, most of the new vine plantations began to produce and contribute to the achievement of important quantities of high-quality wine. In fruit trees, the new plantations that have been established or are being set up will increase the share in culture of new, profitable species to green culture technologies: seabuckthorn, hazelnut, walnut, blueberry, black and red currant and Aronia.

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Introduction

Fruit growing and viticulture are very old occupations in the lands inhabited by Romanians. Numerous historical springs show us the permanence of the cultivation of the trees and vines and the appreciation enjoyed by the harvested fruits and wine obtained from the Romanian vineyards. Since the mid-nineteenth century, fruit growing and viticulture have enjoyed greater attention and in the twentieth century they have become economic branches with an important weight in the value balance of agricultural production.

The origin of the culture of fruitful trees in the Romanian provinces cannot be specified in time. Many of the varieties cultivated in our county are originate from wild species. For a long time, until the 16-th century, the trees cultivated only around the village households. The first gardens with trees, wider as the surface and varied as species, belonged to the state leaders, the boyars and especially the monasteries. Data on the culture of trees in Moldova we learn from the work *Descriptio Moldaviae* of the leader and scholar Dimitrie Cantemir.

After the unification of the Principalities (1859), greater attention was paid to the decommissioning of the fruit growing, especially because of the great efforts of patriotic scholars such as Petre S. Aurelian, Ion Ionescu de la Brad and others. After the year 1880, a series of nursery trees were established which produced grafted young plants from a diversified assortment, including valuable foreign varieties. Then a series of varieties were introduced in the assortment, some of which are still maintained today: Jonathan, Parmen d-Or, Cure, Williams, Anna Spath, Agen, etc.

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For viticulture, it is known that in the old Dacia there were produced particularly good wines. The historical remains certify that in the V-IV centuries, b. C. are practicing winemaking in many settlements, including in the area of Moldova in centres like Cotnari, Panciu, Odobești, Orhei, or in the West in Miniș, Radna and others. Even though in the time of Burebista was decreed the deforestation of the vineyards in order to stop the exaggerated consumption of wine, it is doubtful that only a small part of the vineyards were cut, and after the Roman conquest, the vine growing flourished again on these lands. Moreover, historians say that Burebista would have ordered the deforestation of vineyards only around the border, especially with the aim of protecting the state from the foray of eastern barbarians attracted by the riches of the Dacians, including wine products.

The vine growing and the production of quality wines are perpetuated in the Middle Ages as we learn from the writings of Pietro Molmenti, a Venetian traveler who traveled to the inhabited areas of Romanians in the XII century or from Paul de Alep's accounts, from half XVII-th century. In fact, viticulture remained a longtime a profession that was given from father to son and wine obtained from certain vineyards such as Cotnari, Panciu, Odobești, Drăgășani, Jidvei, Miniș and others was famous in our country and in neighbouring countries. Each vineyard had an assortment of varieties of noble vine, adapted to the area and wines preserved the character of each area. In the last quarter of the 19th century, in our country it penetrated and quickly spread an extremely dangerous pest, the *phylloxera of the vine*, which, only in a few years, largely destroyed the indigenous vineyards. Immediately after the discovery of the *Philoxera* invasion, the government appointed a Commission for the protection of healthy vineyards, and in the year 1885 the Law on combating *Philoxera* was voted, whereby the state committed itself to distribute the necessary grafted young plants for free in order to rebuild the destroyed plantations. Destroying the vines by the *Philoxera* had a very fast rhythm. Thus, after reporting the first attacks in the Dealu-Mare area, Prahova (1884), in 1887, about 6,500 ha of destroyed vine were recorded; In 1888 statistics reported approx. 25,000 ha, and in 1898 approx. 52,000 ha. In the year 1902 they were still in the culture 142.720 ha of vine, but the surface continued to fall to about 82,960 ha in 1907. The restoration of vineyards was done by two methods: on the one hand, the method of grafting the noble, European vines on American rootstocks, resistant to the attack of *Philoxera* and on the other hand, were imported hybrid direct producers.

They come from the crossing of American vines, resistant to *Philoxera* with noble European vines and resist the attack of the *Philoxera*, but the production is weaker quality. Grafted vines were brought into a first stage from import, which led to a great number of varieties and increasing the share of foreign varieties to the detriment of indigenous varieties. Gradually, several nursery were established in traditional wine-growing areas.

2. The situation of fruit growing and viticulture in Romania in the period 1900-1945

2.1. Fruit growing

In the Statistical Yearbook of 1908 (table no.1), the situation of fruit growing in the Kingdom of Romania (Moldova-up to Prut, Muntenia and Oltenia) is presented by species, number of trees and area in year 1905. The total number of trees amounted to 48.3 million pieces and an area of 130,600 hectares.

Plum and sour cherry hold the largest number of trees-42.5 million trees in the case of plum, respectively 87.9% of the total, and the sour cherry 1.4 million trees. These species held precedence because their multiplication was vegetative. The apple and walnut followed by over 1 million trees each, respectively 2.1% of the total number of trees. The cherries and pear accounted for about 4% of the total number of trees. The same source shows that the production of fruit credited on average at 8.8 kg/tree it was appreciated as modest. The trees were most often like single tree, but we can calculate that the density of the trees was 370

trees/hectare, i.e. the trees was planted at about 5.5 m between rows and 5 m between the trees on the same row. It is also possible to calculate the total production of fruit that rises to about 425 thousand tonnes. From the total production of plums, counted on the same data at about 370 thousand tonnes, more than 60% was used for the production of a beverage named „tzuica” with a content of 25-28% alcohol.

**Table no. 1. Situation of fruit tree growing by species, number and area in 1905
(Romanian Statistical Yearbook, 1908)**

Species	No. trees	%	Area, ha	%
Plum	42.522,045	87.9	10,295	81.3
Sour cherry	1,462,082	3.0	3,677	2.8
Apple	1,037,046	2.1	3,723	2.8
Walnut	1,009,046	2.1	10,090	7.7
Sweet Cherry	907,060	2.0	3,260	2.5
Pear	628,202	1.3	2,249	1.7
Quince	298,942	0.6	467	0.6
Peach	204,759	0.4	368	0.3
Apricot, wild apricot	20,452	0.4	316	0.2
Other species	98,089	0.2	188	0.1
Total	48,369,644	100.0	130,633	100.0

After World War I, the cultivated area and the number of fruit trees grew, on the one hand, due to the growth of the country's surface with the new provinces, (Transylvania, Banat, Bessarabia and Bucovina), and on the other hand, the establishment of new plantations. Thus, a statistic from the year 1924, show in the country were 80,746,500 fruit-producing trees, from which plum trees 63,319,200 and 80% of the total. Four counties: Muscel, Argeş, Prahova and Dâmbovița owned over 5 million plum trees each. Three other counties held 2.5 million plum trees. The production of the 63 million plums, estimated at about 10 kg/tree, amounts to about 640 thousand tonnes, of which almost the entire quantity is transformed into a *tzuica*. Some of the country's specialists like Dumitru I. Ștefănescu, have campaigned to reduce the number of plum trees and increase the share of other species and to introduce methods of higher valorization of fruits (compotes, dried plums, marmalade, *magiun*, etc.). With all the efforts of the Ministry of Agriculture and State Agricultural Areas, to multiply the maloideae species (apple and pear) and to make an improvement in the structure of the assortment, the culture of plum dominated decades in Romania's fruit growing.

For a good knowledge of the country's fruit heritage, in its most extensive boundaries, we present the number of trees per species and their fruit productions in the period 1927-1938 (tables 2 and 3). It is noted that in the year 1927 statistics present a number of trees of about 74 million, about 15% less than the approx 80 million trees reported in 1924. It is possible to be an error due to the difficulties of inventories of surfaces sometimes spread to places difficult to reach at some periods of the year. The analysis of these data results in a number of interesting things:

1. The number of trees has risen in 10 years (1927-1938) from 74 million to 106 million, with an average growth rate of 2.6 million trees/year.
2. The most spectacular growth held the plum that had a growth rate of 1.4 million trees/year, but most of the plum trees was obtained from theroot suckers.
3. Other species in which numerical increases were recorded were the apple with a growth increase of 430 thousand trees per year and the apricot and wild apricot by about 240 thousand.

4. Total fruit production in the year 1927 was 1,146,800 tonnes, and in 1937 it increased to 1,484,000 tonnes. Obviously, during this period there were also years less favourable when fruit production decreased.

5. The average fruit production in kg/tree has been oscillating from one year to the next, but the following values can be appreciated on average: at the apple approx. 25 kg/tree; at the pear approx. 15 kg/tree; at quince approx. 10 kg/tree; at the plum approx. 8 kg/tree; at walnut approx. 17 kg/tree.

The state has had some valuable initiatives to support the fruit growing. In the programme entitled *The Fruit growing Initiative*, some measures were included to encourage and support the villagers to plant grafting trees of valuable species and varieties to carry out work for new technologies and to combat diseases and pests, overgrafts of trees, control of fruit nurseries as well as better valorization of fruit crops. With all these efforts, as seen from the data presented, Romania's fruit growing was much lagging behind the advanced countries. The specialists appreciated that only 10% of the total trees that existed at the time were of productive and valuable varieties and the 350,000 ha with orchards did not give enough fruit for domestic consumption in some years, and in the favorable years, the production of fruit cannot be sold at a good price.

Table no. 2. Number of fruit trees (thousand pieces) in Romania between the years 1927-1938

Year	Apple	Pear	Quince	Plum	Sweet + sour cherry	Apricot Wild apricot	Peach	Walnut	Total
1927	7,814	3,412	1,069	48,286	7,976	994	916	3,625	74,092
1930	8,579	3,529	1,030	51,459	6,760	1,504	1,032	4,469	78,362
1935	10,805	3,946	1,303	58,851	7,062	2,747	1,618	5,925	92,357
1938	13,050	4,405	1,750	65,370	8,335	3,880	2,340	6,870	106,000

Table no.3 Fruit production (thousand tonnes) in Romania between the years 1927-1938

Year	Apple	Pear	Quince	Plum	Sweet and sour cherry	Apricot Wild apricot	Peach	Walnut	Total
1927	210	62	14	551	215	16	12	61	1,146
1930	172	49	12	305	184	25	10	75	834
1935	326	62	13	377	183	34	19	106	1,148
1938	161	36	13	511	139	57	18	130	1,044

Part of the fruit production, especially in the favorable years, took the path of export. For example, in the year 1936, Romania exported 39,000 tonnes of fruit, the share being to apples and plums.

2.2. Viticulture

It is appreciated that at the level of the year 1915, Romanian viticulture was remade after the Phylloxeric disaster. With the aid of the state, farmers have succeeded in giving a new appearance to the vineyards of the country, by using grafting vines on american rootstocks, but in the assortment of vineyards have penetrated a multitude of foreign varieties including direct hybrids producers, more in plain areas. The surface of the bearing vineyards was contained, in the interwar period between 210,034 ha in 1924 and 277,100 ha in the year 1938. Romania's wine production was comprised between 5,046 million hectolitres (1926)

and 10,614 million hectolitres (1937). Viticulture represented in the interwar period a weighting of 1.50-2.64% from the agricultural area of the country. As a proprietary structure, the largest share had a wine-growing area of less than 0.5 hectares, so that viticulture represented a complementary occupation for most living owners. During this period, the hybrids direct producers were rapidly expanded. In the year 1938, they owned an area of 128,000 ha, representing almost 46.5% of the total area of the vineyards. The exaggerated expansion of hybrids, especially in the plain area, has made it difficult to trade quality wine, creating a heavy obstacle in the ensemble of Romanian viticulture.

In order to restrict the number of varieties in culture, promoting only those corresponding to each wine-growing region, the Ministry has drawn up in 1929, the first list of varieties admitted to propagation. 43 varieties belonging to the species *Vitis vinifera* are included in this list.

In the year 1938, Romania produced about 8 million hectolitres of wine and exported to several countries of the world wines with a total value of 401,345 lei. In the same year, the wine production corresponded to the following categories (table no. 4):

Table no. 4. Wine production, by category and value, in the year 1938

Wine Category	Quantity-thousand HI	Value-thousand lei/HI	Total value-mil. lei
Extra	50	12,0	600
Superior for table	1000	7,5	7,500
Table wine	3000	5,0	15,000
For industry	3950	2,5	8,690
TOTAL	8000	-	31,790

3. Romanian fruit growing and viticulture in the period 1945-1990 .

3.1. General considerations on the period

In the year 1945, at the end of World War II, the national economy as the whole financial system was deeply disorganized. Inflation disorganized the market and production and messed up the normal life of society, overwhelmed by the aftermath of the war.

The agrarian reform of 1945 was well received by farmers, but it resulted in the spraying of large agricultural holdings, which still existed after previous agrarian reforms. The number of small, subsistence households, less than 10 hectares, increases in the year 1945 to 75%, compared with 1930, and those between 10 and 100 ha have decreased by half.

As a result of these events, to which added also dire drought of the years 1945-1947, it resulted in a significant decline in national income, which resulted in a very low level of living. The collectivization process, started in 1949, continued until the spring of 1962 and comprised an agricultural area of about 9 mil. ha (61.8%). During the same period, state farms have transformed and expanded under the names of state agricultural households that end up holding 1,926.4 thousand hectares of agricultural land in the year 1963 (13.1% of the total). Private property on land is restricted to about 15%. However, especially in tree growing, there remained small holdings in the non-cooperative areas and on individual batches attributed to cooperative members.

Since the establishment of the first collective agricultural households and state-farm households, work teams are organised in all sectors of activity, including in the cultivation of trees and vines. Since 1967, these substructures have been organized into plant farms (for cereals, viticultural, fruit tree growing, vegetable growing) and husbandry. With advantages offered by the agricultural holding on large surfaces, with plans for the organization of the territory, irrigation with evolved means, complex mechanization, but also the use of the

surplus of manual workforce existing in the rural area, many socialist agricultural units have established strong fruit and vine farms, obtaining large and quality productions for sale through state trade, domestic or export, but also for canning factories or wine complexes. The organization of production and its takeover was based on contracts concluded between the parties at each start of the year.

Gradually, were established the modern new modern farms, many of them with irrigation arrangements. The development of the national industry started from 1949 the production of agricultural tractors and machinery, as well as the organisation of units for machinery and tractors (SMT) to support agricultural households in the execution of the main agricultural works. Chemical fertiliser and plant protection products factories have been constructed, which have contributed to the growth of horticultural production. In 1970, the growth of agricultural and horticultural production was superior to market demand, prices had a downward trend and the standard of living of the population has improved.

Trade in vegetables and fruits was reorganised and established two specialised research-development institutes for fruit growing and grape production technologies, as well as a number of research stations. Large-capacity canning factories have been established, especially in large area cultivated with vegetable and fruit trees, to ensure preserved products in different forms, both for the domestic market and for export. Horticultural faculties, established after 1948, prepared numerous highly skilled specialists that contributed to the organization and technologization of horticultural production.

3.2. Fruit growing

The fruit growing has had a steady development of progress, in line with the evolution and objectives of the national economy. By 1950 the state of orchards was generally precarious and the young ones had many trees missing. The area cultivated with fruitful trees, including single trees, in the period 1945-1950 was estimated at 344,100 ha. In 1950 the number of trees was estimated at about 56,808,000, decreasing from the pre-war period. Most of the fruit trees grow in the hilt area, one side, especially the peach, among the vineyards and the rest to the plain where the apricot and the wild apricot trees prevail. The fruit production evaluated as an annual average was about 816 thousand tonnes, of which plum 404 thousand tonnes and apples 291 thousand tonnes. The largest amount of plums were used for the production of *tsuica* (57%), a little part for fresh consumption (29%) and other part (14%) were used for the production of dried plums, marmalade and *magiun*. Of the total fruit production, fresh only 457 thousand tonnes was consumed, which accounted for 28-29 kg per inhabitant and per year. After 1950 the rebuilding of the fruit growing on a modern basis was passed. It began with the problem of producing propagating material, then improving the technology, by mechanizing as many works as possible. In 1957, the Institute of Horticultural Research was established with a network of 20 experimental stations in the main areas of horticultural production. The Institute and its stations have developed new technologies to establish intensive and superintensive orchards, which have expanded into many production units. In 1967, the Research Institute for the Fruit Growing was established which contributed, together with the network of the stations, to obtain new varieties from the main species of fruit trees, the development of crop technologies, the production of valuable propagating material and spreading knowledge in their field of activity.

The decades 1961-1980 were noted by increasing the areas of orchards and yield of fruits, both quantitatively and qualitatively. The main objective was to ensure 55-60 Kg of fruit/inhabitant/year respectively a production of 1 million tonnes fresh fruits, 700-800 thousand tonnes for industrial processing and at least 100 thousand tonnes for export. In the year 1960 the total number of trees reached 60,145,000 (247 thousand ha) and total production at 1,170,000 tonnes. During 1971-1980 the total area with orchards was 330,000

ha and the share of species changed in favour of more valuable species (table 5). Fruit productions have grown steadily from 1,142 thousand tonnes in 1970 to 1,379.4 thousand tonnes in 1980 with a production peak in 1979 of 1,806 thousand tonnes. Fruit production also increased in the decade 1980-1990 reaching 1,539 thousand tonnes in 1990. The species structure of fruit production has changed (table no. 6).

Table no. 5. Evolution of the share of the main species of fruit trees in the period 1955-1980 (%)

Species	Share in the year	
	1955	1980
Plum	65.0	43.0
Apple	15.0	30.0
Cherry-sour cherry	5.0	7.0
Apricot	2.0	5.0
Peach	1.0	5.0
Pear	4.0	5.0
Other species	8.0	5.0

Table no. 6. Fruit production at the main species of fruit trees in the years 1980-1990

	1980	1990	+
TOTAL, thousand tons	1,379.4	1,539.0	+159.6
Apples	414.0	664.0	+250.0
Pears	82.2	94.2	+12.0
Plums	621.0	461.0	-160.0
Peaches	58.1	92.0	+33.9
Apricots	35.3	46.0	+10.7
Cherries+sour cherries	72.2	74.0	+1.8
Nuts	33.6	34.8	+1.2
Strawberries	63.0	73.0	+10.0

3.3. Viticulture and winemaking

Viticulture and winemaking have encountered the same shortcomings after the war as the other horticultural branches: vineyards ageing, lack of material base for propagating material, rudimentary domestic winemaking, etc. With the help of the Institute for Viticulture and winemaking from Valea Călugărească and the 9 viticulture research stations, plans to develop and modernise vine plantations and increase productive potential in old vineyards have been elaborated. Thus, vineyards were made in massively, some with high forms of leadership, on the area of maximum favorability. As a result, the peak year of Romanian viticulture was 1982, when a production of 2,450 million tonnes of grapes was obtained, with an average per country of 8145 kg/ha.

In parallel with the increase in production, the capacities of grape processing and the conditioning and bottling of wines have been developed and modernised. Romania's wine heritage registered in the 1979 vineyards census was 318,264 ha, consisting of: 282,667 ha cultivated with vines, 4250 ha rootstock plantations, 31,341 ha land for new plantations. In turn, the surface of 282,667 ha consisted of 186,014 ha (65.5%) noble vines grafted and indigenous and 96,653 ha (34.5%) vines hybrids direct producers. In the socialist agricultural units predominated vine graftural and indigenous plantations (98%). Plantations with grape

varieties for table occupied 35,214 ha (19.3%). Table no.7 observes the evolution of bearing vineyards area and grapes production in the period 1950-1990.

Table no. 7 The evolution of bearing vineyards area and grapes production in Romania between 1950 and 1990

Period	Area of the vineyards		Grapes production		Average yield	
	Ha	%	Total (t)	%	t/ha	%
1950-1955	220,480	100.0	793,080	100.0	3.59	100.0
1956-1960	243,980	110.6	895,320	112.9	3.67	102.2
1961-1965	257,400	116.7	907,820	114.4	3.53	98.3
1966-1970	275,240	124.8	996,140	125.6	3.62	100.8
1971-1975	298,140	135.2	1,202,360	151.6	4.03	112.2
1976-1980-	278,840	126.4	1,42,840	179.4	5.10	142.0
1981-1985	253,780	115.1	1,664.800	209.9	6.56	182.7
1986-1990	230,120	104.3	1,829,880	230.7	7.95	221.4

4. Romanian fruit growing and viticulture in the period 1991-2018

The period after 1990 is distinguished by two contradictory characteristics. The first one is positive, which was manifested by the returning, after more than 50 years, to the private property and to market economy-and the second one-negative, which was manifested by a long transition to the market economy and the decline in total productions in most agricultural crops. The export of agricultural products has diminished and Romania has become a net importer of many fresh or processed food products. Only in the year 2013, the export of agricultural products exceeded the value of imports, and gradually agricultural productions approached the level of those before the year 1990. In the period 1991-2010, fruit growing and viticulture were declining, both by lowering surfaces, but mostly by lowering the average yield/ha of fruit and grapes. The main cause was related to the abolition of state farms and cooperatives and the restitution of agricultural land to former owners. A significant number of heirs, especially wick living the cities, had no knowledge or financial power to apply the technologies needed to obtain economic productions and some of the plantations were deforested. During 1991-2004 the area of orchards was reduced by about 38,000 ha and total fruit production decreased by 40%. During the same period, the surface of the bearing grafted vines decreased drastically by about 45,000 ha, but the total area with vineyards had decreased only by 32,000 ha because it increased the vineyard hybrid area by 60 thousand ha. Total grape production oscillated between 848 thousand tonnes in 1991 and 1,430 thousand tonnes in 1996, and in the period 2009-2012 stabilized around 1,100 thousand tonnes. After Romania's accession to the European Union, the prerequisites for the recovery of the Romanian horticultural sector were created, primarily through the reconversion programme of viticulture and, more recently, the programme for reconversion of the orchards. As a result of this measure, in the period 2007-2012, 26,840 ha were established with vineyards of varieties producing grapes from which high quality wines can be obtained. Progress has been made in the last 15 years both in increasing the production of grapes and on the endowment with modern equipment of the winemaking sector. Table 8 observes the evolution of the wine sector in the period 2008-2018.

From the point of view of quality categories, wine production of the year 2018 is 5,088.1 million hl, of which wines of noble varieties accounted 3,369.9 million hl, and the wines from interspecific hybrids 1,718.2 million hl i.e. 33.8%. Table 9 shows the production of wines of noble varieties by quality categories in year 2019 and in table 10 is presented the noble wines obtained in 2018, by color categories.

Table 8 Statistical data in Romanian viticulture and wine making in the period 2008 – 2018

Specification	UM	2008	2010	2012	2014	2016	2017	2018
Total area cultivated with vine for wine	Thousand ha	175.4	167.4	169.9	170.3	171.2	170.3	171.1
Average purchase price grapes for wine/country	lei/kg	1.28	1.54	1.94	1.64	1.67	1.67	1.44
Total wine production	Thousand hl	5369.2	3287,2	3310.6	3750.0	3303.7	4264.1	5088.1
Total area subject to restructuring/reconversion measure	ha	4834	5124	4455	5959	1724	1683	1753

Table 9. Wine production of noble varieties of vines by quality categories in 2018 (thousand hl)

Total	Wines with DOC	Wines with IG	Varietal wines	Wines without DOC and IG
3369.9	1114.3	265.6	150.5	1839.5

Table 10. Wine production of noble varieties by color categories in 2018 (thousand hl)

Noble wines			
Total	White wines	Roze (pink) wines	Red wines
3369.9	2189.7	241.5	938.8

In the case of trade with wines, we note that at the level of 2018 year, compared with the year 2011, the importation of wine was reduced from 90.2 to 38.7 thousand tonnes while the export increased from 10.4 thousand tonnes at 19.3 thousand tonnes.

The evolution of orchards and fruit productions is shown in table 11. The Fruit Heritage Restoration Programme in the period 2014-2020 is expected at the end of 2020 Romania to hold almost 150,000 hectares of fruit trees plantations, of which an important part will be intensive and superintensive plantations. Through this programme, new plantations were planned to be established on the following surfaces: 2,100 ha in the period 2014-2016; 5,800 ha in the period 2017-2018; 10,100 ha in the period 2019-2020. The total of newly established surfaces will reach 18,000 ha. The trend is that a significant part of the new fruit plantations are of species that are demanded more on the market and some of the new plantations will be maintained in the organic farming system. The projects submitted relate to the establishment of plants fruit trees and shrubs of the following species: blueberry, 2850 ha (85% organic); walnut, 2010 ha (78% organic); hazelnut, 1790 ha (85% organic); cherry 860 ha; apple 630 ha; plum 630 ha; other species have smaller surfaces, but will contribute to diversifying the assortment and obtaining higher income for farmers: seabuckthorn, red and black currant, blackberry without spikes, pear, strawberry, apricot, peach, nectarin, quince, rose for jam.

Table 11. Areas of orchards and fruit production in the period 1990-2017

Specificare	UM	1990	2000	2008	2010	2012*	2014	2015	2016	2017
Area	Th. ha	230.7	195.0	207.0	198.6	142.2	140.8	138.5	138.0	
Total production	Th. to	1,422.3	755.0	1,179.2	1,419.6	1,128.6	1,115.2	1,224.7	1,241.5	1,058.5

By species, in the year 2016, the apple was found to hold 40% of the total fruit trees surface, while the plum still holds the highest share by 47.2% and all other species share only 12.8% (Table 12). As a result of the increase in fruit production in recent years, average production of more than 60 kg of fruit per capita and per year has been reached.

Table 12. The evolution of surfaces and productions to the main species of fruit (2007-2017)

Crop	Specify	UM	2007	2008	2010	2013	2014	2015	2016	2017
Apple	Area	Th. ha	59.0	54.7	56.0	56.9	56.1	55.8	55.5	
	Production	Th. to	475.4	459.0	552.9	513.5	513.2	476.6	467.2	348.7
Plum	Area	Th. ha	76.2	75.3	69.3	68.0	66.6	65.6	65.1	
	Production	Th. to	372.6	475.3	624.9	512.5	495.3	496.4	512.9	444.9
Other species	Area	Th. ha	20.8	19.3	19.1	19.2	18.1	17.1	17.4	
	Production	Th. to	237.8	244.9	241.8	273.9	292.9	251.7	261.4	265.8

Conclusions

The development of Romanian fruit growing and viticulture from the beginning of the twentieth century and in the first two decades of the 21st century was based on several strategic decisions adopted by the Ministry that led agriculture and which has made full use of the competence of specialists. The main strategic decisions that marked the development of fruit growing and viticulture are the following:

1. The decision to restore the vineyard after the disaster caused by *Phylloxera* at the end of the nineteenth century by setting up nurseries for grafted vines and distributing these seedlings free of charge to the farmers. It is appreciated that at the level of 1915, Romania's viticulture was remade for the most part, although there was also an undesirable element, namely the penetration into the culture of hybrid producers, producing lower quality wines.

2. The decision to change the fruit assortment in which it prevails plums for *tzuica* by establishing, in contrast, apple, pear, cherry and valuable varieties of plum for the meal, decision taken and put into practice, to a certain level in years 1930-1950 through the program of producing the tillers in the nursery of the state.

3. Decisions taken by the communist government between the years 1950-1989 to continue improving the fruit assortment through new plantations in massively with apple, apricot, peach, nectarin, cherry, sour cherry, strawberry and plum with table varieties.

4. Decision of Government management in the period 1945-1989, establishing new vine plantations with valuable vine varieties for white wines, red wines and table grapes. The main tools to implement the strategic decisions in points 3 and 4 were the establishment of the Institute for Viticulture and winemaking research and the Institute for Research for Fruit growing, which, beside the network of Research stations have produced almost the entire amount of propagating material of valuable varieties.

5. Decisions of the Ministry of Agriculture for the period 2007-2020 for the restoration of vineyards and fruit through two national programmes for reconversion of vineyards and the establishment of new fruit plantations of valuable species and varieties requested by consumers.

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