

Economic analysis of fruit tree nurseries in Albania

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Summary

Production of healthy and certified nursery trees is one of the primary conditions for intensive and stable development of the fruit tree sector. In the last decade, fruit tree production in Albania has drastically increased with more than a thousand hectares per year. The nursery production has attempted to follow with the same pace with about 150 nurseries in the country and more than 2 million nursery trees planted and only 9 percent imported. The purpose of this research, conducted from 2008–2009, was to undertake an economic analysis of these nurseries in view of potential subsidies offered by the government. Thirty-six nurseries were interviewed having quite an intensive production of nursery trees located in the Vlora, Fier, Durrës and Tirana regions. Twenty nurseries are specialised, producing only one species of fruit trees, 8 nurseries producing two species and other 8 producing three or four species. The data showed that all the nurseries studied are profitable. On average, their net income is 20000 EUR/farm. The ratio between incomes and costs is 1:0.45. Furthermore, farms producing up to two species of nursery trees have better financial indicators than those producing 3 to 4 species. Moreover, the specialised nurseries have lower costs of more than 3 percent for all categories of nursery trees.

Key words: fruit trees, nursery, profitability, costs

Introduction

Production of healthy and certified nursery trees is one of the primary conditions for intensive and stable development of the fruit tree sector.

The binominal nurseryman– fruit grower determines successful and sustainable management of fruit orchards, olive groves, vineyards and citrus orchards.

In the last decade, fruit tree production in Albania has drastically increased with more than a thousand hectares per year. The medium and long term strategy of

the Albanian Government for development of the fruit tree sector will stimulate the nursery production even more thus avoiding uncertified propagation material.

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Materials and methods

Thirty-six nurseries were interviewed during the period 2010–2011 having quite an intensive production of nursery trees located in four regions: Vlora, Fier, Durrës and Tirana.

Tab. 1. Nurseries studied categorised by region and level of specialisation

Ispitivani rasadnici kategorisani po regionu i nivou specijalizovanosti

Region	Nurseries	Specialised	Mixed
VLORA	16	7	9
FIER	9	6	3
DURRES	3	3	-
TIRANA	8	5	3
TOTAL	36	21	15

Out of 36 nurseries, 58.33 % are specialised in one species (12 for grapevine nursery trees, 5 for olives, 2 for fruit trees and 1 for citrus), 22.22 % in two species and 22.22 % in three and four species.

The elaboration of data through a survey form has enabled us to individualise the gross production saleable, production costs, profit, net product and the net profit of each nursery, referring to all the species presented in each of them.

In order to make the data of individual nurseries comparable, these were subsequently converted to a hectare.

The gross production saleable was determined by referring to the quantities commercialised and average sale prices declared by individual nurseries during 2010. Transport costs were not included as they are paid by buyers.

The cost elements considered for the purpose of determining the production costs include both expenses for purchasing materials and services on the market as well as for labour and costs related to production factors directly given by the nurseryman (labour, capital and land) which were monetarily incurred.

Results and discussion

The notable variability of the nursery trees per unit of surface between nurseries is related to the species and cultivars grown, typology of production, technical choices and duration of the growing cycle in the nursery.

Variability of the production costs (Figure 1) is mainly due to different densities of cultivation and the adoption of different growing systems implemented by the nurseries. In general, 42% of the costs are labour, 38% materials, 9% mechanisation and 10% water and energy.

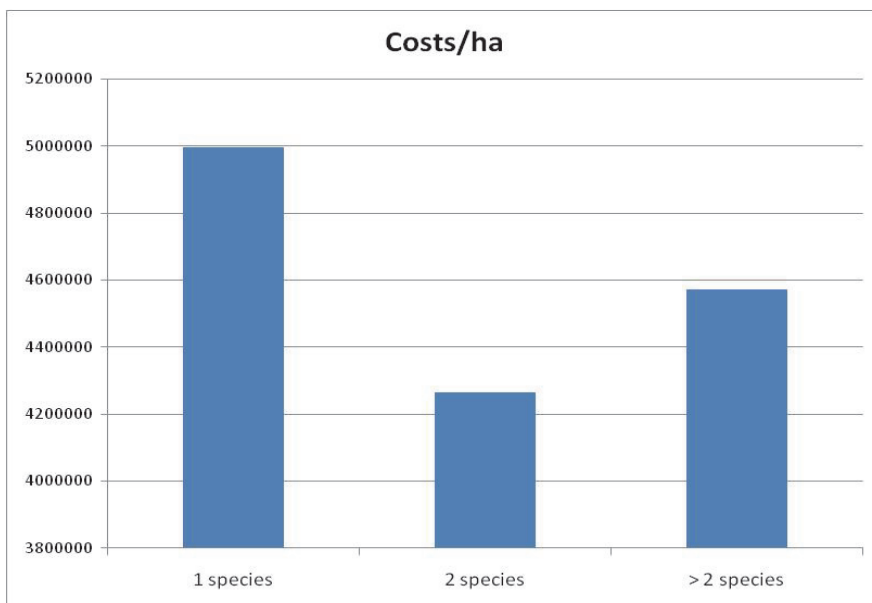


Fig. 1. Costs per hectare of nursery tree production in different groups of nurseries (lek)

Troškovi po hektaru rasadničke proizvodnje u različitim grupama rasadnika

This is mainly due to their small farm surface and, consequently, low productivity. Therefore, there is a lack of ability to accumulate capital and intensify the production, maintaining the extensive type of fruit growing. Under these conditions, 60 percent of the farmers interviewed are involved in other secondary agricultural activities to increase their sustainability, making these farms more competitive than the specialised ones.

Profits generated by the nurseries under study were in all cases positive (Figure 2), however variable. This variability is mostly based on structural and productive characteristics. The need for higher efficiency can be demonstrated by low incomes per square meter which on average amount to 988.2 lek.

The adoption of profit as an exclusive indicator of "performance" does not allow for proper assessment of profitability of the species because it refers purely to

the nursery business, whereas entrepreneurs that use different production factors also operate in this sector.

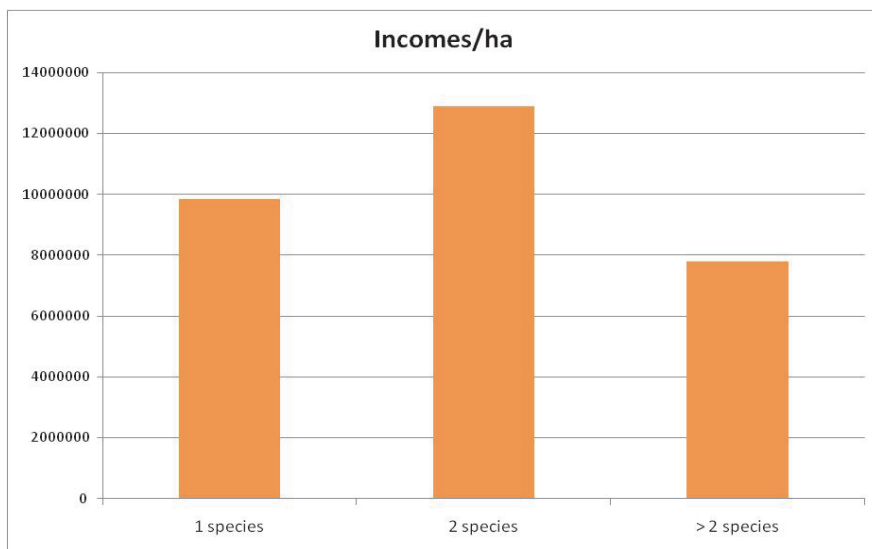


Fig. 2. Gross income per hectare from nursery tree sales (lek)
Bruto prihodi po hektaru od prodaje sadnica

The analysis has shown peculiarities of the fruit nursery sector in Albania characterised by reduced dimensions for most of the nurseries, which in many cases are refrained from the introduction of technological innovation processes, the minute supply, lack of marketing strategies and valorisation of products at private and public level.

Compared with the average of four regions, the incomes per farm for the specialised nurseries (1 species) are 19.9% lower, for the second group (2 species) 77.8% higher and for the third group (> 2 species) 28.14% lower.

In terms of incomes per ha, compared again with the average of the three groups of nurseries, respectively, it follows: 5.15% lower in the first group, 24.2% higher in the second group and 24.87% lower for the third group. The incomes of the first group compared with the third one are 26.25% and 65.3%, respectively. Moreover, the incomes per farm, compared with the average of the four regions, are 2.04 times lower for group I, 2.16 times higher for group II and 46% lower for group III. The ratio between gross income and net income is 1:0.55 with minor differences across groups.

The data related to the structure of expenditures (not shown here) demonstrate that the level of mechanisation in the nurseries is still low (9%).

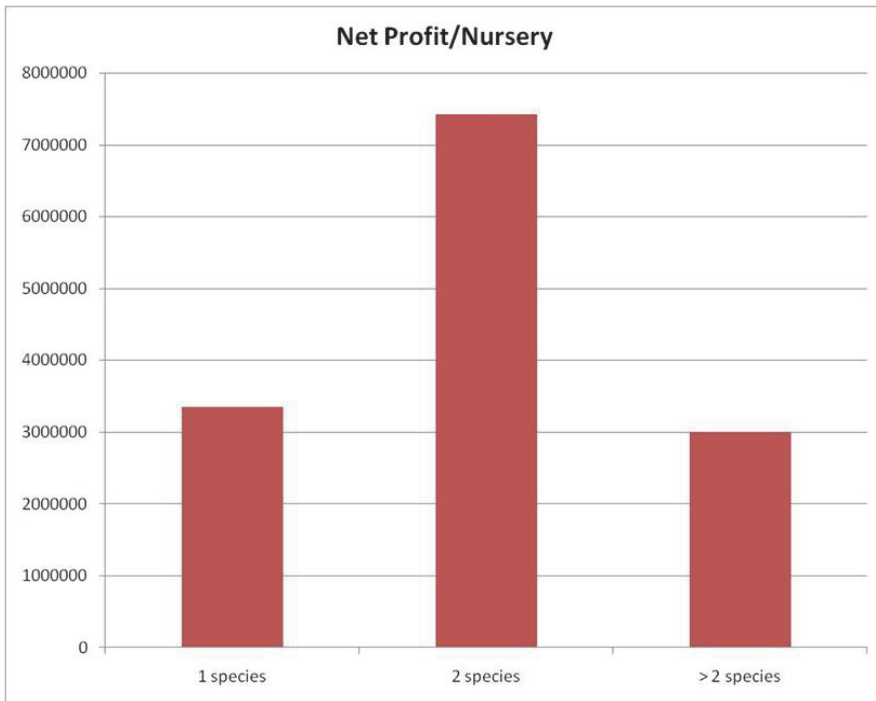


Figure 3. Net profit per nursery (lek)
Neto profit po rasadniku

Conclusion

The micro-economic analyses conducted, through the analysis of several case studies, have revealed good profitability levels (despite the variability of quantities produced and sale prices) that more than compensate high production costs.

However, judging from the net profit values and the income per square meter generated, there is still a need to increase the efficiency, especially by improving the technology.

In terms of the best model of a nursery, those producing two species of fruit trees are followed by those producing one species.

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Ekonomska analiza voćnih rasadnika u Albaniji

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Sažetak

Proizvodnja zdravih i sertifikovanih sadnica u rasadnicima je jedan od primarnih uslova za intenzivan i stabilan razvoj sektora voćarstva. U posljednjoj dekadi, voćarska proizvodnja u Albaniji je u velikom porastu sa više od hiljadu hektara godišnje. Rasadnička proizvodnja pokušava da istim koracima prati sa oko 150 rasadnika u zemlji i više od 2 miliona zasađenih sadnica iz rasadnika i samo 9 posto uvezenih. Cilj ovog istraživanja sprovedenog od 2008-2009 bio je da se izvrši ekonomska analiza ovih rasadnika u odnosu na potencijalne podsticaje koje nudi vlada. Ispitano je trideset šest rasadnika koji se bave intenzivnom proizvodnjom sadnica a koji se nalaze u regijama Vlora, Fier, Durrës i Tirane. Dvadeset rasadnika su specijalizovani i proizvode samo jednu vrstu voćnih sadnica, 8 rasadnika proizvodi dvije vrste, ostalih 8 proizvodi tri ili četiri vrste. Podaci su pokazali da su svi ispitivani rasadnici profitabilni. U prosjeku njihovi neto prihodi iznose 20000 EUR/farmi. Odnos između prihoda i troškova je 1:0.45. Pored toga, gazdinstva koja proizvode do dvije vrste sadnica u svojim rasadnicima imaju bolje finansijske pokazatelje nego ona koja proizvode 3 do 4 vrste. Nadalje, specijalizovani rasadnici imali su više od 3 posto niže troškove za sve kategorije sadnica.

Cljučne riječi: voćke, rasadnik, profitabilnost, troškovi

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