

Accounting Record Keeping on Agricultural Holdings in the Republic of Serbia

Abstract: *The aim of the paper is to examine and evaluate the current state of accounting record keeping on agricultural holding in the Republic of Serbia. According to the criterion of mandatory accounting record keeping, agricultural holdings can be classified into four categories: legal entities, entrepreneurs, agricultural holdings (natural persons) registered for VAT and agricultural holdings that are not registered for VAT. Agricultural holdings operating as legal entities and entrepreneurs are legally required to maintain accounting records using the double-entry bookkeeping system and to submit regular annual financial statements. Agricultural holdings registered for VAT are legally required to maintain accounting records using the single-entry bookkeeping system and to pay personal income tax on income from self-employment. The largest group consists of agricultural holdings that are not registered for VAT and are therefore not legally required to keep accounting records. The findings indicate the need to develop a simple and standardized accounting record keeping model for this group of holdings, which could provide a reliable information base and support more effective managerial decision making.*

Keywords: *accounting record keeping, financial statements, agricultural holdings, FADN, Republic of Serbia*

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INTRODUCTION

High quality and timely information is a fundamental prerequisite for management decision-making. Equity owners, i.e. executives or managers, are highly dependent on information, as they make key management decisions that directly affect the business performance of an entity (7). In agricultural businesses, this role is performed by farm holders or professional managers, who are entrusted with making the most important management decision.

Under modern business conditions, decision-making represents one of the key aspects of managing of agricultural holdings (5, 12). Modern farms require integrated accounting and production information systems that enable more effective decision-making aimed to increase productivity and ensure long-term viability (17). Therefore, equity owners and professional managers, as the most important internal users of information, are particularly interested in timely, reliable and relevant accounting information.

External users are also highly interested in diverse and comprehensive information. These primarily include the state and its institutions (tax authorities, ministries, secretariats and local self-government authorities), followed by creditors (suppliers), banks and other lenders, potential investors, as well as other users such as statistical offices, chambers of commerce and others. External users are primarily interested in information on business performance, which can mainly be obtained from official financial statements prepared within regular annual financial reporting (Balance Sheet, Income Statement, Statement of Cash Flows, etc).

In agriculture, however, a relatively small number of agricultural holdings are required to prepare and submit the aforementioned financial statements. In addition, a significant number of farms that are not legally required to keep accounting records do not maintain voluntary records either (2, 3), which indicates an insufficiently developed information system on farms. Consequently, available information is often incomplete, inaccurate, unreliable and untimely.

Although some managers of agricultural holdings recognize the importance of accounting and production information for business decision-making, data collection and the quality of the information base should not depend solely on the individual commitment of managers and the level of their professional competence. Instead of relying on individual examples of good practice, it is essential to establish a systemic and institutional framework that will ensure continuous, standardized and reliable data collection, as well as their efficient use in management of agricultural holdings (13).

Bearing in mind the importance of a systemic approach to improving the quality of data and information in agriculture, this paper aims to examine and evaluate the state of accounting record-keeping on agricultural holdings in the Republic of Serbia. The paper also addresses the most important methodological issues related to accounting record-keeping on agricultural holdings in Serbia. Agricultural holdings are classified according to the criterion of mandatory accounting record-keeping, after which their obligations under the current laws and regulations are analysed. Furthermore, recommendations for potential improvements are provided.

METHODOLOGY

The paper applies a combination of several research methods aiming at examining the current state of accounting record-keeping on agricultural holdings in the Republic of Serbia. In the initial phase of the research, the desk research method was used, which included the study of relevant domestic and international scientific and professional literature, as well as current laws and by-laws regulating accounting, taxation and record-keeping on agricultural holdings.

The method of analysis was applied to identify different categories of agricultural holdings according to the criterion of mandatory accounting record-keeping, as well as to determine their rights and obligations in accordance with the current regulatory framework. In addition, the methods of decomposition and comparison were applied to examine differences between particular groups of agricultural holdings and assess the level of development of the existing accounting record-keeping system.

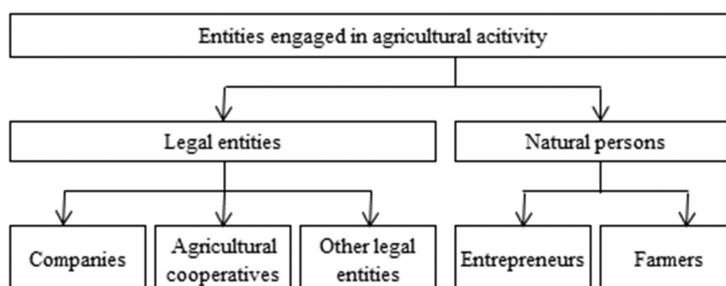
The empirical part of the research is based on the analysis of data obtained from the Farm Accountancy Data Network (FADN) and the databases of Statistical Office of the Republic of Serbia (SORS). Additional data sources included the database of the Serbian Business Registers Agency (SBRA), the Register of Agricultural Holdings and other relevant institutions.

RESULTS AND DISCUSSION

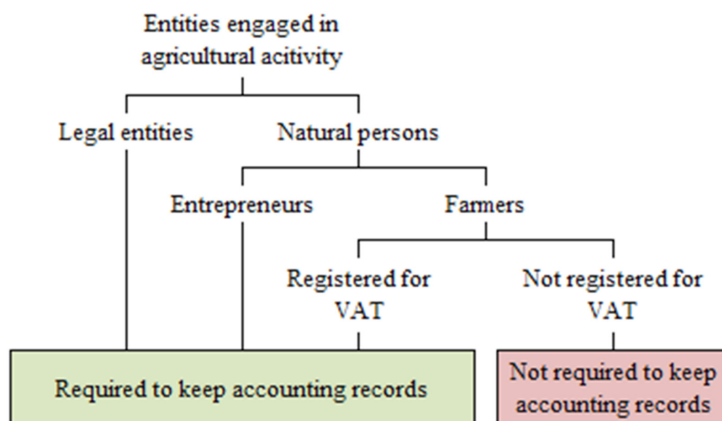
According to the Law on Agriculture and Rural Development (9), an agricultural holding is defined as: “production unit where a company, agricultural cooperative, institution or other legal entity, entrepreneur or natural person – farmer carries out agricultural production, i.e. processing of agricultural products, or other non-agricultural activities (rural tourism, traditional crafts, etc)”. It follows from the definition that agricultural activities in the Republic of Serbia may be carried out by both legal entities and natural persons (Figure 1). In the form of legal entities, agricultural activities may be performed by companies, agricultural cooperatives, institutions and other legal entities. On the other hand, natural persons may engage in agricultural activity as entrepreneurs or natural persons – farmers.

The aforementioned classification of entities is also significant from the perspective of determining the obligation of accounting records. Accordingly, entities engaged in agricultural activities can be classified into the following groups (Figure 2):

- 1) Companies engaged in agricultural activities, agricultural cooperatives, institutions and other legal entities;
- 2) Entrepreneurs engaged in agricultural activities;
- 3) Agricultural holdings registered for Value Added Tax (VAT);
- 4) Agricultural holdings that are not registered for VAT.

Figure 1. Entities Engaged in Agricultural Activity

Entities from the first three groups are legally required to keep accounting records, although the method of maintaining these records differs among them. In contrast, agricultural holdings that are not registered for VAT are not legally required to keep accounting records.

Figure 2. The Obligation to Keep Accounting Records

Agricultural holdings that are required to keep accounting records

The group of agricultural holdings with a mandatory obligation to keep accounting records includes: (1) legal entities, i.e. companies engaged in agricultural activities, agricultural cooperatives, institutions and other legal entities; (2) entrepreneurs engaged in agricultural activities and (3) agricultural holdings registered for VAT.

Legal entities and entrepreneurs are required to maintain business books using the double-entry bookkeeping system in accordance with the Law on Accounting (8). Regarding entrepreneurs, it is important to emphasize that the obligation to apply double-entry bookkeeping refers only to entrepreneurs who pay tax income from self-employment based on taxable profit, in accordance with the Law on Personal Income Tax (10). Entrepreneurs who pay tax on income from self-employment based on lump-sum determined income are not required to maintain detailed accounting records.

Legal entities and entrepreneurs engaged in agricultural activities maintain accounting records, as do all other legal entities registered with the Serbian Business Registers Agency. This means that they are required to record business transactions in the accounts prescribed by the Chart of Accounts, which may be further disaggregated according to their specific needs. Considering that legal entities and entrepreneurs engaged in agricultural activities perform production activities, they are also required to maintain the basic accounts from Class 9: Cost and Performance Accounting, in accordance with the Rulebook on the Chart of Accounts and the Content of Accounts within the Chart of Accounts for Companies, Cooperatives and Entrepreneurs (14).

Furthermore, legal entities and entrepreneurs are required to maintain business books, recognize and measure assets and liabilities, income and expenses, and prepare, present, submit and disclose information in financial statements in accordance with the Law on Accounting (8). These entities are also required to submit regular annual financial statements, the scope and content of which depend on the size of the legal entity or entrepreneur (Table 1). Legal entities and entrepreneurs are classified by size according to the average number of employees, operating revenue generated during the financial year and the value of total assets as of the balance sheet date. The classification criteria and threshold values are the same for both legal entities and entrepreneurs and are prescribed by the Law on Accounting (8).

Table 1. Contents of Regular Annual Financial Statements of Legal Entities and Entrepreneurs

Financial Statements	Legal Entities/Entrepreneurs by size			
	Micro	Small	Medium	Large
Balance Sheet	✓	✓	✓	✓
Income Statement	✓	✓	✓	✓
Statement of Other Comprehensive Income	×	×	✓	✓
Statement of Changes in Equity	×	×	✓	✓
Statement of Cash Flows	×	×	✓	✓
Notes to the Financial Statements	✓/×	✓	✓	✓

Source: Author's research based on (15)

In addition to the financial statements listed in the Table 1, all legal entities and entrepreneurs are required to submit Statistical Report. Unlike legal entities, entrepreneurs classified as micro-entities are not required to submit Notes to the Financial Statements, which constitutes the only difference in the content of the regular annual financial statements between these two categories of reporting entities. Furthermore, there are certain differences in the scope of information presented in individual financial statements; however, these differences are beyond the scope of this paper.

According to the latest Census of Agriculture conducted in 2023, there were 1,589 agricultural holdings operating as legal entities and 413 operating as entrepreneurs (16). This means that only 0.39% of agricultural holdings are legally required to maintain accounting records using the double-entry bookkeeping system, i.e. full accounting records (Table 2). The actual percentage is even lower, as some entrepreneurs are taxed on a lump-sum basis and therefore are not required to maintain accounting records using the double-entry bookkeeping system.

Table 2. Structure of Agricultural Holdings in the Republic of Serbia According to the Census of Agriculture 2023

Agricultural Holdings	Number	Structure (%)
Family	506,323	99.61
Legal Entities	1,589	0.31
Entrepreneurs	413	0.08
Total	508,325	100.00

Source: Author's research based on (16)

In addition to the two aforementioned categories, agricultural holdings registered for VAT are also legally required to keep accounting records. Unlike legal entities and entrepreneurs, they are required to maintain business books using the single-entry bookkeeping system, in accordance with the Law on Personal Income Tax (10). This means that these agricultural holdings do not maintain full accounting records but rather simplified records intended primarily for tax purposes.

These agricultural holdings are not registered as legal entities or entrepreneurs with the Serbian Business Registers Agency. They are natural persons who may become VAT taxpayers in one of the following two ways, in accordance with the Law on Value Added Tax (11):

- 1) Mandatory registration: if the total value of supplies of goods and services during the previous 12 months exceeds RSD 8 million; or
- 2) Voluntary registration: if they voluntarily apply for VAT registration, provided that the total value of supplies of goods and services during the previous 12 months does not exceed RSD 8 million.

Agricultural holdings registered for VAT are required to pay compulsory social insurance contributions. These contributions may be calculated and paid using one of the following two methods: (1) based on taxable profit, or (2) based on the entrepreneur's personal salary. They are also required to calculate and pay personal income tax on income from self-employment at a rate of 10%. This tax may be regarded as the equivalent of corporate income tax for natural persons engaged in business activities. The tax base for income from self-employment is calculated as the difference between the income generated by the agricultural holding and deductible expenses, in accordance with the Law on Personal Income Tax (10).

Agricultural holdings report and pay taxes and compulsory social insurance contributions through the self-assessment system by preparing and submitting the prescribed tax balance sheet and tax return. Agricultural holdings registered for VAT are not required to submit regular annual financial statements to the SBRA, as they are not registered with the SBRA and do not maintain business books using the double-entry bookkeeping system. In addition, these agricultural holdings are required to maintain records of income and expenses, as well as fixed assets and inventories. They are also required to prepare and submit a prescribed Income Statement form, which is highly simplified and specifically designed for the single-entry bookkeeping system maintained by these agricultural holdings.

There are no precise data on the number of agricultural holdings registered for VAT. However, it is evident that they represent a relatively small proportion of all agricultural holdings. Excluding legal entities and entrepreneurs, which are undoubtedly required to keep accounting records, there remains 506,323 family agricultural holdings for which it cannot be determined with certainty how many are legally required to keep accounting records (Table 2). The threshold for mandatory VAT registration is the total value of supplies of goods and services exceeding RSD 8 million during the previous 12 months. Family agricultural holdings that are likely to exceed this threshold belong to the group with a standard output exceeding EUR 50,000 per year (Table 3).

Table 3. Structure of Family Agricultural Holdings in the Republic of Serbia According to the Economic Size Based on Census of Agriculture 2023

Economic size of family agricultural holdings	Number	Structure (%)
Value in euros 0-4,000	210,214	41.52%
Value in euros 4,000-50,000	284,533	56.19%
Value in euros 50,000-	11,576	2.29%
Total	506,323	100.00%

Source: *Author's research based on (16)*

Only 11,576 agricultural holdings belong to this group, representing 2.29% of the total number of family agricultural holdings. Conversely, as many as 97.71% of family agricultural holdings are well below the VAT registration threshold, as their standard output is substantially lower than the turnover required for mandatory VAT registration. Naturally, some of these holdings may voluntarily register for VAT. However, their number is expected to be relatively small.

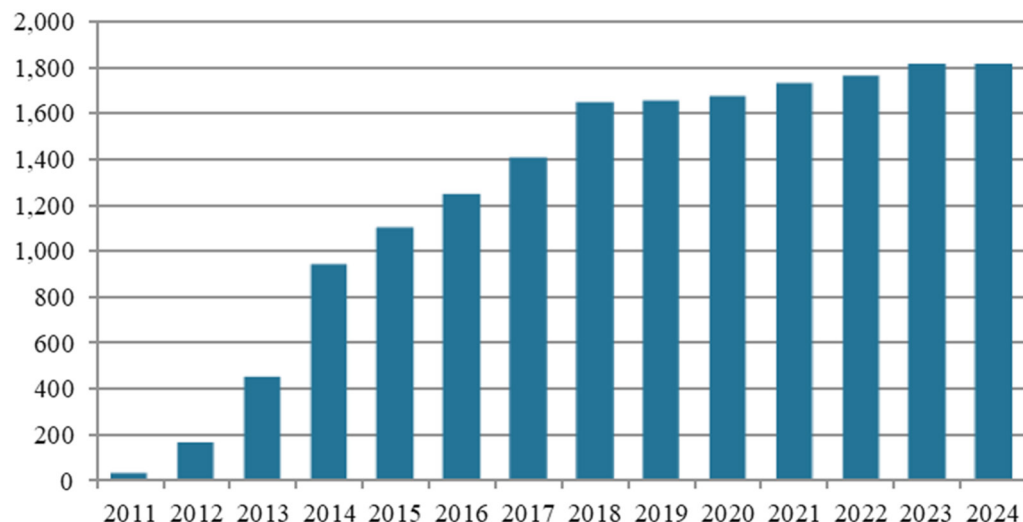
Agricultural holdings that are not required to keep accounting records

Agricultural holdings that are not registered for VAT are not legally required to keep accounting records. Although no precise data are available, it is evident from the foregoing analysis that the vast majority of the total 508,325 agricultural holdings are not subject to this legal obligation. This does not mean that these agricultural holdings do not maintain

records for their own management purposes. However, they are not required to do so under the applicable laws and by-laws.

The group of agricultural holdings that maintain certain accounting records include also holdings participating in the FADN sample. FADN - Farm Accountancy Data Network is a system for collecting production, economic and financial data from agricultural holdings. It is based on a representative sample which, through the application of an appropriate methodology, is intended to represent the entire population of commercial agricultural holdings. The target population covers the economically relevant part of the agricultural sector, accounting for approximately 90% of the total utilised agricultural area and around 90% of the total standard output (6). The FADN system focuses on commercial agricultural holdings, with a minimum standard output threshold of EUR 4,000 for inclusion in the sample. Consequently, the FADN system covers approximately 58.6% of the total number of agricultural holdings in the Republic of Serbia.

Figure 3. Number of Agricultural Holdings Included in the FADN Sample, 2011-2024



Source: Author's calculation based on the FADN database

The number of agricultural holdings included in the FADN sample has increased steadily over the years, from only 40 holdings in 2011 to 1,813 in 2024 (Figure 3). Of the total number of agricultural holdings included in the FADN sample in 2024, only two were companies, i.e. legal entities required to maintain accounting records using the double-entry bookkeeping system. In addition, another 100 agricultural holdings were registered for VAT and were therefore required to maintain accounting records using the single-entry bookkeeping system. The remaining 1,711 agricultural holdings were not legally required to maintain either single-entry or double-entry bookkeeping records. These holdings voluntarily participate in the FADN system and collect data for FADN

purposes. The data include production, economic and financial information that farmers (farm holders) record throughout the year in the Farm Return (Diary of Economic Events). At the beginning of the following year, agricultural extension advisers enter these data into the FADN database, where they become available for various analytical purposes.

The remaining agricultural holdings are those that are neither included in the FADN sample nor legally required to keep accounting records on any other basis (i.e. they are not registered as legal entities, entrepreneurs, and are not registered for VAT). These holdings represent the largest group of agricultural holdings under domestic conditions. They are often holdings where agriculture represents a supplementary source of income or where agricultural production is primarily oriented towards satisfying the household's own needs. However, the fact that these holdings are not legally required to keep accounting records does not mean that they cannot maintain records for their own management purposes, according to their own needs and preferences. Some more developed holdings do maintain such records. However, these records are usually kept in an informal and non-standardized manner and are often insufficient for comprehensive analyses, benchmarking, business planning and other management purposes.

As a potential solution for improving the information system on family agricultural holdings, the development of a simple and standardized accounting record-keeping model, adapted to the specific characteristics of small family agricultural holdings, can be considered. Such a model should not be aimed solely at fulfilling administrative requirements but should primarily provide a reliable information basis for managerial decision-making, monitoring economic performance indicators, planning of future activities and assessing the long-term viability of agricultural holdings. However, the question remains whether farm holders would be willing to accept and apply such a record-keeping system. Previous research indicates that the adoption of new practices and innovations in agriculture is largely influenced by the level of education of farm holders, their information literacy, perceived benefits from application and the availability of support from agricultural advisory services (1, 2, 4). Therefore, the implementation of such a system requires continuous education, professional support, user-friendly solutions, as well as appropriate economic incentives and other forms of support for farm holders (13). In this way, accounting record-keeping would not be perceived merely as an additional administrative burden, but rather as a useful management tool for improving decision-making processes and enhancing the overall management of agricultural holdings.

CONCLUSION

The results of the research confirm the importance of accounting records as one of the key sources of information for decision-makers in agriculture. The analysis of the current state also reveals significant differences in the manner and extent of accounting record-keeping among different categories of agricultural holdings in the Republic of Serbia.

The analysis distinguishes between legal entities and entrepreneurs, which are legally required to maintain record using the double-entry bookkeeping system; agricultural holdings registered for VAT, which are required to maintain records using the single-entry bookkeeping system; and agricultural holdings that are not registered for VAT, which are not subject to any legal obligation to keep accounting records.

The research results indicate that the majority of agricultural holding are not legally required to keep accounting records. Although these holdings may voluntarily maintain records, most do not do so, while those that do usually keep records in a non-standardized form. Consequently, the available information is often inadequate for more comprehensive analyses, benchmarking, business planning, and meeting the information needs of stakeholders. Therefore, efforts should be directed towards the development of a simple and standardized accounting record-keeping model that would be suitable for this group of agricultural holdings. The implementation of such a model would provide high-quality and reliable information, thereby significantly improving the decision-making process and overall farm management on family agricultural holdings.

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Računovodstvena evidencija na poljoprivrednim gazdinstvima u Republici Srbiji

Apstrakt: Cilj rada je da se sagleda i oceni stanje računovodstvene evidencije na poljoprivrednim gazdinstvima u Republici Srbiji. Prema kriterijumu obaveznosti vođenja računovodstvene evidencije, poljoprivredna gazdinstva se mogu podeliti u četiri grupe: pravna lica, preduzetnike, poljoprivredna gazdinstva (fizička lica) u PDV sistemu i registrovana poljoprivredna gazdinstva koja nisu u PDV sistemu. Poljoprivredna gazdinstva u formi pravnih lica i preduzetnika su u zakonskoj obavezi da vode punu računovodstvenu evidenciju u obliku dvojnog knjigovodstva i da predaju redovan godišnji finansijski izveštaj. Poljoprivredna gazdinstva u PDV sistemu su u zakonskoj obavezi da vode računovodstvenu evidenciju u formi prostog knjigovodstva i plaćaju porez na prihod od samostalne delatnosti. Najbrojnija je poslednja grupa gazdinstava koja nisu u PDV sistemu i koja nemaju zakonsku obavezu vođenja računovodstvene evidencije. Rezultati ukazuju da je potrebno raditi na razvoju jednostavnog i standardizovanog računovodstvenog modela za ovu grupu gazdinstava, koji bi obezbedio pouzdanu informacionu osnovu i podršku za donošenje ključnih upravljačkih odluka.

Ključne reči: računovodstvena evidencija, finansijski izveštaji, poljoprivredna gazdinstva, FADN, Republika Srbija.