

## CONSIDERATIONS REGARDING THE ACCOUNTING CHALLENGES DERIVED FROM THE APPLICATION OF THE ACCOUNTING POLICIES PROVIDED IN IAS 41

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### **Abstract**

*In recent decades, there has been an increasing interest for the agricultural sector worldwide due to a multitude of factors such as: commodity market instability and rising food prices, population growth, environmental constraints on food production and the consequences of climate change. The society is aware on a day to day basis that nutrition, and especially its quality, plays an essential role in maintaining vitality and health. Because we live in a consumer society, managerial decisions and investments must be directed towards the development of high agriculture at the level of European and international requirements, but at the same time there is also the effort to preserve the culture, nature and naturalness of this sector according to each country. These aspects, in today's reality, have given agriculture a strategic role on issues of vital importance for the development of society and the world economy. The significance of the agricultural field extends beyond the investment itself, thus the role of accounting according to international reporting standards, receives a particular note in this sector of activity, the authors pointing precisely to the fundamental accounting specifications that an accounting professional must know in relation to this subject. Therefore, the purpose of this article is to present the reflection in accounting of specific operations in the agricultural field, by using a practical example - an accounting monograph of a company with agricultural activity, more specifically in the fruit growing sector.*

**Key words:** accounting policies, IAS 41, fair value, evaluating.

**JEL Classification:** M41

### **I. INTRODUCTION**

The application of the classic accounting models, based on historical cost or achievable value, prove to be inadequate in the agricultural sector, because they cannot clearly, truthfully and correctly represent the economic and equity dynamics of this type of economic activity. In this case, the agricultural activity is characterized by critical events, such as procreation, growth and degeneration, which involve qualitative and quantitative changes in the activities themselves, which are not expected to be represented by traditional accounting models (IAS 41 prescribes accounting treatment of activities and productions related inseparably to the nutritional properties of the soil (crops) and the reproductive properties of animal cells (usually raised on farms). Otherwise, for agricultural products that are subject to a subsequent industrial process, they will be subject to the accounting policies provided in IAS 2 - Stocks, or any other international accounting standard that is appropriate for the economic purpose of these assets).

The increasing importance assumed by the agricultural sector in the global economy and the problems existing in accounting representation and evaluation of agricultural activities, determined the IASC, in 2001, to issue a sector-specific accounting principle: IAS 41 - Agriculture.

This standard prescribes an assessment of the fair value of biological assets and agricultural products, with the exception of assets, appropriately delimited and for which an historical cost assessment is permitted. This accounting rule represents a significant change in the direction of the IASC Council regarding the accounting standards issued previously, because IAS 41 represents in fact the most radical removal of accounting from historical costs. In addition, confirming its innovative importance, we can say that for the first time, the positive and negative components of performance are included in the profit and loss account, i.e. the profits or losses related to the fair value changes of a biological asset, thus configuring the result of the exercise in which are also found the positive and unrealized economic components.

In order to simplify the fair value estimation, in the case of biological assets or similar agricultural products, IAS 41 allows the grouping of assets according to certain relevant characteristics such as: nature, naturalness, possibility of consumption and quality and production capacity. The way of determining the fair value of live assets and agricultural products during the harvesting period is represented by the active price on the market. In this respect, characteristics such as whether the products marketed are homogeneous, whether the buyer and seller

are willing to meet and whether the prices are reasonable or not, should be considered (Mihalciuc & Socoluc, 2008: 250). All in all, in order to determine the fair value according to the market price, the highest market price is not taken into account but the reasonable price, taking into account certain characteristics such as age, consumption characteristic and reproduction capacity (Lefter & Roman, 2007: 18 ).

The impact of the implementation of IAS 41 in different countries and the fair value assessment model has been the subject of numerous studies over time (Mates &, Grosu, 2008; PriceWaterhouseCoopers, 2009; Feleagă, Feleagă & Răileanu, 2012; Mateș, Stanoiov, 2017; Cosmulese, 2019). There are pros and cons of applying fair value in this area. Toma (2005: 134) states that the use of fair value as a model for the recognition and measurement of biological growth leads to an assessment and reporting of income during the entire growing period of the plantation, until the time of harvest. Other researchers Argilés and Slof (2001); Argilés, Garcia-Blandon & Monllau (2011) argue that the fair value assessment model can be useful to small family farms that do not have the resources and skills to calculate their costs being a more consistent assessment method, as well as a more reliable and comparable source of information.

Regarding the evaluation of a growing forest stock, it takes place at the time of initial recognition (at the time of harvest), at fair value minus the estimated costs of the point of sale. For the harvested agricultural products, there is no possibility to evaluate, at the time of initial recognition, to another value category (such as biological assets), considering in the case of these assets that there is the possibility of estimating the fair value, with sufficient credibility (Toma, 2015; Cosmulese & Mihai, 2019).

During the biological transformation, the treatment for bearer biological asset that will last more than one year will be similar to the treatment of developing assets, which is recognized at cost. The treatment is based on the similarity of the nature and characteristics of the information.

Some researchers believe that with regard to the bearer biological asset that holds more than one year, the most appropriate accounting treatment would be the similar one applied to fixed assets. This assertion is motivated by the idea that the nature and characteristics of the information to be presented in the financial statements related to these biological assets are similar to the nature and characteristics of the fixed assets, which are used to support business activities and not used for capital appreciation or for sale ( Aryanto, 2011).

The way of recording the economic-financial operations in the category of biological assets can be observed in the following examples.

**Example no. 1**

The company "X" SA operates in the agricultural field. It owns on 31.12.N a cherry plantation to be sold for wood 6 years from now because the trees are not currently in market conditions. The market price of a walnut sold will be 500 RON, and the annual rate of increase of prices is 2%. The value of the plantation at the end of the financial year would be 100 pcs x 500 RON = 50000 RON.

It is required to estimate fair value.

*Resolving*

*Analysis: In order to estimate the fair value, the discounted value of the expected cash flows from the sale of cherries is calculated taking into account as the discount rate the price growth rate of 2%.*

*Conclusion: The present value of the net cash flows of the plantation would be:*

$$7200 \text{ RON} / (1 + 2\%)^5 = 50.000 \text{ RON} / 1,10 = 45454 \text{ RON}$$

**Example no. 2**

Entity "X" SA presents the following situation at the beginning of the financial year 01.01.N:

Age of plum trees plantation held for sale	Surface	Fair value minus costs of sale of biological assets (RON)
15	1.000	420.000
10	310	780.000
TOTAL		1620.000

During the financial year N the following operations take place:

- a) In May, the company planted 50 hectares of seedlings, bearing planting expenses in the amount of 18,000 RON;
- b) During the N year, the company incurred forestry expenses in the amount of 70,000 RON for the 10-year-old plantation.
- c) In September, the company harvested the plum trees plantation aged 15 years. The harvest costs amount to 54000 RON. As a result of the harvesting of the biological asset, the resulting agricultural product is "cut trees – plum trees", the calculated cost being 50,000 RON. The fair value minus the costs of selling the cut trees - cherry trees is 56000 RON.

It is required:

- 1) Accounting for plum trees planting;
- 2) Record the cost of maintaining the plum trees orchard;
- 3) Registration of harvesting of biological assets.

<i>Resolving</i>		
a. Planting plum trees		
a.1 Collection of expenses by type of expenses:		
18000 RON	6xx = 3xx	18000 RON
a.2. Obtaining biological assets:		
18000 RON	2411 = 757	18000 RON
b. The expenses incurred for maintaining consumable biological assets		
70000 RON	628 = 401	70000 RON
c. Harvesting consumable biological assets		
c.1 Recording of harvest costs:		
54000 RON	6xx = 4xx	54000 RON
c.2 Following the harvest, the 15-year-old plum trees plantation is out of stock		
420000 RON	6573 = 2411	420000 RON

From an accounting point of view, the company applies the Accounting Regulations in accordance with the International Financial Reporting Standards, approved by the Order of the Minister of Public Finance no. 2.844/2016, as subsequently amended and supplemented.

## II. TYPICAL RISK FACTORS AFFECTING THE COMBINATION OF AGRICULTURAL PRODUCTION

The activity of agricultural enterprises can be defined as a specialized type of economic activity that essentially aims to obtain agricultural products by cultivating the land and/or by raising animals. Within this activity a complex process of biological transformation of animal and plant cells takes place, which is exposed to the effect of variables (climatic, environmental, etc.) that are out of human control, exposing them to certain more significant forms of risk and more diverse than those existing in the industrial context. Basically, agricultural activity does not differ from other production activities. This activity "combines the factors of production, carries out a work process, obtains and places products, like any other production activity, industrial or commercial (Cassandro, 1970: 24). However, the ability of agricultural entities to cope with risks depends on a multitude of characteristics of this phenomenon, namely: the source of the risk, the correlations, its frequency and intensity (Gavrilescu, Davidovici, Toderoi, Gavrilescu, Rusali, Florian, & Tudor, 2006: 190).

It is known that a first important characteristic to which farms are subject is the biological risk, that is, the possibility that the animals and plants may be affected by pathogens that cause the disease and/or death (Mates, Grosu, Hlaciuc, Bostan, Bunget, Domil & Artene, 2015: 705-714). Regarding biological assets of the animal type, they are often affected by diseases or epidemics that cause the death of many of them (Corbella, 2000: 132- 133). Biological risk can also affect plants and has particularly serious effects in the case of tree crops, for which substantial planting costs are incurred and which require a relatively long production life in order to be re-evaluated as investments. This type of risk is related to the distinctive character of the agricultural activity, that is to the care and development of a biological cycle. The extent of the economic damage that can result from biological risk is compounded by the fact that the usual forms suitable for coping with other types of risk are often inefficient. The forms of biological risk management usually consist in activating preventive measures and techniques that reduce the risk (elimination of infected plants, sterilization of working tools, use of animal vaccines), in stipulating the insurance coverage to cope with the possible adverse event and in festablishing to the contractor the appropriate reserves and/or risks.

In addition to the biological risk, there is a very common risk in agriculture, namely the natural risk, represented especially by drought. This phenomenon of drought comprises approximately one quarter of the total surface of the Earth, its destructive effects positioning it as an environmental risk, next to pollution, in the first place, having the highest risk and stability scale (Moisa, Mircov & Cozma, 2012: 86). The increase in the number of extreme events, such as droughts or floods, determines the occurrence of the risk in the agricultural production activity, through efficiency and stability of the smaller products. As solutions to combat this risk, it would be the modernization and adaptation of the systems of protection of the land according to the forecasts of the

meteorologists, the formation of greenhouses according to the new innovations, as well as the investment in special machines meant to favour the good harvest.

As in any field of activity, besides the risk factors, specific to the agricultural field (presented above), there are other factors, common to any business sector, such as: economic, financial, political, social, etc. In the management of all these risks, management plays a crucial role, as well as the existence of a well-developed decision-making process, adaptable to the surrounding environment and to the direct and indirect factors.

### III. CONCLUSIONS

Agriculture is again the field of maximum interest among investors, and this leads to the need for continuous documentation and updating according to the legislative, economic and social context. Combining the risk factors in this sector represents the priority and the essential condition for advancing according to the strategic plans in order to achieve the results achieved. The guide of the professional accountant represents the norms and standards specially created to reach every accounting detail in the field of agriculture, so, only in these conditions, the economic agent can receive the guarantee of presenting a financial statement based on credibility, professionalism, transparency and objectivity.

Despite the benefits of adopting fair value in the assessment of biological assets, the IASB recognized the potential difficulty of finding a distinct market for those assets that are obtained or produced in the soil (for example, trees in a forest or orchard).

In this case, the determination of the fair value would be compromised by the inability to detect the relevant market parameters for this purpose. IAS 41 addresses this issue, taking into account the existence of a market for combined assets, that is, for biological assets whose value cannot be separated from the presence of other resources, by determining the value of cultivated land and land improvement works, assessed as a whole (i.e. together).

Therefore, we can conclude that the problem of determining the fair value of the combined biological assets can be solved in this case, more precisely by deducting the value of the cultivated land and the related land improvements.

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