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Preface

This book presents the results of Polish-Ukrainian scientific cooperation. It contains the papers prepared for the 10th international conference "Quantitative Methods in Accounting and Finance". Accounting and finance face nowadays many challenges. They require both an international and local approach, they need to be considered from the theoretical and practical point of view, and they also encourage general and specific analysis.

Support from quantitative methods is needed in order to discover, implement and verify new finance and accounting trends, methods and instruments. The research papers which are part of this book present different aspects of accounting and finance combined with a quantitative, in particular Econometric, approach.

Some of the papers focus on methodology of measurement, estimation and forecasting of financial phenomena, especially those related to investment processes. Others address specific problems of accounting such as accounting solutions for different branches, legal issues of accounting, responsibility and reporting. An alternative approach was also undertaken and the roles of a narrative and culture in accounting were presented.

The variety of papers selected for this issue ensures the complexity of the book. It provides theoretical as well as empirical material which can be used in further research and in business practice, particularly in accounting and finance. We hope that the content of the book provides a starting point for scientific discussion and practical changes.

Marta Nowak

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Quantitative Methods in Accounting and Finance

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WAYS OF IMPROVEMENT OF ACCOUNTING OF PRODUCTION STOCKS IN AGRICULTURAL ENTERPRISES

SPOSOBY POPRAWY KSIĘGOWEGO UJĘCIA ZAPASÓW W KSIĘGACH RACHUNKOWYCH RZEDSIĘBIORSTW ROLNYCH

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Summary: The peculiarity of the current state of inventory management in enterprises of Ukraine is that in R(S)A 9 and the methodological recommendations on accounting of inventories, the provisions regarding valuation of these objects, including them in the warehouse and in the Accounts Department and not enough attention is paid to the peculiarities of the accounting treatment of particular types of stocks (in the recommendations submitted, only the differences in accounting of packaging). These questions are important and should be regarded taking into account the functions of each specific type of stocks and the characteristics of accounting in agricultural enterprises. Learning from experience and keeping records showed significant differences for these works in the individual enterprises of Ukraine. It depends on the functioning of the economic mechanism, organizational and technological peculiarities of production processes, inventory item, build, warehousing, order vacation values, skills account service and responsible officers. Conducted research of the state of the account of the inventories in the agricultural enterprises of Ukraine has allowed to identify the ways to improve the accounting of inventory in the farms.

Keywords: biological assets, accounting livestock production and consumption of livestock fair value, biological assets, inventories.

Streszczenie: Cechą charakterystyczną obecnego stanu zarządzania zapasami w przedsiębiorstwach rolnych Ukrainy jest to, że prawo przewiduje jedynie ogólne metodyczne zalecenia dotyczące księgowania zapasów i ich wyceny, a mało uwagi poświęca specyfice księgowania poszczególnych rodzajów zapasów. Natomiast zagadnienie to jest istotne i powinno być traktowane z uwzględnieniem funkcji poszczególnych rodzajów zapasów oraz specyfiki rachunkowości w przedsiębiorstwach rolnych. Doświadczenie praktyczne wskazuje na znaczące różnice dotyczące sposobów ujmowania zapasów w księgach rachunkowych w poszczególnych przedsiębiorstwach rolnych na Ukrainie. Zależy to m.in. od specyfiki procesu produkcyjnego, jego organizacji i uwarunkowań technologicznych. Przedstawione w artykule

badania stanu rachunku zapasów w przedsiębiorstwach rolnych na Ukrainie pozwoliły zidentyfikować sposoby poprawy metod ich księgowania.

Słowa kluczowe: zapasy, przedsiębiorstwa rolne, rachunkowość.

1. Introduction

The biggest problems are related to accounting and cost control as well as developing effective strategic decision tools for the purpose of timely prediction of adverse situations and channel activities to a positive end result.

There are a lot of scientists which have devoted their research to the topic "Ways of improvement of accounting of production stocks in agricultural enterprises". A few examples are: I.A. Beloysova, N.D. Beloys , M.T. Bilyha, F.F. Butunec, B.I. Valyeva, S.F. Golova , K. Dryri, G.G. Kireyceva, M.M. Kocypatrogo, V.B. Mosskavskogo, L.V. Otiychuk, V.F Paliy, P.T. Sablyka, V.K. Savshyk, L.I. Horyngogo, M.G. Chymachenka, and others.

The peculiarity of the current state of inventory management in enterprises of Ukraine is that in R(S)A 9 and the methodological recommendations on accounting of inventories, approved by order of the Ministry of Finance of Ukraine dated 10.01.2007, No. 2, the provisions regarding valuation of these objects, including them in the warehouse and in the Accounts Department and not enough attention is paid to the peculiarities of the accounting treatment of particular types of stocks (in the recommendations submitted, only the differences in accounting of packaging). These questions are important and should be regarded taking into account the functions of each specific type of stocks and the characteristics of accounting in agricultural enterprises.

Learning from experience and the kept records showed significant differences for these works in the individual enterprises of Ukraine. It depends on the functioning of the economic mechanism, organizational and technological peculiarities of production processes, inventory item, build, warehousing, order vacation values, skills account service and responsible officers.

2. Relevance of the research problem

In agricultural enterprises, the greatest difficulties are associated with such current assets as biological assets. This concept is introduced R(S)A 30 "Biological assets" approved by order of the Ministry of Finance of Ukraine dated 18.11.2005, №. 790, and methodical recommendations on accounting of biological assets, approved by the Ministry of Finance of Ukraine dated 29.12.2006, № 1315.

The need for the development of this standard was due to the introduction of international accounting standard 41 "Agriculture" which has been recommended

since 2003. This standard is accepted as national in New Zealand, and Australia has developed on the basis of IAS 41 its own standard 35 "Self-made and reproducible assets". Moldova was the first former Soviet country which has developed a national standard on accounting in agriculture. It only provides for the use of the individual provisions of IAS 41 "Agriculture".

Relevance of the topic is due to the fact that companies and individuals engaged in entrepreneurial activities should know the order of the movement of stocks, formation of the cost of production, stock assessment methods from the impact of their operations and optimize the use of their inventory.

Today relevant is the question of the study of accounting for inventories, documenting and recording their results.

The lack of theoretical and practical issues elaborated on the improvement of the organization and methods of accounting for inventories, the inadequate existing regulations that govern it, have led to the choice of theme and direction of this work.

3. Ways of improvement of accounting of production stocks in agricultural enterprises

For a final decision on the implementation of R(S)A 30, it is advisable to assess a number of aspects, namely, why the Committee on international standards adopted IAS 41 "Agriculture" and what specifics of this industry were taken into account in this case.

The need for the development of IAS 41 "Agriculture" is explained by the fact that in many countries the methodology used for the accounting of "input-output", which applies to small businesses, including Ukraine, is regulated by R(S) A 25. When applying this methodology we are not equipped to calculate the cost of production, profit is calculated by comparing the revenue from sales incurred costs for items, adjusted for the carryover difference work in process and finished goods at the beginning and end of the year. These balances are measured at net realizable value, reduced by the amount of expenses at the point of sale. In future this price is called fair value. The aim of such clarification of the total expenditure of enterprises is a more reasonable calculation of the cost of commercial products, in order to accurately calculate the performance of the company.

When applying fair prices for agricultural products in developed countries, there are no problems with the product rating, because, despite the existence of forward contracts and futures and commodity exchanges, the agricultural producer long before the time of sale may know the level of product prices [Сільське господарство... 2004, p. 142-154]. The farmer buys on the exchange standardized futures contract, which provided for the sale of a certain number of products, such as wheat of a certain grade and quality at a predetermined price. This allows the farmer with the help of certain measures (the use of the spot market, clearing houses, hedges and the like) to

receive payment under the futures contract. So to use this price as the fair value, in our opinion, is quite real.

Approval of the standard 30 "Biological assets" – this is the second time Ukraine introduced the standard, which reflects the specifics of branch accounting. This fact has caused a special resonance among accountants, both scholars and practitioners. The journal "Accounting and Finance in agriculture" published a letter from a number of scholars and practitioners who have proposed not to introduce the standard into the practice of agricultural enterprises.

It would, however, by international standards, adopting IAS 41 "Agriculture", confirm the expediency to abandon the fair value as the basis of valuation of agricultural produce at initial recognition, biological assets – at each balance sheet date. In our view, we should consider the possibility and expediency of application in practice, fair value under the valuation of biological assets according to existing normative documents, concentrating primarily focus on organizational issues, because the definition of the price level is assigned to the enterprise by developing the chosen accounting policy. The basis used here include solution commissions, consisting of professional specialists, heads of production units, responsible persons and accountants responsible for a specific area of work (R(S)A 30, p. 4-6).

It is our belief that the qualifications of the experts in these commissions at the enterprise level is of concern, because each of them contains a professional valuation specialists and foremen, farm managers and accountants to reasonably determine the fair value for certain types of assets. This requires the efforts of leading experts of Ukraine with the aim of developing methods for determining fair value and in-depth theoretical and practical studies.

In p. 2.3 methodical recommendations on the organization of accounting of biological assets and agricultural produce at market (fair) value published by the decision of the methodological Council on Accounting and Finance of agro-industrial production Ministry of Agrarian Policy of Ukraine according to the Protocol № 1 of 10 January 2008, provides that the Commission shall comprise of no fewer than three people, but with the participation of the chief accountant, his/her deputy, industry specialists and managers of structural subdivisions.

If in determining the fair value of the proceed from the specific prices of products prevailing in the market at the time of receipt from production, note that there are generally four types of products:

- 1) products that are sold on the market, such as vegetables, milk;
- 2) production, which needs to be improved, sometimes quite long-term, such as grain;
- 3) products that will be implemented in the future, maybe in a few months or years, such as the increase in body weight of animals;
 - 4) production, which has no external sales.

In the first case to apply the fair value, in our opinion, is inexpedient, it is better to implement it without initial recognition.

In the second case, too, the question arises of why to use for evaluating the prices that they were before, and do not take into account the profit, calculated on the actual data.

In the third case, it is difficult to justify the calculation of the profit from sales if the sales proceeds do not match with the actual cost of production and cost sales price that was from the last year or the year before.

A product that is not greatly implemented by a specific company, namely: feed, seed, products, which are processed by the company.

The calculations according to data of "CHAJKA" showed that the impact of the activity upon initial recognition products at fair value is much higher.

If according to form No. 50-SG, wheat was losing money when the profit from sale and revaluation still made a small profit, barley profit increased almost three times, sunflower – twice. If we take into account the result subsistence products, then the consequences would have been even better. This increase is due to the fact that the calculations are not based on commodity output, gross, for example, that is provided for processing. If prices for products change, the company from its sales will make a loss that means that the whole company as the result of its activity may not change, but it will be loss product industrial producers, and not agriculture.

The proper solution requires evaluation of the long-term growth of biological assets. The problems that arise in this case relate to so many issues that in our opinion, they require a long and deep research, because certain types of these assets are essential features of production and sales. Thus, forest plantations throughout the period of their cultivation are under biological change, so the increment is the product and the increase in value determined by earnings from cultivation that is as a result of operational activities. This would seem all right. However, if we consider this question from the point of view of profit formation, it turns out that the increase in value is determined twice: first in the form of annual growth in the value of forest stands, and the second time as the cost of solid wood, no matter if sold off at the root or cut down. It would make a significant difference, whether or not to take into account the taxation system in the agricultural businesses, if they pay tax on profits, because it will lead to complications of this tax, since the annual revenue from sales and the tax must be paid.

The most difficult issue is the assessment of adult animals of the main herd, especially breeds. The formation of herds of breeding animals, as a rule, is carried out through the acquisition of breeding young animals in a specialty businesses and growing further on farms. Pedigree young animals is more expensive, and thus the obtained weight gain will be measured in accordance with R(S)A 30 at the sale prices that are usually lower. Therefore, these animals will first have the initial cost (at the time of acquisition) and the fair value will be estimated from their own farm weight gain. When posting as part of the main herds of these animals, they must be measured at fair value. And here the question arises how to assess them. IAS 41 states: "fair value is determined based on market prices of livestock of similar species, breed and genetic values" [Модеров 2006, р. 99].

In the example given in section 5.4 methodical recommendations on the organization of accounting of biological assets and agricultural products from 10.01.2008, determined that these factors should be considered in the assessment, but in the examples (section 7.2) presents calculations of the value of the animals without consideration of these factors. If one takes this route from cultivation and future use of breeding animals, there will be a resulting loss.

Particularly acute will be the problem of revaluation of current biological assets. When completing periodic reporting by the enterprises of the developed countries they are not complete, according to claim 1.1in methodological recommendations which is to definitely do that. If we assume the possibility of this assessment of biological assets at the date of submission of the quarterly reports, the question arises: which assets this applies to. It can be assumed that at the end of the first quarter it can be winter cereals, perennial grasses, when considered as current assets, and at the end of the second – all of the culture, at the end of the third, sugar beet, etc. Apparently those costs which are incurred for the harvest of next year and which cannot be associated with the production of a specific product, for example the cost of autumn tillage, cannot be considered as current biological assets.

If you approach the current revaluation of biological assets during the year, the question arises, what about the revaluation surplus when filling out form No. 50-agriculture, because in this case this amount increases the cost of production.

Good opportunity is to raises profit by evaluating the production in the initial definition, because in this case this will be mapped to the value of production with half of the overheads and administrative costs.

Difficulties arise if there is a quarterly distribution of administrative costs, because when these are included in the first quarter they can be attributed to livestock, crops to winter crops, perennial grasses and under sowing. In the second quarter – mainly on culture in crop and livestock production. In the third – on industrial crops and livestock. The fourth – winter and livestock.

Thus, administrative costs will be charged to the livestock, which will further increase the profitability of crop production. This simultaneously complicates the calculation of production costs in the form No. 50-agriculture.

Changes in the method of determining the increase in the value of long-term assets cause significant changes in the methods of conducting them. In the manual "Accounting of agricultural activities" [Mypaiiko 2002, p. 9-13] it was proposed to carry out three operations that had never been done before. Namely: a) to determine the cost of long-term assets at fair value at each balance sheet date; b) capitalize the increase in live weight of these assets; c) charge depreciation of productive animals of the main herd, which are valued at cost.

If following registration of the increase of the weight of a cow, this will lead to an evaluation of each head at its fair value. This requires disregarding of adult livestock at cost and accordingly the depreciation, so the question arises concerning the application in practice of the subaccounts 164 and 166.

There should be noted another paradoxical fact associated with the introduction of R(S)A 30. Depreciation on animals of the main herd in their assessment on the original cost leads to a systematic decrease of the residual value of animals. At the same time, the cost of the animals, measured at fair value, will systematically grow due to the increase in the body mass of animals and the increase in the prices of animals through inflation and other reasons.

Thus, while depreciation reduced the level of profitability of the main products, provision is made for recovery of fixed assets by depreciation. However, a systematic revaluation of the surplus animals of the main herd is created from the profit revaluation surplus and reduces the cost of the main product (milk). This casts doubt on the validity of this method of calculation. In our opinion, it is inappropriate to charge depreciation on animals of the main herd, and to leave unchanged the method of creation of sources of renewal of basic funds provided by methodical recommendations No. 132, in which the difference between the revenues from culling of animals of the main herd and its original cost is expended on the maintenance of the main herd. Under normal operations, this is the most reasonable transfer of cost to expense, and least time consuming, which is very important in modern conditions.

In addition, the revaluation surplus of animals of the main herd, account 16, in the agricultural enterprises is on the increase profits. At the occurrence of similar situations in other sectors of the national economy (restore utility of assets), these operations should be reflected in the increase in additional capital. In our opinion, this significant difference will affect the impact of the industry in general and will lead to the failure of regulation of pricing policy on agricultural products.

To study the question of the possibility and feasibility of introducing R(S)A 30 into the practice of Ukrainian enterprises, in our view, we should consider the differences between methods of data generation for certain financial results in agricultural companies in accordance with international and national standards.

For the basis for comparison we used IAS 41 "Agriculture", R(S)A 30 "Biological assets" and the Australian accounting standard 35 "Independently created and reproducible assets" (AAS 35).

It turned out that the method of determining the financial results of agricultural enterprises envisaged in IAS 41 and AAS 35, in comparison with R(S)A 30 are substantially different.

In the first two standards, the profit is determined by comparing the income (fair value of products received at initial recognition and gains arising from changes in fair value of biological assets during the reporting period) with the costs of production by member.

It should be emphasized that in the Appendix to IAS 41 "Agriculture" in the composition of non-current assets (in Ukraine they are called long-term biological assets) included in addition to the adult animals of the main herd and the young [Швырков 1998, р. 96]. The notes on the same page explain that the enterprise is encouraged, yet not required to file a description of each group of biological assets, in which "Mature biological assets are distinguished from immature, if it is accepted".

This gave the authors the basis for inclusion in the statement of profit and loss of the article, "Income arising from changes in fair value minus estimated costs at the point of sale of dairy cattle", that is, the revaluation surplus of adult animals and calves is served in one article (Table 1).

Table 1. The profit and loss statement (according to IAS 41 "Agriculture")

Article	For the year ended 31.12.20 14
The fair value of milk produced	518 240
Income arising from changes in fair value, minus estimated costs at the point of sale of dairy cattle	39 930
Together	558 170
Used inventory	(137 523)
Personnel costs	(127 283)
Depreciation expense	(15 250)
Other operating expenses	(197 092)
Together	(477 148)
Profit from operating activities	81 022
The cost of the income tax	(43 194)
Net profit for the period	37 828

Source: own study.

In this table, the data show that the profit of an agricultural enterprise is the difference between the value of milk produced and the revaluation surplus of animals and the amount of the expenses incurred, thus the revenue from sales of products when such calculations are not taken into account. A similar procedure is typical for NAS.

Form 2 "Profit and loss" in enterprises of Ukraine revenue from sales of products, which is compared to production costs, and to the obtained result are added the effects from other operating activities, comprising the results of revaluation or markdown of biological assets and valuation of products received at initial recognition.

Comparison of procedures for determining the income of agricultural enterprises in accordance with international standards has allowed to establish significant differences between them (Table 2).

The results of the comparison techniques allowed to conclude that P(S) 30 "Biological assets" are significantly different from the international standard, and this is contrary to the provisions stipulated by the Cabinet of Ministers of Ukraine from October 27, 2007, №911-R "On approval of strategy of application of international financial reporting standards in Ukraine", in which it is planned to improve the system of accounting through the harmonization of financial reporting of domestic entities with the reporting of the enterprises of member states of the European Union and other countries that apply international standards.

Table 2. Differences methodology for determining the agricultural income enterprises in accordance with accounting standards

Standard

Method of determining income

Standard	Method of determining income
IAS 41 "Agriculture"	Income, as the fair value of products received when you initially define and as the difference in the fair value of long-term and current biological assets at the beginning and end of the reporting period
NAS 35 "Self-created and reproducible assets"	Income, as the fair value of products received on the actual sale prices and the difference in value of biological assets at the beginning and end of the reporting period
NAS 35 "Self-created and reproducible assets"	Income, as revenue from sales plus other operating income, which includes income (expense) from initial identification of product and the difference in the value of assets at the beginning and end of the reporting period

Source: own study.

Simultaneously it is necessary to consider another important issue regarding the use of P(S) 30 and its use in the future. If we consider that the European Commission in accordance with the developed strategy does not agree with the use of fair value estimates for assets that are not financial documents, it turns out that P(S) 30 after the entry of Ukraine into the European community loses its status regarding the use of fair value. In addition, in the EU there is a special method of determining financial results, which are not published in periodicals or on the Internet. However, some authors, in particular J.E. Houben [Губені 2008] , insist on the desirability of participation in the collection and assessment of data of the enterprises of Ukraine according to this method. This view is supported by the authors who developed the concept of building project accounting in agricultural enterprises [Жук 2008, p. 90].

The introduction of this technique provides for the calculation of the consequences of managing an agricultural enterprise for the purpose of further regulating the size of payments according to the policy provided by the EU. These, in general, possible positive and appropriate intentions pose very specific requirements, namely enterprises that are reporting to the EU bodies, are not entitled to file any paperwork with other bodies (except the tax reporting), reporting data of a particular company and consolidated on a small number of companies, for example, a particular region, are confidential and cannot be disclosed.

Given this, there is a need to reconcile this issue at the level of the government of Ukraine, because the bodies of statistics and the Ministry of agrarian policy of Ukraine will not receive reporting from farms, which creates significant difficulties for the management of national economies. The implications are impossible to predict, if not the compilation of form №50-SG.

To determine the location P(S) 30 "Biological assets" in the accounting system of agricultural enterprises of Ukraine, one should explore the possibility of the harmonization of this standard with the system of management accounting, primarily

with the methodological recommendations on planning, accounting and costing of agricultural products, which are approved by order of Ministry of Agrarian Policy of Ukraine from 18 of May 2001, No. 132, as well as reporting to the statistical authorities.

Simultaneously with the resolution of issues regarding methods of accounting of biological assets in accordance with the requirements of international and national standards, one should clarify the place of biological assets in the production process and some other issues of control of livestock.

As we know, on farms all livestock consists of cattle, productive animals of the main herd and the young of animals in growing and fattening. The latter group includes adults of small animals (rabbits, animals), adult bird and bees, animals culled from the main herd and delivered to the fattening and young stock to replenish the herd, the sale for further rearing or for slaughter.

Between productive adult cattle, which is a long-term biological assets and animals and livestock fattening as current biological assets is observed, despite several differences and many similarities. Of importance here are not only the functional role of livestock in the production process and the circulation of funds of enterprises, but also the historical experience of breeding these types of animals, because by 1965, the adult rabbits, animals, poultry and bees were a part of the fixed assets, although subsequently were transferred to the working capital, probably for the small cost objects, but their functional role in the production process has not changed. According to V. Brazauskas [Бужин 2004], animals of the main herd of cattle and pigs in Germany, the Czech Republic, Slovakia, Hungary take into account in the current assets.

It is therefore appropriate to examine in more detail the functions and the role long-term and the current biological assets in the production process.

The main herd and the young differ in their place in the production process (both systems is the product of labour, but if the first is the result of a finished process of growing, for others it is still ongoing); the duration of use and formation; the composition of the resulting products from them. Common between them is that they are biological assets, produce outputs, and participate in the production process.

Schematically, the role of livestock in the production process can be submitted as long term biological assets, in the form of productive adult animals (Figure 1).

The role of animals in growing and fattening is particular This type of funds has a number of functions in the production process.

However, the cattle is the subject of labour, because it is also aimed to buy for humans instruments of labour (machines, appliances, etc.).

Schematically, it can be described in the scheme (Figure 2).

It is impossible to consider cattle just like the product of labour, because no matter how much feed is prepared and processed during the production process, one cannot get the product without proper cattle which consumes this feed. The increase in body weight as the product of labour in this cycle of production cannot be separated from the animals and only with them can take the form of goods after a period of growing and fattening.

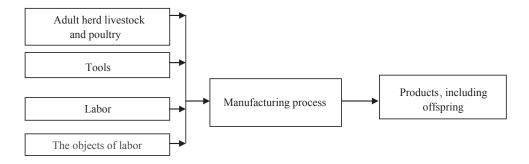


Fig. 1. The role of the adult productive animals in the production process

Source: own study.

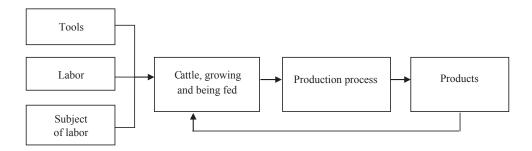


Fig. 2. The role of cattle in the production process

Source: own work.

The assessment of animals and products is carried out in the manner prescribed by accounting policies. The data on the presence and movement of animals on the 1-2 dates of the next month is transmitted to statistics agencies as a report on the status of livestock in Form 24. Schematically, the accounting treatment of cattle is shown in Figure 3.

Simultaneously with the movement of animals on the farm register of breeding animals and cattle, productivity registers are maintained. These are deemed to be operational accounting registers.

The mentioned instruction provides some features of documenting and keeping of livestock in industrial complexes.

Shops and stations draw up basic documents on a daily basis (accounting sheet of movement of animals and feed costs, tally sheet for the slaughter and death of animals) which are therecord sheet to account for the movement of animals and cumulative list of the slaughter and death of animals, which at the end of the day are transferred to the accounting department where the relevant information about the movement of livestock in the whole group, shop or complex is constituted.

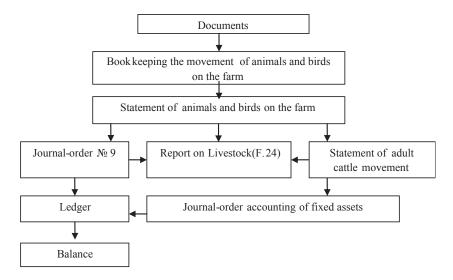


Fig. 3. The accounting treatment of cattle farms

Source: own work.

According to R(S)A 9 "Stocks" the initial value (p. 9) should also include the costs associated with bringing reserves to the state in which they are suitable for planned purposes. Such costs include direct material costs, direct costs for wages, other direct expenses of the enterprise for reworking and improving the performance of the stocks.

In the agricultural enterprises expenses for bringing the inventories to condition suitable for use also include the costs for preparation of feed. The method of accounting of these costs is determined by the organizational forms of functioning units which prepare feed and perform technological operations.

4. Conclusions on improving the accounting of inventory

The conducted research of the state of the account of the inventories in the agricultural enterprises of Ukraine has allowed identifying the ways of improvement of accounting in this area.

- 1. For the more accurate calculation of the effects of small-scale farmers' activities they should be allowed for assessing the finished product, the young animals and work in progress to apply the actual data of the neighbour farms of the cost of those assets if they use the same production technology. Control has to be performed by local government or statistical bodies.
- 2. With expansion of usage of forward and futures contracts for sale of agricultural products other evaluation methods may be used.
- 3. Taking into account the functions of livestock in the production process, it is necessary to harmonize the accounting in this area according to the requirements of

cost accounting and yield that would allow strengthening the control system over the level of these indicators.

- 4. To account for the mortality of the animals account 24 should be applied, which has to involve a sub-account "Losses from livestock deaths". Analytic accounts should be opened by types and groups of animals, debit of these accounts should reflect the cost of dead animals and other costs associated with obtaining products, and the credit should reflect the value of received products and the amount to be reimbursed by the guilty party. The difference between the debit and credit turnover of the account should be attributed to the appropriate accounts depending on the causes of mortality. This will allow to determine more precisely the losses of the company for this reason and to determine the reparation for the harm caused.
- 5. It is necessary to rebuild the accounting system of feed quality, abandoning the usage of indicators of feed units and digestible protein. The indicators to be used in this case should be determined taking in account the nutrient capabilities of the feed.

References

IAS 41 "Agriculture", www.iasplus.com.

International Financial Reporting Standards, www.iasplus.com.

NAS 35 "Self-created and reproducible assets", http://zakon3.rada.gov.ua/laws.

NAS 35 "Self-reated and reproducible assets", http://zakon3.rada.gov.ua/laws.

Бужин О.А., 2004, Амортизація як засіб відтворення поголів'я у птахівництві, О.А. Бужин, С.І. Дерев'яненко, В.В. Бесараб, В.М. Денисенко. – //Економіка АПК –№ 12.

Губені Ю.Е., 2008, Європейська система сільскогосподарського обліку як інструмент економічної інформації для формування аграрної політики, Економіка АПК, №5.

Жук В.М., 2008, Наукове забезпечення обліку в системі управління аграрним сектором економіки: теорія і практика: Наукова доповідь, К.: IAE – 90 с.

Міжнародні стандарти бухгалтерського обліку 2001: зміни та доповнення/Пер. з англ. за ред. С.Ф.Голова/К.: Федерація професійних бухгалтерів і аудиторів України – 224 с.

Модеров С.В., 2006, Бухгалтерский учет по МСФО: что глобального изменится в ближайшее время, Международный бухгалтерский учет, №12.

Мурашко О.В., 2002, Удосконалення системи обліку в умовах реформування податкової політики, В.М. Мурашко, О.В. Мурашко, Вісник, ЖІТІ, № 18.

Сільське господарство України: криза та відновлення, 2004, за ред. Штефана фон Крамона — Таубаделя, С.Дем'яненка, Арніма Куна. – К.: КНЕУ – 207 с.

Швырков В.В., 1998, Тайна традиционной статистики Запада, Финансы и статистика – 144 с.