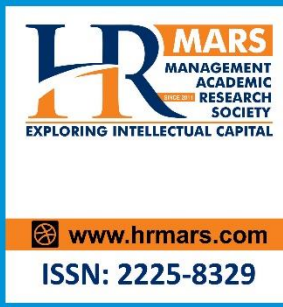




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Haluk Duman, Rabia Ozpeynirci, M. Yilmaz Icerli

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## Agricultural Activities – TAS 41: Turkey Example

Haluk Duman

Accounting and Finance Department Faculty of Business Administration and Economics  
Aksaray University Central Campus 68100, Aksaray, Turkey  
Email: halukduman70@hotmail.com

Rabia Ozpeynirci

Accounting and Finance Department Faculty of Business Administration and Economics  
Karamanoğlu Mehmetbey University Yunus Emre Campus 70200, Karaman, Turkey

M. Yilmaz Icerli

Accounting and Finance Department Faculty of Business Administration and Economics Aksaray  
University Central Campus 68100, Aksaray Turkey  
Email: yilmazicerli@yahoo.com

### Abstract

Agriculture sector has become a strategic sector for all the countries in the world in the 21<sup>st</sup> century, because unhealthy, wrong and inadequate nutrition affects human health and health expenses negatively. On the other hand, arising food expenses collaterally with population growth arises the percentage of agriculture sector in the Gross National Product (GNP). Turkish Agricultural Activities Standard (TAS 41) will be leading for recording and controlling fiscally countries' agricultural activities and preventing resource waste via right agriculture policies. The aim of the study is to lead legal authorities and applicators by identifying current and prospective problems of the countries whose economies depend on agriculture and will start applying the standard, like Turkey. For this purpose, literature search was done on periodical articles in national and international indexes since 2006.

**Keywords:** Turkish Agricultural Activities Standard (TAS 41), Biological Assets, Fair Value

### Introduction

While the basic food need increases due to current population growth, many factors such as dry seasons as a result of climate changes, environmental pollution, wrong agricultural policies, opening to settlement of fertile lands and so have caused a decrease in the quantity of agricultural productions. As a result of this, all the countries on the earth have started to focus on "agricultural activities".

The changes and developments in industry and information technologies let agricultural activities done more effectively and productively, benefit from scale economy and become wider of

agricultural products' usage area in different sectors. This change causes an inactive labor market via a transition from a labor intensive form to a technology intensive one. This situation also requires creation of agricultural policies and new employment areas.

As a result of these developments, agricultural activities have started to be done large scaled and institutional firms. The only way that firms can record their agricultural activities, do cost-capacity-profit analysis, take decisions concerning the future, perform tax processes appropriately and make source transfers with credit institutions is possible with a "agricultural accountancy" information system.

### **Agricultural Activities Standards**

Agriculture sector has become a strategic sector for all the countries in the world in the 21<sup>st</sup> century, because unhealthy, wrong and inadequate nutrition affects human health and health expenses negatively. On the other hand, arising food expenses collaterally with population growth arises the percentage of agriculture sector in the Gross National Product (GNP).

When developed countries focused on agricultural activities, International Accounting Standards Committee (IASC) made the first study as "Conclusive Scheme E65, The Agriculture" in 1999. The committee declared "International Accountancy Standards (IAS) 41- The Agriculture" which was to go into effect on 1<sup>st</sup> January 2003 in December 2000.

"IAS- 41 Agriculture Standard" went into effect by Turkey Capital Market Commission's notification dated 15/11/2003 and Serial: X1 numbered 25. In the thirty first part of this notification, agricultural activities are organized. Accountancy standard concerning the agricultural activities prepared by Turkey Accountancy Standards Board went into effect on 24<sup>th</sup> February 2006 to be applied on accountancy terms after 31<sup>st</sup> December 2005.

### **Agricultural Activities**

Agricultural activities standards are applied only to agricultural products having biological assets in the point of harvest. In this context, they are not applied to postharvest agricultural products (TAS41-3). For example, wheat production is an agricultural activity, but flour production from wheat is not so as it is a postharvest production.

Agricultural activities involve a very broad activity group, for example, livestock raising, forestry, annual or longer term harvest raising, fruit garden and tiller planting, floriculture, aquaculture and so. Despite this broad activity area, live assets' common features are given as follows in TAS 41:

- Change Capacity: Biological animals and plants go through a biological change.
- The Management of Change: The activity of providing and preserving of needed conditions to manage biological change
- The Measurement of Change: The measurement and observation of the change in the quality and quantity caused as a result of biological change and harvest (TAS 41-6).

Besides, the standard encourages companies to make numerical explanations via grouping their biological assets such as consumed and carrier assets or mature and immature assets. Consumed biological assets are harvested or sold alive assets, for example livestock kept for meat production and sale, corn, wheat etc. Carrier biological assets are other than consuming live assets, for example the animal that can produce milk, grapevines, and fruit gardens (TAS 41- 43, 44).

### **Accounting and Measuring of Agricultural Activities**

Current uniform accounting system cannot be adequate in measurement and accounting of important incidents related to biological assets that are within the scope of agricultural activities. As uniform chart of accounts was prepared for commercial firms so lacks in accountancy; as it is not determined how biological assets will be grouped in balance sheets according to their aims to take place in the firm, and as every country uses different accounting methods related to international agricultural activities caused to emerge of "Agriculture Accountancy Standard – 41" (Ağca ve Sağlam, 2008, 997).

The regulations on which activities are agricultural and which are not, the measurement, evaluation and accountancy of biological assets are done by the standard. An agricultural product or biological asset can be accounted only if the following conditions exist:

- If the firm controls the mentioned asset as a result of past events,
- If it is probable that future economic benefits will flow to the entity,
- If the asset's fair value and cost can be measured reliably (TAS41-10).

An asset's fair value is determined via its exchange among knowledgeable and willing groups in a mutual bargaining environment. Besides, the features that form as a basis for pricing in the related active market should also be taken into consideration. If an active market doesn't exist, the fair value is determined as:

- The latest strike price if an important change hasn't happened between the operation and the end of reporting terms.
- Similar assets' latest strike price of which revisions representing the differences are done.
- According to sector similarities such as a fruit garden's value for per chest, kilo or hectare (TAS 41-18).

There may not be an existing price or value of the biological asset's current situation in the market. In this situation, the asset's fair value is used by current value found via discounting current discount rate occurring in the market from the net cash flow of the mentioned asset (TAS 41-20).

If the biological asset's fair value cannot be measured surely, it is recorded on its cost value and its valuation is done by deducting accumulated depreciation and accumulated value lowness from its cost. When the mentioned asset's fair value can be measured reliably, it is measured by deducting costs to sell from its fair value (TAS 41-30).

### **Accounting of Profits and Losses Belonging to Agricultural Activities**

The profit or lose resulted from the first accounting process of the biological asset done by deducting costs to sell from its fair value, and the profit or lose caused by the changes in the mentioned asset's fair value are taken into consideration as profit or lose in the terms that they occurred (TAS41-26).

Costs to sell accepted to have biological assets, are additional costs that can directly be linked to sell off an asset, except financing costs and income taxes (TAS41-5). Costs to sell include tax and charges, exchange costs, custom duties and commission's expenses (Örten, Kaval and Karapinar, 2008, 630).

### **Government Grants**

Unconditioned government grants to biological assets measured by deducting costs to sell from its fair value can be accounted as profit or loss only under the condition that they become receivable (TAS 41-34).

If the government grants are given under certain circumstances, including also mentioned firm's not functioning a specific agricultural activity, the profit or loss can be accounted only when required circumstances are met (TAS 41-35).

If the conditioned grants are given to function agricultural activities for a given time, it cannot be accounted as profit or loss by that company unless the given time finishes; because functioning agricultural activities for less than the given time might require giving back the grants. On the other hand, the part of the promotion belonging to passed time can be accounted as profit or loss if the firm is let to keep it according to passed time (TAS 41-36).

### **Agricultural Activities – TAS 41: Turkey Example**

The first regulations on accountancy in Turkey date back to Ottoman Empire era and continue up to now. The first regulation on accountancy occupation was done under French cult in 1850s. In those years, the number of people working on accountancy and articles related to it increased (Karakaya, 2009, 294).

The Commercial Law and Income Tax Law were enacted in 1926. Accountancy occupation became law, and it became compulsory to prepare balance sheet and income statement (Karakaya, 2009, 295).

Measuring assets in accountancy records via different measurement methods was accepted in 1949 when Tax Procedure Law went into operation. This tax also contributed much in emerging and development of accountancy culture. Applying of uniform accounting system by all sectors was accepted in 1992; "Financial Reporting Standards" were prepared by Turkish Stock Exchange in 1983 and company owners were affected by it. Some regulations on application of uniform accounting system were done in 1994. After 2005, it was proposed that the companies registered to the stock exchange organize their financial reports appropriate to the international accounting standards and official regulations related to that were done (Karakaya, 2009, 295).

Accounting Standards Commission was found legally in 1999 and it published a structural form, 39 Turkish Accounting Standards/Turkish Financial Reporting Standards (TFRS) and 21 comments in 2002. Today, it still continues to be the authorized institution in forming standards.

There are some problems with the agricultural enterprises in Turkey as a result of their not keeping records on their activities, first accounting of their assets, detecting their incomes and expenses etc (Gündüz and Dağdeviren, 2011, 104). On the other hand, agricultural enterprises cannot reach enough and sufficient resources from the financial system due to their missing financial information. This situation causes decrease in the enterprise's growth and profitability momentum which sometimes even result in bankruptcy or transfer to a new owner as a result of financial failure. In order agricultural enterprises to broaden their credit opportunities, agricultural credits should be rearranged in a way supported by technical information and control in Turkey besides recording agricultural enterprises' activities appropriate to the standards. Furthermore, credit sector should provide credits improving agricultural activities and providing financial and technical support that will make the credit process on agricultural activities easier, increase the production quality and decrease the expenses (Kizilaslan and Adigüzel, 2007, 416).

### The Aim of the Study

The aim of the study is to present studies conducted related to TAS 41- Agricultural Activities Standards published in Official Journal no: 26090 on 24.02.2006 and the current situation in the country. Thanks to that, the changes occurred as a result of the regulations brought by the standards on accounting of biological assets, uniform chart of accounts and tax laws etc. and related studies that should be done in future will be examined.

### The Content of the Study

It involves the periodical studies within the national and international field index hence 2006 account term on which the standard went in effect and would be applied.

### Agricultural Activities 41: Turkey Example (2006-2012)

Since the agricultural activities standards are a new topic for academicians and law and regulation makers, it is seen that legal regulations and studies in the literature couldn't reach the sufficient level (table 1). This situation shows the importance of the study.

Turkey Example study will enable us to determine the point that the academic studies have reached since the regulation was published and direct needed studies for the future.

Table 1. Periodical Studies on Agricultural Activities 41 (2006-2012)

| Researcher/Year        | The Aim Of the Study  | Keywords  | Summary of the Study   |
|------------------------|---|---|--|
| A. G. Hatipoğlu (2012) | The aim of the study is to present the tax and accountancy aspect of the regulations done by legal regulators and its effects on the enterprises comparatively. | Agricultural Products, TAS-441, KOBİ (SME), TFRS, Turkish Tax Legislation | The regulations done appropriate to Turkish Tax Legislation are intended to determine tax assessment in the light of reliable documents. The regulations in SEM TFRS by TAS base on preparation of fair financial tables depending on the relation of the information with the asset.<br>This situation shows that tax legislation bases on precautionary principle of accountancy; the regulations in TAS-41 and SEM TFRS base on substance over form principle.<br>Lastly, in the study, it was seen that the uniform chart of accounts was insufficient. In this context, it is proposed to add "Agricultural Production Augmentation of Value Profit" and "Agricultural Production Augmentation of Value Loss" accounts to the accounts chart.<br>Hatipoğlu's (2012) comparisons according to legislation and results he determined: |

| Researcher/Year                  | The Aim Of the Study  | Keywords  | Summary of the Study   |                   |  |
|----------------------------------|---|---|--|-------------------|--|
|                                  |   |   | Agricultural Produce   | Tax Legislation   | TAS-41   |
|                                  |   |   | Measurement  | Cost Value        | Fair Value   |
|                                  |   |   | Profit/Loss  | Found after sell. | Found when fair value is determined.   |
|                                  |   |   | Market   | Not important     | Bases on the existence of an active market. So, the agricultural produce is on the financial charts with its real value. |
| H. Kirlioğlu and A. Gököz (2012) | It aims to examine the activities within the water products sector in the frame of Turkey Accountancy Standards 41: Agricultural Activities Standards and to make their accountancy records appropriate to the standards. Solution offers are given since the assets within the TAS | TAS-41, Agricultural Activities, Water Products Sector, Biological Assets Accountancy | It has become very important the production of the information reliably, rightly and exactly that agricultural enterprises need as a result of TAS 41: Agricultural Activities Standards published under the content of international accountancy standards. Besides, together with transition from traditional agriculture to professional agriculture, the measurement of agricultural activities' performance and usage of the gained information in the decision making processes both now and in the future depend on the effective use of this standard. In this context, it is offered in the study to open no: 16 account group for circulating biological assets, and no: 21 account group for biological assets partake of fixed assets. |                   |  |

| Researcher/Year                      | The Aim Of the Study  | Keywords   | Summary of the Study   |
|--------------------------------------|---|--|--|
|                                      | 41 Standards have biological transformation and there is not an account group in uniform chart of accounts that these assets are recorded.  |  |  |
| Akbiyik A.A. and Yeşiltepe N. (2011) | It was aimed to show cost accountancy in production process within wine enterprises, research and development, sell records and specific situations in accountancy about production stages. | TAS-41, Winemaking, Grape Accountancy  | In the first part of the study, wine's production stages and cost accountancy records are explained via examples. Produced wine's quality is continually measured in the laboratory environment in degustation stage. In this stage, since observation and analysis are expertness based functions, they are accounted within research and development costs. The specification of the wine that makes it different from other agricultural products is its being a half product with ongoing producing process as long as it is kept and becoming more valuable. In the second part of the study, it is advised to the enterprises that will operate in this field to be found as corporation or limited company, because a qualified and valuable wine can be produced as late as 30 years. In this context, institutionalism and winemaking will become identical and it will turn to a profitable enterprise 30 years later. |
| S.H. Tokay and A. Deran (2011)       | The growth of the world population and the drought caused by global climate change, environmental   | Agriculture, Agricultural Accountancy, Accountancy Organization in Fruit Gardens | Reliable information producing is done on enterprises with agricultural activities about their financial and physical situations thanks to agricultural accountancy. Under the light of this information, managers and enterprise community can make right decision now and for the future.  |



| Researcher/Year                 | The Aim Of the Study   | Keywords   | Summary of the Study   |
|---------------------------------|--|--|--|
|                                 | <p>pollution etc. shifted agriculture sector to a strategic position for humankind's living healthily. In this context, the measurement of the activities by agricultural enterprises in the point of effectiveness and productivity is possible by producing of fair data and information by accountancy. The aim in this study is to show the need of accountancy in fruit gardens and the importance of document and information organization for each agricultural activity.</p> |  | <p>An effective accountancy information system gives the required information for evaluating enterprise's financial status, accounting tax, performance and cost analysis, creating agricultural policies and pricing exactly and comparatively. As a model application, it is supposed to record documents such as farming map, production records, working records etc. besides legal documents and books kept in the fruit gardens.</p> |
| <p>Ö. Faruk Demirkol (2011)</p> | <p>How and on which topic biological assets' measurement</p>   | <p>Biological Asset, Measurement, Agricultural</p> | <p>Measurement via fair value approach brought by TAS-41 agricultural activities is accepted as the change occurring in price and physical conditions.</p>   |

| Researcher/Year                         | The Aim Of the Study  | Keywords   | Summary of the Study  |
|---|---|--|---|
|   | will or won't be done regarding their price and quantity according to frequency and form of organizing financial tables based on measurement basis brought by TAS-41. | Activity<br>Accountancy                              | Showing financial tables with their market value via fair value has been accepted as the aim. In the enterprises that organize their agricultural activities according to a specific activity term (annual), fair value measurement is accepted to be unimportant. Because biological assets gained at the start of the account era won't be recorded assets at the end of account era after harvest.<br>Biological assets are measured appropriate to fair value by the enterprises using a calendar year. If fair value cannot be found, they are measured with historical cost in the beginning of term balance sheet, and biological assets are measured with their fair value in the first balance sheet term. |
| Parlakkaya, R. and Tuncez, H. A. (2011) | It provides an application model related to measurement, accountancy specific situations brought by TAS 41.   | Agricultural Activity, Biological Assets, Fair Value | AS a result of the difference between Turkish Tax Legislation and measurement and accountancy principles brought by TAS-41 and insufficiency of uniform chart of accounts in initial recognition of biological assets, recording of measurement changes in measurement terms, uniform chart of accounts doesn't give the opportunity to account biological assets properly and reliably. This situation prevents the exact representation of the enterprise activity results and its financial status. In the study, accountancy application on cattle rising was done appropriate to the standard.   |
| Tuncuz, H. A. (2011)                    | The aim of the study is to identify the differences between valid Tax Procedure Law and Agricultural Activities-41 Standards on                                       | Depreciation Operations, Biological Assets, TAS 41   | In the Tax Procedure Law (TPL), assets that are subject to depreciation are measured according to their cost values and according to their equal values if their cost values are not known. The Ministry of Finance stated biological assets' useful lives and depreciation rates with TPL notification no: 333 and 339. Each asset's useful live and depreciation rates are determined with these notifications. TAS -41 Agricultural  |

| Researcher/Year | The Aim Of the Study   | Keywords                                   | Summary of the Study  |
|-----------------|--|--|---|
|                 | depreciation applications related to biological assets and its effects to the financial tables and to propose solutions.   |  | Activities Standard identifies biological assets' depreciation rate appropriate to useful live principle and according to market conditions every year. A live and depreciation rate hasn't been determined. Depreciation amount reserved according to traditional depreciation method is added to the cost of produced product. In TAS 41, it is found appropriate that biological assets are measured with their fair value. According to this approach, biological asset's loss of value between the beginning and end of term recorded in the income table as expense directly. According to standard, direct depreciation is adopted and depreciation operation is accepted as an active adjustment. The measurement difference between TPL and the standard causes assets to take place in the balance sheets with different values and income table's differentiation. |
| Aytulun (2010)  | A. In this study, the importance of "farm accountancy" which will enable the adaptation of new technologies to meet the changing needs is shown besides recording people and enterprises that conduct agricultural | Farm Accountancy, Data Network, Statistics | The importance of the agriculture sector has risen as a result of growing population and economic conditions, and the need for scientific agriculture and stockbreeding emerged. In this context, Farm Accountancy Data Network was found by communion decision in EU in 1965. In the model application done by questionnaire and data collection methodology in 3 cities in Turkey, it was seen that agricultural enterprises didn't have any accountancy records. As a result of that, it was impossible to calculate agricultural enterprises' costs, income-expense and profit-loss. It is a need to have an accountancy record system depending on reliable information and documents for agricultural enterprises that are vital for developing countries to develop economically and performing right activities.  |

| Researcher/Year             | The Aim Of the Study  | Keywords                   | Summary of the Study  |
|-----------------------------|---|----------------------------|---|
|                             | activities in the country.  |                            | Agricultural enterprises should be grouped according to their districts and productions in order agricultural accountancy system to be found. Furthermore, regulations that will remove agricultural activities from promotion and tax point of view should be done; personnel who will keep agricultural accountancy records should be educated; agricultural accountancy offices should be opened and a national policy should be created. As the last step, enterprise owners should be informed and transition to planned agriculture should be done.   |
| Usul, H. and Top, T. (2010) | The aim of the study is to make a model application on accounting and measuring of bovine activities according to TAS 41. | TAS 41, Cattle, Fair Value | In the first part of the study, cattles that take and don't take place in the scope of TAS 41 are explained. In order an asset to be measured in the scope of TAS 41, it should be controllable, provide economic benefit and its fair value or cost should be measured reliably. For example, a calf raised form ilk takes place in the standard. However, animals kept for fight, fairs and competitions, decoration, working and saving don't take place in the scope of standards. In the second part of the study, a model application was done on accounting of financial events in bovine breeding. In the last part, the representation in the financial tables is explained. Bovine animals, according to aim of using, are accepted as circulating assets if they are kept for feeding up, and they are accepted as fixed assets if they will be added to drove. When looked in the point of depreciation, it is applied to dairy cattle in the year when they start milking, and for the others it is applied in the year that they are started to be used as stock. Depreciation is not applied to the animals kept for sale. |
| Ulusan, H. (2008)           | The aim of the study is to find   | Government Grants,         | Grants are the transfer of the resources under certain conditions in order to increase  |

| Researcher/Year                    | The Aim Of the Study   | Keywords                                       | Summary of the Study  |
|------------------------------------|--|--|---|
|                                    | an appropriate method to Turkish Accountancy Law in accounting the grants and to indicate what advantage the enterprise get from the government grants in reporting period.  | Accounting and Reporting of Government Grants, | society's level of welfare. In accounting government grants there are two approaches, namely capital and income. The income approach is adopted in Turkish Accountancy Law. There are two alternative ways in income approach for accounting and reporting government grants as gross and net.<br>Government grants for agricultural activities are accounted by subtracting accumulated depreciation and accumulated value lowness equivalents from biological assets' costs. It is organized in TAS-41 that unconditional government grants for biological assets are reported as income only when the grant becomes receivable; conditional government grants are reported as income only when the conditions are met.   |
| Özulucan, A. and Deran, A., (2008) | There are differences between TAS-41 Turkey Accountancy Standards and Turkish Tax Legislation in measuring and accounting agricultural activities. Besides, there are insufficiencies and differences in application since there aren't any regulations in uniform chart of accounts for | Biological Assets, Measurement, TAS-41         | Biological assets are recorded as circulating assets and fixed assets in the uniform chart of accounts according to their aim of being hold. For example, breeding and small and big biological assets that yield productions are recorded as fixed assets; livestock and kept for raising and selling assets are recorded as circulating assets.<br>In the Tax Procedure Law (TPL), however, there is not a distinguish as circulating and fixed assets. In the point of measurement, if cost value according to cost value is not known, equivalent value is used. In TAS- 41, fair value approach is adopted in the measurement of biological assets. If fair value cannot be determined reliably, it is shown in the balance sheet by subtracting estimated market costs from fair value. In the study, it was seen that in TPL and TAS-41 Standard different measurement methods had been used in initial recognition, in every measurement period and while selling. What is more, uniform chart of accounts is |

| Researcher/Year          | The Aim Of the Study  | Keywords                             | Summary of the Study  |
|--------------------------|---|--------------------------------------|---|
|                          | biological assets. In this study, solution offers are tried to be put forward against problems occurring in the application caused by the legislation.            |                                      | insufficient not only in recording biological assets but also in accounting measurement differences that will occur net fair value stage within TAS-41.   |
| Ö. Faruk Demirkol (2008) | It is aimed to identify biological assets by the flow chart created under the light of the explanations in TAS-41 and as a result of this to save time and money. | Biological Asset, Fair Value, TAS-41 | <p>Within the scope of TAS-41 – agricultural activities, it is possible to measure biological assets' fair value if there is an active market. There is not clear information about the sequence of methods that will be followed to determine the fair value in a market without an active market. For example, at the beginning, it is a sufficient stage to observe and follow first expenses for the biological asset in measuring the fair value. In this context, identifying the latest strike price and equivalent assets' strike price, taking sector averages or foreseeing net cash flows are long and costly processes. When a physical transition starts, in other words when economic profit or lose come into question, it is appropriate to shift other methods.</p> <p>If there is not an active market in the first capitalization period, biological assets can take their place in the balance sheet with their historical cost values once. In measuring the biological transition between first accounting and balance sheet day, biological asset's life should be taken into consideration. For example, while pepper yields in 3 months, pine tree is a biological asset that yields after many years.</p> |

| Researcher/Year                     | The Aim Of the Study   | Keywords   | Summary of the Study  |
|-------------------------------------|--|--|---|
|                                     |  |  | In the situation that there is an active market, biological asset's latest trade price is accepted as its fair value. If market value hasn't occurred, similar asset's equivalent price is accepted as fair value after doing required regulations. As a third method in the standard, it is adopted to identify a biological asset's fair value according to sector averages. If these three methods don't give result, the standard advises to apply net flow cashes method.  |
| S.H. Tokay and A. Deran I-II (2006) | To represent the differences in accounting of agricultural activities comparatively with Turkish Tax Legislation and Capital Markets Commission (CMC). To identify the differences that occur in recording legal regulations in the point of accountancy, measuring and showing in financial tables. | Agricultural Activity, Turkish Tax Legislation, CMC's Notification no:25 | <p>While recording the activities of the enterprises in the agriculture sector and showing those records in the financial tables, the regulations have been insufficient in the point of tax legislation. For example, there aren't any regulations about capitalization of economic assets. This situation leads to the problems related to on which conditions agricultural assets will take place in financial tables. In tax legislation, acquiring and recording is sufficient for capitalization. On the other hand, according to Capital Markets Commission (CMC) notification control, value and measurement criteria are brought.</p> <p>When looked in the point of measuring, agricultural products will be measured according to their cost value in Tax Procedure Law (TPL); and in the regulation done by CMC, net fair value is determined according to market value or net current value.</p> <p>When looked in the point of profit or loss, according to tax regulations, profit or loss occur in the time of selling; according to CMC regulations they occur in the initial recognition, measurement periods and time of selling. As a result, TPL is insufficient in representing enterprises' financial status after their agricultural activities and results</p> |

| Researcher/Year                           | The Aim Of the Study   | Keywords  | Summary of the Study  |
|---|--|---|---|
|   |  |   | of those activities. The regulations in CMC notification represent the results of the agricultural activities more realistically.   |
| Arzova, S. B.ve<br>Arsoy, A. P.<br>(2006) | The aim of the study is to represent model applications on accounting and showing in the financial tables of agricultural activities conducted in the context of TAS-41 and government grants. | Biological Assets, Their Accounting, Representing in the Financial Tables | <p>Agricultural activity in TAS 41 is explained as an enterprise's conducting the transition activity of biological assets' to agricultural productions and or different biological assets. In order an activity to be accepted as agricultural activity, the asset should be biological and have a biological transition, the production process should be managed and there should be transition criteria for the agricultural activity.</p> <p>In the first part of the study, there are accountancy models for initial recognition of biological assets according to TAS-41 and measuring in the following periods. In the second part, there are models in accounting government grants. In the last part, there are explanations about representing of financial status and activity results related to the change occurred as a result of agricultural activities in the financial tables and model financial tables and annotations are given.</p> <p>As a result of the study, it has been found out that financial reporting standards are complex and costly; on the other hand, as agricultural enterprises are usually have the characteristics of Small and Medium Sized Enterprises (SEM), a simpler to apply standard should be prepared for SEM.</p> |
| Sönmez, F.<br>(2004)                      | The aim is to give examples on accounting of processes and situations related to agricultural activities in the context of TAS-  | Agricultural Activities, Fair Value, Government Grants                    | In the first part of CMC's notification no: 25, activities that are accepted as agricultural are given; in the second part, there are regulations about recording biological assets to the financial tables and measuring of them. In this context, it is obligatory that the biological asset is under the control of the enterprise; the economical profit expected from the asset should be gained by  |



| Researcher/Year | The Aim Of the Study  | Keywords | Summary of the Study   |
|-----------------|---|----------|--|
|                 | 41 and Capital Market Commission (CMC)'s notification no: 25. |          | <p>the enterprise and mentioned asset's fair value or cost should be reliably measurable. In the third part, there regulations about measuring of government grants either unconditioned or conditioned (not conducting a specific agricultural activity etc.).</p> <p>In part four, there are situations that are to be explained to the public. In this part, regulations are done on explanation of the profit or loss in initial recognition to the financial tables stage in current period or in fair value and explanation of each change occurring with each biological asset biologically or in quantity and reasons for those changes.</p> <p>In the study, application models on accountancy are given after theoretic information about CMC's notification no: 25.</p> <p>In the model application, cattles are evaluated as circulating or fixed assets according to aims they are kept. Expenses for the calf's are brought together in the accounts within group 7-A (710-720-730), and in the end of the cost periods they are transferred to the accounts no: 151 and 152. Increases in value that are caused by the change occurred in the biological assets' physical value at the end of the period is accepted as income account and a new account, namely "6??" Biological Assets Value Increase Income", is used.</p> |

### General Evaluation and Results

As done in banking and financial institutions, creating a special uniform chart of accounts for agriculture sector that differentiates from others is vital. Thanks to that, the possibility to determine and evaluate agricultural enterprises' asset and resource allocation, income and expenses and profit and loss reliably will rise.

Another factor that is needed to be thought over while preparing a special uniform chart of accounts for agricultural activities is the sub-sectors that have different features from each other

such as bovine-ovine breeding, fishery, fruit gardens, seedling cultivation, forest products etc. Uniform chart of accounts should be prepared while keeping this situation in mind.

In Turkey, agricultural activities were conducted appropriate to the regulations in the tax legislation until 2005. Taxation understanding was changed with new regulations by “IAS 41-Agricultural Standard” published by Capital Market Commission (CMC) in 2003 and “Agricultural Standards-Standard no: 41” published by Turkey Accountancy Standards Commission in 2005. In this context, the measurement of agricultural activities is done according to “cost principle” in tax laws and according to “fair value” in new regulations. According to tax laws, profit or loss is determined after sale, and it is determined when fair value is found out according to the standard.

This situation requires doing the needed regulations for clearing off the differences in legal legislation from legal authorities/coordinators. However, there haven't been any regulations up to now. This situation shows that the legal authority hasn't changed their taxation point of view to the agriculture sector and they don't take notice of sector's needs.

In a research done with survey method in Turkey in 1998, it was found out that one of the agricultural enterprises kept accounting record. In 2007, legal and governmental changes were done in the aim of creating Turkey Farm Accounting Data Network. Within the scope of the study, it was tried to measure the costs of products produced by the enterprise via survey method since cost measurement and reporting couldn't be done in 12 cities. (Dönmez and Tepge, 2011, 3). This situation shows that calculating cost, income-expense and profit-loss occurring as a result of conducted agricultural activities in Turkey is impossible. Furthermore, it is impossible to determine truly the point that the country reached as a result of agricultural activities. The regulations done since 2003 include large-scale enterprises. Creating an agricultural standard that is easy to apply and understandable for agricultural enterprises most of which are small scale enterprises and founding a reliable accountancy system are required for recording agricultural activities and measuring their performance and performing agricultural policies effectively and productively.

What is more, agricultural enterprises should be grouped according to districts and productions while taking notice of efficiency and productivity criterion to direct country's scarce resources towards right investment areas, and grant system should be found.

Creating a national policy can be achieved by identifying agricultural accountancy as a technical subsection within independent accountant and financial advisor occupation, educating the technical personnel that will serve in this field and opening agricultural accountancy offices.

It is a need to determine the effects of the regulations brought by the standard on agricultural enterprises and related people, to educate accountants, to organize seminars, to prepare visual and written documents on application. Besides, the informatics infrastructure required to be found of agricultural accountancy based accountancy information system for agricultural enterprises should be found.

Academicals studies aimed at the processes of performance reports, budgeting and planning that will enable agricultural enterprises to use accountancy information and documents should be done.

As a result, in order agricultural activities to be conducted effectively and productively, recorded, granted and controlled:

- Agricultural enterprises' owners and directors should be educated periodically for the development of both financial and agricultural activities.

- Agriculture accountants should be trained as a subsection of accountant occupation and regional offices should be opened.
- National agriculture accountancy/farming accountancy informatics infrastructure should be found; all agricultural enterprises' activities should be followed and measured.
- Uniform chart of accounts aimed at agricultural activities should be prepared by taking notice of agricultural sub-sectors.
- Legal regulations that are compatible with agricultural activities standard should be done instead of legal authority's taxation point of view.
- Instead of taxation point of view, grant system that is based on performance and that will record agricultural activities should be found.

It is very important that the academicians who want to study this field in the future study the following topics related to the regulations brought by Agricultural Activities-Standard 41:

- Determining the effect of Agricultural Activities Standard-41 on financial reports and tax legislation after its being applied.
- Field and event studies for determining its effects on agricultural enterprises' performance.
- Production based cost studies related to physical production inputs and their nominal value.
- Developing of methods and procedures in calculating agricultural products' production and unit.
- Founding of an accountancy information system among agricultural enterprises, credit institutions etc. to provide reliable information flow.

## Conclusions

The biggest impact of the standard is its enabling to record agricultural enterprises' activities and to determine activity results and financial status. As a result of this situation, agricultural enterprises will be able to reach appropriate credit resources for their investments and working capital easily like other commercial enterprises in Turkey. Besides, it will provide agricultural enterprises with having the opportunity to determine their market value with actual amounts.

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**APPENDIX 1.** *Accountancy Standards in Turkey about Agricultural Activities*

| <b>Agricultural Activity Subject and Category</b>  | <b>Standard to be applied</b>   |
|--|---|
| Land for agricultural activities   | TAS 16 Real Assets<br>TAS 40 Investment Property  |
| Real assets not for agricultural activities  | TAS 38 Intangible Assets Standard   |
| Biological Asset in the point of harvest   | TAS 41 Agricultural Activities  |
| Biological Asset after harvest   | TAS 2 Stocks  |
| Agricultural Government Grants   | TAS 20 Accounting of Government Grants and Explaining of Government Aid                             |
| Economically disadvantageous sale of biological asset or agricultural product            | TAS 34 Equivalents, Conditioned Debts and Conditioned Assets  |
| If a biological asset that partake of real asset is kept for sale                        | TFRS Real Assets Kept for Sale and Discontinued Operations  |
| In determining cost, accumulated depreciation and accumulated value lowness              | TAS 2 Stocks, TAS 16 Real Assets<br>TAS 36 Value Lowness of Assets                                  |
| When seasonal risks, illnesses or other events become an important item for gain or loss | TAS 1 Representation of Financial Tables  |
| Application of the Standard  | TAS 8 Done appropriate to Accountancy Policies, Changes in Accounting Estimates and Errors Standard |