

## ***The Issue of Segment Reporting Between International Accounting Standards and the Algerian Financial Accounting System: The Case of the Agricultural Sector***

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### ***Abstract:***

*The study addressed the accounting treatment of plant and animal biological assets owned by agricultural institutions, how to evaluate and recognize them, how to measure them, how to display them, and how they are treated accounting ally between International Accounting Standard 41 related to agriculture and the Algerian financial accounting system. The study concluded with the necessity of practicing agricultural accounting by agricultural institutions for their contribution to good Measuring, managing and monitoring agricultural activities and various plant and animal assets.*

***key words:*** *Biological Assets; Segment Reporting; Financial Accounting System; International Accounting Standards.*

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## ***Introduction***

After Algeria changed from a socialist system to a market economy and became more open to the outside world, it was important for the country to make sure its accounting system changes were in line with those of other countries. The goal of this alignment is to standardize accounting practices around the world by creating a financial accounting framework based on and approved by international accounting standards. Starting in 2009, the financial accounting system was put into place. It followed international standards for defining the conceptual framework, general principles of measurement and recognition, and how financial statements should be presented.

Algeria wants to make the financial accounting system (SCF) work for all businesses, even those that are involved in agriculture. There are a lot of problems that come up when trying to get accurate financial data about agricultural businesses that are involved in this important activity because of the unique complexities of accounting in the agricultural sector. The accounting treatment of agricultural biological assets is still a hot topic because there are so many problems with recognizing, measuring, and disclosing them. This is mostly because of the nature of farming, which is affected by many natural factors and weather conditions. Because of this, the sector needs to have accurate accounting and financial information.

## ***Study Problem***

In light of the above, the contours of our research problem emerge, which lies in:

### **The issue of applying accounting to agricultural activities between the Algerian Financial Accounting System and the International Accounting Standards**

To address this main problem, this study is structured around three sections:

- Section One: Concepts related to agricultural activity and agricultural accounting.
- Section Two: Characteristics and components of assets related to the agricultural sector according to International Accounting Standard 41.
- Section Three: The accounting treatment of agricultural activities within the Algerian financial accounting system.

## ***Study Methodology***

This study uses a descriptive method to accurately show how the agricultural sector's accounting works. Its goal is to find the similarities and differences between the

### ***Study Hypotheses***

- The Algerian accounting system does not have a dedicated framework specifically for the agricultural sector.
- The treatment of biological assets within the Algerian accounting system follows the principles outlined in International Accounting Standard 41.
- The establishment of a specific agricultural accounting system could address certain discrepancies in the valuation and reporting of agricultural products, both animal and plant-based, within financial statements.

### ***Study Objectives***

The goal of this research paper is to introduce the Algerian financial accounting system and compare it to international accounting standards in the agricultural sector, focusing on the similarities and differences between the two.

## ***1. Concepts Related to Agricultural Activity and Agricultural Accounting***

Agriculture is one of the most important parts of the economy, and it gets a lot of attention around the world because it provides both animal and plant products. The different stages and unique features of agricultural production processes have made it clear that this activity needs its own accounting framework. So, this part will look at the idea of agricultural activity and related ideas like agricultural businesses, biological assets, different kinds of agricultural activities, their features, the accounting problems they cause, and possible solutions. Finally, the talk will cover agricultural accounting and the main pros and cons of using this type of accounting in farming businesses.

### ***1.1 Concept of Agricultural Activity, Agricultural Assets, and Biological Origin***

Agriculture is thought to be one of the most important drivers of economic and productive growth since it supplies widely used raw materials and food. The Food and Agriculture Organization (FAO) has the most official definition of agricultural activities, though there are many others. According to their definition, agriculture is "The preparation and tilling of land for farming and raising animals; it also sees agriculture as the way people use nature to meet their basic needs." (Private Accounting, 2015-2016, p. 77).

Additionally, the International Accounting Standards Board (IASB) defines agricultural activity under International Accounting Standard (IAS) 41 as "The company is in charge of changing a biological asset for sale into an agricultural

The Issue of Segment Reporting Between International Accounting Standards and the Algerian Financial Accounting System: The Case of the Agricultural —————Aidri/Ben Hafed product or another biological asset." As a result of this biological change, the asset may change in one or more of the following ways: (IAS 41, paragraph 5):

- Growth means either getting more of something or making it better;
- Degeneration: a drop in the amount or quality of agricultural products;
- Procreation: Making another living thing;
- Production: Getting agricultural goods from a biological asset, like wool, meat, or milk.

So, farming is using land to grow, till, irrigate, maintain, and harvest crops. It also includes related and complementary activities like planting trees, raising animals, and farming chickens. Making dairy products and doing other things that are good for the economy and related to farming are also part of it (Husseini Manal, 2022, p. 52).

Agricultural entities are legal and productive units that contain the necessary components to cultivate or modify specific crops that farmers use either directly or indirectly. They could also be viewed as parcels of land, regardless of size, number, or location, that are used for farming, either entirely or in part, and are overseen by one person or with assistance. These include all of the farm's fixed and circulating capital, including buildings, machinery, farming tools, power sources, living things (both animals and machines), production animals, and farm workers (Salmi Muhammad Al-Dinuri, 2015, p. 193).

Financial accounting standards define biological assets as the total value of agricultural assets, which may include living plants or animals (Ben Kadour Ashwaq, Shamakhi Bubakr, 2019, p. 42). Two categories of biological assets exist: consumable biological assets, such as pigs and cows raised for slaughter and consumption, and productive biological assets, such as fruit trees, dairy cows, and laying hens, which are raised for their eggs, milk, or fruit (Ibrahim Abdul Rahman, Abdullah Awad Allah, 2015, p. 32).

Biological assets can also be living plants and animals that are part of a project because of things that happened before, and they are controlled through ownership or other legal means (Zainab Muhammad Muhammad Salim, p. 58).

### ***1.2 Types of Agricultural Activity***

Agricultural activity doesn't just involve using plowing, farming, and irrigation to grow things like grains, cotton, sugarcane, fruits, vegetables, and more on land that can be farmed. Instead, it includes a lot of different things that people do to make different kinds of agricultural products, as described above. So, there are different types of agricultural activity (Mahmoud Kabish et al., 2020, p. 21).

- Plant Growing: Growing vegetables, fruit trees, fruit gardens, ornamental plants, and cereal crops is the aim of this activity. Because there is no set formula that ensures consistent technical outputs that meet desired specifications, even with advancements in agricultural techniques and research, natural factors directly impact it. However, biological factors, weather, seed and fertilizer quality, and soil fertility are all critical to achieving the desired outcomes. This activity produces two different kinds of products.
- Field crops include grains like rice, wheat, barley, and corn, as well as vegetables like beans and tomatoes. People don't think of these crops as fixed assets because they don't last more than a year in the field or in their life cycle.
- Orchard Products: Orchard products, like pomegranate and orange trees, stay in the field or farm for more than one financial year, and sometimes even more than three years. These kinds of trees are considered fixed assets of the farm because they need a lot of money to grow and take a long time to start producing. There are three or four stages in their life cycle: preparation, production, and decline (Ben Kaddour Ashwaq & Shamakhi Boubker, 2019, p. 32).
- Animal Production: This includes all the things that need to be done to get animals on the farm so that they can produce goods or breed animals that can be used as productive assets. It includes breeding different kinds of animals, like cows, horses, chickens, fish, and bees. The things that come out of this activity can be split up like this (Jumana Hanzal Al-Tamimi & Kifah Jabbar Hasan, 2012):

The table below summarizes examples of some biological (agricultural) assets used in agricultural activities, along with their corresponding crops and derived products:

**Table 1. Examples of Biological (Agricultural) Assets and Their Crops**

| Agricultural Assets            | Agricultural Products        | Processed Food Industry Products |
|--------------------------------|------------------------------|----------------------------------|
| Sheep                          | Wool                         | Spun yarn and carpets            |
| Forest trees                   | Tree trunks and branches     | Timber and boards                |
| Plants                         | Cotton and sugarcane         | Yarn, sugar, and clothing        |
| Bees                           | Honey and pollinated flowers | Honey blends                     |
| Dairy livestock                | Milk                         | Cheese and dairy derivatives     |
| Cattle, livestock, and poultry | Slaughtered meat             | Meat and its by-products         |
| Shrubs                         | Tree leaves                  | Tea and tobacco                  |
| Fruit-bearing trees            | Fruits and crops             | Processed fruits and juices      |

**Source:** (Aisha Kadatseh et al., 2021, p. 73)

## ***2. Concept of Agricultural Accounting***

Agricultural accounting is a branch of accounting that uses accounting principles, concepts, and procedures to collect, record, and measure farming activities. These jobs involve taking care of living things like animals and plants, as well as biological assets like reproduction, crop harvesting, and making biological assets better and more valuable in order to make financial statements that follow accounting standards (REGLEMENT CE 2008 P 4).

It is also the use of basic accounting rules, methods, and principles on businesses and organizations that work in agriculture. This means using accounting rules along with the special things about farming and biological assets. It also means knowing a lot about important technical terms used in farming and keeping track of both fixed and current biological assets, which can be plants or animals. (Abdel Wahab Matar Al-Dahri, 2006, p. 167).

### ***2.1 Advantages and Objectives of Adopting Agricultural Accounting***

There are many benefits to agricultural accounting, but the most important ones are listed below:

- Making it easier to compare agricultural cycles or periods over time within the same business and between businesses that do similar things in different places;
- Controlling cost elements, reducing variance levels, and providing more precise measurements of cost components in order to assist in creating estimated budgets for farming activities and monitoring farming expenses;
- Providing crucial data to support planning for upcoming farming operations, such as developing and establishing pricing guidelines for farming assets by more precisely estimating the costs of each product;
- Maintaining internal control over biological resources and monitoring their expenses during times of agricultural activity;
- Enhancing the documentation and classification of biological assets to enable a quicker and more accurate assessment of the agricultural company's true financial status;
- By calculating the gains and losses of each biological product, we can assist people in making decisions regarding agricultural products. People can use this information to determine whether to increase, decrease, replace, or improve production levels, among other related actions (Sabrina Rabahi, 2022, p. 354).

## **2.2 Characteristics and Components of Biological Assets According to International Accounting Standards**

A lot of international groups and organizations have tried to come up with rules and ideas for how to keep track of, organize, and value farms. This focus comes from how important farming and the living things that go with it are. These assets are different from those in other fields in some important ways. The International Accounting Standards Board (IASB) set standards just for agriculture, which is one of the most important things that has happened in this field. For example, International Accounting Standard (IAS) 41, Agriculture. The first draft was written in 1977, the final version was published in 2000, and it became law in January 2003. This standard is based on the idea of fair value and other rules that apply to this kind of activity (Sabrina Rabahi, 2022, p. 353).

### ***2.3 International Accounting Standard 41: Agriculture***

According to IAS 41, farming and forestry for timber are both agricultural activities. Other examples of biological assets are breeding animals like cows and fish. The standard also includes plants that grow from these living things. IAS 41 talks about these things because there needs to be rules for accounting in this area. The standard also talks about the grants and subsidies that different ministries give out to businesses in this sector because it is so important (Eric Tort, 2023, p. 47).

#### ***2.3.1 Concepts Related to IAS 41***

IAS 41 is characterized by its specialized terminology. Key definitions include:

- Fair Value: The sum that, on the measurement date, would be received to transfer a liability or paid to purchase an asset in a typical market participant transaction.
- Agricultural Produce: The entity's harvested and sold biological assets, such as crops that are intended for sale or that will develop or gain weight to increase the biological assets' value (Al-Qinai, 2020, p. 149).
- Agricultural Products: Products taken from the entity's biological assets, such as cotton, sheep's wool, milk, meat from livestock, fruits, and more.
- Biological Asset: Living plants or animals.
- Biological Transformation: The growth, reproduction, and production processes that alter a biological asset's quality or quantity.

- Harvest: The biological asset's ability to produce or the end of its biological processes.
- Government Grants: Recognizing government grants that are not conditional on anything and are related to a biological asset measured at its fair value minus estimated point-of-sale costs, and treating them as income when they are received.
- Agriculture is the science of controlling the biological changes that living things go through in order to make things that can be eaten, sold, processed, or grown. There are two main types of agricultural assets: animals and plants. Livestock are animals that the agricultural business owns to breed or make products. Plants are orchards, farms, and fields that grow crops, fruits, and seedlings that can be sold, processed, eaten, or planted (Al-Qinai, 2020, p. 150).

### ***2.3.2 Definition, Objective, and Scope of International Accounting Standard 41***

International Accounting Standard (IAS) 41 tells you how to keep track of farming activities, what financial statements and disclosures you need, and how to present information about these activities. The standard tells you how to keep track of biological assets as they grow, break down, and reproduce. It also tells you how to figure out the fair value of agricultural goods at the time of harvest, minus the costs of selling them. This doesn't work when it's hard to figure out the fair value of an item right away (Ben Kaddour Ashwaq, Shmakhi Boubker, 2019, p. 36).

This standard explains how to keep track of biological assets and crops at harvest time, as well as government grants for biological assets that are measured at fair value under certain conditions. It doesn't say what happens to crops after they are picked, like how to make fabric from sheep wool or cheese from milk (Ben Kaddour Ashwaq, Shmakhi Boubker, 2019, p. 32).

Land used for farming is also exempt from IAS 41. IAS 16 Property, Plant and Equipment and IAS 40 Investment Property both apply to that type of land. Additionally, it excludes intangible assets related to farming, which are covered by IAS 38 Intangible Assets (Ben Kaddour Ashwaq, Shmakhi Boubker, 2019, p. 36).

### ***3. International Accounting Standards Related to Agricultural Activities***

There are a number of other standards that affect how agricultural activities are accounted for, in addition to International Accounting Standard (IAS) 41. The table below gives a summary of these standards:

**Table 3. Other International Standards Pertaining to Agricultural Activities**

| IAS Standard 02: Inventories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Purpose of the Standard: The goal of the standard is to explain how to account for agricultural inventories. It talks about how to figure out the cost of inventory that is considered a biological asset, how to figure out the cost of inventory that is considered an expense, and how to figure out any drops in net realizable value. The standard also tells you how to make cost flow assumptions that are used to divide costs among agricultural inventory.</p> <p>Scope of the Standard: The standard covers all types of inventory classified under biological assets, including:</p> <ul style="list-style-type: none"> <li>- Agricultural inventory acquired for sale in the ordinary course of the institution's operations;</li> <li>- Agricultural inventory acquired for use in production processes intended for sale;</li> <li>- Agricultural inventory in the form of services or supplies consumed during the production process;</li> <li>- Inventory intended for use in service provision.</li> </ul> <p>In the case of service provision, inventories include service costs related to agricultural revenues that have not yet been recognized, such as work-in-progress accounts by professionals like auditors and architects.</p>                                                                                                                                                                                                                                                                                                              |
| IAS 16: Property, Plant, and Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p>The standard aims to clarify how to account for farming-related property, plant, and equipment. It also includes assets intended for lease to third parties and non-current assets used by management.</p> <p>Covered by the Standard: In addition to those used by management and those designated for leasing, the standard's rules also apply to the accounting of property, plant, and equipment used in the production or provision of agricultural goods. These items were purchased to operate the agricultural institution and are anticipated to be utilized for multiple reporting periods.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| IAS 20: Government Grants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>The Standard's goal is to get government ministries and other groups that work with them to support and promote agricultural institutions and activities. This is very important because many investors don't want to put their money into agriculture, even though institutions need it. The government helps farmers in a lot of different ways. For example, it gives them money directly, helps them in kind, lowers or gets rid of their taxes for a set amount of time, gives them concessional or interest-free loans, builds roads and other infrastructure, and more.</p> <p>This standard is mostly about the accounting side of government grants because they can be very important for the agricultural institution that gets them, and they usually come with conditions. It aims to make it clear how to recognize government help, how to keep track of it, and what information needs to be made public when the help comes in the form of assets given to the institution.</p> <p>What the Standard Covers: The standard explains how agricultural organizations should keep track of and report the money they get from the government. It also needs to know about other kinds of government help and lists four things that aren't included:</p> <ul style="list-style-type: none"> <li>- Problems with how changing prices affect financial statements or other similar information</li> <li>- Government tax assistance in the form of tax benefits</li> <li>- Government participation in the ownership of the agricultural institution</li> </ul> |

- Government grants covered by IAS 41: Agriculture

#### IAS 40: Investment Property

The standard's goal is to explain how to keep track of investments in agriculture, including how to find them, how to measure them after they've been found, and what information needs to be made public about them.

What the Standard Talks About: The agricultural institution must use the standard to identify, measure, and report its investment properties. It plans to keep these properties for either leasing to others or for a long time so that they can benefit from the rise in market value, which will result in capital gains when the properties are sold. These properties are listed as investment properties on the holding company's financial statements. But when you make consolidated financial statements, you have to follow the rules of IAS 16 for these kinds of investments.

The parent and subsidiary are seen as one company that owns and uses these properties for business purposes in consolidated financial statements.

**Source:** Al-Qinai, Ezzedine (2020), p. 153

#### ***4. Accounting Treatment of Agricultural Activities within the Financial Accounting System***

The Algerian Financial Accounting System says that farms and other businesses in the agricultural sector must keep certain books, like a journal, an inventory book, and a ledger. Most of the time, though, Algerian farms hire certified accountants or accounting managers to do these jobs. The journal is where people write down their transactions for the first time. The accountant uses these records to make financial statements at the end of the accounting period (Husseini, Manal, 2022, p. 58).

##### ***4.1 Agricultural Chart of Accounts in the Algerian Financial Accounting System***

The Financial Accounting System allocates two specific accounts for agricultural accounting while maintaining the remaining accounts within the seven standard categories, albeit with different designations:

- Account 24: Biological Plant Assets
- Account 25: Biological Animal Assets (Husseini, Manal, 2022, p. 58)

However, some agricultural enterprises utilize two separate accounts: 214 for biological plant assets and 215 for biological animal assets.

For example, within the category 3 Inventories, the subsidiary accounts include:

- Account 311: Agricultural raw materials
- Account 3112: Fertilizers
- Account 355: Finished agricultural products
- Account 3551: Milk
- Account 3552: Fruits

Similarly, for operating accounts:

- Account 6011: Consumed shrubs
- Account 6015: Veterinary materials
- Account 7014: Animal sales
- Account 7241: Changes in produced agricultural inventory

#### ***4.2 Accounting Treatment of Biological Plant Assets in the Financial Accounting System***

The way that biological assets are accounted for changes depending on the type of farming. Fruit trees, for example, are thought of as fixed assets with a useful life of three to five years, depending on how fertile the soil is and how they are grown. There are three different ways that accountants treat orchards and groves:

- Establishment and Development Phase: This phase begins with soil preparation and planting of trees or shrubs and may last several years depending on the species. It ends once the trees start bearing fruit.

During this phase, the purchase of raw materials and their inclusion in inventory, followed by their consumption, are recorded accordingly.

#### **The purchase of raw materials, their inclusion in inventory, and subsequent consumption**

|     |  | Date              |                     |
|-----|--|-------------------|---------------------|
| 381 |  | Sapling Purchases | Accounting<br>Entry |
| 445 |  | Value-Added Tax   |                     |

|     |     |                                          |                  |
|-----|-----|------------------------------------------|------------------|
|     | 401 | Inventory Suppliers                      |                  |
|     |     | Purchase of Raw Materials and Saplings   |                  |
|     |     | Date                                     |                  |
| 31  |     | Saplings and raw materials               | Accounting Entry |
|     | 381 | Sapling purchases                        |                  |
|     |     | Entry of direct materials into inventory |                  |
|     |     | Date                                     |                  |
| 601 |     | Used saplings and raw materials          | Accounting Entry |
|     | 31  | Raw materials and saplings               |                  |
|     |     | Consumption of stored raw materials      |                  |

**At the end of each fiscal year, these assets are classified as investments in progress**

|      |      |                                    |                  |
|------|------|------------------------------------|------------------|
|      |      | Date                               |                  |
| 2340 |      | Saplings in progress               | Accounting Entry |
|      | 7323 | Productive saplings                |                  |
|      |      | Biological investments in progress |                  |

**When the trees reach maturity and begin to bear fruit, they are reclassified as productive assets**

|     |      |                                    |                  |
|-----|------|------------------------------------|------------------|
|     |      | Date                               |                  |
| 240 |      | Fruit-bearing trees                | Accounting Entry |
|     | 2340 | Shrubs in progress                 |                  |
|     |      | Biological investments in progress |                  |

Production Phase: This phase begins with the onset of fruit-bearing in the trees, marking the productive stage. It concludes when the tree's yield declines to the point that its returns no longer cover the associated costs.

At the time of harvesting the fruit and storing the products.

**Upon the sale of the fruit and its removal from inventory**

|      |      |                               |                  |
|------|------|-------------------------------|------------------|
|      |      | Date                          |                  |
| 3551 |      | Finished plant-based products | Accounting Entry |
|      | 2340 | Stored plant production       |                  |
|      |      | Fruit intake into storage     |                  |
|      |      | Date                          |                  |
| 724  |      | Stored plant production       | Accounting Entry |
|      | 3551 | Finished plant-based products |                  |
|      |      | Fruit output from storage     |                  |
|      |      | Date                          |                  |
| 411  |      | Customers                     | Accounting Entry |
|      | 71   | Sold production               |                  |
|      |      | Fruit sales invoice           |                  |

- Senescence Phase of Fruit-Bearing Trees: After the production phase concludes, the economic value of the tree declines, and depreciation is recorded for this biological plant asset.

#### **Recognition of the depreciation expense for the productive biological asset**

|     |     | Date                          |                  |
|-----|-----|-------------------------------|------------------|
| 681 |     | Finished plant-based products | Accounting Entry |
|     | 284 | Stored plant production       |                  |
|     |     | Fruit intake into storage     |                  |

#### ***4.3 Accounting Treatment of Biological Animal Assets in the Financial Accounting System***

To keep track of animal assets correctly, you need to know what kind of animals they are (fixed or current assets), how they are kept in stock, and why they were bought (for trading or production). Because this topic is so complicated, the talk will only cover two main areas: breeding livestock and fattening livestock.

- Fattening Livestock: This activity involves purchasing livestock with the objective of fattening them for resale, either alive or post-slaughter, to benefit from the price difference. The accounting treatment for this process is as follows:

#### **Purchase of animals and their entry into the farm inventory**

|     |     | Date                                   |                  |
|-----|-----|----------------------------------------|------------------|
| 380 |     | Fattening livestock purchases          | Accounting Entry |
| 445 |     | Value-added tax (VAT)                  |                  |
|     | 401 | Stock suppliers                        |                  |
|     |     | Cattle purchase for fattening purposes |                  |
|     |     | Date                                   |                  |
| 30  |     | Fattening livestock inventory          | Accounting Entry |
|     | 380 | Fattening livestock purchases          |                  |
|     |     | Cattle entry into the farm             |                  |

#### **Upon the sale of the animals and their removal from the farm inventory**

**When these animals are slaughtered for meat production, Account 30 is recorded**

|     |     | Date                          |                  |
|-----|-----|-------------------------------|------------------|
| 411 |     | Customers                     | Accounting Entry |
|     | 700 | Fattening livestock sales     |                  |
|     | 445 | Value-added tax (VAT)         |                  |
|     |     | Fattening cattle sales        |                  |
|     |     | Date                          |                  |
| 600 |     | Consumed fattening livestock  | Accounting Entry |
|     | 30  | Fattening livestock inventory |                  |

|      |    | Cattle entry into the farm    |                  |
|------|----|-------------------------------|------------------|
|      |    | Date                          |                  |
| 3551 |    | Animal products               | Accounting Entry |
|      | 30 | Fattening livestock inventory |                  |
|      |    | Slaughtering fattening animal |                  |

- Breeding Livestock: You get these animals so that they can have babies. They are treated as productive assets in the agricultural business after a time of fattening or keeping them. As a result, they must follow fixed asset accounting rules, such as depreciation, impairment losses, and disposal. There is a difference between breeds that are moved from production to fattening or for sale (Al-Qaynai Ez Eldin, 2020, p. 167).

### Ownership of breeding animals

|      |     | Date                                  |                  |
|------|-----|---------------------------------------|------------------|
| 250  |     | Breeding animals                      | Accounting Entry |
| 4456 |     | Recoverable value-added tax (VAT)     |                  |
|      | 404 | Breeding animal suppliers             |                  |
|      |     | Cattle purchase for breeding purposes |                  |

**When a new breed is produced, it is recorded as follows:**

|      |     | Date                              |                  |
|------|-----|-----------------------------------|------------------|
| 3551 |     | Animal products                   | Accounting Entry |
|      | 724 | Change in product inventory       |                  |
|      |     | Registration of new animal origin |                  |

**They may also be classified as work-in-progress assets at the end of the fiscal year**

|     |     | Date                                   |                  |
|-----|-----|----------------------------------------|------------------|
| 232 |     | Animal assets in production            | Accounting Entry |
|     | 723 | Animal production for a physical asset |                  |
|     |     | Animal asset in production (birth)     |                  |

**Upon reaching the production stage, the following entry is recorded:**

|      |     | Date                            |                  |
|------|-----|---------------------------------|------------------|
| 2500 |     | Livestock for animal production | Accounting Entry |
| 2500 |     | Breeding animals                |                  |
|      | 232 | Animal assets under production  |                  |
|      |     | Produced animal asset           |                  |

**In the event of selling the newly produced breed and removing it from the farm inventory**

|     |     | Date                      |                  |
|-----|-----|---------------------------|------------------|
| 411 |     | Customers                 | Accounting Entry |
|     | 701 | Sales of produced animals |                  |

|     |      |                                                |                  |
|-----|------|------------------------------------------------|------------------|
|     | 4457 | Recovered value-added tax (VAT)                |                  |
|     |      | Sale of new breed livestock                    |                  |
|     |      | Date                                           |                  |
| 724 |      | Change in product inventory                    |                  |
|     | 3551 | Animal products                                | Accounting Entry |
|     |      | Release of newly produced animals from storage |                  |

#### ***4.4 Comparison between International Accounting Standard 41 and the Financial Accounting System***

This part will compare and contrast the financial accounting system with International Accounting Standard (IAS) 41, which is about farming:

##### ***4.4.1 Similarities***

The following are some of the ways that IAS 41 and the financial accounting system are similar:

- IAS 41 and the financial accounting system are in agreement, but this agreement is not stated as a separate goal; instead, it is implied in the overall goals of the financial accounting system.
- Both the international accounting framework and the financial accounting system say that biological assets must be recognized at their fair value minus the costs of selling them.
- Both IAS 41 and the financial accounting system talk about how to figure out gains and losses from measuring biological assets at fair value. Net income shows these gains and losses.
- Both frameworks talk about how to value biological assets and the crops that come from them.
- - Both the Algerian financial accounting system and IAS 41 say that biological animal assets can be counted as assets if the entity controls the asset because of past events, expects future economic benefits, and can reliably measure the asset at fair value (Aisha Kadatssa et al., 2021, p. 71).

##### ***4.4.2 Points of Difference***

The Financial Accounting System is similar to International Accounting Standard 41 (IAS 41) in some ways, but there are also some big differences between the two:

- Paragraph 19-321 of the AFAS applies to all productive businesses, but IAS 41 only applies to biological assets related to agricultural produce. It does not apply to land used for farming or other non-current agricultural assets.
- The AFAS doesn't say anything about how to revalue biological assets, but IAS 41 does.
- IAS 41 looks at farming in general, but AFAS specifically says that cereal crops are current assets and orchards and plantations are not (Aisha Kdatssa et al., 2021, p. 71).
- IAS 41 talks about government money for biological assets. It counts unconditional grants as income when they are received, at their fair value minus the estimated costs of selling them. You can only count conditional grants as income if the conditions are met. On the other hand, paragraph 19-32.1 of the AFAS doesn't say anything about how to recognize or keep track of government grants for farming activities.
- IAS 41 says that businesses must report gains and losses from fair value measurements, but they don't have to say how much money they made from sales. But paragraph 19-321 of the AFAS doesn't say anything about how to report expenses related to biological assets or government grants, and it also doesn't say anything about how to report agricultural land (Sufyan Shaawadi, 2022, p. 41).

## **CONCLUSION**

This study's goal was to show how accounting works for things that have to do with farming. It did this by looking at the characteristics of biological assets, both animal and plant, from the perspectives of International Accounting Standards in general and International Accounting Standard 41 on agriculture in particular, as well as the Algerian Financial Accounting System. The study's main results and conclusions are as follows:

- A thorough comprehension of the concept, objectives, requirements, and scope of IAS 41, including how to value biological plant and animal assets and the terminology associated with them.
- The Algerian accounting system doesn't have financial statements that show biological fixed assets.
- The identification of recognition, presentation, measurement, and disclosure mechanisms as stipulated by IAS 41.

- When it comes to valuing assets, there is a strong link between international accounting standards and the Algerian financial accounting system. But the Algerian system doesn't say anything specific about agricultural products.
- What agricultural accounting is and what specific accounts are used in the agricultural sector in Algeria's financial accounting system.
- Setting up a separate accounting system for agricultural goods and some animal products, like poultry.
- Algeria needs to create a sector-specific accounting system to keep up with changes happening in different areas, especially agriculture.

## ***Bibliographie***

1. Ibrahim Abdul Rahman Abdullah, Awadallah, (2015), *Measurement and Accounting Disclosure of Agricultural Asset Costs and Their Impact on Financial Statement Users' Decisions*, Doctoral Thesis, University of Sudan, Sudan.

2. Ibrahim Walid Omar Al-Bashir, (2016), *The Extent of Compliance with Accounting Practice in Agricultural Activity in Sudan and International Standard No. 41*, Doctoral Thesis, University of Sudan, Sudan.

3. Ahmed Saad Jari, (2016-2017), *Specialized Accounting, Published Lessons for Accounting Students*, Al-Mustansiriya University, Iraq.

4. Ben Qaddour Ashwaq, Shamaqi Boubaker, (2020), *Accounting in Agricultural Activity, A Comparative Analytical Study between International Accounting Standard No. 41 and the Algerian Financial Accounting System*, Algerian Journal of Globalization and Economic Policies, University of Algiers 3, Algeria, Volume 11.

5. Jumana Hanzal Al-Tamimi, Kifah Jabbar Hassan, (2012), *Comparison between International Standard for Agricultural Activity No. 41 and Iraqi Rule for Agricultural Activity No. 11: A Comparative Analytical Study*, Journal of Economic Sciences, Iraq, Vol. 08, No. 31.

6. Hussein Manal, (2022), *Treatment of Biological Assets in Accordance with the Financial Accounting System and International Accounting Standard 41 "Agriculture,"* Journal of Economics and Finance, University of Hassi Ben Bou Ali, Chlef, Vol. 08, No. 02.

7. Khaled Ragheb, Al-Khatib, (2009), *Accounting in Agricultural Enterprises and Institutions*, Dar Al-Bidayah for Printing and Publishing, Cairo, Egypt.

8. Zainab Muhammad Muhammad Salim, Published research entitled "The Problems of Measurement and Accounting Disclosure of Biological Assets in Poultry Farming in Accordance with International Accounting Standard 41."

9. Salmi Mohamed El Dinouri, (2015), *Specific Agricultural Accounting in Agricultural Activity, Principles and Assumptions*, Journal of Economic and Financial Studies, Martyr .Hamah Lakhdar College, Wadi Souf, Algeria, Volume 08, Issue 2

Sofiane Chaouadi, (2022), *Accounting for Biological Assets - A Case Study of Plant Assets*, Journal of Accounting, Auditing and Finance, University of Khemis Miliana, .Algeria, Volume 04, Issue 02

The Issue of Segment Reporting Between International Accounting Standards and the Algerian Financial Accounting System: The Case of the Agricultural —————Aidri/Ben Hafed Sabrina Rabahi, (2022), *Problems of Agricultural Accounting Practice and Its Relationship to the Economic Environment in Algeria: A Survey Study*, *Journal of Economic Research*, University of Blida 2, Algeria, Volume 17, Issue 01 .11

Aisha Kadatsa et al., (2021), *Accounting for biological assets in the agricultural sector between the financial accounting system and International Accounting Standard No. 14 "Agriculture" – the Karfa Mohamed farm as a model*, *Journal of Financial and Accounting Studies*, University of El Oued, Algeria, Vol. 12, No. 01 .12

Abdelwahab Matar Al-Dahri, (2006), *Foundations and Principles of Agricultural Economics*, Al-Ati Press, Iraq .13

Alawi Lakhdar, (2001), *International Accounting Standards*, Al-Safahat Al-Zraqa, Algeria .14

Al-Qani'i Ezzedine, (2020), *Accounting for the Agricultural Sector between International Accounting Standards and the Financial Accounting System*, *Journal of Business Research and Studies*, University of Ziane Achour, Djelfa, Algeria, Volume 04, Issue 02 .15

Mahmoud Kbich et al. (2020), *Accounting and Tax Obligations of Agricultural Cooperatives*, *Journal of Finance and Corporate Governance*, University of Um El Bouaghi, Algeria, Vol. 04, No. 02 .16

*Handbook for third-year accounting students, private accounting, (2015-2016)*, Faculty of Economics, Business and Management Sciences, Department of Management Sciences, University of Batna, Algeria .17

,*International Accounting Standard 41* .8

Waad Hadi Al-Hassani Abdul, Khawla Hussein Hamdan, (2017), *The Role of Accounting Standards, Auditing and Financial Financing in Controlling Agricultural Activity to Achieve Sustainable Development*, *Journal of Accounting and Financial Studies*, University of Baghdad, Iraq, Volume 12, Issue 39