# Section 3041, *Agriculture* –

## How to apply the disclosure requirements for the net realizable value model

AcSB

Accounting Standards Board

# Foreword

This non-authoritative guidance has been prepared by the Accounting Standards Board (AcSB) staff. It does not form part of the CPA Canada Handbook – Accounting nor is it part of generally accepted accounting principles. What follows are prompts for practitioners and stakeholders who are expected to use their best judgment in appropriate circumstances.

# Introduction

In November 2019, the Accounting Standards Board (AcSB) issued Section 3041, *Agriculture* in Part II of the CPA Canada Handbook – Accounting.[1]

Section 3041 is a new standard for agricultural producers in accounting for agricultural inventories and productive biological assets. This standard is effective for fiscal years beginning on or after January 1, 2022.

For agricultural inventories, the standard provides an accounting policy choice to measure using either the cost model, or the net realizable value (NRV) model when certain conditions are met.

An agricultural producer that chooses to use the NRV model on the basis that the conditions are met has to disclose certain information, as specified in paragraphs 3041.84-88. Two of the requirements are to disclose:

(a) the aggregate of gains and losses arising during the current period from changes in the carrying amount of agricultural inventories measured at NRV; and

(b) the amount of inventories recognized as an expense during the period.

In practice, some agricultural producers only account for their agricultural inventories at the end of each fiscal year instead of maintaining perpetual records. Some agricultural inventories are also grown and sold within the same reporting period. Accordingly, details about the changes in agricultural inventories during the period may not be tracked in practice.

As a result, questions have arisen as to how an agricultural producer would determine the amounts required for disclosure listed above when the NRV model is used. Below are some questions for consideration and related insights to help with applying the standard.

1 Material that links to the CPA Canada Handbook is available to subscribers only. However, all information needed to understand this document is provided.

# How Does an Agricultural Producer Apply the NRV Model?

An agricultural producer that chooses to apply the NRV model does so when the conditions described in paragraph 3041.17 are met. Those conditions are:

- the product has a reliable, readily determinable and realizable market price;
- the product has reliably measurable and predictable costs of disposal; and
- the product is available for immediate delivery.

When the conditions are not met, the agricultural producer applies the cost model to measure the agricultural inventories (paragraph 3041.21). Generally, the conditions would not be met before the agricultural inventories are harvested.

Once the conditions are met, the agricultural producer applies the NRV model to measure the agricultural inventories (paragraph 3041.21).

Changes in the carrying amount of agricultural inventories resulting from changes in NRV are recognized in net income in the period in which they arise (paragraph 3041.52).

The carrying amount of agricultural inventories is recognized as an expense in the period in which they are sold (paragraph 3041.56). Therefore, even if agricultural inventories are only accounted for at year end and are grown and sold in the same year, an agricultural producer still needs to recognize the carrying amount of agricultural inventories sold as an expense. In most cases, the carrying amount of agricultural inventories sold would equal NRV immediately prior to sale if all the conditions are met.

Furthermore, all losses of agricultural inventories are recognized as an expense in the period the loss occurs (paragraph 3041.57). For example, agricultural inventories may perish due to climate conditions.

# Does an Agricultural Producer Still Have to Track Costs When the NRV Model Is Chosen?

When the conditions for using the NRV model are not met, the cost model applies (paragraph 3041.21). Therefore, an agricultural producer would typically need to track costs of agricultural inventories up to the point in time when conditions for using the NRV model are met. However, there could be situations when the conditions for measuring agricultural inventories at NRV are met at initial recognition. For example, the purchase of harvested products of biological assets would typically meet the conditions at the time of purchase. As a result, tracking costs would not be needed in this situation unless a subsequent change in circumstance occurs, resulting in the conditions for using the NRV model no longer being met.

The AcSB understands that introducing conditions described in paragraph 3041.17 will limit the circumstances of when agricultural inventories can be measured at NRV and may result in a change in practice for some agricultural producers. However, these conditions will improve the quality of the information provided to financial statement users and ensure consistency among agricultural producers regarding when NRV is used (Basis for Conclusions, paragraph 11).

Furthermore, the AcSB provided an option to determine the cost of agricultural inventories using either only input costs or full cost. The option to use only input costs reduces financial statement preparation costs as it eliminates the need for agricultural producers to develop methodologies for allocating indirect costs (Basis for Conclusions, paragraph 13). The full cost option is available for agricultural producers with more sophisticated systems to develop allocation methodologies.

The AcSB also acknowledges that there could be costs incurred during the very early stages of agricultural production, such as soil preparation for crops prior to planting. The Board thinks that agricultural producers would apply judgment to determine when these costs would be recognized as agricultural inventories by considering the definition of assets and the recognition criteria in FINANCIAL STATEMENT CONCEPTS, Section 1000. When considering how to account for these costs, an agricultural producer would take into consideration the accounting policy choice it makes to use either only input costs or full cost in measuring agricultural inventories (Basis for Conclusions, paragraph 41).

# Can Both the Changes in NRV and Expense Related to the Carrying Amount of Agricultural Inventories When Sold Be Presented in the Same Income Statement Line (e.g., a Net Inventory Adjustment Line)?

In developing Section 3041, the AcSB noted that both in Part II of the Handbook and in other frameworks, such as IFRS® Accounting Standards and U.S. GAAP, guidance is not provided on the presentation of measurement gains and losses, like changes in NRV. Therefore, Section 3041 allows the presentation of gains and losses on changes in NRV to be an area of professional judgment (Basis for Conclusions, paragraph 87). However, the aggregate of gains and losses arising from changes in the carrying amount of agricultural inventories measured at NRV needs to be disclosed, including the caption in the income statement that includes that gain or loss if not separately presented.

Similarly, Section 3041 also does not specify which income statement caption to present the carrying amount of agricultural inventories expensed when they are sold. However, paragraph 3041.88(d) requires agricultural producers using the NRV model to disclose the amount of agricultural inventories recognized as an expense during the period.

# Example Illustrating the Application of the NRV Model, Including the Relevant Disclosures

The following material is for illustration purposes only.

## Fact pattern

Farm A has chosen to measure its agricultural inventories of harvested wheat using the NRV model. When the conditions for measuring agricultural inventories at NRV are not met, Farm A chooses to determine the cost of agricultural inventories using only input costs. Fiscal 2022 is Farm A's first year of operations, and it has a December 31 year-end.

- Up until August 2022, Farm A incurred input costs of $20,000 to grow 4,000 bushels of wheat. In this example, Farm A determines that such costs qualify for recognition as agricultural inventories.
- At the time of harvest in September 2022, Farm A determined that the conditions for measuring its harvested wheat using NRV are met. Based on the price of wheat quoted in an active market, Farm A determines the NRV for 4,000 bushels of harvested wheat is $38,000.
- In November 2022, Farm A entered into a sales contract and sold the 4,000 bushels of harvested wheat for $45,000.
- To prepare for next year's growing season, Farm A incurred further input costs of $5,000 to purchase seeds for planting next year. Farm A determines that such costs qualify for recognition as agricultural inventories.
- By the end of the year, all outstanding receivables were collected, and outstanding payables were paid.
- For simplicity, assume Farm A incurred no other expenses during the year (e.g., selling, general and administrative expenses) and there were no costs associated with selling the harvested wheat.

The following is an extract of Farm A's financial statements as at, and for the year ended, December 31, 2022, including sample notes of relevant disclosures:

| Balance sheet | 2022 |
|---|---|
| Cash | $20,000 |
| Agricultural inventories (note 1) | $5,000 |
| Retained earnings | $25,000 |
| **Income statements** | **2022** |
| Revenue | $45,000 |
| Production expenses (note 1) | $20,000 |
| Net income | $25,000 |

## Significant accounting policies

Agricultural inventories of harvested wheat are measured using the net realizable value model when all of the following conditions are met:

1. The product has a reliable, readily determinable and realizable market price.
2. The product has reliably measurable and predictable costs of disposal.
3. The product is available for immediate delivery.

Under the net realizable value model, changes in the carrying amount of such inventories resulting from changes in net realizable value are recognized in net income in the period in which they arise. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. Farm A determines the estimated selling price based on either the price quoted in an active market or the price in a firm sales contract.

When all of the conditions for measurement using the net realizable value model are not met, the agricultural inventories of wheat are measured at the lower of cost and net realizable value, with cost determined using only input costs based on a weighted average cost formula. Input costs of wheat include the purchase cost of seeds, soil and fertilizer.

## Note 1 – Agricultural inventories

During the year ended December 31, 2022, the amount of harvested wheat Farm A recognized as an expense was $45,000 and was included in production expenses. Farm A also recognized gains from changes in the net realizable value of its harvested wheat of $25,000 in production expenses.

As at December 31, 2022, Farm A held zero bushels of harvested wheat. The carrying amount of agricultural inventories is $5,000, which represents the input cost of seeds purchased in preparation for next year's wheat growing season.

## Calculations for note disclosure

To calculate the disclosure amounts shown in Note 1, the following table shows the journal entries for the transactions and events described in the fact pattern.[2]

In this simple fact pattern, the amounts disclosed in Note 1 can also be derived from the financial statement line items. For example, the disclosed amount of harvested wheat that Farm A recognized as an expense is equivalent to revenue because the carrying amount of harvested wheat sold was equal to NRV immediately prior to sale and there were no other agricultural inventories recognized as an expense during the year. The disclosed gains from changes in the net realizable value is equivalent to net income because of the assumption that Farm A incurred no other expenses during the year.

| Wheat development (2022 growing season) | Debit | Credit |
|---|---|---|
| Dr. Agricultural inventories | $20,000 | |
| Cr. Accounts payable | | $20,000 |
| **At the time of harvest, wheat measured at NRV** | **Debit** | **Credit** |
| Dr. Agricultural inventories | $18,000 | |
| Cr. Gain from changes in carrying amount[(a)] | | $18,000 |
| **Remeasurement of harvested wheat before sale** | **Debit** | **Credit** |
| Dr. Agricultural inventories | $7,000 | |
| Cr. Gain from changes in carrying amount[(b)] | | $7,000 |
| **Sale of harvested wheat** | **Debit** | **Credit** |
| Dr. Accounts receivable | $45,000 | |
| Cr. Revenue | | $45,000 |
| Dr. Production expenses[(c)] | $45,000 | |
| Cr. Agricultural inventories | | $45,000 |
| **Wheat development (seeds for 2023 growing season)** | **Debit** | **Credit** |
| Dr. Agricultural inventories | $5,000 | |
| Cr. Accounts payable | | $5,000 |
| **Customer collection and vendor payment (net entry)** | **Debit** | **Credit** |
| Dr. Cash | $20,000 | |
| Dr. Accounts payable | $25,000 | |
| Cr. Accounts receivable | | $45,000 |

(a) Gain from changes in carrying amount calculated as the difference between cost of $20,000 and net realizable value of $38,000 at the time when the conditions to measure wheat at net realizable value are met.

(b) Gain from changes in carrying amount calculated as the change in net realizable value from $38,000 to $45,000 based on the sales contract price.

(c) Amount of agricultural inventories expensed equals the carrying amount of the 4,000 bushels of harvested wheat sold, which also equals the sale price because the inventories are marked to NRV immediately before sale.

2 There may be different ways to determine the journal entries. For example, the journal entries may be determined in aggregate based on the frequency of bookkeeping or determined differently based on an agricultural producer's professional judgment of when the initial recognition criteria for its agricultural inventories are met.

## Other Resources

The resources listed below provide further insights:

1. AcSB, "Agriculture, Section 3041 – Background Information and Basis for Conclusions," November 2019. (Knotia: paid subscription).
2. CPA Canada, "Accounting Standards for Private Enterprises Briefing on Section 3041, *Agriculture*" May 2020.
3. Grant Thornton, "Advisor alert: The Canadian Accounting Standards Board released new ASPE Section 3041 *Agriculture*. How will your enterprise's financial statements be impacted? Part 2 of 4: Recognition and Measurement of Agricultural Inventories," June 2020.
4. MNP, "ASPE 3041 Agriculture," March 2021.
5. BDO, "What You Should Know about the New Agriculture Financial Reporting Standards," March 2022.

# Extracts from Relevant ASPEs

| Standard | Guidance |
|---|---|
| Section 3041 | 17 *An agricultural producer shall make an accounting policy choice to measure agricultural inventories using either:*<br>*(a) the cost model (see paragraphs 3041.22-.48); or*<br>*(b) the net realizable value model (see paragraphs 3041.49-.57), when all of the following conditions are met:*<br>*(i) the product has a reliable, readily determinable and realizable market price;*<br>*(ii) the product has reliably measurable and predictable costs of disposal; and*<br>*(iii) the product is available for immediate delivery.*<br>*This accounting policy choice shall be applied consistently to all agricultural inventories having a similar nature and use.*<br><br>21 When an agricultural producer has chosen, under paragraph 3041.17(b), to measure its agricultural inventories using the net realizable value model but the conditions are not met, the agricultural producer applies the cost model to measure the agricultural inventories (see paragraph 3041.22). When the conditions are met, the agricultural producer applies the net realizable value model to measure the agricultural inventories (see paragraph 3041.49). |

| Standard | Guidance |
| --- | --- |
| | **Cost model**<br><br>**Determination of cost**<br><br>22 *An agricultural producer that applies the cost model shall measure its agricultural inventories at the lower of cost and net realizable value, and shall make an accounting policy choice to determine the cost of agricultural inventories using either:*<br><br>*(a) full cost (see paragraphs 3041.24-.32); or*<br><br>*(b) only input costs (see paragraphs 3041.25-.26).*<br><br>*This accounting policy choice shall be applied consistently to all agricultural inventories measured using the cost model that have a similar nature and use.*<br><br>**Net realizable value model**<br><br>52 *Changes in the carrying amount of agricultural inventories resulting from changes in net realizable value shall be recognized in net income in the period in which they arise.*<br><br>**Recognition as an expense**<br><br>56 *The carrying amount of agricultural inventories shall be recognized as an expense in the period in which they are sold.*<br><br>57 *All losses of agricultural inventories shall be recognized as an expense in the period the loss occurs.* |

| Standard | Guidance |
| --- | --- |
| | **DISCLOSURE**<br><br>**Agricultural inventories**<br><br>84 *The financial statements shall disclose the following information:*<br><br>*(a) a qualitative description of each major category of agricultural inventories;*<br><br>*(b) the quantities held of each major category of agricultural inventories, when readily determinable; and*<br><br>*(c) the accounting policies adopted in measuring agricultural inventories of similar nature and use.*<br><br>85 The quantitative description of the agricultural producer's major categories of agricultural inventories should include information regarding the number of units comprising each category. For example, this quantitative description could include the weight of a harvested crop, or the number of acres of an unharvested crop.<br><br>**Cost model**<br><br>86 *In addition to the disclosures required by paragraph 3041.84, the financial statements shall disclose the following information for agricultural inventories measured using the cost model:*<br><br>*(a) the accounting policy adopted in determining the cost of inventories, including the techniques used for measuring cost;*<br><br>*(b) the cost formulas used;*<br><br>*(c) the total carrying amount for each major category; and*<br><br>*(d) the amount of inventories recognized as an expense during the period.* |

| Standard | Guidance |
| --- | --- |
| | 87 *When an agricultural producer determines the cost of agricultural inventories using only input costs in accordance with paragraph 3041.22(b), it shall disclose a description of the input costs included in the measurement of agricultural inventories.*<br><br>**Net realizable value model**<br><br>88 *In addition to the disclosures required by paragraph 3041.84, the financial statements shall disclose the following information for agricultural inventories measured using the net realizable value model:*<br>*(a) a description of the methodology used to determine net realizable value;*<br>*(b) the total carrying amount for each major category;*<br>*(c) the aggregate of gains and losses arising during the current period from changes in the carrying amount, and, if not separately presented, the caption in the income statement that includes that gain or loss; and*<br>*(d) the amount of inventories recognized as an expense during the period.* |