

INTERNATIONAL ACCOUNTING STANDARDS

IAS 41

Agriculture

Recognition and measurement of biological assets and agricultural produce at fair value less costs to sell — the bearer plant split with IAS 16, point-of-harvest accounting, government grants and disclosure — illustrated with worked USD case studies for a global audience.



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What We Will Cover



Foundations & Core Principles

Objective, scope, and the key definitions behind agricultural activity



Recognition & Measurement

The three recognition conditions, and fair value less costs to sell



Gains, Losses & Government Grants

What flows through profit or loss, and when grant income is recognised



Presentation & Disclosure

How biological assets appear across the financial statements



Scope Boundary: Bearer Plants & Land

What sits inside IAS 41, and what belongs to IAS 16 or IAS 40 instead



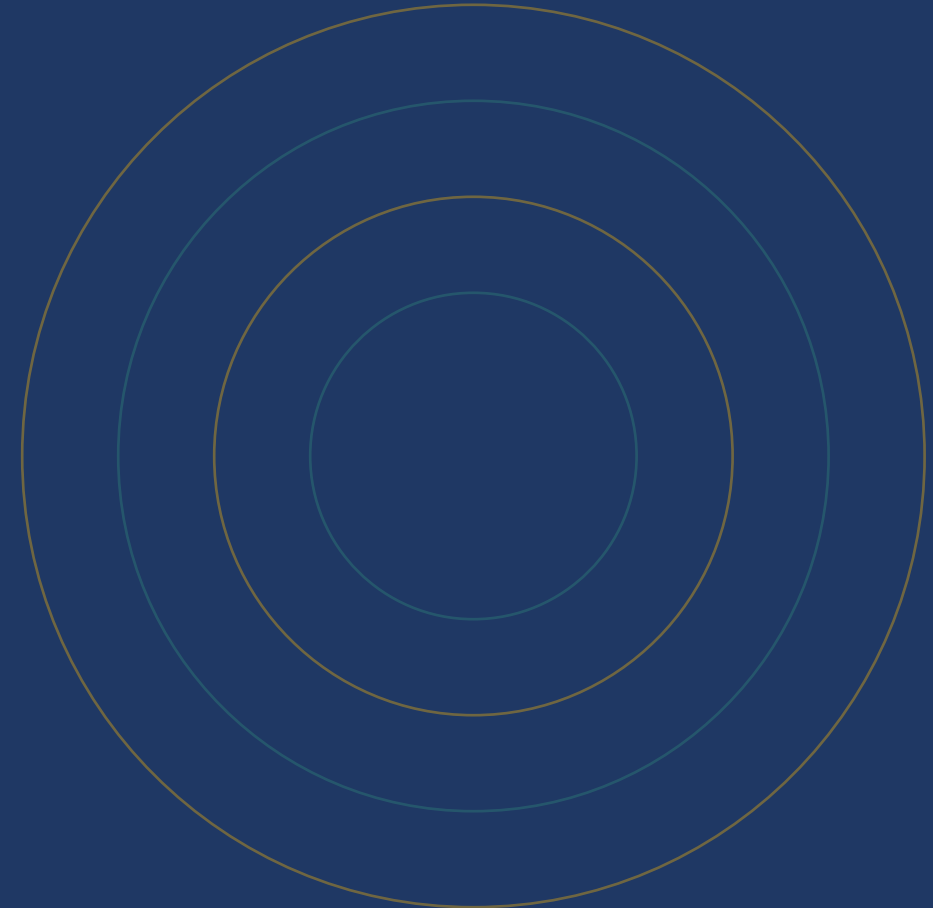
Fair Value & the Reliability Exception

How fair value is determined, and the rare cost-model fallback

PART I — FOUNDATIONS

Foundations & Core Principles

The objective and scope of IAS 41, and the definitions that separate agricultural activity from ordinary manufacturing or trading.



Objective, Scope & Effective Date

- IAS 41 Agriculture prescribes the accounting for biological assets, agricultural produce at the point of harvest, and government grants related to biological assets, wherever they relate to agricultural activity.
- Objective: to reflect agricultural activity's distinctive feature — biological transformation, the growth, degeneration, production and procreation that changes a living asset — through fair value measurement rather than historical cost.
- IAS 41 was originally issued in 2001; the IASB amended it in June 2014 (Agriculture: Bearer Plants) to move bearer plants into IAS 16, effective for annual periods beginning on or after 1 January 2016.
- Scope excludes: land related to agricultural activity (IAS 16 or IAS 40), bearer plants themselves (IAS 16, though the produce growing on them stays in IAS 41), and intangible assets such as production quotas (IAS 38).

Key Definitions I

Four terms describe the activity and the assets it transforms — the starting point for everything that follows.



Agricultural Activity

The management by an entity of the biological transformation and harvest of biological assets for sale, or for conversion into produce or additional biological assets.



Biological Asset

A living animal or plant — the core asset class IAS 41 was written to measure at fair value rather than historical cost.



Agricultural Produce

The harvested product of the entity's biological assets — measured at fair value less costs to sell only at the single point of harvest.



Biological Transformation

The processes of growth, degeneration, production and procreation that cause qualitative or quantitative change in a biological asset.

Key Definitions II

The remaining definitions determine when biological transformation ends, and how a bearer plant is told apart from ordinary produce.



Harvest

The detachment of produce from a biological asset, or the cessation of a biological asset's life processes — the moment produce measurement is fixed.



Costs to Sell

Incremental costs directly attributable to the disposal of an asset, excluding finance costs and income taxes — deducted from fair value at every measurement date.



Group of Biological Assets

An aggregation of similar living animals or plants — the practical unit many entities use for both measurement and disclosure.



Bearer Plant

A living plant used to produce agricultural produce over more than one period, with a remote likelihood of being sold as produce itself — accounted for under IAS 16, not IAS 41.

Scope Boundary: Bearer Plants & Land

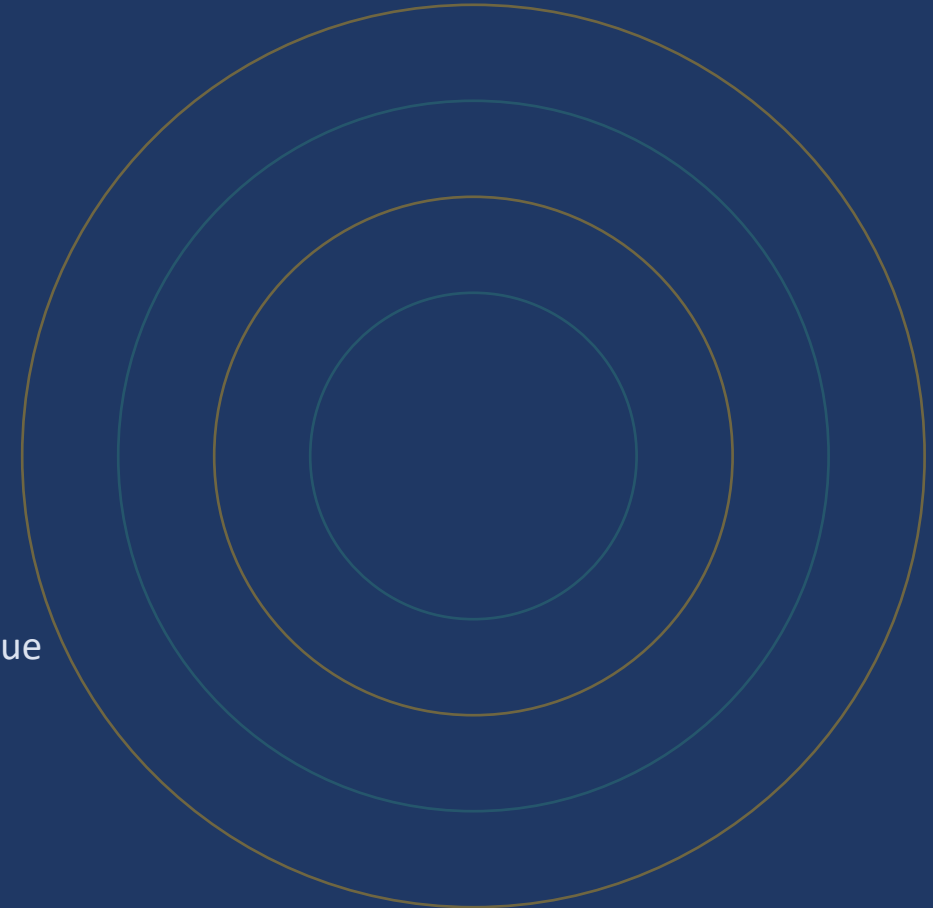
Three physically related items can sit in three different standards at the same time — the estate itself is the clearest illustration.

Item	Example	Governing Standard	Measurement Basis
Land under the crop	The tea estate or orchard land itself	IAS 16 (or IAS 40 if held for capital appreciation)	Cost or revaluation model (IAS 16); fair value model available under IAS 40
The bearer plant	Tea bushes, grape vines, rubber trees, oil palms	IAS 16 (since the 2014 amendment)	Cost less depreciation and impairment, or revaluation model
Produce growing on the plant	Tea leaves, grapes, latex, palm fruit — before harvest	IAS 41	Fair value less costs to sell, remeasured every reporting date
Produce after harvest	Picked tea leaves, harvested grapes	IAS 2 (Inventories)	Deemed cost = fair value less costs to sell at the point of harvest

PART II — RECOGNITION & MEASUREMENT

Recognition & Measurement

When a biological asset or agricultural produce enters the balance sheet, and the fair value principle that follows it there.



The Three Recognition Conditions

An entity recognises a biological asset or agricultural produce only when all three conditions below are satisfied.

1

Control

The entity controls the asset as a result of past events — ownership of the herd, the crop, or the plantation.

2

Probable Future Benefits

It is probable that future economic benefits associated with the asset will flow to the entity.

3

Reliable Measurement

The fair value or cost of the asset can be measured reliably — rebuttable only in narrow circumstances.

Fair Value Less Costs to Sell: Initial & Subsequent Measurement

- A biological asset is measured on initial recognition, and at the end of each reporting period, at its fair value less costs to sell — there is no cost-based alternative once fair value can be reliably determined.
- Agricultural produce harvested from an entity's biological assets is measured at fair value less costs to sell at the point of harvest — this single measurement then becomes its deemed cost under IAS 2 Inventories.
- Unlike most other assets, biological assets are never subsequently measured at historical cost once fair value is reliably measurable — every reporting date requires a fresh fair value less costs to sell calculation.
- Costs to sell are always deducted from fair value, never added — they represent incremental disposal costs such as commissions, levies, and transfer taxes, but exclude transport costs necessary to get the asset to market, which are instead factored into the fair value estimate itself.

Point-of-Harvest Measurement: The Handoff to IAS 2

1

Biological asset is measured at fair value less costs to sell up to the moment of harvest



2

At the point of harvest, agricultural produce is measured at fair value less costs to sell — fixed at that instant



3

That fair-value-less-costs-to-sell amount becomes the produce's deemed cost on initial recognition under IAS 2



4

From that point, IAS 2 takes over: inventory is carried at the lower of that cost and net realisable value

- This is the one moment IAS 41 hands off measurement entirely to another standard — fair value accounting stops the instant produce is detached or the biological asset's life processes cease.

When Cost Approximates Fair Value

- Cost sometimes approximates fair value, particularly where little biological transformation has taken place since the costs were first incurred — for example, seedlings planted immediately before the end of a reporting period.
- It can also approximate fair value where the impact of biological transformation on price is not expected to be material — for example, the initial growth stages within a 30-year pine plantation production cycle.
- This is a practical expedient, not a policy choice: an entity still applies the fair value less costs to sell model, and cost is used only because it happens to be a reasonable proxy for fair value at that particular measurement date.
- As biological transformation accumulates and cost no longer approximates fair value, the entity must revert to an active fair value estimate — the practical expedient does not become a permanent cost-based policy.

PART III — FAIR VALUE & RELIABILITY

The Fair Value Hierarchy & the Reliability Exception

How fair value is actually determined for a living asset, and the narrow circumstances in which cost is used instead.



Determining Fair Value: The Hierarchy of Evidence

1

Quoted Market Price

The quoted price in an active market is the best evidence of fair value, and is used whenever it is available.

2

Recent Transactions & Comparables

In the absence of an active market: the most recent transaction price, market prices for similar assets adjusted for differences, or sector benchmarks such as value per kilogram of meat.

3

Present Value of Cash Flows

Only if market-determined prices are unavailable: the present value of expected net cash flows from the asset, discounted at a current market-determined rate.

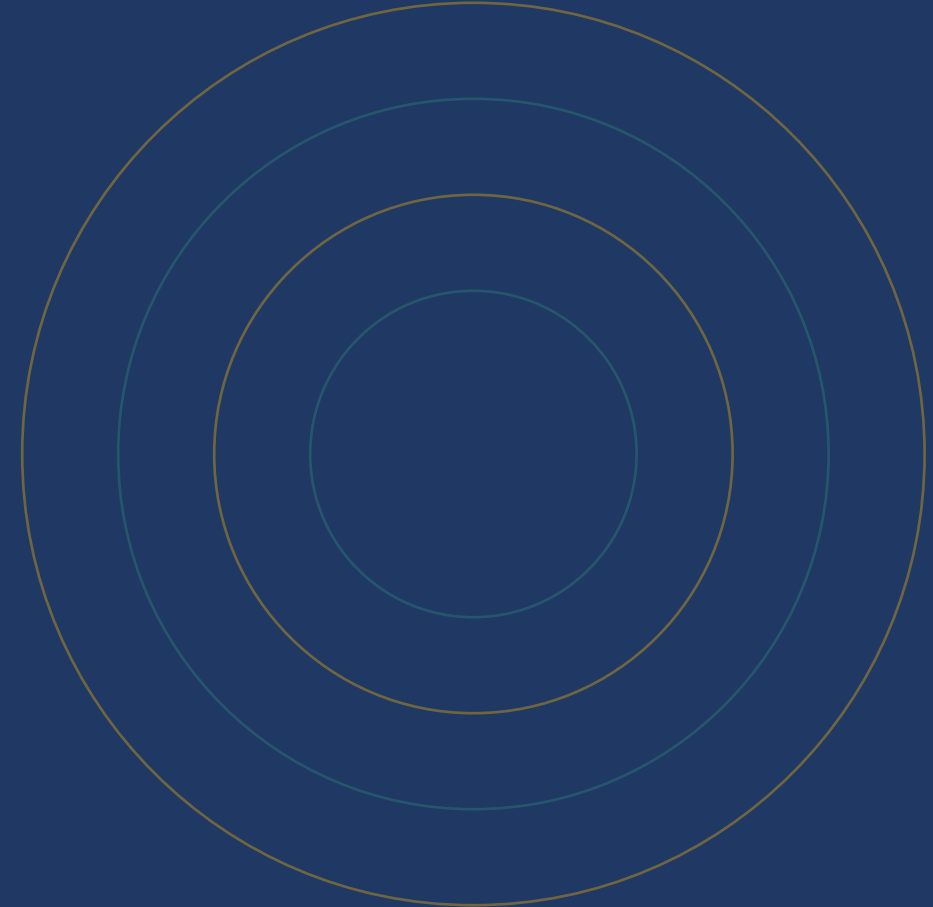
Inability to Measure Fair Value Reliably

- There is a rebuttable presumption that fair value can be measured reliably for a biological asset — IAS 41 treats this as the norm, not the exception.
- That presumption can be rebutted only on initial recognition, and only for a biological asset for which quoted market prices are not available and for which alternative fair value estimates are determined to be clearly unreliable.
- In that narrow case, the biological asset is measured at cost less any accumulated depreciation and any accumulated impairment losses — the same cost-based model used for ordinary property, plant and equipment.
- Once fair value becomes reliably measurable for such an asset — which the entity is expected to actively pursue — it switches to fair value less costs to sell for the remainder of its biological life; the cost exception is never available again for that asset once fair value can be measured.

PART IV — GAINS, LOSSES & GRANTS

Gains, Losses & Government Grants

What flows through profit or loss as a biological asset changes, and when government support for agricultural activity is recognised.



Gains and Losses on Biological Assets & Produce

- A gain or loss on initial recognition of a biological asset at fair value less costs to sell, and from any subsequent change in fair value less costs to sell, is included in profit or loss for the period in which it arises — there is no OCI option, unlike some other fair value models in IFRS.
- A loss can arise on initial recognition purely because costs to sell are deducted in arriving at fair value less costs to sell — the asset can show a loss on day one even though nothing adverse has happened to it.
- A gain can equally arise on initial recognition — the clearest example is the birth of a calf, an asset recognised at fair value less costs to sell with no cost incurred to create it.
- A gain or loss on initial recognition of agricultural produce at fair value less costs to sell is also recognised in profit or loss for the period in which it arises — typically as a result of the harvesting process itself.

Government Grants Related to Biological Assets



Unconditional Grants

Recognised in profit or loss when, and only when, the grant becomes receivable — no deferral, no matching to future periods.



Conditional Grants

Recognised in profit or loss only when the attached conditions are met, including grants that require the entity not to engage in specified agricultural activity.



Scope Limitation

This treatment applies only to grants related to a biological asset measured at fair value less costs to sell — grants relating to a biological asset measured at cost instead follow IAS 20.



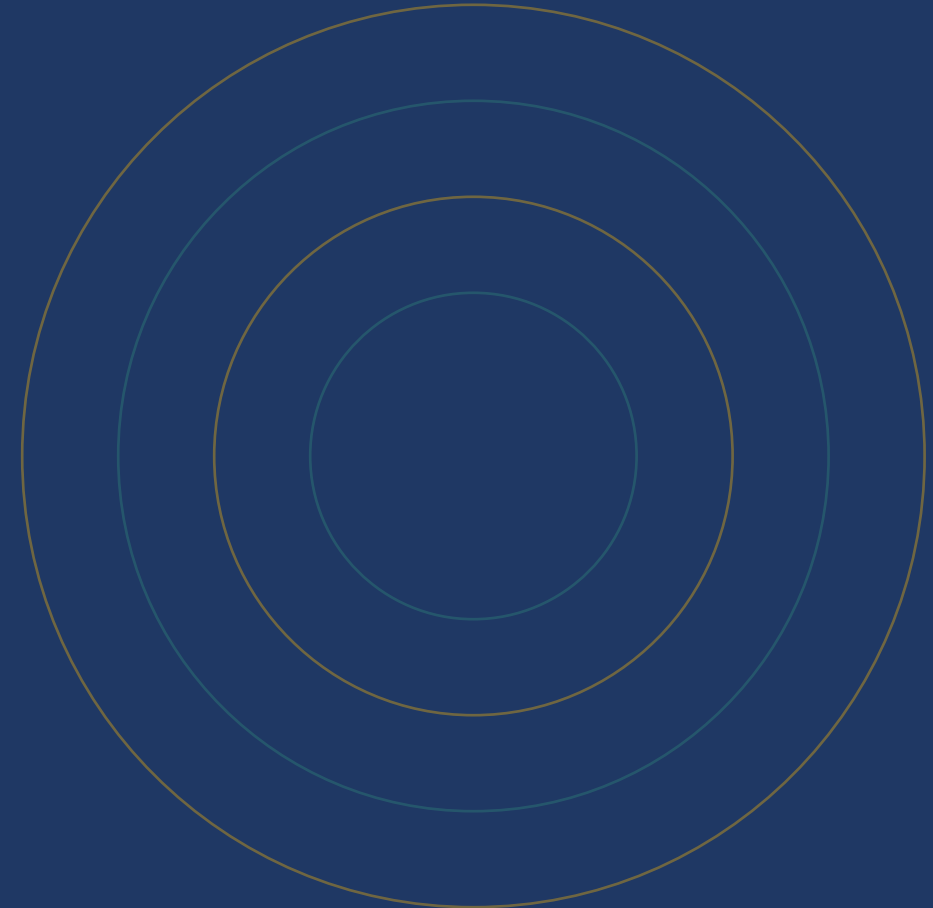
Why It Differs from IAS 20

IAS 20's deferred-income and systematic-matching approach is set aside here because the underlying asset is already remeasured to fair value every period.

PART V — WORKED ILLUSTRATIONS

Worked Illustrations

Three USD case studies applying recognition, measurement and the bearer plant split covered so far.



Case Study: Dairy Herd Reconciliation

FACT PATTERN

Meadowbrook Farms holds a dairy herd measured at fair value less costs to sell. All figures are illustrative and expressed in USD.

Opening balance (100 head): USD 50,000 | Purchases during the year (5 heifers): USD 2,750 | 10 calves born during the year, fair value less costs to sell at birth: USD 1,400 | Sales during the year (8 head): USD (4,200) | Gain from changes in fair value less costs to sell (price and physical growth

SOLUTION

- Closing balance = USD 50,000 + USD 2,750 + USD 1,400 – USD 4,200 + USD 3,100 = USD 53,050.
- The USD 1,400 recognised on the calves' birth is a pure IAS 41 gain — no cost was incurred to create the asset, yet it is recognised at fair value less costs to sell immediately.
- The full USD 3,100 gain from fair value changes runs through profit or loss for the period in which it arises — IAS 41 does not defer it or route any part of it through other comprehensive income.
- The solution on the following slide sets this out as a formal reconciliation, in the format required by IAS 41's disclosure requirements.

Case Study: Reconciliation of Carrying Amount

Movement	Amount (USD)
Opening balance	50,000
Purchases (5 heifers)	2,750
Increase due to births (10 calves)	1,400
Gain from changes in fair value less costs to sell	3,100
Decreases due to sales (8 head)	(4,200)
Closing balance	53,050

- This is the exact structure IAS 41 requires for the mandatory reconciliation disclosure — the same line items reappear on the disclosure slide later in this deck.

Case Study: Bearer Plant vs Growing Produce

FACT PATTERN

Highland Tea Estates owns mature tea bushes (a bearer plant) and the tea leaves growing on them at the reporting date. All figures are illustrative and expressed in USD.

Tea bushes: cost USD 200,000, accumulated depreciation USD 40,000 (IAS 16) | Growing tea leaves at reporting date: fair value less costs to sell USD 18,000

SOLUTION

- The tea bushes are a bearer plant and are carried at cost less accumulated depreciation under IAS 16: $\text{USD } 200,000 - \text{USD } 40,000 = \text{USD } 160,000$ — they are never remeasured to fair value under IAS 41.
- The growing tea leaves — not yet harvested — remain within IAS 41 and are measured at fair value less costs to sell: USD 18,000, remeasured again at the next reporting date.
- The land is accounted for separately under IAS 16 (or IAS 40 if held for capital appreciation) at USD 500,000; it is never combined with the biological asset or produce values for recognition purposes.
- Three IFRS Standards therefore apply to three physically adjoining assets on the same estate, at the same reporting date — this is the core insight the 2014 bearer plants amendment introduced.

Case Study: Point-of-Harvest Measurement

FACT PATTERN

Prairie Grain Co. harvests 500 tonnes of wheat from land it farms. All figures are illustrative and expressed in USD.

Market price at the point of harvest: USD 220 per tonne | Estimated costs to sell: USD 10 per tonne | Harvest quantity: 500 tonnes.

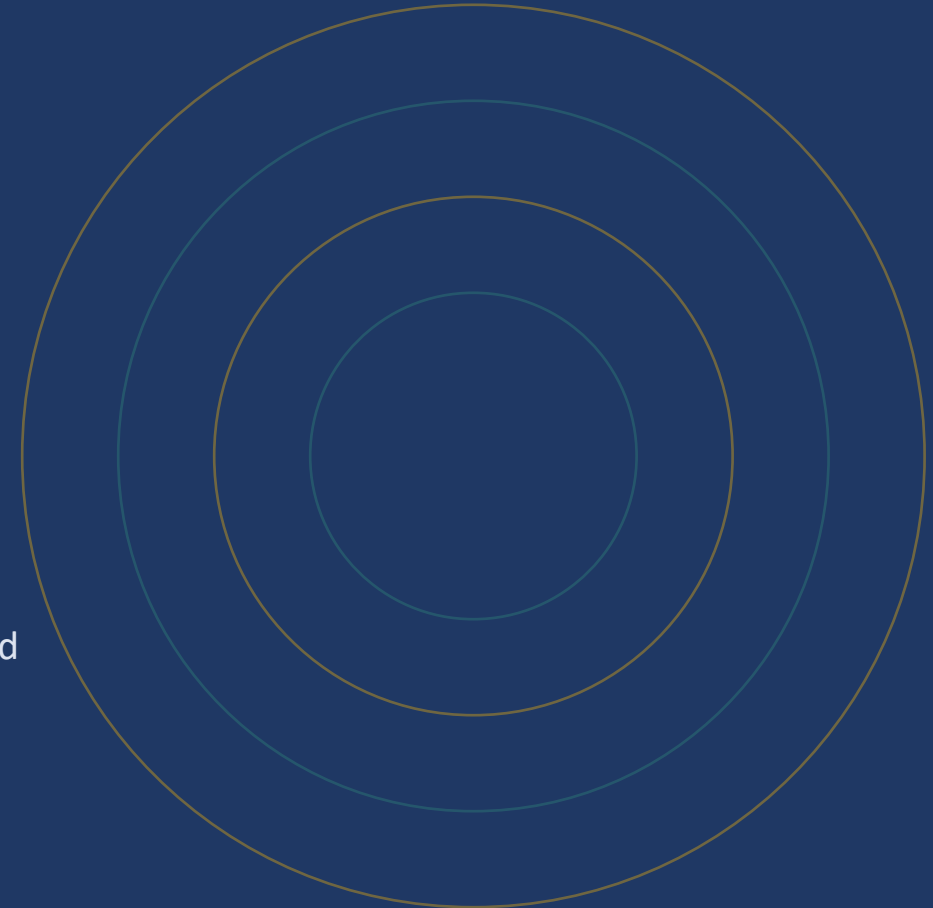
SOLUTION

- Fair value less costs to sell at the point of harvest = $500 \text{ tonnes} \times (\text{USD } 220 - \text{USD } 10) = \text{USD } 105,000$.
- This USD 105,000 is recognised as a gain in profit or loss on harvest (assuming a nil carrying amount for the standing crop immediately before harvest) and simultaneously becomes the wheat's deemed cost on initial recognition as inventory under IAS 2.
- From this point forward, IAS 41 has no further role — the wheat is carried at the lower of USD 105,000 (cost) and net realisable value until it is sold, exactly like any other inventory item.
- If the market price of wheat moves after harvest but before sale, that movement is only recognised through an IAS 2 net realisable value write-down if the price falls below cost — IAS 41's continuous fair value remeasurement has already stopped.

PART VI — PRESENTATION & DISCLOSURE

Presentation & Disclosure

How biological assets and agricultural produce flow through the financial statements, and what IAS 41 requires entities to disclose.



Presentation in the Financial Statements

- Biological assets are presented as a separate line item in the statement of financial position, distinct from property, plant and equipment (which now houses bearer plants) and from inventory (which houses harvested produce).
- Gains and losses from initial recognition and from fair value remeasurement are presented within profit or loss, typically as a separate line or disclosed within the notes — IAS 41 does not prescribe a single mandatory income statement caption.
- Once produce is harvested, it moves out of the biological assets line entirely and into inventory, measured under IAS 2 at its point-of-harvest deemed cost — the balance sheet presentation changes the instant harvest occurs.
- Bearer plants sit within property, plant and equipment, depreciated over their productive life and tested for impairment under IAS 36, exactly like an item of manufacturing machinery.

Disclosure Requirements I

IAS 41's disclosures combine financial reconciliations with narrative and physical-quantity information rarely required elsewhere in IFRS.



Aggregate Gains & Losses

The aggregate gain or loss arising during the period on initial recognition of biological assets and produce, and from changes in fair value less costs to sell.



Description of Each Group

A narrative or quantified description of each group of biological assets — entities commonly disclose this by class, such as dairy herds or plantations.



Nature of Activities & Physical Measures

The nature of activities involving each group, and non-financial measures of physical quantities held at period end and produce output during the period.



Restrictions, Commitments & Risk

Carrying amounts of biological assets with restricted title or pledged as security, commitments for development or acquisition, and financial risk management strategies.

Disclosure Requirements II: The Mandatory Reconciliation

- An entity presents a reconciliation of changes in the carrying amount of biological assets between the beginning and end of the current period, including:

the gain or loss arising from changes in fair value less costs to sell;

increases due to purchases, and decreases from sales and assets classified as held for sale under IFRS 5;

decreases due to harvest;

increases from business combinations, and net foreign exchange differences on translation;

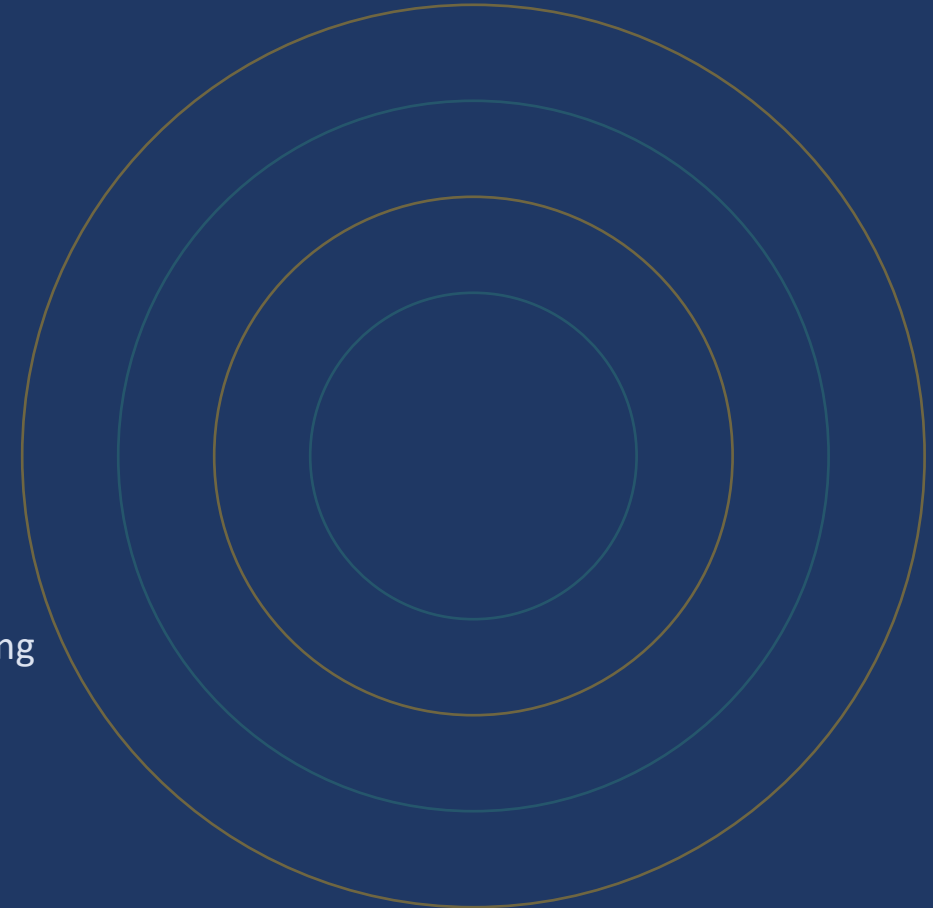
and other changes.

- When the cost model is used for a biological asset (the reliability exception), additional disclosures are required: a description of the assets, an explanation of why fair value cannot be reliably measured, and, if possible, a range within which fair value is highly likely to lie.

PART VII — COMPARISON & WRAP-UP

Comparison & Wrap-Up

How the 2014 bearer plants amendment changed the standard, the challenges of applying it, and what to take away.



COMPARISON

IAS 41 Before and After the Bearer Plants Amendment

Dimension	Pre-2016 (Original IAS 41)	Post-2016 (Current IAS 41 / IAS 16)
Bearer plants (tea bushes, rubber trees)	Measured at fair value less costs to sell, remeasured every period	Moved to IAS 16 — cost less depreciation, or optional revaluation model
Volatility in profit or loss	Fair value swings in mature, low-volatility plants flowed through profit or loss every period	Depreciation is a predictable charge; fair value volatility is removed for the plant itself
Produce growing on the plant	Fair value less costs to sell, within IAS 41	Unchanged — still fair value less costs to sell, within IAS 41
Valuation cost & complexity	Required fair value inputs for assets rarely sold on their own	Reduced — plantation companies no longer need a fair value model for the plants themselves

Key Implementation Challenges



Valuation Complexity

Reliable fair value estimates for herds, crops and plantations often require specialist agricultural valuers.



Splitting the Estate

Separating land, bearer plants and growing produce into three different measurement models on one estate is operationally demanding.



Continuous Remeasurement

Fair value must be reassessed every reporting date, unlike the one-off cost basis used for most other assets.



Biological & Climate Risk

Disease, weather and seasonality drive genuine volatility into fair value estimates and profit or loss.



Thin or Absent Markets

Many biological assets have no active market, forcing reliance on the lower tiers of the fair value hierarchy.



Disclosure Burden

Physical-quantity and narrative disclosures demand data most financial systems were not built to capture.

Benefits of Applying IAS 41 Consistently



Economically Relevant Values

Fair value less costs to sell reflects the real economic condition of a herd or crop far better than historical cost.



Comparability Across Farms

A single global measurement basis lets investors compare agricultural businesses across countries and climates.



Timely Recognition of Growth

Biological transformation is recognised as it happens, rather than being hidden until an eventual sale.



Stronger Lender & Investor Confidence

Transparent, current valuations support financing decisions in a sector historically opaque to outside capital.



A Cleaner Bearer Plant Model

Since 2016, depreciation-based accounting for mature plantations removes artificial fair value volatility.



Better Risk Visibility

Mandatory disclosures around restrictions, commitments and financial risk sharpen stakeholder oversight.

Key Takeaways



Fair Value Less Costs to Sell Is the Anchor

Biological assets are measured at fair value less costs to sell at every reporting date, with no cost-based default.



Bearer Plants Live in IAS 16

Since 2016, the plant itself is cost-based property, plant and equipment; only its growing produce stays in IAS 41.



Harvest Is the Handoff Point

Produce is measured at fair value less costs to sell once, at harvest — then IAS 2 takes over as deemed cost.



All Gains and Losses Hit Profit or Loss

There is no OCI option for biological asset remeasurement — every change runs through the income statement.



The Cost Exception Is Narrow

Cost is used only when fair value genuinely cannot be reliably measured on initial recognition — and only until it can.

ABOUT THE AUTHOR

A Career Built on Making IFRS Understandable



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B D Chatterjee is a Chartered Accountant and financial thought leader with over 35 years of global experience spanning corporate finance, accounting standards, financial reporting, business valuation and financial due diligence. As a seasoned CFO, he has led finance functions across major corporations and now heads Digital CFO Solutions, a platform delivering institutional-grade IFRS, US GAAP and valuation workbooks alongside fractional CFO services.



Published Author

Author of the Pocketbook of IFRS series and other finance titles.



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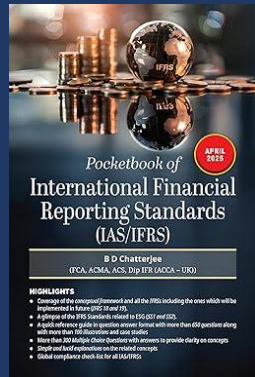


Institutional-Grade Platforms

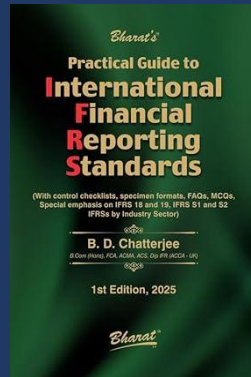
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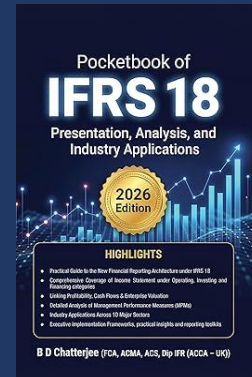
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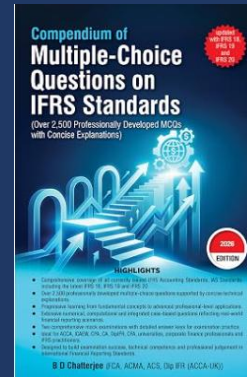
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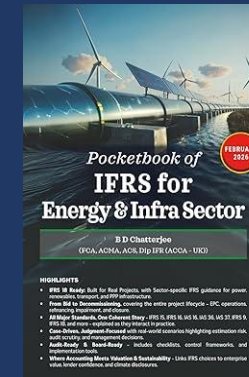
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