STAFF PAPER

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IASB Meeting

Project	IAS 41 *Agriculture*: Bearer Biological Assets (BBAs)		
Paper topic	Accounting for bearer biological assets		
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Purpose of this paper

1. This Agenda Paper 8B asks the IASB to discuss three issues identified by staff as fundamental to the IASB's initial discussion on the limited scope project on bearer biological assets (BBAs). These issues were in the Agenda Proposal presented to the IASB at the September 2012 meeting.

2. Based on the IASB's tentative decisions on these three issues, this Agenda Paper 8B then asks the IASB to consider whether accounting for BBAs under IAS 16 *Property, Plant and Equipment* would provide more decision-useful information than the current requirements under IAS 41 *Agriculture*.

Structure of this paper

3. This Agenda Paper 8B is set out as follows:

   (a) Background, including the aim of the project, current requirements under IAS 41, and the main criticism of those requirements for BBAs.

   (b) Proposed approach to this limited-scope project.

   (c) Part A: The three key issues:

      (i) Issue (1) What definition of BBAs should be used in the scope of the amendment to IAS 41?

(ii) Two areas in which it is unclear how a cost model would be applied to BBAs:

- Issue (2) How should BBAs be measured before being placed into production (ie before the BBAs reach maturity)?
- Issue (3) How should the produce growing on the BBAs be accounted for (eg fruit growing on a fruit tree)?

(d) Part B: Would accounting for BBAs in accordance with IAS 16 provide more decision-useful information than current requirements?

(e) Appendix A: Additional issues to be considered at future meetings.

Background

Aim of this limited-scope project

4. The aim of this limited-scope project is not to revisit the fair value model in IAS 41 for all biological assets. The project responds to criticism that the IAS 41 fair value model is not appropriate for a subset of biological assets, known as BBAs, because once mature these biological assets no longer undergo biological transformation.

5. The aim of this limited-scope project is to decide whether a different accounting treatment for BBAs would produce more decision-useful financial reporting information for users of financial statements than the current requirements under IAS 41.

Current requirements under IAS 41

6. Under IAS 41 all biological assets are measured at fair value less costs to sell. This is based on the principle that the biological transformation that the assets undergo during their lifetime as a result of growth, procreation, etc, is best reflected by fair value measurement. The concept is that an increase in the fair

value of the biological assets is expected to increase future economic benefits to the entity.

7. IAS 41 has a single accounting treatment for both BBAs and consumable biological assets (CBAs). IAS 41 only distinguishes between BBAs and CBAs for disclosure purposes. Paragraph 44 of IAS 41 states:

   (a) CBA are those that are to be harvested as agricultural produce or sold as biological assets. Examples of CBAs are livestock intended for the production of meat, livestock held for sale, fish in farms, crops such as maize and wheat, and trees grown for lumber.

   (b) BBAs are those other than CBAs; for example, livestock from which milk is produced, grape vines, fruit trees, and trees from which firewood is harvested while the tree remains. BBAs are not agricultural produce but, rather, are self-regenerating.

Criticism of IAS 41 requirements for BBAs

8. A number of commentators have argued that fair value measurement is not appropriate for BBAs, in particular bearer crops, because mature BBAs are no longer undergoing biological transformation. Once mature, instead of being growing assets, these assets are now productive assets. These commentators believe that BBAs are similar to property, plant and equipment (PPE) and should be accounted for in a consistent manner under IAS 16.

9. The majority of comments on IAS 41 received from respondents to the IASB's agenda consultation, from investors and analysts (see Agenda Paper 8C), from national standard setters and from other accounting organisations support accounting for BBAs under IAS 16.

Proposed approach to this project

What are the options for BBAs?

10. The staff think there are only two realistic options for accounting for BBAs:

(a) Option (1) No amendment to IAS 41. All biological assets should remain under the IAS 41 fair value model.

(b) Option (2) An amendment to IAS 41 to bring BBAs within the scope of IAS 16. BBAs are similar to PPE and should be accounted for under IAS 16.

(An alternative to bringing BBAs within the scope of IAS 16 would be to include requirements from IAS 16 within IAS 41. This is a placement issue that can be considered at a later date.)

11. **Aside:** One or two respondents have said that, while they would prefer BBAs to be accounted for under a cost model, an alternative approach that would offer a slight improvement to current accounting would be to require the revaluation model in IAS 16 to be used for BBAs (ie without the option to use the cost model under IAS 16). The staff have not included this suggestion in paragraph 10 for the following reasons:

(a) It is inconsistent with approaches used for other non-financial assets and so there is no basis to support it being used for BBAs.

(b) It would create a situation in which many entities would be required to account for BBAs differently than they would for both CBAs and PPE (because companies usually measure agricultural plant and machinery at cost). Investors and analysts have told us that a hybrid statement of financial position is unhelpful to them.

(c) It would only eliminate one of the problems of applying a fair value model to BBAs: namely, it would remove the change in fair value less costs to sell from profit and loss. It would not provide relief from the cost or complexity of measuring BBAs at fair value less costs to sell.

How should we start the project?

12. Before the IASB can have a focused discussion on whether accounting for BBAs under IAS 16 would provide more decision-useful information than the current IAS 41 requirements, the IASB needs to decide:

(a) which biological assets will be addressed by the limited-scope project (ie identify the subset of biological assets for which biological transformation is not significant in generating future economic benefits —meaning they are not supported by the main principle in IAS 41 outlined in paragraph 6); and

(b) how a cost model would be applied to these biological assets.

13. Under IAS 16, entities would have the choice of applying either the cost model or the revaluation model to each class of BBA. The staff have focused on measurement issues under the cost model in IAS 16, rather than under the revaluation model, for two reasons. Firstly, it is expected that the cost model will be the model preferred by most companies with BBAs for the reasons given in paragraph 11. If BBAs are defined to exclude livestock, the cost model is likely to be preferred by virtually all companies. Secondly, any measurement issues under the revaluation model will already be issues under the fair value model in IAS 41.

14. The IASB staff have refined paragraphs 12(a) and (b) into three key issues for discussion at this meeting:

(a) Issue (1) What definition of BBAs should be used in the scope of the amendment to IAS 41?

(b) Two areas where it is unclear how a cost model would be applied to BBAs:

- Issue (2) How should BBAs be measured before being placed into production (ie before the BBAs reach maturity)?
- Issue (3) How should the produce growing on the BBAs be accounted for (eg fruit growing on a fruit tree)?

15. These three issues were included in the Agenda Proposal presented at the IASB meeting in September 2012 (Agenda Paper 13A for that meeting). Agenda Paper 8B addresses the issues in more detail. For each of the three issues the staff have provided:

(a) Explanation of the issue

(b) Ways of addressing the issue—the alternative views

(c) Advantages and disadvantages for each of the alternative views

(d) Staff recommendation

(e) Question seeking feedback from the IASB.

16. A few IASB members have asked to start this project with a clean slate, ie with no preconceived ideas. Some IASB members have initial reservations about accounting for BBAs under a cost model. However, staff propose that the IASB should first discuss the three issues in paragraph 14. These discussions will enable the IASB to identify **which** biological assets would be affected and **how** they would be affected by applying the cost model in IAS 16. The staff believe that this clarity on scope and application is necessary before the IASB can decide whether or not accounting for BBAs under IAS 16 would produce decision-useful information.

17. Appendix A lists additional minor issues that will need to be addressed if a cost model is used for BBAs, eg unit of account, additional disclosure requirements, transitional rules etc. These additional issues have been provided as additional information only. The staff propose that the IASB should only consider the three issues in paragraph 14 at this meeting. These three issues are likely to be the ones that affect the IASB's decision on how to account for BBAs.

Part A: The three key issues

Issue 1: What definition of BBAs should be used?

Introduction

18. The first key issue is what definition of BBAs should be used in the scope of the amendment to IAS 41? The definition should describe the subset of biological assets that are not supported by the main principle in IAS 41—ie those biological assets for which biological transformation is not significant in generating future economic benefits. The IASB needs to identify this subset of biological assets,

before it can assess whether accounting for those assets under IAS 16 would produce decision-useful information.

19. The most important consideration under Issue 1 is how to deal with livestock. If any livestock is included within the scope of the amendment, use of a cost model becomes more complex. It is theoretically possible to determine the cost of a newly born animal. However, almost all the costs involved are indirect costs and must be allocated on an inherently arbitrary basis. In addition, the number of different types of cost requiring allocation would be substantial—eg for a calf these costs would include land and pasture rent, feed, labour costs, pasture herbicides, veterinary care, allocation of farm overheads/depreciation, depreciation of the herd (bulls and cows) etc.

20. If a calf and its mother are one animal unit for accounting purposes while the calf is developing inside its mother, the costs of the developing calf are included in the mature cow's costs. Consequently, these costs are expensed, instead of being capitalised, meaning the calf would have a cost of zero when it is born. Accounting for a calf separately, before birth, would pose other challenges, such as when does it first exist, and the need for extensive cost allocations.

21. Another difficulty that may arise if a cost model is applied to livestock is the residual value of livestock is often higher than its carrying amount, meaning that depreciation would not be material.

22. The staff have identified four alternative views for defining BBAs. These views incorporate suggestions made in the Issues Paper produced by the Asian-Oceanian Standard-Setters Group (AOSSG Issues Paper—this paper was Agenda Paper 13B at the September 2012 IASB meeting) and discussions held by the IASB's Emerging Economies Group (EEG).

    (a) View (1) No alternative use (main approach in the AOSSG Issues Paper)

    (b) View (2) Predominant use

    (c) View (3) No alternative use. Plants only (Same as View 1 but only includes plants, not livestock)

(d) View (4) Predominant use. Plants only (Same as View 2 but only includes plants, not livestock).

View 2 is similar to the definition of BBAs in paragraph 44 of IAS 41 (see paragraph 7 above).

23. Under each of the four views, CBAs are defined to be biological assets other than BBAs. CBAs will not be covered by the limited-scope project. Consequently, CBAs will remain under the fair value model in IAS 41.

24. The views of EEG members were split between the views listed in paragraph 22 with no clear preference.

View (1) No alternative use

25. **View 1 definition:** BBAs would be defined as biological assets that:

- are cultivated for use in the production or supply of agricultural produce to others;
- are expected to be used for more than one period; and
- are not agricultural produce themselves.

26. **Explanation:** The definition above aims to define BBAs to be those biological assets that have no consumable attributes—they can only be used as bearer assets (ie they have no alternative use). Therefore, biological assets that embody both consumable and bearer attributes would be classified as CBAs.

27. A biological asset has consumable attributes if it can be harvested as agricultural produce or sold as a biological asset. A biological asset has bearer attributes if it can be used in the production or supply of agricultural produce. Some biological assets embody both consumable and bearer attributes depending on:

(a) the stage of their life. For example, a dairy cow may be held to produce milk (bearer attribute) up until it is culled for its meat (consumable attribute); or

(b) options available to management. For example, management may either choose to rear a sheep for its wool (bearer attribute) or rear it for sale for its meat (consumable attribute).

Biological assets meeting paragraph 27(a) or (b) would be classified as CBAs under the definition in paragraph 25.

28. View 1 does not consider management intentions. For example:

(a) A sheep will be classified as a CBA even if management plans to rear it for wool and does not intend to sell it. The sheep is a CBA because it has consumable attributes.

(b) In contrast, oil palms have no realistic alternative use other than as bearer assets. In practice, companies do not cut down the whole palm tree for sale as timber. The oil palm is a BBA because it has no consumable attributes.

29. Those who support View 1 generally think livestock should be classified as CBAs. Even though livestock may be used to produce agriculture produce (eg milk or wool) in a given period, it will often eventually be sold as agricultural produce. For example, a cow may be sold for meat either when it reaches its prime, or to take advantage of high market prices, or later in its life when it can no longer produce agricultural produce. In all of these cases, fair value measurement provides useful information about the future economic benefits from the sale of the animal.

30. An entity can usually sell livestock at any time because an active market exists throughout its life. The same is not usually true for plants—firstly because they are attached to the ground and secondly because there is rarely an active market for plants (an active market only exists for their agricultural produce).

31. In rare cases, plants have both bearer and consumable attributes. For example, cherry trees may be used to grow cherries, but their wood is also valuable for furniture production.

32. The following biological assets do not meet the definition of BBAs in paragraph 25. They would be classified as CBAs and remain under the IAS 41 fair value model:

    (a) biological assets that are capable of bearing agricultural produce and being harvested as agricultural produce (eg cattle raised for production of milk and beef);

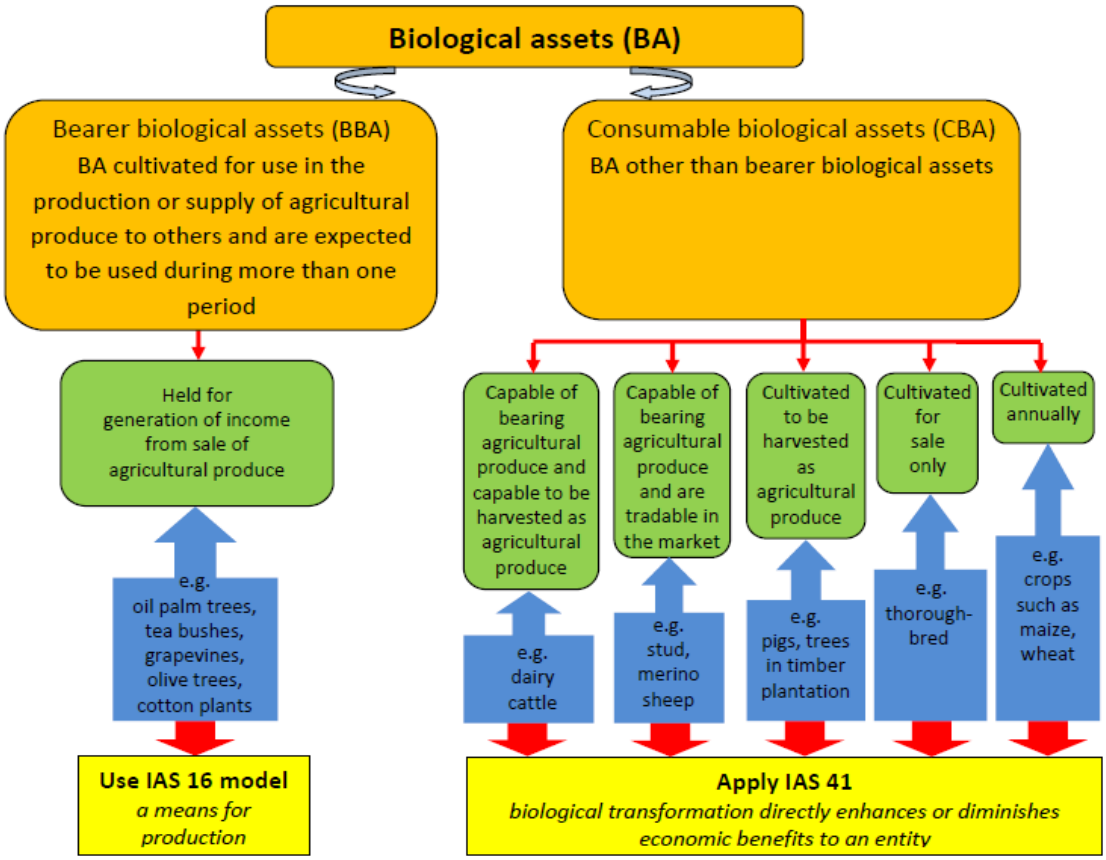
    (b) biological assets that are capable of bearing agricultural produce and are tradable in the market (eg studs and merino sheep);

    (c) biological assets that are cultivated to be harvested as agricultural produce (eg trees being grown for lumber, fish in farms, and livestock raised for the production of meat, such as pigs);

    (d) biological assets that are cultivated for sale only (eg livestock raised for sale such as breeding stock); and

    (e) biological assets that are cultivated annually for bearing agricultural produce (eg crops such as maize and wheat).

33. The definition in paragraph 25 is illustrated in the diagram below (copied from the AOSSG Issues Paper).



34. **Advantages of View 1**:

- The definition is easy to apply because it removes the need for decisions based on a business-model test and management intention.
- In most jurisdictions livestock has consumable attributes. For example, a dairy cow could be slaughtered for beef (even if management does not intend to do so). Removing livestock from the definition of BBAs eliminates significant measurement difficulties under the cost model (see paragraph 19).
- Concerns raised by preparers and users of financial statements relate to plants, not livestock.
- View 1 is supported by the AOSSG Issues Paper.

35. **Disadvantages of View 1**:

- In a few jurisdictions certain livestock do not have consumable attributes. For example, because of religious reasons, in India cows cannot be used for meat and so are only used for milk production (no alternative use). These cows would meet the definition of BBAs under View 1. A cost model would be extremely difficult to apply to livestock (see paragraph 19).

View (2) Predominant use

36. **View 2 definition:** BBAs would be defined as biological assets predominantly used in the production or supply of agricultural produce to others and are expected to be used for more than one period.

37. **Explanation:** Under View 2, classification of biological assets that embody both consumable and bearer attributes would depend on the "predominant use" of the biological asset at the reporting date (a business-model test). Alternative wording for "predominant use" may include "management intention" or "purpose of holding the biological asset".

38. Under View 2, some livestock will be classified as BBAs. If the predominant use of livestock is growing agriculture produce then it would be classified as BBAs. If the predominant use of livestock is to be sold as agricultural produce then it would be classified as CBAs.

39. In addition, under View 2, identical assets may be accounted for differently, eg a farmer may have a herd of cows where some are predominantly held for production of milk and others are predominantly held for production of beef.

40. The basis for the accounting distinction is as follows: if management seeks to maximise profits through increases in the value of the biological asset (eg by selling the asset), this is consistent with classification as a CBA. If management considers fair value changes to be incidental and manages the entity to maximise profits through production, this is consistent with classification as a BBA.

41. It could be argued that classification based on "predominant use" or "management intention" is consistent with the approach used in other IFRSs. For example,

under IAS 12 *Income Taxes*, measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the entity expects to recover or settle the carrying amount of its assets and liabilities.

42. The AOSSG Issue Paper includes the following paragraph, which also provides support for allowing livestock to be classified as BBAs:

> We were informed that in reality, the balance sheet date for farmers and agriculture entities is usually at the end of the agricultural or farming season (winter). At balance sheet date, many pastoral farmers hold only breeding livestock in order to generate either a lamb or calf or use for milking the following season. Most trading stock is sold before balance sheet date, including any culled animals. There is a small exception to this regarding some sheep, deer and beef cattle, but this will be a decision dependent on the conditions at the time and will usually only be a small portion to total livestock. In the majority cases, the livestock held at balance sheet date are very similar to BBA (such as palm oil trees) in that livestock are being held to produce agricultural produce in the form of milk and lambs for slaughter. On this basis, the alternative view proposes that if the predominant use is to produce agriculture produce, then all livestock could be classified on the same basis as BBA's under IAS 16.

43. A slight modification to View 2 would be to use a business model approach like IFRS 9 *Financial Instruments* instead of a "predominant use" approach. BBAs could be defined as biological assets held within a business model whose objective is to hold assets in order to generate income through the production or supply of agricultural produce to others, rather than for sale or harvest. This modification has not been shown as a separate view, because its advantages and disadvantages are similar to those of the predominant use approach.

44. **Advantages of View 2**:

- If livestock is only used for the production or supply of agricultural produce its operation is similar to that of a manufacturing operation. Consequently, it would seem to be consistent with the main arguments supporting the limited-scope project to include that livestock the amendment to IAS 41.

45. **Disadvantages of View 2**:

- The definition in View 2 is more difficult to apply than View 1 because it requires decisions based on a business-model test or management intention.
- This approach will need to deal with the consequences of reclassifications between IAS 16 and IAS 41 if management intentions for a biological asset change. For example management may decide that instead of raising sheep for wool, it wants to slaughter those sheep for meat.
- This model would allow livestock to be treated as BBAs. A cost model would be extremely difficult to apply to livestock (see paragraph 19).

View (3) No alternative use—plants only

46. **View 3 approach:** Livestock would remain in IAS 41. Plants would be classified as BBAs or CBAs using the View 1 definition of BBAs.

47. **Explanation:** View 3 only differs from View 1 in its treatment of livestock. Under View 3, no livestock will be classified as BBAs. Under View 1, in rare cases, livestock can be BBAs. Excluding livestock from the definition of BBAs was a suggestion made by the Institute of Chartered Accountants of India in the AOSSG Issues Paper. In India cows cannot be used for meat for religious reasons. Consequently, they will meet the definition of BBAs under View 1 because they can only be used for purpose of dairy production (no consumable attributes). Under View 3, the cows would remain under the IAS 41 fair value model.

48. **Advantages of View 3**:

- View 3 has the same advantages as View 1. It also has the additional advantage that no livestock will be classified as BBAs. Excluding livestock from the definition of BBAs eliminates significant measurement difficulties under the cost model.
- Concerns raised by constituents relate to plants, not livestock.

49. **Disadvantages of View 3**:

- The definition makes a distinction between plants and livestock based on their nature (creates a rule), not based on a principle. This undermines the argument that an unfair distinction is currently made under IAS 16/IAS 41 for living assets involved in production versus non-living assets involved in production.

View (4) Predominant use—plants only

50. **View 4 approach:** Livestock would remain in IAS 41. Plants would be classified as BBAs or CBAs using the View 2 definition of BBAs.

51. **Explanation:** View 4 differs from View 2 in its treatment of livestock. Under View 4 no livestock will be classified BBAs. Under View 2, livestock will frequently be classified as BBAs.

52. The advantages and disadvantages are similar to View 3. The outcomes of applying View 3 and View 4 would be almost identical. The only difference would be regarding the classification of plants with both bearer and consumable attributes (which is rare in practice).

Staff recommendation for Issue 1

53. The staff support View 1 (no alternative use) for the following reasons:

- It is simple to apply. It avoids the need to consider management intentions and also avoids the need to account for reclassifications between IAS 16 and IAS 41.
- Concerns raised by preparers and users of financial statements relate to plants, not livestock. In most jurisdictions, livestock will not meet the definition of BBAs under View 1. Removing livestock from the definition of BBAs eliminates significant measurement difficulties of applying a cost model to BBAs.
- There is usually an active market for livestock making fair value measurement much easier than cost (and it is generally preferred by users and preparers of financial statements). Therefore, the staff would

like to exclude all livestock from the definition of BBAs (eg View 3 or 4). However, to do so would create a rule, not a principle.

Question for the IASB

1. Does the IASB agree with the staff recommendation that BBAs should be those biological assets that have no consumable attributes (and hence have no alternative use)? To state it more formally, biological assets should be defined as biological assets that are
   (a) cultivated for use in the production or supply of agricultural produce to others;
   (b) are expected to be used during more than one period; and
   (c) are not agricultural produce themselves.

Issue 2: How should BBAs be measured before being placed into production?

Introduction

54. Once the IASB has tentatively defined BBAs, the next step is to consider how a cost model would be applied to that defined group. The IASB needs to establish how a cost model would be implemented for BBAs, before it can assess whether accounting for BBAs under IAS 16 provides decision-useful information.

55. The staff have identified two areas in which it is unclear how a cost model would be applied to BBAs (these areas are listed in paragraph 14(b)). The first area is how to account for BBAs before they are "placed into production"—ie before they reach maturity and bear produce.

56. Upon maturity BBAs are no longer undergoing biological transformation. Commentators therefore argue that the IAS 41 fair value model, which is based on the principle that biological transformation is best reflected by fair value measurement, is not appropriate for mature BBAs (as explained in paragraph 8).

57. The same argument is not true for immature BBAs. Until maturity BBAs are in a growth phase (ie they are undergoing biological transformation).

58. The staff have identified four alternative views for accounting for immature BBAs, based on the AOSSG Issues Paper and discussions held by the IASB's EEG:

    (a) View (1) Cost accumulation—similar to accounting for a self-constructed item of PPE;

    (b) View (2) Fair value through profit or loss—the current approach in IAS 41 for BBAs over their entire life;

    (c) View (3) Fair value through other comprehensive income; and

    (d) View (4) Accounting policy choice between cost accumulation approach and fair value approach.

59. The views of EEG members were split between the views listed in paragraph 58 with no clear preference.

View (1) Cost accumulation

60. **View 1 approach:** Immature BBAs would be measured at accumulated cost. This would be similar to the accounting treatment for a self-constructed item of PPE before it is placed into production.

61. It is common for significant costs to be incurred in the cultivation of a BBA to maturity. Under the cost accumulation approach these costs would be capitalised until the BBA reaches maturity and begins to grow produce. Such costs include direct costs (eg cost of seedlings, labour and fertilisers) and indirect development costs (eg land clearing).

62. **Explanation:** Those who support View 1 argue that if BBAs are similar in nature to PPE, they should be accounted for in the same way. Self-constructed PPE is measured at accumulated cost, not fair value, even though its fair value is frequently much greater than its cost. IAS 16 does not incorporate internal profit in the measurement of a self-constructed item of machinery or manufacturing facility and, by analogy, one could argue biological transformation should not be measured either. Consequently a BBA should be accounted for at accumulated cost before it is placed in production (ie reaches maturity and bears produce) to be

consistent with accounting for a self-constructed item of machinery before it is placed in production and is used to produce the company's products.

63. Similarly, IAS 38 *Intangible Assets* does not incorporate internal profit into the measurement of an intangible asset arising from development. An internally generated intangible asset is not required to be measured at fair value and costs to develop it are often very low compared to its fair value (eg where expected revenue from the related products is high in relation to the development costs). This is often also true for BBAs, eg when planting and other costs are low compared to the expected revenue to be generated on harvest of the produce.

64. A cost accumulation approach is consistent with the fact that the fair value of BBAs is incidental to their operation, because BBAs will not be sold. If BBAs are defined as biological assets that have no consumable attributes, they will generally be held by the business until they are scrapped at the end of their useful lives (usually when their fair value is close to zero).

65. **Advantages of View 1**:

- A cost accumulation approach would be easier to apply to immature BBAs, excluding livestock, than a fair value approach. There is usually no active market for immature BBAs. Using valuation techniques to value immature BBAs can be very difficult and subjective.
- A cost accumulation approach is consistent with accounting for PPE.
- Most entities would choose to account for BBAs under the cost model in IAS 16. Consequently, the cost accumulation approach would ensure a consistent accounting treatment for BBAs throughout their life.
- A cost accumulation approach is consistent with the fact that fair value information about BBAs is incidental to management, because BBAs will not be sold.
- Most investors and analysts say that they do not use the IAS 41 fair value information about BBAs (See Agenda Paper 8C for further details).
- View 1 is supported by the AOSSG Issues Paper.

66. **Disadvantages of View 1**:

- Immature BBAs undergo an addition type of transformation that distinguishes them from self-constructed PPE or intangible assets arising from development, namely biological transformation (the ability to transform themselves). Biological transformation cannot be incorporated in a cost accumulation approach. It could be argued that assets undergoing biological transformation are in a process for which accumulated cost is not a relevant measurement attribute.
- A cost model is extremely difficult to apply to livestock (see paragraph 19).

View (2) Fair value through profit or loss

67. **View 2 approach:** Immature BBAs would be measured at fair value with changes in fair value recognised in profit or loss. The fair value of a BBA at maturity would be its deemed cost when applying IAS 16. View 2 is consistent with the current approach under IAS 41 (although IAS 41 currently applies for the entire life of a BBA).

68. **Explanation:** Up until maturity, BBAs are undergoing biological transformation. Those who support View 2 argue that accounting for immature BBAs at fair value is consistent with the principle underlying IAS 41 that biological transformation is best reflected by fair value measurement.

69. Paragraph 30 of IAS 41 contains an exemption from fair value measurement on initial recognition. The staff expect that this exemption would continue to apply under View 2. Paragraph 30 of IAS 41 states:

> There is a presumption that fair value can be measured reliably for a biological asset. However, that presumption can be rebutted only on initial recognition for a biological asset for which quoted market prices are not available and for which alternative fair value measurements are determined to be clearly unreliable. In such a case, that biological asset shall be measured at its cost less any accumulated depreciation and any accumulated impairment losses. Once the fair value of such a biological asset becomes reliably measurable, an entity shall measure it at its fair value less costs to sell…

70. The advantages and disadvantages of View 1 are reversed for View 2.

71. **Advantages of View 2**:

- View 1 is consistent with the principle in IAS 41 that biological transformation is best reflected by fair value measurement.
- Usually there is an active market for livestock making fair value measurement easier than cost (if livestock are included in the definition of BBAs).
- There is an exemption from fair value measurement on initial recognition if fair value measurement is clearly unreliable.

72. **Disadvantages of View 2**:

- A fair value approach is more complex to apply to BBAs than a cost approach (excluding livestock).
- There is usually no active market or other market based evidence for immature BBAs (apart from livestock) and many commentators argue that immature BBAs cannot be measured reliably. Valuations of BBAs often require subjective judgements because of the long life cycles of the BBAs (eg 25 years for palm oil trees and 30 years for rubber trees) and the variety of significant assumptions involved (eg selling prices of agricultural produce, costs, expected growth rates and yields, risks etc). Assumptions can vary significantly between companies, and small changes in assumptions, eg on discount rates, can lead to significant changes in fair value. In the early years of their lives BBAs are more fragile and so are more exposed to significant uncertainties that are beyond management's control (eg because of pests, diseases, adverse weather conditions, etc). This means that valuations of immature BBAs are more subjective than for mature BBAs. The AOSSG Working Group have said in practice entities often adopt a "cost plus" approach (ie cost to date for planting the immature BBAs), or they use the "ascertain value on maturity less costs to maturity" approach, as these are the only surrogates for fair value likely to be available.

- View 2, like IAS 41, has stricter requirements than other IFRSs, but with no clear justification. Under the revaluation model in IAS 16, there is an exemption for individual items of PPE if fair value cannot be measured reliably. IAS 38 only allows the revaluation model to be used for intangible assets when fair value can be measured by reference to an active market. In contrast, under View 2, the exemption from fair value measurement for immature BBAs would only be available on initial recognition and when fair value measurement is clearly unreliable (a higher hurdle than "cannot be measured reliably").
- Most investors and analysts say that they do not use the IAS 41 fair value information about BBAs and that it distorts profits (See Agenda Paper 8C for further details).
- One of the main criticisms of applying IAS 41 to BBAs is the impact and volatility of changes in fair value on profit or loss. Both preparers and users of financial statements have said that this distorts profits by obscuring the underlying operating performance. Requiring changes in fair value of immature BBAs to be recognised in profit or loss would mean that an amendment to IAS 41 will only partially resolve these concerns.

View (3) Fair value through other comprehensive income

73. **View 3 approach:** View 3 is identical to View 2 except that changes in fair value would be recognised in other comprehensive income.

74. **Explanation:** The IASB staff have not listed all the advantages and disadvantages of this method because they are similar as for View 2. This approach has additional advantages:

- One of the main criticisms from preparers and users of financial statements about applying IAS 41 to BBAs is that the changes in fair value distort profits. If changes in the fair value of immature BBAs are recognised in other comprehensive income there would be no impact on profit or loss.

- View 3 is consistent with the fact that the gains in the fair value of BBAs will not be realised through a sale transaction.

75. However, View 3 is it is inconsistent with approaches used for other non-financial assets and so there is no basis to support it being used for BBAs.

View (4) Accounting policy choice between cost accumulation and fair value

76. **View 4 approach:** Management would have a choice of accounting for immature BBAs either at accumulated cost or at fair value. The accounting policy choice could either be applied to classes of BBA, or one policy could be required for all BBAs.

77. **Advantages of View 4**:

- This has the advantages of both View 1 and View 2/View 3.
- View 4 would allow the fair value model to be used for livestock and the cost accumulation approach to be used for plants.

78. **Disadvantages of View 4**:

- Lack of comparability between companies.

Staff recommendation for Issue 2

79. The staff support View 1 for the following reasons:

- It is consistent with accounting for self-constructed items of PPE.
- If BBAs are only excluded from fair value measurement once they reach maturity, this will only partially resolve the concerns raised by preparers and users of financial statements. Fair value measurements of immature BBAs are more difficult and subjective than those of mature BBAs. Plus most investors and analysts say that they do not use the IAS 41 fair value information about BBAs in their analysis of financial statements and that it distorts profits (see Agenda Paper 8C).

- Although a cost accumulation approach would be extremely difficult to apply to livestock, the staff recommendation for Issue 1 would remove most livestock from the definition of BBAs.

Question for the IASB
2. Does the IASB agree with the staff recommendation that BBAs should be accounted for under the cost accumulation model before being placed into production (ie before they reach maturity)?

Issue 3: How should the produce growing on the BBAs be accounted for?

Introduction

80. The second area that needs to be addressed under the cost model is how to account for the produce growing on the BBAs, eg fruit growing on a tree.

81. IAS 41 requires that while the produce is attached to the BBA its value forms part of the fair value of the entire biological asset (eg the fair value of the tree includes the fruit growing on it). When the produce is detached from the BBA (harvested), it meets IAS 41's definition of agricultural produce. IAS 41 requires agricultural produce to be measured at fair value less costs to sell at the point of harvest. This is the deemed cost of the item when applying IAS 2 *Inventories* (or another Standard if appropriate).

82. However, if a cost model is applied to BBAs, the biological transformation of the produce will not 'automatically' be incorporated into the carrying amount of the BBA (as it is under IAS 41).

83. The staff have identified three alternative views for accounting for the produce growing on the BBA, based on the AOSSG Issues Paper and discussions held by the IASB's EEG:

    (a) View (1) Recognise the produce at fair value less costs to sell at the point of harvest.

(b) View (2) Measure the produce at fair value less costs to sell from the date it starts to grow.

(c) View (3) Account for the produce under IAS 2 *Inventories* from the date it starts to grow.

84. The views of EEG members were split between View 1 and 2, with the majority favouring View 1.

85. Additional points:

(a) Harvest is the date when the produce is detached from the BBA, eg when the fruit is picked or the sheep is milked/shorn.

(b) In some cases harvest takes place for the whole plantation/orchard at the same time. In other cases, harvest may be a continuous process over the year as produce ripens.

(c) For livestock, in some cases produce 'grows' inside the BBA, eg milk, eggs. In other cases, the produce grows on the BBA, eg wool.

View (1) Recognise the produce at fair value less costs to sell at the point of harvest

86. **View 1 approach:** Produce would not be recognised until the point of harvest (ie at the date it meets the definition of agricultural produce). At this date it would be measured at fair value less costs to sell and the increase would be recognised in profit or loss. This amount would be the deemed cost of the agricultural produce when applying IAS 2.

87. **Explanation:** Under View 1 produce is treated as part of the BBA and is not accounted for separately. If a cost model is applied to BBAs, the day-to-day maintenance costs incurred for the BBAs, eg spraying, weeding etc, would generally be recognised in profit or loss as incurred like repairs and maintenance costs for PPE. Because the produce is considered part of the BBA, such maintenance costs also relate to the growing produce.

88. Under the cost model, subsequent costs would only be capitalised as part of the BBA if they meet the recognition criteria for an asset (ie if it is probable that

future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably). Paragraph BC12 of IAS 16 states "The Board noted that some subsequent expenditures on property, plant and equipment, although arguably incurred in the pursuit of future economic benefits, are not sufficiently certain to be recognised in the carrying amount of an asset under the general recognition principle. Thus, the Board decided to state in the Standard that an entity recognises in profit or loss as incurred the costs of the day-to-day servicing of property, plant and equipment".

89. If View 1 were to be applied, the majority of the entity's income would be recognised at the point of harvest because this is when the produce is recognised for the first time. Some respondents have commented that it would be more appropriate to recognise profits on sale, rather than at harvest. This alternative has not been considered separately because it would result in the entity not recognising an entire inventory of produce (which often has a price in an active market). Furthermore, an entity may store its produce for a period of time after harvest to wait for the best trade conditions and price. If profits are only recognised on sale, it may be possible to defer sale to allow profits to be deferred into the next accounting period.

90. **Advantages of View 1**:

- This approach would be the easiest to apply.
- This is probably the only view that would be suitable for some livestock classified as BBAs. For example, it would generally not be practicable to recognise milk or eggs until harvest.

91. **Disadvantages of View 1**:

- It could be argued that the produce growing on the BBA is no different from a CBA because it will be sold as agricultural produce. Under View 1 a farmer growing apples and carrots would recognise changes in the fair value of carrots as they grow, but only recognise the fair value of the apples on harvest.

- If the growing produce is considered part of the mature BBA for accounting purposes, this is inconsistent with the argument that mature BBAs do not undergo biological transformation.
- Under View 1 the produce and the majority of the entity's income will be recognised at the point of harvest without regard to the recognition criteria in IFRSs (although some may argue harvest is the most important part of the production cycle).
- If the produce is considered part of the mature BBA for accounting purposes this would make application of the cost model more complex. For example, the day-to-day maintenance costs of the mature BBA also cover the produce. It could be argued that some of these costs need to be capitalised as the future economic benefits from the produce will flow to the entity. Consequently, the entity would need to consider all costs carefully to assess their nature (are costs more like "repairs and maintenance" or more like "improvements"?) and may need to make cost allocations between the BBA and the produce.

View (2) Measure at fair value less costs to sell as the produce grows

92. **View 2 approach:** The produce would be measured at fair value less costs to sell with changes recognised in profit and loss as the produce grows. At the point of harvest the produce (now called agricultural produce) would be measured at fair value less costs to sell and transferred to inventory. After harvest the agricultural produce is accounted for under IAS 2 *Inventories*.

93. **Explanation:** Once the produce is fully grown it will be harvested and sold. Those who support View 2 argue that even though it is attached to the BBA, the produce meets the definition of a CBA because it has consumable attributes—it is harvested as agricultural produce. As the produce on the BBA grows, its growth directly increases expectations of future benefits (ie the cash flows that the entity expects to receive on sale). Consequently, fair value measurement provides useful information to users of financial statements about the cash flows that the entity expects to receive from the produce.

94. In many cases, fair value measurement under View 2 will be straightforward. For example:

- In general, produce will only be growing on a BBA for a short period of time and so the valuation of produce will not involve forecasting over long time periods (eg market prices are unlikely to fluctuate significantly before sale, cash flow forecasts will only cover a short period of time, discounting may not be required, etc).
- At each reporting date the produce for that reporting period is likely to be in a similar state of growth as the produce in the previous reporting period, meaning that historical experience can be used to improve valuations.
- If the period in which produce is growing on the BBAs does not straddle a reporting date, View 1 and View 2 will give an identical result (View 1 could be used as a practical expedient).
- If harvest of the produce takes place continuously for a population of BBAs, the total volume of produce on BBAs may remain constant over time. Consequently, the total fair value of growing produce may remain constant subject only to changes in market prices.

95. **Advantages of View 2**:

- View 2 is consistent with accounting for CBAs in accordance with IAS 41. It is consistent with the principle underlying IAS 41 that biological transformation is best reflected by fair value measurement.
- Fair value measurement provides useful information to users of financial statements about the cash flows that the entity expects to receive from sale of the produce.
- Accounting for produce separately from mature BBAs is consistent with the argument that mature BBAs do not undergo biological transformation.

96. **Disadvantages of View 2**:

- Even where active markets exist for agricultural produce, it may be difficult to determine the fair value of partially grown produce, eg a partially grown apple. However this will only be required when the period during which the produce is growing straddles an accounting period.
- If BBAs are defined to include livestock, measurement complexities may arise where produce grows inside the BBA.

View (3) Account for produce under IAS 2 as the produce grow

97. **View 3 approach:** The produce would be accounted for under IAS 2 from the date it starts to grow. (Under current requirements, produce is only transferred to inventories at the point of harvest.)

98. **Explanation:** It could be argued that if BBAs are accounted for in the same way as PPE, then produce should be accounted for in the same way as the products produced by the PPE.

99. Under IAS 2, inventories are measured at the lower of cost and net realisable value (NRV). NRV 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. NRV is an entity-specific value and it may not equal fair value less costs to sell.

100. Paragraphs 3 and 4 of IAS 2 state:

> 3 This Standard does not apply to the measurement of inventories held by
>
> a) producers of agricultural and forest products, agricultural produce after harvest, and minerals and mineral products, to the extent that they are measured at net realisable value in accordance with well-established practices in those industries. When such inventories are measured at net realisable value, changes in that value are recognised in profit or loss in the period of the change.
>
> b) …
>
> 4 The inventories referred to in paragraph 3(a) are measured at net realisable value at certain stages of production. This occurs, for example, when agricultural crops have been harvested or minerals have

> been extracted and sale is assured under a forward contract or a government guarantee, or when an active market exists and there is a negligible risk of failure to sell. These inventories are excluded from only the measurement requirements of this Standard

101. The staff therefore believe there are two possible approaches when applying IAS 2:

(a) Measure the produce at the lower of cost and NRV.

(b) Measure at NRV if there is an active market and there is a negligible risk of failure to sell.

102. **Advantages of View 3**:

- View 3 is consistent with accounting for inventories.

103. **Disadvantages of View 3**:

- View 3 would be inconsistent with accounting for CBAs under IAS 41.
- Disadvantages of measuring items at cost:
  - Most of the produce growing on BBAs is traded in active markets. Fair value is likely to be easier to measure than cost.
  - As noted in Paragraph B43 of IAS 41, it is generally not practicable to reliably determine the cost of agricultural produce harvested from biological assets.
  - It could be argued that assets undergoing biological transformation are in a process for which accumulated cost is not a relevant measurement attribute.
  - It is inconsistent with the principle underlying IAS 41 that biological transformation is best reflected by fair value measurement.
- Disadvantages of measuring items at NRV
  - While the produce is attached to BBAs it may be difficult to measure the estimated costs of completion, for example weeding, spraying, thinning, harvesting etc. This complexity does not arise under current requirements because produce is only accounted for

under IAS 2 after harvest, at which point the only future costs are selling costs.

Staff recommendation for Issue 3

104. The staff support View 2, ie measure produce growing on the BBAs at fair value through profit or loss. The produce is essentially a CBA growing on a BBA. The staff believe that apples growing on a tree and carrots growing in the ground should be accounted for consistently.

105. To include the produce as part of the BBA is inconsistent with the argument that mature BBAs do not undergo biological transformation.

Question for the IASB
3. Does the IASB agree with the staff recommendation that produce growing on the BBAs should be accounted for at fair value through profit or loss (which would be consistent with accounting for CBAs)?

Part B: Would accounting for BBAs under IAS 16 provide more decision-useful information than current requirements?

Introduction

106. In paragraph 12-14 of this Agenda Paper 8B, the staff have stated that before the IASB can have a focused discussion on whether accounting for BBAs under IAS 16 would provide more decision-useful information than the current IAS 41 requirements, the IASB needs to address the following three key issues:

(a) Issue (1) What definition of BBAs should be used in the scope of the amendment to IAS 41?

(b) Two areas in which it is unclear how a cost model would be applied to BBAs:

- Issue (2) How should BBAs be measured before being placed into production (ie before the BBAs reach maturity)?

- Issue (3) How should the produce growing on the BBAs be accounted for (eg fruit growing on a fruit tree)?

107. **Summary of the staff recommendations for Issues 1-3**:

(a) Issue (1): BBAs should be those biological assets that do not have consumable attributes. They can therefore not be used in any other way than as bearer assets (no alternative use). This definition will exclude most livestock.

(b) Issue (2): Before being placed into production, BBAs should be measured using the cost accumulation approach. This approach is consistent with accounting for self-constructed items of PPE.

(c) Issue (3): Produce growing on BBAs are CBAs and should be accounted for under the fair value model in IAS 41.

On the basis of these three recommendations, the staff have set out their overall recommendation for accounting for BBAs below.

Staff recommendation for accounting for BBAs

108. **Approach:** The staff recommend that BBAs (biological assets that do not have consumable attributes) should be accounted for in accordance with IAS 16 instead of IAS 41. The staff reasoning for why accounting for BBAs in accordance with IAS 16 would provide more decision-useful information than the current IAS 41 requirements is provided in paragraphs 109 - 117.

109. **Reasoning:** IAS 41 measures biological assets related to agricultural activity at fair value less costs to sell, based on the principle that biological transformation is best reflected by fair value measurement. The concept is that an increase in the fair value of the biological assets is expected to increase future economic benefits to the entity.

110. The concept is appropriate for CBAs (ie biological assets that have consumable attributes, including those with both consumable and bearer attributes). CBAs are cultivated for sale (or both production and sale) and the expected cash flows from sale increase as the CBAs grow. Consequently, fair value changes in CBAs have

a direct relationship to expectations of future benefits—ie the cash flows that the entity could receive from the CBAs if it sells them.

111. It is not so clear that the concept is appropriate for BBAs. On maturity, instead of being sold, BBAs are used to grow produce over several periods. Mature BBAs are fully grown and so biological transformation is no longer significant in generating future economic benefits. Future economic benefits arise from selling the agricultural produce that they create. The only significant biological transformation after maturity will be the wearing out of the BBAs over their useful lives.

112. BBAs are biological assets that have no consumable attributes (staff recommendation for Issue 1). BBAs will be held to grow produce for their whole useful life. They are usually scrapped at the end of their useful lives when their fair value is close to zero. While fair value measurement may provide an indication of the quality and productive capacity of the BBAs at a point in time, it is less important to users of financial statements than fair value information about biological assets that may be realised through sale (ie have consumable attributes).

113. IAS 16 defines PPE as tangible items that:

(a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

(b) are expected to be used during more than one period.

BBAs meet the definition of PPE. The use of mature BBAs to produce agricultural produce is similar to the use of machinery to manufacture goods. The manner in which an entity derives economic benefits from BBA and PPE are very similar and that manner differs from CBAs. The wearing out of the BBA is no different to other wasting assets, for example plant and machinery.

114. There is an assumption inherent in our Framework that accounting for similar assets in similar ways enhances the decision usefulness of the reported information (consistency helps to achieve comparability). Although BBAs are dissimilar in form to plant and machinery, similarities in how they are used in the

business provides support for accounting for them in the same way, in accordance with IAS 16.

115. The reasoning in paragraphs 109-114 is confined to the bare BBA. It does not cover the produce growing on the BBA (eg the grapes growing on the vines) which undergoes biological transformation until it is harvested (and sold as agricultural produce). The staff recommendation for Issue 3 is that the produce growing on the BBAs would be accounted for separately, using the fair value model in IAS 41.

116. **Illustrative example:** Consider the case of a vineyard and winery. Assume the vineyard operates in a controlled agricultural area, so there is no alternative use for the land other than agriculture. In most situations, we would expect to find all of the following assets measured using the cost model in IAS 16:

    (a) the winery building and grounds;

    (b) fermentation facilities and cooperage;

    (c) bottling lines;

    (d) visitors' centre and tasting rooms; and

    (e) harvesting and transportation equipment.

    Under current accounting requirements, the only asset measured at fair value less costs to sell would be the grapevines. The vines are assets used in a production process, albeit an important part of the process. However, they are no more important to that process than crushers and barrels. With that in mind, one can argue that all of the assets used in the process should be measured using the same measurement attribute. There does not seem to be a convincing reason to single out the grapevines from the rest of the assets involved in the process.

117. **Comments from users of financial statements:** Agenda Paper 8C provides a summary of comments received from investors and analysts following companies with BBAs. Nearly all investors and analysts said that they would prefer BBAs to be accounted for in the same way as PPE to avoid the impact of recognising changes in fair value less costs to sell in profit or loss. Furthermore, many say the fair value information about BBAs has limited use, eg for valuation of the

business, because the land upon which the BBAs are growing, agricultural machinery etc. are not at cost. Fair value information about BBAs on their own is not useful because the BBAs cannot be separated meaningfully from the PPE necessary to support them (see Agenda Paper 8C for further details).

Question for the IASB

118. The staff have recommend the following:

(a) BBAs should be those biological assets that have no consumable attributes. To state it more formally, biological assets should be defined as biological assets that:

(i) are cultivated for use in the production or supply of agricultural produce to others;

(ii) are expected to be used for more than one period; and

(iii) are not agricultural produce themselves.

CBAs would be biological assets other than BBAs and would include produce growing on BBAs.

(b) BBAs should be accounted for under IAS 16. Under IAS 16, entities would have the choice of applying either the cost model or the revaluation model to each class of BBA.

(c) CBAs would continue to be accounted for under the fair value model in IAS 41.

Question for the IASB
4. Does the IASB tentatively agree that accounting for BBAs under IAS 16 gives more decision-useful information for BBAs than the current requirements in IAS 41?

Appendix A

Additional issues to be considered at future meetings

119. If BBAs are accounted for in accordance with IAS 16, the staff have identified the following less significant issues that will need to be addressed by the IASB at future meetings (these were in Agenda Paper 13A for the September 2012 IASB meeting):

(a) Should guidance for BBAs be incorporated into IAS 16 or remain in IAS 41? BBAs are dissimilar in form to PPE. Incorporating BBAs into IAS 16 may require a number of conforming amendments to IAS 16, which may add complexity. Another option would be to include additional requirements for BBAs in IAS 41 with reference to IAS 16 where necessary.

(b) What is the unit of account—is it the individual plant or some larger aggregation (perhaps a field or a planting cycle)? Agricultural activity is often continuous, meaning that older plants and livestock are removed from service and replaced on a continual basis. If BBAs are within the scope of IAS 16, then this continuous process must be made discrete. Questions may arise, such as what the fixed-asset register would look like, how to assess impairment, and how to determine residual value.

(c) Is there sufficient guidance in IAS 16 (or through the general principles in IFRSs) to deal with accounting for the unique costs associated with growing the biological assets and keeping them alive? For example fertilising, feeding, spraying, irrigation, etc. Which costs should be capitalised/treated as repairs and maintenance?

(d) Do additional disclosures need to be added to IAS 16, or existing disclosures amended, for BBAs?

(e) Transitional rules for entities with BBAs that are already applying IAS 41; eg, retrospective application, prospective application, use of a deemed cost etc.

(f) Consequential amendments to other standards, for example IFRS 1 *First-time Adoption of International Financial Reporting Standards*.